

U.S. DEPARTMENT OF AGRICULTURE

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NATIONAL ORGANIC STANDARDS BOARD

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PUBLIC HEARING

+ + + + +

THURSDAY
APRIL 13, 2017

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The National Organic Standards Board
convened via teleconference, at 1:00 p.m. EDT, Tom
Chapman, Chairperson, presiding.

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BOARD MEMBERS PRESENT:

TOM CHAPMAN, Chair
ASHLEY SWAFFAR, Vice Chairperson
SUE BAIRD
HARRIET BEHAR
ASA BRADMAN
JESSE BUIE, Secretary
LISA DE LIMA
STEVE ELA
DAVE MORTENSEN
JOELLE MOSSO
EMILY OAKLEY
SCOTT RICE
A-DAE ROMERO-BRIONES
DAN SEITZ
FRANCIS THICKE

STAFF MEMBERS PRESENT:

MICHELLE ARSENAULT, Advisory Board Specialist
DR. JENNIFER TUCKER, Associate Deputy
Administrator
MARK BRADLEY, Assistant to the Deputy
Administrator
DR. LISA BRINES, National List Manager
SHANNON NALLY YANESSA, Assistant Director,
Standards Division
DEVON PATTILLO, Materials Specialist, Standards
Division
MATTHEW PAVONE, Policy Analyst, Standards
Division
JESSICA WALDEN, Materials Specialist

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ALSO PRESENT:

COLIN ARCHIPLEY, Archi's Acres
KAREN ARCHIPLEY, Archi's Acres
HAROLD AUSTIN, Former NOSB Member
JULIA BARTON, Ohio Ecological Food and Farm
Association
CARMELA BECK, Driscoll's
JANE BELL, Tide Mill Farm
COLEHOUR BONDERA, Former NOSB Member
STEVEN BRANCH, Zirkle Fruit Corporation
MARIE BURCHAM, The Cornucopia Institute
DOUGLAS DOOHAN, The Ohio State University
STEVE ETKA, National Organic Coalition
BARRY FLAMM, CCOF
JOE GABRIEL, Gilbert Orchards, Inc.
AVIVA GLASER, National Wildlife Federation
LYNNE HAYNOR, MOSA
ROBERT HOFFMAN, Shenandoah Growers, Inc.
CLAIRE JORDAN, Center for Food Safety
THOMAS LAGINESS, BASF Corporation
KELSEY MABEN
CECILLE MADRIZ, Fennel Farms
TIM MANN, Friendly Aquaponics, Inc.
GUILLERMO MARTINEZ, Kingdom Fresh Produce
DAVEY MISKELL, Miskell's Farm
AMBER POOL, CCOF
MABELL RIVAS, QAI Inc.
GERRY ROBERTSON, Reiter Affiliated Companies
ANNE ROSS, The Cornucopia Institute
MARK RUSSELL
DAMON SEAWRIGHT, AmeriCulture, Inc.
ZEA SONNABEND, CCOF
JANE SOOBY, CCOF
BILL STONEMAN, W.F. Stoneman Company LLC
SIMI SUMMER
KELLY TAVERAS, Organic Trade Association
ANDREW TOMES, WISerg Corporation

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P-R-O-C-E-E-D-I-N-G-S

1:02 p.m.

MS. ARSENAULT: So we're going to start the call with an introduction by Shannon Nally Yanessa, who is the Standards Associate Director, and so welcome here.

MS. YANESSA: Thank you, and welcome all to the NOSB public comment webinar. We are looking forward to hearing remarks from many members of the public who are interested in the activities of NOSB, National Organic Standards Board, and the National Organic Program.

Your input is a bit part of helping the NOSB prepare their recommendations to the USDA, and we really appreciate your participation here today. I would also like to recognize the NOSB members for contributing their time and focus and thought to prepare for the public meeting in Denver, which will take place next week. Thank you for your commitment. The NOSB members have challenging tasks.

And I also want to thank my colleagues

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1 at the National Organic Program who provide
2 critical support for the NOSB year-round, and in
3 particular for these public comment webinars and
4 the NOSB meetings. And now I will turn it over to
5 Tom Chapman, who is the NOSB Chair.

6 CHAIRMAN CHAPMAN: Thank you, Shannon.
7 On behalf of the Board, I would like to welcome
8 everyone to the public comment webinar prior to our
9 spring meeting. This will be our fourth meeting
10 with webinar, and I think everyone sees the
11 tremendous value that an increased access to these
12 web meetings brings. We're going to ask for some
13 forgiveness up from everybody in communication.
14 If we have any IT issues, again, please, please
15 remember to keep yourself on mute.

16 For Board members, please remember to
17 type in the question in the box if you have a
18 question to ask a presenter. For public
19 commenters, please remember to give your name and
20 relevant affiliation for the record at the
21 beginning of our comments. Please try to keep your
22 comments to three minutes, and when you hear the

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1 buzzer from Michelle, please finish your sentence
2 so we can move on to questions or the next
3 commenter.

4 Now Michelle, can you read into the
5 record the Board members present and program staff?

6 MS. ARSENAULT: Sure. Thanks, Tom.

7 So on the webinar and the phone with us,
8 we have Sue Baird, Harriet Behar, Jesse Buie, Tom
9 Chapman, Lisa de Lima, Steve Ela, Dave Mortensen,
10 Joelle Mosso, Emily Oakley, Scott Rice, A-dae
11 Briones, Ashley Swaffar, and Francis Thicke -- and
12 Dan Seitz is with us on the phone as well, so that's
13 all 15 Board members.

14 And --

15 CHAIRMAN CHAPMAN: Actually, Asa
16 Bradman is here too.

17 MS. ARSENAULT: Oh Asa, I am so sorry,
18 I skipped over you. Thank you.

19 And there's several NOP staff members
20 present on the call as well: Jenny Tucker, who is
21 facilitating the call for us, thank you Jenny; Dr.
22 Lisa Brines is on the call; Jessica Walden; Shannon

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1 Nally Yanessa, who you heard from at the outset;
2 Matt Pavone; and Devon Pattillo -- Pattillo. And
3 if I missed anybody, I will catch up with you guys
4 to make sure your name gets into the transcript.

5 And Tom, if you would just indulge me
6 for seven seconds, I am going to set the timer off
7 so people know what it sounds like. Let me know
8 if you can hear it okay.

9 CHAIRMAN CHAPMAN: Yes, sounds good.

10 MS. ARSENAULT: All right.

11 Excellent.

12 CHAIRMAN CHAPMAN: Okay.

13 MS. ARSENAULT: Thank you.

14 CHAIRMAN CHAPMAN: Thank you very
15 much, Michelle.

16 MS. ARSENAULT: And so any -- also, any
17 logistics, again, Jenny mentioned several times
18 that, you know, noise, background noise is a
19 problem. We have heard conversations we probably
20 shouldn't hear. So if -- it will make the process
21 go much smoother if you can self-mute yourself, and
22 you can do that by either hitting the mute button,

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1 if you have a phone that has a mute button, or by
2 hitting star 6 on your cell phone, and then you
3 would push star 7 if you needed to unmute yourself.

4 We are going to try to leave the lines
5 open if people can keep the background noise to a
6 minimum. If not, then we will have to mute
7 everyone from our end and unmute as we go along.
8 All right. I think -- I think that is it.

9 CHAIRMAN CHAPMAN: Okay. Thank you
10 very much, Michelle. So I think we're waiting to
11 get started. Up first is Harold Austin. On deck
12 is Gerry Robertson. Gerry, thank you for typing
13 in your first four digits. Harold, you are up. I
14 hope you have been practicing your three minutes.

15 MR. AUSTIN: Thanks, Tom, and quite a
16 different feeling to be on this side of the speaker,
17 so hopefully I am debuting okay.

18 Good day, everybody. First, as a
19 recently sunsetted member of the NOSB, I would like
20 to say hello to all of those of you that I have had
21 the privilege to have served on the Board with, and
22 to the new members, I wish to thank you for your

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1 willingness to serve the organic community in this
2 capacity. I urge you all to read the written
3 comments that I have submitted, and please remember
4 to do your best to fairly represent all organic
5 stakeholders.

6 For crops, I have submitted detailed
7 comments in support of the continued listing for
8 micronutrients in soluble boron, which are
9 extremely important to organic tree fruit;
10 berries; and grape production; also for
11 herbicides, soap-based; sticky traps; coppers;
12 humic acids, which all are still very important in
13 organic crop production today.

14 For the marine algae proposal submitted
15 by the -- proposed by the Crop Subcommittee with
16 the use of the annotation limiting it only to brown
17 algae, completely disregards the fact that there
18 are two other forms that were identified as being
19 used in organic crop production. The proposal
20 needs to go back to the subcommittee to get
21 re-looked to ensure that those other additional
22 forms, red algae and green algae, are also included

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1 in use by organic crop producers.

2 Certainly -- and this would be helped

3 --

4 (Simultaneous speaking.)

5 MR. AUSTIN: -- inappropriate amount
6 of time given to the public and organic
7 stakeholders to read, research, and submit
8 properly prepared comments. For both crops and
9 handling, I support the continued listing on the
10 national list for all the chlorine substances
11 currently under Sunset Review. These are
12 critically important uses in both crops and
13 handling alike.

14 Now, with the implementation of FSMA,
15 we have a legal responsibility to ensure consumer
16 safety. While we have alternatives, they do not
17 always work in every situation. Plus, we must
18 protect from resistance management by using
19 different substances in a rotation use pattern. We
20 need these materials to assist us in controlling
21 e coli and listeria as well as fire blight in the
22 field. Without these, it would be next to

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1 impossible to accomplish this task.

2 For handling, as the recent Chair of the
3 Handling Subcommittee, I would support all of the
4 substances currently up for the 2019 Sunset Review
5 for relisting. Most of these have just recently
6 been reviewed, and at that time, we found no issues
7 that would make them -- would make us think
8 otherwise about relisting them at that time.
9 These are all important substances currently used
10 in the organic handling process. Please read my
11 comments on these. I do support the proposals as
12 submitted for L-methionine, Tocopherols, Short DNA
13 Tracers, and marine algae. Finally,
14 regarding the proposal for additional ancillary
15 substances for use in cellulose as listed, there
16 have been some concerns raised in regards to three
17 of the substances on that list. Under coatings,
18 it should state polyvinylidene chloride. Vinyl
19 chloride should not have been on that list, and how
20 it got there was simply an oversight and mistake.

21 Secondly, under coatings, Kymin should
22 be re-looked at and probably be added to the --

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1 CHAIRMAN CHAPMAN: Thank you very
2 much, Harold. I don't see any questions, so thank
3 you for your comment, Harold, and we will be moving
4 on to Gerry Robertson. On deck is David Martinez.
5 David, if you would type in the first four digits
6 of your phone number, that would be appreciated.
7 Gerry?

8 MR. ROBERTSON: Good afternoon. My
9 name is Gerry Robertson, and I am the Director of
10 Supply at Reiter Affiliated Companies in Oxnard,
11 California. We grow organic and conventional
12 berries throughout the U.S. and Mexico.

13 I am here to comment on the recent Crop
14 Subcommittee discussion document on hydroponics.
15 With regards to the recent document, we feel that
16 it does not adequately identify container
17 production as a system distinct from hydroponics,
18 as has been the case in previous NOSB discussions
19 and documents.

20 The inclusion of the term "biologically
21 recalcitrant" in the definition of hydroponics is
22 too vague, and it is even a bit confusing. For

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1 example, a stated definition of recalcitrant
2 materials lumps coconut coir, wood shavings, peat
3 moss, and humus together in the same category.

4 If the intent of this definition is to
5 exclude practices that are not dependent on
6 biological processes in the uptake of nutrients,
7 we would suggest removing the term "biologically
8 recalcitrant" from the definition of hydroponic.
9 Adding the word "sterile" prior to "nutrient rich"
10 and "nutrient solution" in the same definition
11 could further clarify this distinction.

12 We further suggest that NOSB should
13 develop a specific definition for container
14 systems that acknowledges the active biological
15 processes inherent to those systems. Our current
16 organic container systems are being certified in
17 part because they depend on the same biological
18 processes that exist in our soil-grown organic
19 systems, and because they meet the NOP 205.2
20 definition of organic production.

21 Both our organic soil and
22 container-grown systems depend upon the complex

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1 interaction of microbial activity. Both systems
2 rely upon external allowable liquid nutrients, and
3 both systems invest in biodiversity and natural
4 resource sustainability efforts. Our organic
5 container farmers deserve to have a definition that
6 affirms the validity of these practices while
7 distinguishing from practices that are clearly not
8 allowed.

9 These farmers are highly focused on
10 developing and managing the biodiversity of their
11 respective growing mediums and are fully aware that
12 this process of feeding the soil in order to feed
13 the plant is critical to a successful organic
14 system. These farmers are not content to apply the
15 term "magic" to processes they do not understand.
16 Rather, they seek to better understand those
17 processes in order to become better organic
18 farmers.

19 We believe that it is important for the
20 Board to develop sound and science-based standards
21 for container production systems as well as other
22 types of systems that align with organic principles

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1 and that allow flexibility for the innovative
2 farmer to adapt to site-specific conditions,
3 climate change, et cetera.

4 On behalf of the various Reiter
5 entities throughout the U.S. and Mexico, I wish to
6 thank the members of the Board for this opportunity
7 to comment and for your ongoing dedication and
8 commitment to the organic community. Thank you.

9 CHAIRMAN CHAPMAN: Thank you very
10 much, Gerry. I don't see any questions at this
11 time, so we will move on to the next commenter. Is
12 David Martinez on the line? We are not seeing your
13 phone number.

14 (Pause.)

15 CHAIRMAN CHAPMAN: David Martinez,
16 going once, going twice?

17 (No audible response.)

18 CHAIRMAN CHAPMAN: Up next will be
19 Cecille Madriz, then, and following that will be
20 Carmela Beck. Cecille?

21 MS. MADRIZ: Hello. My name is
22 Cecille Madriz. I am the Manager of Fennel Farms

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1 here in Aromas, California. We grow organic
2 container blueberries.

3 I did provide feedback last fall, just
4 as a reminder, and I would like to reiterate the
5 importance of substrates for young, small farmers
6 like myself, as well as having the ability to
7 transition conventional land into organically
8 certified land. As you know, in these areas, it
9 is really difficult to find organically certified
10 land. There's a lot of in-ground growers to be
11 using it at a better cost to them, so that is one
12 of the key things that -- where we're looking at
13 the excuses would really go hand in hand.

14 The aeroponic, hydroponic, and
15 aquaponic discussion documents that we needed
16 earlier on, there's a few things that I would like
17 to touch on. The biologically recalcitrant usage
18 in the hydroponic definition, or in any definition,
19 really does not make any sense to me because
20 recalcitrant means that it is impeding or does not
21 allow, and that is not entirely scientifically true
22 when you think about these systems.

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1 And these systems, whether they are
2 water-based or substrate-based, are completely
3 different when it comes to microbial activity. So
4 you can't really provide discussion documents on
5 both of them when you think of them on their
6 scientific value, where we have different
7 microbial communities in those systems, completely
8 different. There is just no way that they could
9 be exactly the same.

10 Another thing that I would like to touch
11 on is being able to use these systems to provide
12 more organic choices to the community at a price
13 that they could afford versus the dilemma that we
14 find ourselves now, where we can't really get
15 organic -- where we do have it in a lot of places,
16 but a lot of times, that is brought in from other
17 countries, and we are not producing anywhere near
18 as much as we should be ourselves, so it is not
19 allowing people to use these systems is like saying
20 we're not allowed to provide our own organic
21 products to our own consumers. It is just a simple
22 thought.

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1 And other than that, I look forward to
2 working with you guys further on getting better
3 definitions of these two different systems
4 separately, and getting discussion documents from
5 them separately. I would like to see that
6 addressed a little more clearly in the future so
7 that when the public does see what we're doing here,
8 that they do see that these are two different
9 systems. They are not -- they can't be lumped up
10 together. There is no way that they could
11 understand if you put them together.

12 Thank you for your time. I look
13 forward to working with you guys further on this.

14 CHAIRMAN CHAPMAN: Thank you, thank
15 you very much. I see we have a question from
16 Ashley. Ashley?

17 VICE CHAIR SWAFFAR: Hi, and Cecille,
18 thank you for your comment. I have a question, and
19 you may not know the answer to this, but if
20 container production was disallowed, what
21 percentage do you think of the -- you said you're
22 a berry grower -- what percentage of the berries

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1 grown in the U.S. organically do you think would
2 go away? Do you know that?

3 MS. MADRIZ: Removing substrate or
4 disallowing the use of substrate systems would also
5 remove the ability for us to have like organic
6 strawberries start, so it's a really big picture
7 that we're looking at when we think of substrate.
8 We think of it more than just the people like me
9 who are producing berries. It is a growing portion
10 of the berry commodity simply because blueberries
11 -- just blueberries themselves cannot be grown in
12 most of the ground around here because we have
13 nowhere near the soil type that they like to grow
14 in to have the full genetic expression to keep them
15 from getting diseases and other kinds of problems.

16 So if you don't have full genetic
17 expression, you end up adding more things to your
18 plants and spraying wasps and -- versus using what
19 the plant already has genetically to grow the best
20 berries you can. So it's a really big picture when
21 you say you could not allow substrate. It's like
22 not allowing a lot of different things, from

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1 production to plant propagation. It's a really
2 big picture.

3 CHAIRMAN CHAPMAN: Okay. Thank you
4 very much.

5 Up next is Carmela Beck, and on deck is
6 Steve Etko.

7 MS. BECK: All right. Good morning.
8 My name is Carmela Beck. I am the Organic Program
9 Manager at Driscoll's, based out of Watsonville,
10 California.

11 We're an international distributor and
12 marketer of conventional and organic strawberries,
13 raspberries, blackberries, and blueberries.
14 Organic is 14 percent of our business and growing
15 aggressively. I work with over 150 small, medium,
16 and large independent organic family farmers
17 across the U.S., Mexico, and Chile assisting with
18 their organic certification needs. My comments
19 pertain to the aeroponic, hydroponic, aquaponic
20 discussion document. I have seven points to
21 outline.

22 One, the Crop Subcommittee tried to

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1 rush the publication of the proposal and only
2 decided at the last minute to revert to publication
3 of the discussion document. Five new Board
4 members joined the NOSB this January, allowing new
5 members less than one month's time to get up to
6 speed on all meeting topics. These short
7 timelines are insane. Please go down, allow your
8 colleagues time to objectively study the issues.

9
10 Two, the discussion document does not
11 make mention of container production in the title.
12 However, the subcommittee stuck eight questions
13 specific to containers into the document.
14 Heretofore, the Board worked to clearly
15 distinguish container production from water-based
16 production systems by issuing separate documents.
17 Mixing container-based systems with water-based
18 systems into one document was highly confusing and
19 inappropriate. Please issue separate water-based
20 substrate and container production discussion
21 documents. Avoid blurring the lines and smushing
22 the topics together. Stop the practice of issuing

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1 one document in the absence of the other. The
2 Board and the public should review both topics in
3 tandem.

4 Three, the written NOSB meeting
5 materials were slated for publication on 3/1/17.
6 However, they were not posted until 3/17/17. This
7 allowed 14 days to review the materials. Please
8 ensure future one-month public comment period.

9 Four, the Crop Subcommittee introduced
10 new definitions without providing context or clear
11 explanations for their evolution. More
12 specifically, the Board is seeking to prohibit
13 biologically recalcitrant or
14 resistant-to-microbial-attack materials such as
15 coconut coir, wood shavings, and/or peat, which are
16 key ingredients in commercial container production
17 systems. Going forward, please provide a chart
18 tracking the evolution of definitions. Cite their
19 sources for clear public transparency, and provide
20 rationale for modifications. Provide data with
21 citations that coconut coir, wood shavings, and
22 peat are biologically recalcitrant and that they

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1 do not serve as substantive sources of nutrients
2 for the plants being grown, as indicated in the
3 document. Revert to the fall 2016 proposal
4 definition for soil.

5 Five, please invite a panel of
6 container production substrate experts to your
7 next NOSB meeting.

8 Six, please visit your local
9 organically certified container production
10 operators in the coming months to help inform your
11 deliberations and vote.

12 Seven, I encourage the Board to engage
13 in robust NOSB meeting public debate on the topic.

14 In closing, it is my belief that the
15 regulation as originally written was meant to
16 protect the integrity of the organic label but was
17 not meant to be static. It was written to allow
18 for the future creation of innovation production
19 practices intended to benefit subsequent
20 generations. There is not a Driscoll's customer
21 that doesn't want organic. Not one has demanded
22 that organic berries be grown in soil in the upper

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1 crust of the earth. On the contrary, our customers
2 are continually impressed with our farmers
3 innovative, forward-thinking, and sophisticated
4 organic growing methods.

5 Let's work together to find a way
6 forward. Thanks everyone for your commitment to
7 organic integrity.

8 CHAIRMAN CHAPMAN: Thank you very
9 much, Carmela. I have a question from Ashley, then
10 Frank. Ashley?

11 VICE CHAIR SWAFFAR: Thanks, Carmela.
12 Maybe you can answer my question that I had asked
13 Cecille earlier: do you know like what percentage
14 of all of the berries would go away if we didn't
15 allow container production?

16 MS. BECK: Ashely, yes, I don't
17 actually have that number, but I am more than happy
18 to provide it to -- to you in -- in our public
19 comments that we will be publishing post-meeting,
20 so that is data that we can include.

21 VICE CHAIR SWAFFAR: Okay. Thank you.

22 MS. BECK: Yes.

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1 CHAIRMAN CHAPMAN: Francis?

2 MR. THICKE: Hi Carmela. You
3 mentioned that 14 percent of the produce of
4 Driscoll's is organic. What percent of that
5 organic is hydroponic or container-growing that
6 has the majority of the nutrients coming from
7 liquid feed?

8 MS. BECK: Francis, all of our -- you
9 know, our in-ground crops and our container
10 production rely on liquid nutrients, and as Ashley
11 asked about the percentage of our container
12 production, not hydroponic, our container
13 production growing practices, I don't have that
14 number for you, but that is going to be included
15 in our public comments that we will issue
16 post-meeting during the open docket session. We
17 were unable to provide comments with the timeline
18 that was provided.

19 MR. THICKE: Okay. And just a quick
20 point of clarification: the reason there are
21 questions about containers in the discussion
22 document is so that we can help us prepare two

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1 separate proposals for the fall, one on hydroponics
2 and one on container growing. Thank you.

3 MS. BECK: Thank you. Yes, thank you,
4 Francis, I appreciate that. And I would just
5 reiterate that I think it is really helpful to have
6 issued a separate discussion document that
7 pertains specifically to container production to
8 keep the topics separate.

9 CHAIRMAN CHAPMAN: Thank you, Carmela.
10 Thank you Board --

11 MS. BECK: Thank you.

12 CHAIRMAN CHAPMAN: -- members.

13 Up next, we have Steve Etko, and after
14 that, we have Amber Pool. Amber, if you could type
15 in the first four digits of your phone number, that
16 would be appreciated.

17 MR. ETKO: Good morning. I am Steve
18 Etko. I am Policy Director for the National
19 Organic Coalition.

20 There is a lot of anxiety in the organic
21 community right now in light of the anti-regulatory
22 fervor of Congress and the new administration.

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1 Organic depends heavily on regulations to
2 establish the rules for those operations who
3 voluntarily choose organic certification and for
4 consumers who buy organic. Some of that fervor has
5 been targeted at organic, most notably the pending
6 organic animal welfare rule.

7 While acknowledging these threats, we
8 must not overstate these threats. Some have
9 politicized the idea that the far right Freedom
10 Caucus in the U.S. House includes the -- included
11 the entire National Organic Program on a list of
12 programs to be cut. In reality, a careful reading
13 of the list shows that the group is not proposing
14 elimination of the NOP broadly, but a cancellation
15 of the organic animal welfare rule instead.

16 We have a positive story to tell about
17 organic that should resonate across the political
18 spectrum. Even House Speaker Ryan in his
19 blueprint document about the economy used organic
20 standards as an example of a better way to
21 promulgate federal regulations because the regs
22 are voluntary in the sense that farmers decide

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1 whether or not to opt into the program, and
2 similarly, consumers voluntarily decide whether to
3 buy organic food. There is no question that
4 organic will be facing some challenges as we go into
5 the next farm bill and appropriations cycles, but
6 it is important that we not make our challenges even
7 greater by fabricating additional foes.

8 With regard to biodegradable bio-based
9 mulch, NOC acknowledges that BBM film would be a
10 great asset to producers. However, we still have
11 concerns regarding the environmental and health
12 effects of the breakdown. NOC is also concerned
13 that BBM is being measured against a standard that
14 is inadequate to ensure complete removal of the
15 plastic product in the new ASTM standard, although
16 development is not yet available. In short, NOC
17 believes that BBM mulches are not yet ready for
18 prime time.

19 With regard to copper, NOC supports
20 keeping fixed coppers and copper sulfate on the
21 national list. Copper has been used for centuries
22 in agricultural and livestock, and it remains an

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1 important tool for organic farmers. When used
2 properly, copper products are less toxic than other
3 classes of degree-of-control materials. Copper
4 products for degree of control seem to be the only
5 material available right now for organic growers
6 to combat many serious crop diseases.

7 However, we can't lose sight of the fact
8 that copper products are toxic, and that elemental
9 copper in the formulations is persistent. In
10 short, organic certifiers in the short term --
11 excuse me -- organic certifiers are requiring
12 routine monitoring of copper levels in the soils
13 of growers, using that to identify early evidence
14 of build-up and toxic accumulation, or to prevent
15 toxic accumulation.

16 In the long run, alternatives must be
17 found to avoid the long-lasting adverse effects of
18 copper use, and we strongly support efforts to make
19 copper sulfate alternatives a high-priority
20 research topic for federal funding. Thank you.

21 CHAIRMAN CHAPMAN: Thank you, Steve. I
22 do not see any questions at this time. Thank you.

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1 We will move on to Amber Pool. Amber?
2 And on deck we have Kelly Maben. Kelly, if you
3 could type in your first four digits as well?
4 Thank you.

5 MS. POOL: Hi. My name is Amber Pool,
6 and I am a Farm Technical Specialist for CCOF, and
7 I just had to just thank you guys for again hosting
8 this webinar. I work with so many farmers that
9 have a lot of responsibilities on their farm, and
10 they wouldn't be able to travel to attend this
11 meeting in person, and I am really happy to see that
12 I see a lot of their names on the schedule today,
13 so I look forward to hearing from them.

14 I wanted to talk about the crop Sunset
15 Review, and in general, CCOF does -- we want
16 stability in the rule so farmers know that they have
17 a tool that they can rely on, and we don't want to
18 see Sunset materials go away unless there is a
19 compelling reason for the change or a specific
20 replacement has been created.

21 And I just -- I have had so many really
22 heartbreaking conversations with farmers that lost

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1 their certification when antibiotics for fire
2 blight went away, and apples and pears, it
3 specifically hit the pear growers really hard in
4 California. And, you know, they tried to manage
5 it with organic-approved methods, and they lost
6 tens of thousands of dollars every year to damage
7 on their trees, and ultimately, they went back to
8 the antibiotics because they had no other way to
9 control the fire blight.

10 And it was a really -- it was hard and
11 tough, and we all had hard conversations with those
12 growers. But I just wanted to keep that in mind
13 any time material Sunsets. In our written
14 comments, we have provided numbers of growers who
15 are using each material for the Sunset Review.

16 And then I also wanted to just talk
17 about strengthening the organic feed items and some
18 of the things we do. Every year, at the annual
19 inspections, the growers have to report the
20 percentage of organic feeds that they have used,
21 and that is tracked in our database, so we can
22 easily see from year to year if they are improving

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1 for example organic feed.

2 And we really want to advocate for a
3 feed database that growers can go to and that is
4 just one place, and it is live and it is updated,
5 and it will be helpful for our growers and for our
6 certifiers to verify if a feed is commercially
7 available, it's organic. And with our large
8 growers, they often use the excuse that quantity
9 of feed is not available for organic commercial
10 availability, and so we're really working with
11 those growers to find out why they cannot contract
12 with organic feed producers to grow the variety
13 that they need and the quantity that they need.

14 And with that, I will complete. Do you
15 guys have any questions? Thank you.

16 CHAIRMAN CHAPMAN: Thank you, Amber.
17 I don't see any questions at this time. We will
18 move on to Kelsey, and on deck is Zea. Kelsey? Are
19 you there?

20 (No audible response.)

21 CHAIRMAN CHAPMAN: Kelsey, if you're
22 speaking, you're on mute.

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1 (No audible response.)

2 CHAIRMAN CHAPMAN: All right.

3 MS. ARSENAULT: We have three numbers
4 on from 831, and they're all unmuted right now.
5 Kelsey, are you there?

6 (No audible response.)

7 CHAIRMAN CHAPMAN: All right. We will
8 move on then. Up next is Zea, and on deck is Bill
9 Stoneman. Bill, if you could put in your first
10 four digits, that would be appreciated. Zea, are
11 you ready?

12 MS. SONNABEND: Thanks. Can you hear
13 me?

14 CHAIRMAN CHAPMAN: Yes. You're a
15 little light.

16 MS. SONNABEND: A little iffy? How is
17 that?

18 CHAIRMAN CHAPMAN: Still a little
19 light, but go ahead.

20 MS. SONNABEND: Hi everyone. I am
21 glad I won't be joining you, but I miss you somewhat
22 -- I will miss you somewhat, but I won't be sad to

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1 not be there. Zea Sonnabend, Fruitilicious Farm
2 and CCOF. I want to touch on several points
3 quickly, and I will speak as fast as I can, and I
4 won't catch everything I have been working on, but
5 if you want to ask me questions, you can.

6 First thing is marine materials. The
7 crops version is completely lacking in a discussion
8 of impact of this very big change on crops inputs.
9 This would limit the products able to be used, since
10 now there are products from red and green seaweeds
11 on the market. It would create a lot more work for
12 certifiers and materials review organizations to
13 track the sources of each brand used, which they
14 don't now. If such a major change is to
15 be implemented, you at least need to give some
16 reason in the text of the document why you want to
17 do this, along with trying to reach out and assess
18 how this would affect the many users of these
19 products. I think you should scrap this proposal
20 and go back to the drawing board.

21 The handling version of the marine
22 materials is fine for the substances that clearly

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1 have an identity based on one species, but the
2 listing for kelp is problematic. Why would you
3 pass a proposal to limit the species by Latin name
4 before you create the guidance on the meaning of
5 it, which is in the second motion? I suggest you
6 remove the kelp listing from the first motion and
7 pass the second motion, and then keep working on
8 kelp.

9 Seed: as the main author of the seed
10 proposal, I think it is a step forward and a needed
11 revision. However, it needs some reconsideration
12 on a few points to see if it is really meeting
13 stakeholders needs and/or is over-prescriptive or
14 needs some work or that kind of thing. I realize
15 that it is over-prescriptive perhaps in a few
16 areas. In light of this being a first posting and
17 a very short comment period, I think you should take
18 the proposal back to subcommittee for more work.

19 And lastly, just briefly on the subject
20 of recalcitrant as a term, mineral soil that has
21 no organic matter is more recalcitrant than coir
22 is. Don't use this term. Instead, just list what

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1 you want in or out instead of trying to confuse what
2 you want with a vague term.

3 So that is all I really have to say at
4 the moment, and I am in before the deadline. Truly
5 amazing.

6 CHAIRMAN CHAPMAN: Thank you very
7 much, Zea. Any questions for --

8 MR. STONEMAN: This is -- this is Bill
9 Stoneman. Can you hear me?

10 CHAIRMAN CHAPMAN: Yes. We will move
11 on to Bill. Though, one moment: after Bill is Mark
12 Russell. You're on deck. So Bill, go ahead.

13 MR. STONEMAN: Thank you, and I
14 appreciate the opportunity to address this group,
15 and thank you for setting up this webinar.

16 Hello. My name is Bill Stoneman, and
17 I am an independent crop inspector and a gardener.
18 I hold a bachelor's degree in natural resource
19 management and a master's in agronomy and soil
20 science, both from Minnesota. I have 50 plus years
21 of experience in agriculture, including soil
22 fertility, crop management, et cetera. The past

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1 ten years, I have worked in organic agriculture and
2 have worked with regulatory affairs for biological
3 input and for use in organic agriculture for
4 significantly longer.

5 I am here to speak in favor of expanded
6 allowance of ammonium nonanoate in organic
7 agriculture as a weed control agent. It is my
8 understanding that -- that a recent petition to
9 allow the use of ammonium nonanoate -- are you
10 getting an echo?

11 CHAIRMAN CHAPMAN: Yes. You might
12 want to decrease your own volume.

13 MR. STONEMAN: Okay. I can do that.
14 Can you still hear me?

15 CHAIRMAN CHAPMAN: Yes.

16 MR. STONEMAN: Okay. It is my
17 understanding that a recent petition to allow the
18 use of ammonium nonanoate in cropping areas for
19 weed control was recently passed over by the Crops
20 Committee of the NOSB. I think the material
21 deserves reconsideration, and I have knowledge
22 that one basic manufacturer of the material as a

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1 U.S. EPA registrant has resubmitted once again.

2 The product is an EPA-registered
3 biological agent for control of weeds. As an
4 organic inspector, I personally witness the
5 struggle of growers to meet the requirements of
6 weed control, not only to be in compliance with the
7 standards, but for economic reasons. Weed control
8 is often a problem in a farm and a limiting factor
9 to production. With limited resources applicable
10 to the practice of weed control and limited
11 methods, this is often the primary stumbling block
12 to growers' decisions to become certified. The
13 labor available to organic farms will likely
14 continue to shrink, and farmers could really use
15 this gentle tool.

16 First, let's look at the soil. Soil
17 quality building fertility and soil biodiversity
18 is always first and foremost as we seek food and
19 fiber production and naturally occurring
20 biological control in organic cropping systems.
21 For tillage especially, the often excessive
22 tillage required to control weeds in many of our

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1 organic production systems is destructive to the
2 soil structure and biological diversity.

3 Many of the organic farms I have visited
4 are either riddled with weed problems, or tillage
5 is practiced multiple times to try to stay ahead
6 of the weeds. Excessive tillage is destructive to
7 soils, even in organic systems. University data
8 often shows continuing tillage in organic systems,
9 even with sound rotational programs, cover
10 cropping, and -- and addition to the soil organic
11 matter would still lose that recalcitrant organic
12 matter.

13 We all know from our personal
14 experience with gardening and in crop production
15 that tillage accelerates organic matter breakdown,
16 and for non-recalcitrant carbon, the plant matter,
17 compost, animal manures, and so forth are broken
18 down.

19 (Simultaneous speaking.)

20 CHAIRMAN CHAPMAN: Mark, we're at the
21 end of your time. If you could just wrap up --

22 MR. STONEMAN: Okay. Okay. So I ask

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1 the Crops Committee of this prestigious body to
2 reconsider rejection of the petition for the
3 allowance of ammonium nonanoate as a biologically
4 based herbicide in food production. Thank you.

5 CHAIRMAN CHAPMAN: Thank you very
6 much, Mark. We're down to -- oh, sorry, Bill. I
7 don't see any questions.

8 Up next is Mark Russell, and on deck is
9 Kye Witek. And Kye, if you could type in your phone
10 number, that would be appreciated. Mark?

11 MR. RUSSELL: Yes, good morning from
12 Oregon. My name is Mark Russell. I have been in
13 the agricultural production business for 30 plus
14 years, starting my industry -- my current industry
15 with some agricultural clinical companies and in
16 distribution, and the last 15 years in product and
17 business development for individual companies as
18 a contract employee.

19 And as a result of that, over the last
20 15 years, I have had the opportunity to be involved
21 with numerous new companies and new product
22 launches, both in the organic and the EPA

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1 biopesticide arena for conventional, with really
2 the intent I think in all of this to provide an
3 abundant food source and a safe food source for,
4 not just America, but for the world, and I think
5 it is amazing, you know, that we have been able to
6 do all that we have been able to do, and people on
7 this Board have certainly been involved in all that
8 as well as the commentators on here, so
9 congratulations to everybody. It's a great
10 position that we have over food that we do have.

11 My comments this morning are specific
12 to some of the Sunset I guess products that are
13 considered to be sunsetted off of an approved list,
14 and specifically in weed control arena. Here in
15 Oregon, and the Northwest and a lot of areas, weed
16 control, given the amount of moisture we have and
17 soil that we have, weed control is a major part of
18 a production system, and specifically weed
19 challenges with labor, with mechanization that we
20 control. This spring, it is extremely wet in
21 Oregon, and so getting it and actually doing weed
22 control right now with mechanization actually is

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1 destructive to soil.

2 So the soap-based herbicides are
3 materials that have been used and are being used
4 and needing to be extended for use, in my opinion,
5 with people that I work with, and I believe that
6 currently, there is a probability of that being
7 sunsetted, and soap-based herbicides off organic
8 production to not be able to be used would be
9 certainly detrimental to the people that I work
10 with here in the Pacific Northwest.

11 In addition to that, I would like to say
12 that these same basic technologies, the soap-based
13 materials that are registered and approved for
14 organic use as insecticides, have the ability to
15 be able to be used both in crop and out of the crop
16 as well, and the soap-based herbicides are actually
17 only allowed to be used outside the scope of the
18 crop production area.

19 This is confusing to me and has been for
20 some time, when it is basically the same materials
21 being able to be used in the crop for one use and
22 not in the crop as another use, so I guess there's

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1 an adaptation or something that possibly could be
2 modified for that.

3 Sounds like my time is up. I thank you
4 for allowing us to comment, and we strongly
5 consider the continued use of soap-based
6 herbicides.

7 MR. CHAPMAN: Thank you, Mark. I
8 don't see any questions at this time, so we'll move
9 on to the next presenter. I'm probably butchering
10 the name. Kye, K-Y-E, are you here? Not seeing
11 your phone number on the list.

12 MS. ARSENAULT: We have looked in all
13 possible areas. We do not see the name or the
14 number.

15 MR. CHAPMAN: Yes. Going once, going
16 twice. We'll be moving on to Julia Barton and on
17 deck after Julia will be Joe Gabriel. Joe, if you
18 could type in your first four digits. Julia, if
19 you're ready, you're up.

20 MS. BARTON: Yes. Can you hear me?

21 MR. CHAPMAN: Yes, we can.

22 MS. BARTON: Okay. This is Julia

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1 Barton. I'm speaking on behalf of the Ohio
2 Ecological Food and Farm Association. OEFFA is a
3 grassroots coalition of more than 4600 members
4 working to build a healthy and sustainable food
5 system. Our certification program certifies over
6 1200 organic producers and handlers.

7 I'd like to comment today about the real
8 and current impact of oil and gas industry
9 infrastructure on organic farms. OEFFA has long
10 been concerned about these issues, and we have
11 raised them with you over the past two years. Last
12 spring, Kip Rondy, an organic vegetable producer
13 from Ohio, traveled to the NOSB meeting in D.C. to
14 comment on this issue and asked that it be added
15 to the work agenda. In this docket, seven organic
16 producers, six private citizens, and several
17 organizations shared comments requesting the NOSB
18 look more closely at this important topic.

19 The lack of attention to this matter has
20 already resulted in one casualty. Starline
21 Organics was a certified organic vegetable
22 operation in Southeastern Ohio, which directly

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1 marketed veggies at farmers' markets and to
2 restaurants. In 2010 and 2011, two injection
3 wells were built adjacent to the farm. Multiple
4 trucks ran in and out daily, injecting fracking
5 industry waste beneath the soil surface.

6 Due to the use of spring water for
7 irrigation, the exorbitant cost of repeated water
8 sampling, and the lack of information regarding
9 what chemicals for which to test, Starline Organics
10 shut down. Matt Starline stated he could no longer
11 be sure of the safety of the food he and his wife,
12 Angie, were producing. In the absence of guidance
13 or support, these organic producers made the
14 difficult decision to protect the integrity of
15 organics and the quality of food for their buyers
16 at the expense of their livelihood.

17 The Starline family story is just one
18 example of the impacts of fracking and oil and gas
19 industry infrastructure on organic farms.
20 Certifiers working directly with organic
21 producers, they're witness to these wide-reaching
22 effects. We must address the unique concerns of

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1 organic farmers faced with this infrastructure.
2 These issues will not go away if we ignore them.

3 Please add this important topic to
4 NOSB's work agenda and consider the development of
5 a discussion document to unpack the many ways
6 organic farmers are impacted by oil and gas
7 industry infrastructure. Thank you for your
8 consideration and for your service to our
9 community.

10 MR. CHAPMAN: Thank you very much,
11 Julia. I don't see any questions at this time. We
12 will be moving on to the next presenter, Joe
13 Gabriel. Then on deck is Marie Burcham. Marie,
14 if you could type in your phone number, that would
15 be appreciated. Joe?

16 MR. GABRIEL: Hello. I'm Joe Gabriel.
17 I work with Gilbert Orchards, and I've been an
18 organic advocate and stakeholder for the last 45
19 years. In the 50's and 60's, when growers began
20 adopting organic techniques, Rodale Press evolved
21 organic methods doing his models. California
22 certified organic farmers launched an organic

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1 certification program in 1974. Their standards
2 have hereto ruled. Otherwise, from the early 70's
3 to the mid 80's, farmers distributed to natural
4 food retailers made up of a loose-knit network that
5 vouched for or disclaimed the authenticity of
6 organic farms. By and large, the organic movement
7 operated without standards, material lists, or
8 third-party inspections.

9 In the mid 80's, additional certifiers
10 began to develop organic standards and joined CCOF
11 certifying organic farms and processes. Several
12 certifiers formed a group called the Western
13 Alliance of Certification Organizations. These
14 groups helped shape standards and material lists.
15 Some of the changes the groups made were
16 eliminating materials such as nicotine-based
17 pesticides, strychnine, arsenated lead, and
18 rotenone. Certifiers also eliminated the
19 practice of packing organic food and vegetables in
20 a recycled conventional produce process; instead
21 a three-year transition organic period that had
22 ranged from one to four years. No official

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1 oversight of the certifiers in those standards
2 existed.

3 In the late 80s, the Organic Trade
4 Association established the Organic Certifiers
5 Council. This council worked in conjunction with
6 OTA's Quality Assurance Committee to find common
7 ground for materials and language. These groups
8 developed the American Organic Standards. This
9 was a start for accrediting certifiers in the
10 business for the NOP when it came into play in 2000.

11 When I hear we must go back to the roots
12 of organics, I have to wonder what that means.
13 After looking at the history of organic
14 agriculture, what will we go back to? It has been
15 a 45-year process in time organic as we know it
16 today. From the early 70's to 2000, organic unity
17 developed organic standards that eliminated as
18 many harmful inputs as possible. These standards
19 also allowed for compromises in cases where no
20 alternate use existed. Many of these are
21 materials on the sunset list today. We can't
22 forget the sunset materials helped to allow tens

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1 of thousands of acres used for organic production.
2 In the process, organic farming influenced
3 agriculture at large. Some examples are compost
4 pheromones pest control, soil microbiology, the
5 benefits of predatory and pollinating instincts,
6 and biological pest controls. Also, the periodic
7 testing of organic produce for residue brought to
8 life (inaudible) and contributes
9 organophosphates.

10 I urge the NOSB to keep in mind the
11 history of the sunset materials, why they exist,
12 and the role they have played in the organic medium.
13 Organic growers count on copper micronutrients to
14 keep crops healthy and (inaudible). Without
15 chlorine sanitizers, processors will not pass
16 federal or state health standards. Sulfates weed
17 control products and possibly biodegradable
18 plastic mulch offer options other than the
19 conventional for landscapers and road maintenance.

20 Organic stakeholders, let's pull
21 together as in the past and pool our resources to
22 find alternatives. If materials are taken off the

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1 sunset list without viable replacements, the
2 consequences will be fewer acres farmed or
3 maintained organically, less organic food
4 available to consumers, increased prices for
5 organic food, more acreage in non-organic
6 production, sadly weaken the organic farmer
7 community in its' effort to evolve and improve
8 organic agriculture in general.

9 MR. CHAPMAN: Okay. We've come to the
10 end of your time. Thank you very much for your
11 comments. I don't see any questions at this time,
12 so we'll be moving on to Marie. On deck is Dain
13 Carver. Dain, if you could type in the first four
14 digits of your phone number. And, Marie, if you're
15 ready.

16 MS. BURCHAM: Hi. Can you hear me?

17 MR. CHAPMAN: Yes.

18 MS. BURCHAM: Excellent. Hello and
19 good afternoon. My name is Marie Burcham, and I
20 am the Livestock Policy Analyst for The Cornucopia
21 Institute. I'm also an attorney with a background
22 in environmental, natural resource law, and animal

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1 law.

2 Members of the Board and the public,
3 thanks for the opportunity to speak on the two
4 discussion documents for the emergency use of
5 parasiticides and the conversion of native
6 ecosystems. As with respect to the emergency use
7 of parasiticides in organic livestock, consumers
8 expect organic products to be free of inputs and
9 clean of synthetic parasiticides. Until that
10 reassurance is established, the use of synthetic
11 parasiticides should be approached with caution.
12 This is especially true because a well-managed
13 livestock operation should not have any recurring
14 parasite problems.

15 Cornucopia requests that the term
16 "emergency" be defined in the regulations rather
17 than with the guidance. The need for a strict
18 definition is serious. As other commenters have
19 said, the changes in withdrawal time for these
20 substances will very likely lead to overuse. We
21 believe that emergency should be defined strictly
22 so these substances are never used unless an

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1 animal's permanent welfare is immediately
2 threatened by their parasite load.

3 As to the issue of keeping high-value
4 lands, in general, Cornucopia supports the Wild
5 Farm Alliance's comments. We hope that the NOSB
6 will consider information and understand what the
7 Wild Farm Alliance brings to this issue. The NOP's
8 waiting transition to organic production is
9 critical to maintaining organic integrity.
10 However, incentivizing farmers to convert pristine
11 habitat in high-value lands by allowing them to
12 immediately go into organic production flies in the
13 face of biodiversity conservation and the basic
14 tenets of organic production.

15 Cornucopia suggests the term
16 "high-value conservation lands" be used instead of
17 the term "native ecosystem." High-value
18 conservation lands is a more inclusive term that
19 is more accurate with regards to the problem at
20 hand. We believe that using an eligibility period
21 would de-incentivize conversion of high-value
22 lands. The eligibility period we suggest require

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1 that if the areas in question are damaged or
2 destroyed within five years prior to a request for
3 organic certification they will never be eligible
4 for organic certification.

5 A rule change is needed to
6 de-incentivize this destruction. A guidance will
7 not suffice because the conversion of this land in
8 question occurs prior to organic production, where
9 NOP regulations currently apply to lands that are
10 already certified.

11 We have made further recommendations
12 and comments on both of these issues in the
13 discussion documents and our official submitted
14 comments that we hope will be helpful to NOSB.
15 Thank you for this opportunity to provide any
16 comments on these issues, and I would love to answer
17 any questions you may have.

18 MR. CHAPMAN: Thank you, Marie. I
19 don't see any questions at this time. We'll be
20 moving on to the next commenter. I have Dain
21 Carver. Dain, are you here? Don't see your phone
22 number.

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1 MS. ARSENAULT: Right. We have three
2 from that area code, but we don't see the exact
3 number and no numbers have been typed in to the
4 chat.

5 MR. CHAPMAN: Dain, going once. Dain,
6 going twice. We'll be moving on to Anne Ross.
7 Anne, are you --

8 MS. ROSS: Yes, I'm here.

9 MS. ARSENAULT: Okay, great.

10 MS. ROSS: Can you hear me?

11 MR. CHAPMAN: Yes. Give me one
12 second, Anne. On deck after Anne is Michael
13 Collins-Frias. Michael, if you could type in your
14 phone number, that would be appreciated. Anne, go
15 ahead.

16 MS. ROSS: Good afternoon, everyone,
17 and thank you for this opportunity to comment. My
18 name is Anne Ross, and I'm a foreign policy analyst
19 at The Cornucopia Institute. I'm a lawyer, and I
20 have an advanced law degree in agricultural and
21 food law. I'm also a consumer of organic food and
22 a public health advocate.

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1 The Handling Subcommittee has asked for
2 comment from the use of chemical BPA in the
3 packaging of organic foods. Cornucopia opposes
4 the use of BPA for the following reasons: The
5 founding principle of organic agriculture is that
6 organic agriculture should sustain and enhance
7 human health. Organic agriculture is intended to
8 produce high-quality nutritious food that
9 contributes to the health and well-being. The use
10 of BPA in food packaging materials for organic food
11 is entirely inconsistent with these principles and
12 with NOP Regulations, Section 205.272, which
13 prohibits the use of a substance which compromises
14 the organic integrity of the product unless there
15 is no risk of contact with the organically-produced
16 product.

17 The use of BPA has inherent known risks
18 that are far-reaching and clearly compromise
19 organic integrity. BPA is an endocrine disruptor.
20 BPA acts on the reproductive systems of males and
21 females in ways which result not only in
22 reproductive problems but are associated with the

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1 development of cancer. BPA is linked to the
2 development of type 2 diabetes. BPA is linked to
3 the development of neurological, developmental,
4 and behavioral problems in children. BPA acts in
5 low doses and is especially concerning for our
6 children.

7 Our laws acknowledge the devastating
8 health effects of BPA but do not go far enough. For
9 example, BPA is banned in formula bottles in the
10 U.S., Canada, and the European Union. However, we
11 must do more to protect the public health. BPA
12 should be banned for use in all food contact
13 materials, not just in infant formula bottles. In
14 October 2016, the majority of the members of the
15 European Parliament called for a ban of BPA in all
16 food contact materials. The U.S. should follow
17 suit, and the organic movement should take the lead
18 to protect the public health and prohibit the use
19 of BPA in all food contact materials used in organic
20 agriculture to protect both children and the entire
21 population.

22 Thank you for your attention to this

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1 very important issue. This concludes my comments.
2 If there are any questions, I'll be happy to answer
3 them.

4 MR. CHAPMAN: Thank you, Anne. I
5 don't see any questions at this time, so we'll be
6 moving on to our next presenter. Is Michael
7 Collins on the line?

8 Sorry, Anne, if you're still there, I
9 do have a question from Asa.

10 MR. BRADMAN: Hi. Can you hear me
11 okay? I just want to ask if you had considered some
12 of the issues with food contact materials for other
13 substances, as well, and considered the
14 implications of that for other compounds. Thanks.

15 MS. ROSS: Yes, Asa. We're very
16 concerned about the other substances, but the
17 scientific evidence on BPA is longstanding and the
18 adverse health effects are well documented. And
19 so at this time, we focused on BPA.

20 MR. BRADMAN: Okay. Thanks. I don't
21 think there's more to talk about right now, but I
22 think this is an important issue as we go forward.

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1 MS. ROSS: Yes, thank you. And we've
2 also submitted a comment on this, a formal comment,
3 for review, as well.

4 MR. BRADMAN: Thank you.

5 MR. CHAPMAN: Thank you very much. So
6 back up next is Michael Collins-Frias. Michael,
7 are you on the line? Okay. There seems to be a
8 series of folks here that we may not have identified
9 on the line, so I'm going to read a few names here.
10 Karen Archipley, Colin Archipley, and Larry
11 Griffis, all from 760 area codes. Are any of you
12 folks on the line?

13 All right. Hearing none, we will be
14 skipping past all of those, and next up is Jane
15 Sooby. Jane, are you on the line?

16 MS. SOOBY: Yes.

17 MR. CHAPMAN: All right.

18 MS. SOOBY: Good afternoon.

19 MR. CHAPMAN: Sorry. One second,
20 Jane. Up after Jane will be Barry Flamm. Barry,
21 we found you, so I don't need your number. Jane,
22 go ahead.

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1 MS. SOOBY: Thank you. Good afternoon
2 and thank you, NOSB members and NOP staff, for all
3 of your hard work in protecting organic integrity.

4 I'm with CCOF, a non-profit
5 organization that's governed by the people who grow
6 and make our food. We were founded in California
7 more than 40 years ago, and CCOF advocates on behalf
8 of our members for organic policies. We support
9 the growth of organics through education and
10 grants, and we also provide organic certification
11 services.

12 From the certifier perspective, CCOF
13 supports maintaining a clear, consistent
14 regulatory environment for organic producers of
15 all scales and types. CCOF supports the Handling
16 Subcommittee's proposals to change the annotation
17 of the tocopherol listing in 205.605(b) of the
18 National List and also to accept the list of
19 additional functional classes of ancillary
20 substances permitted for use in cellulose.

21 CCOF supports changing the annotation
22 of the Tocopherol listing in 205.605(b) because it

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1 will encourage the use of organic and non-synthetic
2 tocopherols by organic food manufacturers, and it
3 will create increased demand for production of
4 organic tocopherol.

5 CCOF also supports the Handling
6 Subcommittee's proposal to accept the list of
7 additional functional classes of ancillary
8 substances permitted for use in cellulose. CCOF
9 commends the Handling Subcommittee for their hard
10 work in making progress on assessing these
11 ancillary substances by classifying their
12 functional group. Organic manufacturers and
13 certifiers require clear guidance on these
14 substances. Ancillary substances are minor
15 additives to other minor ingredients. The organic
16 sector is, unfortunately, not yet large enough to
17 generate adequate demand for minor ingredients
18 free of these ancillary substances. So from that
19 perspective, CCOF supports the proposal. Thank
20 you very much for your time.

21

22

MR. CHAPMAN: Thank you, Jane. At

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1 this time, I don't see any questions. Next up --

2 MS. ARSENAULT: If you have a dog, if
3 somebody has a dog in the background, if you could
4 put yourself on mute and not telling it to speak.

5 MR. CHAPMAN: Next up, we have Barry
6 Flamm. After Barry, we have Andrew Tomes.
7 Andrew, it sounds like we found you, so no need to
8 type in the phone number. Barry, you are up.

9 MR. FLAMM: Thank you. I'm very
10 pleased that the CACS has issued a discussion on
11 eliminating the incentive to convert native
12 ecosystems for organic production. I appreciate
13 and understand somewhat the hard work that's
14 involved, as I am a former NOP member and also board
15 chair.

16 I have worked on this issue closely with
17 Wild Farm Alliance and with The Cornucopia
18 Institute, where I'm a board member. And I do
19 support their detailed comments.

20 In 2008, I chaired a joint CAC and Crops
21 Committee that developed a discussion document
22 which led to the 2009 Supplier Diversity Guidance

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1 Statement. In this statement, it converted
2 high-value conservation areas to organic
3 production and identified there's a problem.
4 Again, in 2012, I chaired an effort to review the
5 progress in implementing the board's
6 recommendation action in considering biodiversity
7 and creating incentive to convert chemicals from
8 the area.

9 Thankfully, in the last couple of
10 years, I've witnessed an increased interest in
11 dealing with the problem in the public groups and
12 also in NOSB. I believe a necessary step is adopt
13 a policy that states organic management does not
14 entertain any action that negatively impacts
15 high-conservation terrestrial and aquatic
16 ecosystems and that the clearing of
17 high-conservation is prohibited. These negatives
18 must not have occurred on the parcel when they were
19 released five years at the date of the
20 certification application. This is not a perfect
21 solution but should reduce the incentive to gain
22 a quick profit by taking advantage of the present

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1 rule.

2 As you know, the organic means a lot to
3 consumers. Sorry for the bird sounds. It should
4 mean that the products produced did not come from
5 high-conservation lands or aquatic systems that
6 were recently destroyed or damaged for profit, not
7 having to wait the three-year transition period.

8 I know there are questions about how big
9 a problem this is, but folks, we haven't had a
10 problem that has not been any attempt to really
11 determine the acreage involved. I hope the
12 problem is not as extensive as it could be, but the
13 pressure will increase as the organic market
14 increases, which we hope will occur. To address
15 this problem, I think we should adopt the policies
16 suggested above and also develop an implementation
17 process to complement our already developed good
18 organic systems. Organics better achieves its
19 lofty goals when it can chemical and other
20 non-sustainable farming practice ending
21 ecologically-healthy organic farming. Thank you.

22 MR. CHAPMAN: Thank you very much,

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1 Barry. At this time, I don't see any questions for
2 you, so we'll be moving on to the next commenter,
3 Andrew Tomes. Andrew? And up next is Reyna
4 Ventura. Reyna, if you can type in your number.
5 We're not seeing you. After Reyna is Tim Mann. If
6 you could also type in your number and realize
7 you're on deck. Andrew?

8 MR. TOMES: Hi. I work for a company
9 that makes organic liquid fertilizer out of food
10 waste. I would like to address the
11 recommendations for restrictions on bioponic
12 production liquid fertilizer use in containerized
13 systems.

14 The rationale for these changes, indoor
15 plant production cannot advance the NOP's
16 objectives of improving soil and contributing to
17 a diverse agroecosystem is a narrow reading. The
18 NOSB should consider other requirements the NOP
19 endorsed, including safety, affordability, and
20 reduced emissions.

21 To consumers, it's a constellation of
22 meanings ranging from lower environmental impact

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1 to reduced use of chemicals and what cultivation
2 methods offer these benefits. The lower test
3 pressure and indoor systems leads to lower worker
4 pesticide exposure. Indoor methods can also be
5 employed in urban areas where land is unavailable
6 and reducing the emissions and associated costs of
7 transportation.

8 Further, the reasons supplied for
9 restricting bioponics may cause negative impacts
10 if extended to other indoor production methods.
11 For example, this kind of container raised the
12 concern that this method resembles hydroponics in
13 its use of external inputs and the perceived lack
14 of commitment to building a healthy soil
15 microbiome.

16 Organic nutrients are processed the
17 same way by the same microbes, regardless if
18 they're moist or not. Liquid fertilizers offer
19 growers, indoors and out, the chance to respond
20 quickly to nutrient needs during the growing season
21 and are a valuable tool and should not be curtailed.
22 Growers should have access to the most effective

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1 options available among organic food-derived
2 inputs and have the right to tailor programs to the
3 needs of plants and production systems.

4 Indoor production practices are
5 becoming increasingly essential to a secure food
6 supply. Right now, the NOSB is facing a choice
7 between shaping this trend or ignoring it. By
8 developing standards that correct bioponics toward
9 the larger goal of creating a system that benefits
10 both people and the environment, the NOSB can
11 address problematic aspects of indoor production
12 and drive change.

13 If the incentive to follow the NOP
14 disappears, users of these methods may return to
15 conventional practices. We shouldn't be asking
16 can bioponics be organic. Instead, we should ask
17 how do we make bioponics organic. Thank you.

18 MR. CHAPMAN: Thank you, Andrew. I
19 don't see any questions at this time, so we'll move
20 on to the next speaker. Is Reyna on the line?

21 MS. ARSENAULT: We have not seen a
22 number from Reyna yet and not on the headsets

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1 either.

2 MR. CHAPMAN: Yes. Is Tim Mann on the
3 line? I haven't seen an 808 number either. Is
4 Esteban on the line or Thomas Laginess?

5 MR. LAGINESS: Tom Laginess, yes.

6 MR. CHAPMAN: Okay, Tom. You're right
7 here. We'll probably skip to you next, if you're
8 ready. Before we do that, Mabell, you'll be next.
9 I see you just typed in your number. So we'll start
10 with Tom, and Mabell is next. Tom, go ahead.

11 MR. LAGINESS: Okay. Yes, good
12 afternoon. My name is Tom Laginess, and I'm a
13 senior sustainability specialist with BASF
14 Corporation based out of our offices near Detroit,
15 Michigan. I'm a scientist with a specialized role
16 in managing the stewardship of our products and
17 their intended applications. I am also a row crop
18 farmer in Southeast Michigan. Sustainability and
19 stewardship are two keys at BASF, and I thank you
20 for taking the time to consider the science of
21 biodegradable mulch films.

22 Today, I wish to address only one topic

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1 regarding biodegradable mulch films. Do
2 biodegradable mulch films have to be bio-based in
3 order to be biodegradable? The answer is no.
4 Unfortunately, this fact has not been shared
5 widely. As a result of this, there has been much
6 confusion and discussion on this topic.

7 This confusion has led to the addition
8 of problematic language in the regulation around
9 the use of biodegradable mulch films after the
10 material was added to the National List. For a
11 brief background, please consider that microbes
12 will eat any material that they view as food.
13 Today, biodegradable mulch films are made from
14 polymers that were designed for two purposes: one,
15 performance in the field for the farmer; and, two,
16 consumption by microbes. The polymer itself is
17 what determines these two performance features.

18 These polymers are made from monomers
19 which can be made from either bio-based feed stock
20 or fossil sources. The origin of the monomers has
21 no bearing on the performance features in the film.
22 Only the final polymer determines performance.

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1 In my role, I frequently work on
2 projects to measure total sustainable attributes
3 of a material for a given application. To do this,
4 we use life cycle to measure environmental,
5 economic, and social impacts.

6 I submitted a written comment, number
7 1751, which shows some examples of past work we have
8 done in comparing bio-based materials versus
9 fossil-based materials for a given application.
10 These examples show that if we look at the total
11 sustainability perspective, bio-based sources are
12 not always more sustainable.

13 If the NOSB truly holds an interest in
14 sound science and sustainability as its primary
15 standard for preserving organic integrity, please
16 consider the interests of the farmers. The
17 challenges of the organic farmer are well known.
18 They deserve -- pardon me?

19 PARTICIPANT: Okay. I'm on the phone.

20 MR. CHAPMAN: Sorry. We have someone
21 speaking in the background.

22 MR. LAGINESS: The challenges of the

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1 organic farmer are well known. They deserve
2 access to new tools that have helped them with both
3 their environmental and economic impact.
4 Biodegradable mulch films have been shown to
5 provide a positive impact to farmers in these areas
6 with reducing labor costs, top soil, and
7 eliminating challenges in film removal and
8 disposal.

9 Today, I wish to address any of your
10 questions regarding sustainability. In order to
11 have a proper dialogue on the technology itself,
12 along with the current state of regulations, we
13 invite this board, along with other stakeholders,
14 to join a public webinar to be scheduled in the
15 coming months. We have spent the past years trying
16 to go up through the existing channels to
17 communicate the details of this technology with no
18 success in remedying the problematic language in
19 the regulation. Had this language requiring
20 100-percent bio-based content been open to the
21 public comment, we could have addressed it at that
22 time.

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1 Our concern is that the technology has
2 been lost forever challenging discourse. Most
3 recently, we wrote a public comment, 1760,
4 regarding technical areas and misrepresentation of
5 the 2016 Technical Evaluation Report. We
6 recognize in the meantime that some of the
7 problematic topics have since promulgated through
8 the public comment in the current docket. So we
9 ask you to consider the path forward, as proposed
10 by the EPA and Biodegradable Product Institute in
11 public comment 2040. We see three potential paths
12 forward and this proposal as the best option.

13 MS. ARSENAULT: Okay. Thank you very
14 much. Tom, are you with us?

15 MR. CHAPMAN: Yes, sorry. I was
16 self-muting myself there. Tom, I have a question
17 for you from Asa. Asa?

18 MR. BRADMAN: Yes, hi. I'm educating
19 myself on this issue. You said that some of the
20 fully 100-percent bio-based materials are less
21 sustainable than mixed materials, and I wonder if
22 you could comment a little more on that or perhaps

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1 there's going to be some additional comments for
2 the meeting.

3 Then I think, you know, for example,
4 synthetic pesticide, like organophosphate, is also
5 consumable by microbes. They can certainly make
6 use of those carbons. So I guess my question is
7 related to that. If you were putting a synthetic
8 material into an organic field, in other words
9 material that's not 100-percent bio-based, you
10 know, what percentage of this synthetic material
11 you think is consumed by those microbes and what
12 are we left with?

13 MR. LAGINESS: Well, to do, I guess, to
14 do it justice, you'd have to actually look at each
15 of the materials. I mean, what I'm talking about,
16 the biodegradable mulch films, you'd have to look
17 at each individual film and then you'd have to look
18 at potentially different areas of the country to
19 see what the biodegradation or the makeup of the
20 microbes, the take-up of the microbes would be in
21 those areas because everything, you know,
22 temperature, water, all those things have an effect

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1 on the take-up of that.

2 We actually do analysis studies, and we
3 have currently some going on to determine, with our
4 product, what's the impact of that to the microbes.
5 But, you know, mainly, the biodegradable plastic
6 will break down the CO2 water and then some biomass
7 left over from the microbes.

8 MR. BRADMAN: And what percentage of
9 the materials you're using are bio-based versus
10 petroleum-based?

11 MR. LAGINESS: Well, our current -- and
12 you're talking about our current product, or are
13 you talking about --

14 MR. BRADMAN: Well, I guess so, if you
15 could --

16 MR. LAGINESS: Okay. Currently, let
17 me just talk about the market in general.
18 Currently, there is no, not to my knowledge,
19 there's no 100-percent bio-based biodegradable
20 mulch film that is available. Most of the
21 biodegradable mulch, or I should say most of the
22 biodegradable mulch films contain anywhere from

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1 10- to 20-percent bio-based material. The rest of
2 the materials are fossil-based material, and that
3 was my whole point. It doesn't necessarily have
4 to be bio-based or fossil-based. It ends up being
5 what the end product is will determine if it's
6 biodegradable or not. You could have a bio-based
7 product that's 80- or 90-percent bio-based that may
8 not biodegrade. It just depends on the actual
9 polymers and the things added with it and the bonds
10 of those polymers.

11 MR. BRADMAN: Okay, all right. Thank
12 you for that clarification. And like I said, I'm
13 kind of in the process of educating myself on these
14 issues, and I look forward to seeing more
15 discussion about it.

16 MR. LAGINESS: Okay, thank you.

17 MR. CHAPMAN: Thank you, Asa. I also
18 have a question from Harriet.

19 MS. BEHAR: Hi. Yes, the polymers
20 you're talking about, they are petroleum-based
21 products; is that correct?

22 MR. LAGINESS: The monomers are

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1 actually petroleum-based, yes, correct.

2 MS. BEHAR: Right. So I think part of
3 our question, too, was, since we don't allow
4 synthetic from a petroleum-based product, I think
5 part of our search was to see, you know, is this
6 a fertility input when it's breaking down, what
7 does this product actually do? And I was wondering
8 if we could get, perhaps in the future, if you have
9 more research on this, then maybe we might say
10 something with at least 60-percent bio and
11 40-percent polymer or something like that that
12 might mitigate the issue of breaking down of
13 petroleum-based products in the soil.

14 MR. LAGINESS: Yes, interesting.
15 Next week, I believe, at your in-person meeting,
16 we are actually, our BASF colleague from Germany,
17 Katharina Schlegel, she's a soil microbiologist in
18 our R&D group in Germany, she is going to be at that
19 face-to-face meeting next week. So we should be
20 able to answer, I'd guess, clearly exactly your
21 technical breakdowns of that.

22 MR. BRADMAN: This is Asa again.

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1 Another question I have is when you do studies of
2 residues from these materials, are they done in
3 fields, and how are they sampled? And is it also
4 possible to do kind of smaller, almost, you know,
5 physically smaller in laboratory studies? One
6 thing I'm concerned about is that if you put it in
7 a field and we, for example, dig down and collect
8 a big soil sample, it could be diluting any
9 contaminants to the point where they're not
10 detectable but they still might be present perhaps
11 in higher concentrations in the upper layers. So
12 I'm curious if you've done any kind of
13 in-laboratory degradation studies?

14 MR. LAGINESS: Again, I'd have to refer
15 to my German colleague that's going to be their
16 face-to-face meeting next week, Katharina. She
17 would be able to answer that. I'm more of the
18 sustainability and the environmental expert for
19 BASF and the actual microbiology of the actual
20 plastic.

21 MR. BRADMAN: Okay, thank you.

22 MR. CHAPMAN: Thank you, Tom, for your

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1 comments and answering our questions. Up next is
2 Mabell. After Mabell, we have Davey Miskell.
3 Davey, we found you, so no need to type in your
4 number. Mabell, you're up.

5 MS. RIVAS: Can you hear me?

6 MR. CHAPMAN: Yes, we can.

7 MS. RIVAS: Okay, good. Hello.
8 Mabell Rivas. I'm a senior reviewer at QAI.
9 Thank you for the opportunity to comment today.

10 First, we would like to welcome the new
11 NOSB members with a shout-out to David Mortensen
12 who has come from my neck of the woods here in
13 Central Pennsylvania. And thank you all for
14 volunteering to serve on this board.

15 The document that was provided to you
16 all this morning includes tables with information
17 about the usage of crops, livestock, and handling
18 materials. We hope that this type of information
19 is useful to the Board as we deliberate on the
20 totality of these materials. Please note that,
21 for handling materials, we cover only those
22 materials for which more information was requested

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1 by the Board.

2 Today, I'll just quickly talk on three
3 materials. First, chlorine. This is a
4 widely-used material in the organic production.
5 QAI has over 300 clients using chlorine, most using
6 sodium hypochlorite. This is a decision with big
7 impacts for sure.

8 Sometimes a function can be handled by
9 peracetic acid or alcohol. But in other
10 situations, usually the nature of the processes
11 involved, operations have to rely on chlorine and
12 even quaternary ammonia, which has higher residual
13 characteristics. Also, it appears that for a new
14 safety regulations format, more aggressive
15 qualification measures need to be implemented.

16 As we have commented in the past, we
17 agreed that it would be wise to prioritize
18 (inaudible) alternative to chlorine. NSF, our
19 parent company, might be able to provide some
20 assistance to our involvement in this research
21 process.

22 Then on potassium acid tartrate and the

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1 question as to how to classify this material, I am
2 no expert in the process of making cream of tartar.
3 However, based on the information about the
4 manufacturing process of these materials, we sent
5 in response a proposal. This substance is the
6 byproduct of wine making, and, specifically, this
7 substance is extracted from the sediment in the
8 wine-making process. This means that the sediment
9 contains not only plant material, that is grapes,
10 but also non-agricultural materials. Thus,
11 making this non-agricultural. As a result, the
12 material might be considered non-agricultural,
13 non-synthetic, and it should be listed in
14 205.605(a).

15 And, lastly, on pectins, it appears
16 that organic pectin is not readily available, at
17 least on a couple of those use something called
18 apple powder pectin that is ordinarily sold to
19 consumers as a supplement, but we're not aware of
20 any organic testing marketed for use in handling.
21 We do not certify any handler who makes organic
22 pectin.

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1 And that's it for me today. Thank you
2 and have a great meeting.

3 MR. CHAPMAN: Thank you, Mabell. I
4 don't see any questions at this time. We will be
5 moving on to the next speaker.

6 Before we move on, I just want to note
7 that we're about 45 minutes ahead of schedule.
8 It's significantly ahead of schedule for us. If
9 we are, if time allows, at the end, and I did skip
10 over someone who had signed up for the webinar, we
11 will go back and call on anyone at that point for
12 people who had already signed up and if time does
13 allow.

14 That being said, we're going to
15 continue then ahead of schedule, and up next is
16 Davey Miskell with Jane Bell on deck. And, Jane,
17 it looks like we found you, so no need to type in
18 your number. Davey?

19 MR. MISKELL: Yes. My name is David
20 Miskell, and I'm a certified Vermont organic farmer
21 and I'm growing greens and basil in greenhouses in
22 Charlotte, Vermont. I used to grow organic

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1 greenhouse tomatoes beginning in 1982. Our farm
2 mission is to life and life soils (inaudible). My
3 organic tomato-growing methods were not mainlining
4 nutrients, so I got --- it actually yields a better
5 taste. Recently, Al Franken, the lobbyist for
6 hydro-organic farming, gave a figure of \$1 billion
7 of soilless organic production.

8 Such production has been illegally
9 allowed by NOP -- we did not establish a new rule
10 through a public hearing process. Also, NOP has
11 allowed no notice to consumers that they're buying
12 soil-less organic hydroponic veggies, as they're
13 only labeled USDA-certified. If the soil-less
14 organic growers are so proud of the method, why not
15 say it on the label?

16 The NOP set up a task force heavily
17 weighted towards hydroponics proponents. The
18 proponents never really tell how they fertilize
19 their crops. Their testimony at the April and
20 November NOSB meetings all talked about compost
21 tea. Through my experience as an organic
22 greenhouse tomato grower, compost teas do not

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1 provide sufficient fertilization. It is
2 politically correct, but tomatoes would die at such
3 a regimen without intensive mainlining with
4 sufficient very soluble liquid fertilizer.

5 Any discussions during meetings or
6 committees, you should get answers to the following
7 questions before making any decisions on
8 hydroponic container certification. One, what
9 liquid fertilizers are they using and the
10 solubility issues with such fertilizers? Two,
11 what percentage of their nutrient program consists
12 of liquid fertilizing? I recommend that no more
13 than ten percent of the total certifiable organic
14 fertilizing program should be allowed. My crops
15 and most soil-based farms do not need such to
16 continue.

17 Three, how will you determine how much
18 soil is allowed to container-grown plants? My
19 recommendation is at least 50 percent of any
20 container production must be based on soil compost.
21 The present practice of allowing 100 percent
22 substrate base in containers is a disgrace and does

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1 not meet any of the OTA and NOP rules related to
2 soil.

3 Four, all soil-based organic farms must
4 meet a three-year waiting period for any
5 application of chemical fertilizers, fungicides,
6 herbicide use on the soil. Soil, quote,
7 hydroponics farms can pave over --

8 MR. CHAPMAN: We've come to the end of
9 your time. Do you want to sum up in a sentence?

10 MR. MISKELL: Yes. The best solution
11 that meets the above-stated OEFFA and NOP rules is
12 for the crop community to support the guidance of
13 the European standards that all consumable
14 vegetables and fruit must be grown on soil
15 connected to the earth. Presently, EU is
16 tightening their greenhouse standards by adopting
17 --

18 MR. CHAPMAN: I'm going to have to cut
19 you off. We're at the end of your time.

20 MR. MISKELL: Thanks for your help.

21 MR. CHAPMAN: Yes. I do have a
22 question for you. You recommended ten-percent

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1 liquid fertilizing. How did you, what's the
2 justification for a ten-percent number?

3 MR. MISKELL: That is about what I use
4 in my growing methods. I even use less than that.
5 So that's been the justification.

6 MR. CHAPMAN: Thank you very much. I
7 don't see any other questions from Board members,
8 so we will continue on. Thank you very much for
9 your testimony, Davey. Next up, we have Jane Bell
10 and on deck Lynne Haynor and I believe, Jane,
11 correct me if I'm wrong, we have -- I see it listed
12 multiple times, so we don't need to type that one
13 in. Jane, you are up.

14 MS. BELL: Thank you much. Thank you
15 for having me this morning, this afternoon. My
16 name is Jane Bell. I am part of the
17 ninth-generation organic berry, poultry, beef,
18 pork, and vegetable farm on the easternmost coast
19 of Maine in Edmunds Township. Our family has
20 farmed this land Tide Mill Farm since 1765.

21 My comment today is regarding the
22 marine algae proposal, especially, mostly number

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1 two on whether NOP should provide further guidance
2 on marine algae, to harvest it. There is no
3 question that further guidance is, in fact, needed,
4 and I strongly urge you to vote yes on motion two.

5 I'm focusing today on the one point that
6 there is a gross discrepancy between the rigor of
7 inspections that we, as an organic farm, go through
8 to obtain and keep our organic certificate that is
9 granted by Maine Organic Farmers and Gardeners
10 Association. What I understand about the
11 inspection for organic marine algae harvesting is
12 it's more of an honor system. There's a wild
13 harvest of seaweed in our Cobscook Bay.

14 The difference in that inspection
15 process appears to be this honor system of show how
16 wild crop habitats in surrounding environments is
17 preserved so that wild crop populations remain, and
18 questions such as what rare, threatened, or
19 endangered plants or animals are found in the wild
20 crops. Those sort of questions are vague compared
21 to what our farm endures and goes through each year.

22 I'm holding a packet that is our

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1 certificate, that resulted in our certificate from
2 Maine Organic Farmers and Gardeners, and it's about
3 an inch and a half-thick, very detailed questions.
4 One of the questions that we have is describe
5 distances, buffer strips, type of buffer, and
6 efforts undertaken to reduce the risk of
7 contamination. These buffers must be identified
8 on their field maps.

9 In order for us to ensure that our
10 organic product, which is certified each year, has
11 not been contaminated, we have to provide detailed
12 maps, papers and papers and papers, and go through
13 a three-day inspection on our farm.

14 So the difference here is we are looking
15 at marine algae harvest within a two-country bay
16 up here. And I find it hard to document and ensure
17 that, in this two-country bay, that contaminants
18 are not being exposed.

19 So in conclusion, I would like to urge
20 you to vote yes on motion two for the emphasis
21 yearly, further emphasis is put on this evaluation
22 process. I don't understand, as an organic

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1 farmer, how the scrutiny that we undergo --

2 MR. CHAPMAN: Thank you, Jane. We've
3 come to the end of your time. I don't see any
4 questions here for you, so thank you for your
5 testimony, and we will move on to the next
6 presenter. We have Lynne --

7 MS. HAYNOR: Haynor.

8 MR. CHAPMAN: -- Haynor.

9 MS. HAYNOR: Can you hear me?

10 MR. CHAPMAN: Yes, we can. And hold on
11 one second, Lynne. Up after you is Kelly Taveras.
12 Sorry, I should have apologized up-front. I don't
13 know how I will butcher your name, but I do
14 guarantee I will butcher your name. So, Kelly,
15 you're up next. Lynne, go ahead.

16 MS. HAYNOR: Good afternoon. My name
17 is Lynne Haynor, and I'm a certification team
18 leader at MOSA, an organic certifier for
19 approximately 2,000 operations located in Viroqua,
20 Wisconsin.

21 Today, I'm commenting on the proposal
22 on strengthening the organic seed guidance. Thank

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1 you for the opportunity.

2 MOSA has submitted written comments on
3 this proposal guided by the principles of fostering
4 and enforcing organic integrity, cultivating
5 consumer trust in the organic label, considering
6 the impact on the organic operator, and striving
7 to not overburden organic operations or certifiers
8 with additional record-keeping requirements when
9 compliance is not in question. I'll highlight
10 part of our written comments today.

11 The proposal put forward in amendment
12 to NOS 205.204(a), which states "the producer must
13 use organically-grown seed, annual seedlings, and
14 planting stock with the proposed addition of AI1,
15 improvement in sourcing and use of organic seed and
16 planting stock must be demonstrated every year
17 until full compliance is achieved."

18 This proposed language implies that,
19 once a producer uses only organic seed, that
20 producer can never again source non-organic seed.
21 And while we appreciate the intent of this proposed
22 addition, we caution that this requirement may

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1 disable organic farmers who need specially-adapted
2 seed. Particularly, it may hamstring organic
3 farmers who have been early adopters of sourcing
4 organic seed from being able to flexibly adapt to
5 changing markets or environmental conditions.

6 We do support strengthening the need
7 for continuous improvement within the organic seed
8 guidance and specifying the enforcement tools
9 available to certifiers. And in our written
10 public comment, MOSA proposed additions to Section
11 4.4.4(a), role of certifying agents.

12 MOSA's comments also note portions of
13 the proposed additions may be challenging to
14 interpret from an enforcement standpoint. For
15 example, the proposed addition 4.4.5 states
16 "certifying agents should review the preventive
17 measures taken to avoid contamination for seeds of
18 at-risk crops." While we appreciate the spirit of
19 the addition, the language is vague. All organic
20 operations are required to have strategies for
21 prevention of contamination and co-mingling, and
22 certifiers evaluate this compliance annually.

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1 The term "at-risk crop" is not clearly defined, and
2 certifiers need additional guidance regarding what
3 to do when GMO contamination is found, yet all
4 organic production and handling practices appear
5 compliant.

6 I would also express concern that the
7 current responsibility for preventing GMO
8 contamination unfairly burdens organic and non-GMO
9 producers. And while the organic community
10 continues productive work to guard against GMO
11 incursion, USDA leadership is critical for
12 ensuring that the responsibility for preventing
13 GMO contamination is shared. Without meaningful
14 shared responsibility, coexistence cannot work and
15 the organic label is harmed.

16 Thank you for your work on this
17 challenging issue.

18 MR. CHAPMAN: Thank you very much. I
19 don't see any questions, but thank you for your
20 testimony. And up next, we'll have Kelly. After
21 Kelly, I have Herman Freiesen.

22 MS. ARSENAULT: We have Herman. We're

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1 good. He's on.

2 MR. CHAPMAN: Okay. Herman after
3 Kelly. Kelly, you're up.

4 MS. TAVERAS: Great, thanks. Good
5 afternoon. My name is Kelly Taveras, and I serve
6 as the digital specialist for the Organic Trade
7 Association. On behalf of OTA, I'd like to welcome
8 the new Board members and thank you for beginning
9 the journey of critical and greatly-appreciated
10 service to the organic sector.

11 My colleagues will speak on specific
12 agenda topics at the in-person meeting, and you
13 have our detailed written comments. So my remarks
14 will focus on an introduction to OTA and its
15 membership, our NOSB common process, and the work
16 we've been doing to present that material review.

17 A bit about the Organic Trade
18 Association. One of OTA's strongest assets is the
19 diversity and breadth of our membership. Unlike
20 many trade associations, OTA is uniquely
21 structured to include the full-value chain of the
22 organic industry, ensuring that all segments, from

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1 farm to marketplace, have strong voices in the
2 organization.

3 OTA brings farmers and growers and
4 suppliers, processors, manufacturers,
5 distributors, retailers, and many others together
6 to promote and protect the growing organic sector.
7 We represent over 9500 businesses in all 50 states.
8 Half of OTA members are small businesses reporting
9 less than a million in organic sales per year.
10 OTA's members are represented either through
11 direct membership or through strategic
12 partnerships with regional organic farmer
13 organizations across the U.S. through our Farmers
14 Advisory Council, or FAC is what we call it.
15 Smaller organic farmers that have current
16 memberships with one of the participating
17 organizations belonging to FAC are able to obtain
18 full OTA membership with all its associated
19 benefits for a minimal fee through our farm fed
20 membership category.

21 OTA's membership is completely
22 transparent. You can find our complete member

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1 list at OTA.com. On our website, you'll see
2 clearly stated information on how to become a
3 member, what the benefits of membership are, and,
4 even more importantly, how we engage members in our
5 advocacy work.

6 Our membership is governed by a
7 democratically-elected board of directors,
8 ensuring that we are accurately representing our
9 stakeholders.

10 The comments OTA submitted to NOSB was
11 our membership. In order to do this, our
12 regulatory staff carries out an extensive
13 engagement process so we can understand how NOSB
14 recommendations will impact certified farmers and
15 handlers on a day-to-day basis. The feedback
16 collected informs our draft comments that are
17 distributed to the full membership at least a week
18 in advance of the comment deadline.

19 Although OTA was very challenged by the
20 shortened comment period, we were able to convene
21 a task force on the topic of bioaponics and, as well,
22 organic seed usage. And members were provided

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1 with an opportunity to weigh in and informed all
2 of the final comments we submitted.

3 With respect to the 2019 sunset materials, to
4 help facilitate a thorough comment review process,
5 OTA created an electronic survey for each
6 individual under review. The surveys are
7 confidential, user friendly, available to every
8 NOP certificate holder, and includes seven to ten
9 questions addressing the necessity or essentiality
10 of the input under review.

11 Our written comments include all the
12 survey responses we received to date, and we are
13 proud to have collected a total of 65 unique
14 responses. And we'll continue to collect
15 responses to inform that will take place in the
16 fall.

17 Thank you to the Board for your hard
18 work and commitment to furthering organic. And
19 that's it for me today.

20 MR. CHAPMAN: Thank you very much,
21 Kelly. I don't see any questions, so we'll move
22 on to the next presenter. Next up is Herman, and,

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1 after Herman, we have Guillermo Martinez. If you
2 could type in your phone number, that would be
3 appreciated. Herman, are you on the line?

4 MS. ARSENAULT: He was on. We found
5 him.

6 MR. CHAPMAN: Herman, are you muted on
7 your end? Your number is here, but we don't hear
8 you. We're not hearing you, Herman. Right. We
9 will keep going down the list then. Guillermo, are
10 you on the line?

11 MR. MARTINEZ: Yes, I am.

12 MR. CHAPMAN: All right. Go ahead.
13 And after Guillermo, we have Nathan.

14 MS. ARSENAULT: This one has a slide
15 show, so if you are online monitoring, if you've
16 been multi-tasking, you can switch over to the
17 slide show. And please tell us when you're ready
18 for us to advance to the next slide.

19 MR. CHAPMAN: Thank you. And, Nathan,
20 if you could type in your phone number, that would
21 be appreciated. Guillermo, you're up.

22 MR. MARTINEZ: Hi. I'm Guillermo

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1 Martinez. I'm the general manager of Kingdom
2 Fresh. We are a grower and marketers of organic
3 tomatoes. And I would like to thank you in advance
4 for the chance to comment today.

5 Next. With respect to specific
6 conditions, container growing is a lot more
7 sustainable for environment than growing in soil.
8 Water is a scarce and precious resource where our
9 farms are located. A hundred-percent of the water
10 that we use comes from deep wells. Using
11 containers for growing assure us that we use the
12 water efficiently. We nurture each plant with the
13 right amount of water, so there is no waste. We
14 recycle all the containers to use it again in crops,
15 helping to reduce water consumption.

16 Next. We use a rich soil in our
17 containers. We combine certified organic
18 materials that helps us achieve better yields and
19 reduce the use of inputs. The materials that we
20 use are certified organic compost from different
21 sources, such as corn and vegetable residues with
22 high nutrients, plus microorganisms that create an

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1 active biology in the container.

2 At the end of our cycles, we use those
3 materials from our containers to incorporate into
4 corn and soybean fields to help those fields
5 re-establish their active soil biology to improve
6 the fertility and totality of the fields. So using
7 container-growing methods do not just help us
8 maintain the richness and naturalness of the soil
9 where the crop has been cultivated, but it also
10 maintains the richness and naturalness of other
11 fields as part of our process of continually
12 recycling materials and nutrients. This is
13 sustainable and helps the environment in the most
14 efficient and natural way.

15 Next. Using containers in greenhouse
16 growing methods help us to achieve better yields
17 per acre, assuring more supply for the growing
18 demands for organic produce. We believe it's the
19 obligation of organic producers to strive to make
20 organic produce affordable for American families.
21 If organic growth methods are restricted, yields
22 will go down, prices will go up, and many of our

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1 existing consumers will no longer be able to
2 consume organic produce. We, as organic
3 producers, have the responsibility to supply
4 high-quality organic produce, assuring the most
5 healthy, fresh produce using just organic inputs
6 at an affordable price for every family.
7 Container growing methods help us achieve all these
8 important priorities.

9 Next.

10 MS. ARSENAULT: That's the last slide
11 we have.

12 MR. MARTINEZ: Yes, I know, I know.
13 Regulators must continue to allow growers with the
14 flexibility to meet their site-specific
15 requirements to face the evolving challenges in
16 farming food with respect to limit the resources,
17 such as water, land, labor, and natural resources.
18 They are more severe than ever before. We urge the
19 NOSB to further evaluate how container growing
20 methods, including hydroponic and aquaponic, can
21 help meet those challenges for sustainability
22 while fulfilling the legitimate and the original

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1 intent of the organic movement to use biology to
2 cycle natural inputs while avoiding prohibited
3 substances.

4 And that's basically it. And I
5 appreciate it. Thank you very much.

6 MR. CHAPMAN: We have several
7 questions. We have Emily, Francis, and Steve.
8 We'll start with Emily.

9 MS. OAKLEY: Hi, Guillermo. Thank you
10 for your comments. I was wanting to ask you, you
11 mentioned that you recycle the materials that are
12 in your containers at the end of each growing season
13 back onto other fields.

14 MR. MARTINEZ: Yes.

15 MS. OAKLEY: So where do you source
16 your materials for those containers on an annual
17 basis?

18 MR. MARTINEZ: Well, we source from
19 different, you know, vendors of the materials.
20 But all of them are, you know, certified organic
21 materials that we use, but they come from different
22 parts. I mean --

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1 MS. OAKLEY: Maybe can I clarify that
2 a little bit better? What materials do you use in
3 your containers?

4 MR. MARTINEZ: We use a mix of
5 different materials. We use coconut husk. We use
6 mixed up soil with -- I want to say it's a rare thing
7 that we use. I don't have the specific of that as
8 of now in terms of the specifics, but, basically,
9 it's the coconut husk.

10 MS. OAKLEY: Okay, thank you.

11 MR. CHAPMAN: Francis?

12 MR. THICKE: Yes. What percent would
13 soil be of that container mix?

14 MR. MARTINEZ: What was that again?

15 MR. THICKE: What percent of the
16 container mix is soil?

17 MR. MARTINEZ: I think it's 15 percent
18 of the mix, but I don't have the information with
19 me at the moment but I can definitely send it out.

20 MR. THICKE: And what percentage of the
21 nutrients do you think come from the soil in the
22 container and what percent come from liquid

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1 feeding?

2 MR. MARTINEZ: It's hard to determine
3 that because we do incorporate microorganisms into
4 the mix, so it's a combination between the input
5 from liquid and soil-based nutrients.

6 MR. THICKE: Okay.

7 MR. CHAPMAN: Steve?

8 MR. ELA: Francis just asked the same
9 thing I was going to ask about the amount of liquid
10 inputs compared to soil. So I don't have anything
11 further.

12 MS. OAKLEY: Can I just ask a follow-up
13 question, Tom? I just wanted to ask if you said,
14 Guillermo, that the percent of the container mix
15 that is soil is 15 or 50?

16 MR. MARTINEZ: 1-5.

17 MS. OAKLEY: Okay, thank you.

18 MR. MARTINEZ: Fifteen, yes.

19 MR. CHAPMAN: Okay. Thank you very
20 much. Up next is Nathan Brown. We haven't been
21 able to find your phone number, Nathan. Are you
22 on our line? Hearing nothing, we'll move on down

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1 the list. Next up, I have Aviva Glaser. Aviva,
2 are you on the line?

3 MS. ARSENAULT: We haven't seen that
4 number either.

5 MR. CHAPMAN: Yes.

6 DR. TUCKER: We're so far ahead, Tom,
7 maybe a lot of people haven't joined the call yet.

8 MR. CHAPMAN: Yes. How about Freeman
9 Allen? Are you on the line? Hearing none, let's
10 keep moving down that list. We'll come back later,
11 time permitting. Is Steve Branch on the line?

12 MR. BRANCH: Yes, I'm here.

13 MR. CHAPMAN: Okay. Steve, you'll be
14 next. Hold on a second. Jaydee Hanson is on deck
15 after that. Jaydee, if you could type in your
16 phone number if you're on the line, that would be
17 appreciated. Steve, go ahead.

18 MR. BRANCH: Good afternoon, and I
19 appreciate the opportunity to speak about the vital
20 need for chlorine materials in organic production
21 and handling. My name is Steve Branch, and I
22 provide support for organic compliance at Zirkle

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1 Fruit Company. We grow and pack organic apples,
2 cherries, blueberries, pears, and wine grapes in
3 Central Washington State.

4 There are three things I'd like to focus
5 on. The first is the retailer requirements in
6 federal regulations, the second is the prevention
7 of deadly food-borne pathogen outbreaks, and third
8 is the lack of alternatives for chlorine materials.

9 Chlorine materials are widely used in
10 organic production and handling. And in our
11 industry specifically, chlorine is used to clean
12 and sanitize equipment, floors, storage rooms, and
13 we also utilize chlorine in dump tanks and water
14 transfer flumes to limit cross-contamination.

15 When it's used in direct contact with
16 fruit, our goal is not to eliminate but rather to
17 reduce pathogens, and a fresh-water rinse
18 immediately follows any direct contact. We do all
19 of this, in part, because we're required to.
20 Chlorine materials are critical to comply with
21 retailer requirements and, most importantly, the
22 federal Food Safety Modernization Act. These

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1 programs and federal regulations all require
2 extensive cleaning and sanitizing. Most organic
3 facilities use chlorine-based materials to meet
4 these regulations.

5 Non-chlorine based products may be
6 used, but it's only in a rotation of sanitizers to
7 limit pathogen resistance. There are no
8 substitutes to fully replace chlorine materials in
9 the cleaning of lines and equipment.

10 Even out in our orchards, they must
11 comply with similar regulations. Our orchards
12 must sanitize food contact surfaces and harvest
13 equipment. Chlorine is, by far, the most
14 efficient, effectively, and widely-used material
15 to meet these regulations.

16 The proper cleaning and sanitizing of
17 lines and equipment is more than simply a
18 regulatory compliance issue. And that brings me
19 to my second point: sanitization is required
20 because it limits food-borne pathogen outbreaks.
21 E.coli and listeria monocytogenes can be deadly,
22 and these pathogens must be eliminated from

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1 facilities. The elimination of these deadly
2 pathogens outweighs any intangible potential
3 benefits of keeping benign microbes.

4 And so, lastly, I'd like to point out
5 the lack of alternatives. The chemical database
6 mentioned in written comments do not provide
7 chlorine material alternatives for facilities.
8 These databases do not have alternatives for dump
9 tanks, water flumes, direct product application,
10 or equipment sanitization.

11 The chlorine materials remain critical
12 to organic production. Chlorine materials must
13 remain available in organic production and
14 handling. Chlorine materials are necessary to
15 meet federal food safety regulations, protect the
16 public from pathogen outbreaks, and there are no
17 commercially-available alternatives.

18 So thank you again for your time and
19 consideration.

20 MR. CHAPMAN: Thank you, Steven. I
21 don't see any questions for you. I do. David, do
22 you have a question? David, are you on mute?

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1 MR. MORTENSEN: Yes, sorry. Could you
2 just say a little bit more about water flumes?

3 MR. BRANCH: The water flumes?

4 MR. MORTENSEN: Yes, and the use of
5 chlorine there. I'm not familiar with that.

6 MR. BRANCH: So we use water to
7 transfer fruit from one area of the line to the
8 other one, and we have to eliminate the
9 cross-contamination that can happen if we have a
10 contaminated piece of fruit, getting that then, the
11 pathogen then into the water system and
12 transferring that back in on other fruit. So we
13 use the chlorine in the water at relatively low
14 levels. It's higher than the drink and food
15 standards, the drinking water standards but still,
16 nonetheless, pretty low. We do that in order to
17 limit that cross-contamination that can exist from
18 one piece of fruit to the other. And then we also
19 follow that with a fresh-water rinse to ensure that
20 we're removing any of the excess chlorine that
21 could be on the product itself.

22 MR. MORTENSEN: Thank you.

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1 MR. CHAPMAN: We're getting a
2 significant amount of background noise. If
3 someone could mute where that's coming from.

4 MS. ARSENAULT: Thank you.

5 MR. CHAPMAN: Okay. Thank you,
6 Steven, for your comments. I don't see any other
7 questions. Up next, we have Jaydee. Jaydee, we
8 didn't hear from you and we can't see your number.
9 Are you on the line? Hearing nothing, we'll move
10 on --

11 MS. ARSENAULT: Somebody's in a
12 kitchen. If you are in a kitchen banging around
13 some dishes, if you could please put yourself on
14 mute, that would be really helpful.

15 MR. CHAPMAN: Up next we have Damon
16 Seawright. Damon, are you here?

17 DR. SEAWRIGHT: I am. Can you hear me?

18 MR. CHAPMAN: Yes, we can. And hold on
19 one second. After Damon, we have Douglas Doohan.
20 And, Douglas, if you could type in your phone
21 number, that would be appreciated. Damon, go
22 ahead.

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1 DR. SEAWRIGHT: Yes. This is Dr.
2 Damon Seawright. I'm speaking on behalf of
3 AmeriCulture, and I'm providing a dissenting
4 position on the rule proposing to prohibit
5 hydroponic and aquaponic producers from receiving
6 organic certification.

7 AmeriCulture has developed an
8 aquaponics method for producing
9 organically-certified vegetables and it is for
10 this reason that I am fighting this particular
11 comment for the NOSB's consideration.

12 The federal Organic Foods Production
13 Act of 1990 does not prohibit the use of containers,
14 and it does not require the use of soil for
15 producers to be organically-certified. And it's
16 for this reason that 52 hydroponic and aquaponic
17 producers have applied for and received organic
18 certification.

19 The rules and regulations enforcing
20 federal statute implement but are not to expand the
21 scope of underlying statutes. The objective must
22 be achieved legislatively, if it is to be done,

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1 through a change in the law, not through changes
2 in the rules that expand the scope of the law.

3 In setting this issue, container
4 opponents often state that the European organic
5 certifiers do not certify hydroponic and aquaponic
6 producers as evidence that the U.S. should follow
7 their standard. And while even it being the case,
8 even if they are philosophically and biologically
9 correct, which we do not believe they are, the
10 argument is legally and appropriate is European
11 standards are based on European laws.

12 The U.S. standards are based on U.S. laws. In
13 order for the containers to be prohibited and soil
14 mandated, U.S. law must be changed, which is a
15 legislative process.

16 Now, nearly all domestic lettuce, the
17 nation's most popular vegetable, is produced in the
18 states of California and Arizona. And the same
19 states account for the same proportion of domestic
20 organic lettuce production, and must of the present
21 and substantial future growth and volume and
22 geographical diversity of lettuce production will

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1 be driven by the growth in the environment
2 agriculture sector of the domestic agriculture
3 industry.

4 Substantial growth is taking place in
5 both conventional hydroponic and aquaponic lettuce
6 production in controlled environment agricultural
7 environments, resulting in local food production
8 having lower carbon, lower rates of spoilage,
9 enhanced freshness, and greatly-diminished
10 shipping costs.

11 Many of these growers have established
12 organic production processes and have sought from
13 the organic certification the use of controlled
14 environment agriculture is all but required
15 outside the states of California and Arizona for
16 reasons of economic liability. Furthermore, the
17 use of hydroponics and aquaponics is required for
18 lettuce production to offset the additional
19 capital expenditure for greenhouses' costs not
20 incurred by field growers up in those 48 states.
21 Thus, the proposed rule will essentially convey an
22 organic lettuce monopoly to the states of

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1 California and Arizona prejudicially against the
2 vast majority of the remaining 48 states by
3 inserting the artificial suspension of soil and
4 containers that are not promulgated in the
5 underlying statute.

6 Lastly, and this has collective
7 interest in the entire organic industry, there is
8 a very real public perception challenge introduced
9 by the proposed rule change that the access of
10 customers to local organic produce is being
11 diminished in exchange for products having a higher
12 carbon footprint and additional fields that
13 require more than 100 times the water to produce.

14 MR. CHAPMAN: I'm going to have to stop
15 you there. You've past your time. Thank you for
16 your comments. It looks like I have a question
17 from Ashley then Francis. Ashley?

18 MS. SWAFFAR: Kind of the same line of
19 the question I asked earlier. Do you know what
20 percentage, since you talked about lettuce, what
21 percentage of lettuce in the organic sector is
22 produced hydroponically?

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1 DR. SEAWRIGHT: I don't have that
2 number on me.

3 MR. CHAPMAN: Francis?

4 MR. THICKE: Yes, you mentioned that
5 you have evolved a system, AmeriCulture. Can you
6 tell us a little bit about that? What do you use
7 as a rooting medium? Do you use any soil? What
8 percent of liquid feed does it use, and what is the
9 liquid feed?

10 DR. SEAWRIGHT: A hundred percent
11 liquid feed, no soil, equivalent of water pressure.
12 It's very much like conventional lettuce floating
13 around in a hydroponic or aquaponic platform. But
14 we use --

15 MR. THICKE: Basically minimal feed
16 and not like any kind of organic materials in the
17 feed?

18 DR. SEAWRIGHT: It's aquaponic, and my
19 doctorate was achieved in this area 25 years ago,
20 and we've patented the technology, which allows to
21 use -- to provide 100-percent of the nutrients
22 available for the plants through the fish. This

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1 is generally not achieved in the aquaponics
2 industry. Aquaponics typically requires, in
3 addition, certain nutrients to augment what is
4 otherwise available from fish, and we have this
5 device process where that is not required. And so
6 100-percent nutrition can be achieved directly
7 from fish, possibly being augmented by natural
8 organically-certified sources of certain
9 nutrients on an as-needed basis.

10 MR. CHAPMAN: Thank you very much,
11 Damon. I don't see any additional questions.
12 Thank you for your time. Just as a reminder to
13 everyone, when we have finished with the list, we
14 will, time allowing, which it looks like it will
15 be, start back through the list again where we
16 skipped over commenters. And if they are here at
17 that time, we'll take their comments. If they're
18 not, then, once we run through that list, we'll be
19 done.

20 Up next we have Douglas Doohan. Are
21 you, did we find you? Are you on the line?

22 MS. ARSENAULT: We have not found

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1 Douglas yet.

2 MR. CHAPMAN: Okay. Douglas, if
3 you're there, speak now. Going once, going twice.
4 Up next then we have Simi Summer. Simi, are you
5 on the line?

6 MS. SUMMER: Yes, can you hear me?

7 MR. CHAPMAN: Yes. Hold on one
8 second, Simi. And then after Simi, Colehour,
9 you're up next, and I think we've found you so no
10 worries about typing in your number. Simi, go
11 ahead.

12 MS. SUMMER: Good afternoon. It's a
13 pleasure to have an opportunity to address the
14 National Organic Standards Board. As someone who
15 has favored natural and organic for close to 50
16 years, I wanted to give some input about the need
17 to maintain 100-percent organic standards and the
18 importance of immediately replacing all
19 non-organic materials with safe, pure,
20 ecologically-sound, health-promoting
21 alternatives.

22 The health and environmental hazards of

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1 conventional agriculture and food production are
2 well documented. According to the National Center
3 for Health Statistics, major diseases which can be
4 traced to harmful food consumption, as well as
5 environmental exposure to agricultural and
6 industrial contaminants, are now a leading cause
7 of death. Pardon?

8 MR. CHAPMAN: Sorry. We're getting
9 some background noise. Can people go on mute? I
10 apologize, Simi. Go ahead.

11 MS. SUMMER: Therefore, I recommend
12 that NOSB reduce the length of time involved in the
13 sunset review process and immediately replace all
14 non-organic substances with certified organic
15 alternatives, encourage more extensive R&D
16 regarding the health hazards, immediately form
17 task forces to research and implement organic
18 alternatives for all non-organic and synthetic
19 substances, and encourage greater transparency at
20 all stages of the supply chain.

21 It's acknowledged that growers and food
22 companies need significant lead time to make

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1 substantial changes in their production processes.
2 However, I feel that the current process is too slow
3 and, in some cases, may be overlooking the health
4 hazards of use in any non-organic ingredient or
5 chemical synthetic substance in certified organic
6 production.

7 Pectin, as a prototype, since 1995,
8 non-organic pectin has been on the allowed list as
9 a synthetic ingredient in certified organic foods
10 sourced from non-organic apples, which are number
11 one on the dirty dozen for pesticides and gene
12 silencing, and non-organic citrus fields with
13 pesticides and fungicides. Industrial pectins
14 are now making their way into more products than
15 we may imagine.

16 Currently, there's no USA pectin
17 production and no certified organic pectin
18 production anywhere in the world. The
19 International Pectin Producers Association does
20 not require that their members produce 100-percent
21 pure fruit pectin. Most contain added sugars from
22 corn and other chemicals. Transparency on

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1 manufacturer websites is lacking. Sugar beet
2 pectins high-risk for GMOs can also be used.
3 Labeling is vague and does not indicate the fruit
4 source or country of origin.

5 Although perhaps one of the lesser
6 worries when considering non-organic ingredients
7 in organic food, I recommend requiring 100-percent
8 organic pectin in organic food and immediately
9 transitioning to certified organic, inspiring
10 current manufacturers to produce pectin from
11 certified organic sources, as well as new organic
12 manufacturing operations.

13 Thank you. Did you hear me?

14 MS. ARSENAULT: Yes, we can hear you.
15 Thank you for your comment. Tom, you're muted.

16 MR. CHAPMAN: And you hear me?

17 MS. ARSENAULT: Yes, we just un-muted
18 you.

19 MR. CHAPMAN: Thank you, Simi. I
20 don't see any questions for you at this time, so
21 thank you for your comments. Up next, we have
22 Colehour. Colehour, are you on the line?

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1 MR. BONDERA: Yes.

2 MR. CHAPMAN: And then after Colehour,
3 we have Robert Hoffman. Robert, if you could type
4 in your phone number, that would be appreciated.
5 Colehour, go ahead. Aloha.

6 MR. BONDERA: Aloha, NOSB members,
7 both new and those who are aging. Note that there
8 really haven't been more than a total of 80 of us,
9 so we remain pretty unique. My name is Colehour
10 Bondera. I'm an organic farmer whose NOSB service
11 ended in 2016, and I'm here today to talk about how
12 to protect organic.

13 What does organic mean? When my wife
14 and I moved from Oregon to Hawaii 15 years ago to
15 our certified organic farm, my mother told me that
16 it was a little odd of me to pursue organic since
17 certification does not really mean anything as all
18 farms use organic production since everything
19 growing is happening via organic means. Her point
20 was that a formal definition is too rigid since
21 everything changes, and how can we say that
22 something is not organic, noting that if it can then

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1 change, then it's simply organic growth.

2 The NOSB exists to be sure that the
3 definitions within organics do not get watered down
4 to mean nothing. If anything can be called
5 organic, that's no definition. Arbitrary,
6 political, or administrative pressure can mean
7 that the NOSB isn't to be a keeper of the word use,
8 and growth is simply for more who say that
9 everything is organic without recognizing and
10 acknowledging what is brought in to have a working
11 definition of it which truly does have limitations
12 but which must be used as the foundation, a place
13 to build upon and not be unhealthy reality which
14 means that holes could be made anywhere with no
15 limitations to definitions as long as the right
16 money is used to sow influence and financial
17 impacts are not truly permitted to be included in
18 consideration of a recommendation on materials or
19 methods permitted by NOSB.

20 Remember that point when facing a
21 decision that seem not to fit within the hole as
22 outlined in OEFFA. Unique NOSB service is to

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1 advise the Secretary of Agriculture to ensure that
2 organic integrity is maintained, even when those
3 not on the inside are applying pressure on
4 administrations to allow interpretations which do
5 not have a place but declare that organic grow if
6 things not readily included in OEFFA could be said
7 to help with the growth of organics.

8 The advice of NOSB to the NOP to the
9 Secretary of Agriculture is not exclusively to
10 react to the public petitions seeking materials and
11 listing modifications but includes advice about
12 the means by which these considerations are made
13 and, as materials can be reviewed, how to yield
14 serious and complete consideration without having
15 administrative oversight by NOP serve as the means
16 to limit NOSB considerations of how a topical area
17 is most effectively moved upon.

18 In my written testimony, the statement
19 was made that the NOSB members can and should strive
20 to figure out how to be advising the NOP on the
21 management and prioritized decisions made and how
22 to be directly involved. Note that in OEFFA it

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1 states that, for this capacity, NOSB has its own
2 executive director to serve as a liaison between
3 NOSB and NOP to make determinations of how to handle
4 the process with topics such as hydroponics, also
5 mentioned in my written testimony.

6 If each of you ends up simply working
7 individually upon these reflections, that alone is
8 worthwhile. Remember that the process must begin
9 at home and work from our own realities to make
10 things better overall. So starting with ourselves
11 is vital to recognize that, no, everything is not
12 organic. Let's strive to define and protect in a
13 healthy manner what organic means in a way that is
14 strong and a healthy foundation to enough others
15 that it maintains strength.

16 Thank you. Aloha.

17 MR. CHAPMAN: Thank you, Colehour. At
18 this time, I don't see any questions from the Board.
19 Thank you for your testimony. Up next I have Bob
20 Hoffman, and, after, Bob, we have Brian Lehmann.
21 I think we found both of you guys, so, Bob, you are
22 up.

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1 MR. HOFFMAN: Okay. Hi, I'm Bob
2 Hoffman. I'm the Chief Science Officer at
3 Shenandoah Growers. Shenandoah Growers has
4 essentially been a soil mix with NOP-approved
5 elements to improve bonds between water holding
6 capacity, foliage, aeration, retention and
7 biological diversity to produce healthy and
8 nutritious plants for our consumers.

9 It's biologically-active living
10 organic soil. It's home to beneficial bacteria
11 and fungi. This microflora and microfauna help to
12 release the nutrients present in our soil, which
13 allow our plants to thrive in our
14 controlled-environment greenhouses and nurseries.

15 Our liquid organic nitrogen fertilizer
16 is produced from vegetative waste. This
17 fertilizer is diluted in water and a biofilter,
18 where it is digested by beneficial bacteria into
19 nitrites and then into nitrates. This nitrified
20 water is then blended with other NOP-certified
21 inputs to produce a balanced organic nutrient
22 solution to supplement our soil nutrition.

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1 Although this is not an easy process,
2 over the years Shenandoah Growers has learned to
3 manage the biological processes well. We use well
4 water and rain water that is collected from the
5 greenhouses to irrigate our plants. Our
6 irrigation nutrient solution is recycled through
7 filters and reused continuously, conserving our
8 precious water resources. Then the nutrients are
9 discharged into the environment.

10 We use only NOP-approved integrated
11 test management practices, such as scouting,
12 mechanical trapping, exclusion, beneficial
13 insects, and environmental controls to help our
14 insect and disease tests. We utilize cutting-edge
15 technologies such as moving gutter systems, energy
16 curtains, LED lighting, to name a few, in our
17 controlled-environment production facilities.
18 This enables us to efficiently and sustainably
19 produce our organic culinary herbs. It would take
20 over 180 acres of land in our climate to produce
21 the same amount of herbs that we can produce in our
22 six acres of greenhouses and nursery rooms. This

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1 conserves soil and wildlife habitat while
2 producing quality food-safe organic year round
3 for our growing population.

4 Demand for our food-safe consistently
5 high-quality living organic produce is growing
6 rapidly. We can produce quality living organic
7 crops year round in our controlled environments
8 despite the changes in weather and the severity of
9 climatic changes.

10 Since 2007, we have built a productive
11 business and employ over 1,100 people. A large
12 part of the growth of our business is due to
13 consumer demands and our living organic herbs. We
14 accomplish this using NOP-approved organic inputs
15 in a sustainable manner while preserving the
16 environment for generations to come.

17 We urge you to continue to certify our
18 containerized growing practices. Thank you.

19 MR. CHAPMAN: Thank you very much.
20 Bob, I have a question here from Emily. Emily?

21 MS. OAKLEY: Hi, Bob. Thank you.
22 Could you tell us what materials are in your

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1 containers and in what percentage?

2 MR. HOFFMAN: I could. Some of that is
3 proprietary, but I can give you a general rundown.
4 We use coconut coir. We use organic fertilizers,
5 so composted poultry litter. We use earthworm
6 castings or buried compost. We produce other
7 microorganisms, such as beneficial mycorrhizae,
8 and we use dolomitic limestone. We also use
9 gypsum. So all are NOP-certified salts and
10 NOP-certified insects, but none of it works if you
11 do not have the microbiology in the soil. So you
12 have to have the proper aeration, the proper water
13 content, and the spores to begin with.

14 MS. OAKLEY: Can I just ask a follow-up
15 question?

16 MR. CHAPMAN: Yes, go ahead.

17 MS. OAKLEY: So if you use a composted
18 poultry litter, is that meeting the NOP guidelines
19 for compost, and what percentage would you consider
20 the container to be composted poultry litter?

21 MR. HOFFMAN: Percentage-wise, it's a
22 very small percentage. Otherwise, your soluble

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1 salts would be way too high and you would not be
2 able to produce a good quality crop. So you have
3 to keep your fertility high while keeping your
4 salts low --

5 MS. OAKLEY: Do you also have -- sorry.
6 Do you also have any idea of what percentage of your
7 fertility needs are through liquid feeding?

8 MR. HOFFMAN: It's probably pretty
9 close to half and half because some of the elements
10 are not immediately available through the soil, but
11 the majority of our elements are available through
12 the soil.

13 MS. OAKLEY: Okay, great. Thank you.

14 MR. HOFFMAN: You're quite welcome.

15 MR. CHAPMAN: Thank you very much, Bob.
16 Up next, we have Brian, and then we'll be starting
17 the list over at that point. Brian?

18 MR. LEHMANN: Yes, can you hear me?

19 MR. CHAPMAN: Yes.

20 MR. LEHMANN: Okay, thank you. I'm
21 Brian Lehmann, commenting as an organic consumer.
22 Thanks to everyone who makes that possible, by the

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1 way.

2 When I signed up for this webinar, I
3 hadn't had a chance to see the documents, so I hope
4 I don't stray too far off topic. But I just wanted
5 to mention the aeroponics, hydroponics, and
6 aquaponics issue.

7 I'm not profoundly against including
8 these within organic, but I would want to see them
9 identified with additional labeling. Maybe
10 that's a novel idea within the rules. I haven't
11 heard it mentioned previously. But as far as I'm
12 concerned, the organic consumer should be informed
13 of the particular source media of an agricultural
14 product: a logo; a couple of words, like
15 hydroponically-grown; or even a QR code should
16 suffice.

17 But, otherwise, as a long-time organic
18 consumer, I would object to the organic seal being
19 conferred. So that is it for me. But, again,
20 please identify organic products not grown in soil
21 with additional labeling. Thank you and for the
22 opportunity to speak.

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1 MR. CHAPMAN: Thank you, Brian. I
2 don't see any questions for you, so we'll -- that's
3 all we have for you, so thank you very much.

4 So that was our last scheduled. We
5 will be now running through the list of the speakers
6 we skipped over and that they are here in order that
7 they joined. And if they're here, we will
8 accommodate them, as well. Please bear with us
9 because I've seen that we might have quite a few
10 speakers that are not here, so we'll probably be
11 calling on people not here.

12 First up is David Martinez. David, are
13 you on the line? Hearing nothing, we'll be moving
14 on. Kelsey Maben. Kelsey, are you here now?

15 MS. ARSENAULT: Kelsey was on the line
16 before so --

17 MR. CHAPMAN: Kelsey, I see you on the
18 headset. Are you muted on your computer? Hearing
19 nothing, we'll move on to Kye Witek. Kye?

20 Next up is Dain Carver. Dain?
21 Hearing nothing, Michael Collins-Frias? All
22 right. Up next then with Karen Archipley. Karen?

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1 MS. ARCHIPLEY: Hi, I am here. Thank
2 you. And I apologize. You guys moved really
3 fast. So my name is Karen Archipley. I'm with
4 Archi's Acres, and we're also Archi's Institute for
5 Sustainable Agriculture. We have been proud
6 hydro-organic growers since 2006, and I want to say
7 that, you know, we live in San Diego where it's the
8 most expensive water in the world. We pay \$2,300
9 an acre foot. We have always proudly displayed
10 photos of our productions. We put hydro-organic
11 on our label, and it's increased our sales. So
12 thank you for all of those that are really pushing
13 thinking that we're afraid to put hydro-organic.
14 It actually makes sense because we bear close
15 inspection. And so we put photos up and then also
16 label our products.

17 Hydro-organics is a scalable system, so
18 we teach transitioning military, as well as
19 civilians, sustainable organic agriculture as a
20 career. And I will tell you the majority of our
21 students go on to do crop production, and many of
22 them are hydro-organic. Some of them are

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1 restauranters, etcetera. But the ones that have
2 chosen this path, I fear inviting them to an NOSB
3 meeting because of the sad representation of
4 welcoming our new farmers. Are we really going to
5 take certification away from these military that
6 have chosen agriculture as a career and chosen to
7 do it organically?

8 Biology is the key to organics, and
9 whether you're in dirt or whether you are in the
10 aquaponics system, the hydroponics system, or the
11 container system, it is all about biology, point
12 blank. You can't get away from that.

13 And so I just want to say, you know,
14 we're here, we're not planning on going anywhere.
15 I really am proud of our systems. We've invited
16 other farmers that doubt the system to come see our
17 farm, and we have very few people that take us up
18 on that. There's a lot of critics but not enough
19 people that are willing to look at it.

20 I get it. This is about market share.
21 But I'm going to tell you that even Timex has to
22 deal with Rolex, and even Rolex and Timex had to

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1 deal with our phones when it came to, you know,
2 being able to tell time. Agriculture, this goes
3 back to 600 BC, the hanging gardens of Babylon,
4 floating Aztec gardens, and anywhere throughout
5 the planet where you see a leaf that pools up with
6 water, pours into another part of the plant, that's
7 a form of hydro-organic unless you're putting
8 chemicals on it, and we don't use chemicals. We
9 use insects to control insects, and we're very
10 proud of our process.

11 It was a pleasure to be here today.
12 Thank you for circling back to us. I was mortified
13 to think I missed my opportunity, so thank you.

14 MR. CHAPMAN: Thank you, Karen. I
15 have a question from Francis. Francis?

16 MR. THICKE: Yes. Sorry to ask the
17 same question, but we're trying to understand the
18 systems out there. And so I want to ask the same
19 question we've asked others, and that is what is
20 your rooting medium and does it contain any soil?
21 What percent of your nutrition from the plant comes
22 from liquid feed, and what is the makeup of the

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1 liquid feed?

2 MS. ARCHIPLEY: Okay. So I'm going to
3 answer what I'm comfortable answering because my
4 husband is next speaking, and he's going to speak
5 just to that. And so I will tell you that we use
6 NFT, which is Nutrient Film Technique, which is a
7 soil-less system. The water flows underneath the
8 plant's bare root and delivers its nutrients, and
9 so you put your nutrients into the main reservoir.

10 As far as our container system, we use
11 coco coir, which is a byproduct of the coconut
12 industry and it's used in most all organic farming.
13 We actually use less than probably most farmers,
14 but it's an excellent system.

15 And when it comes to our nutrients, I
16 know we brew our own nutrient tea, but that I will
17 let my husband speak to better because I would not
18 know how to explain that to you, other than it's
19 live biology. I know that we have frogs in our
20 system. I know we have all types of things that
21 come up, which tells us that we're on track. And
22 I know it's checked, you know, several times a day.

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1 Does that answer your question?

2 MR. THICKE: Somewhat. But we'll wait
3 until your husband gets on. Okay.

4 MS. ARCHIPLEY: Yes, that's fine. No
5 problem. He's next.

6 MR. CHAPMAN: Okay. Thank you very
7 much, Karen.

8 MS. ARCHIPLEY: Thank you.

9 MS. ARSENAULT: Karen, be sure you put
10 your phone on mute. I'm assuming you guys are
11 close to each other, and we don't want --

12 MS. ARCHIPLEY: No, he's driving.
13 He's driving. We have 17 people graduating today,
14 and the majority are active duty.

15 MS. ARSENAULT: Thank you.

16 MS. ARCHIPLEY: Appreciate it.
17 Thanks.

18 MR. CHAPMAN: Colin, are you there?

19 MR. ARCHIPLEY: I'm here. Can you
20 hear me?

21 MR. CHAPMAN: Yes, go ahead.

22 MR. ARCHIPLEY: Yes. First, I just

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1 want to thank you guys for the time. You know, I'm
2 a proponent of hydro-organic, as you're well aware
3 of. When this discussion first started, it was a
4 question of using systems that are sterile. That
5 was proven wrong. These systems are, some way or
6 another, less organic and we're shooting them off
7 (inaudible). If we're talking about liquid
8 fertilizer, we're not even talking about a
9 production system. We removed the discussion
10 because we've been proving them wrong time and time
11 again in regards to the opposition of
12 hydro-organic. That's one of the reasons why CCOF
13 voted to support hydro-organic growers because out
14 here in California we're dealing with the future.
15 We're dealing with climate change. We're dealing
16 with increased costs of labor, access to natural
17 resources with more mouths to feed, and we want to
18 increase access to organic foods for everybody.
19 So this is a matter of the future and not the past.

20 What's happened is a small group of
21 farmers from Vermont got an increase in pressures
22 from greenhouse-growing tomato that occurs year

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1 round. It's producing a higher-quality crop and
2 less expensively and decided to get together and
3 make a donation to a, quote/unquote, watchdog,
4 which is really nothing more than a special
5 interest group, and they have lobbied you to make
6 this an issue. It's less organic; the science
7 doesn't prove that. If there's consumer concerns,
8 science doesn't prove that. Now we're talking if
9 liquid organic fertilizers are less organic, is
10 compost tea less organic than compost? Is fish
11 emulsion in liquid form less organic than liquid
12 lye emulsion?

13 These issues are really about market
14 share. Is it really less organic one way or
15 another? The answer is no. We've created these
16 standards nearly 30 years, and within that time
17 we've complied with those standards while
18 innovating, becoming more sustainable, becoming
19 more efficient, getting closer to the consumer, and
20 meeting consumer demands. And now you want to
21 change those standards to protect special
22 interests.

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1 Keep in mind, and I appreciate what you
2 guys do, but keep in mind what the core job is.
3 National Organic Standards Board. Your job is to
4 maintain standards. And after 30 years and after
5 innovation within those standards, you want to
6 change those standards? That's not the role of
7 NOSB, and that's why there's been discussion within
8 Washington, which I know you guys are aware of, of
9 is NOSB outdated for no longer maintaining
10 standards or catering to special interests and this
11 is nothing more than a political campaign. It's
12 like the 2016 presidential race all over again with
13 live and misdirection of the facts. I guess you'd
14 call that alternative facts.

15 Lastly, in regards to labeling, my wife
16 said (inaudible). I have no problem making our
17 products --- we already do that. But I would just
18 consider what happens when that product is put in
19 the supply chain. If I label my basil, for
20 example, as --

21 MR. CHAPMAN: Colin, I'm going to have
22 to cut you off there. We're at your time. But I

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1 do have two questions for you from members, so first
2 let's start with Francis and then Steve. Francis,
3 go ahead.

4 MR. THICKE: Yes, I want to come back
5 to the question of what is the makeup of your liquid
6 feed? Can you describe that for us?

7 MR. ARCHIPLEY: The basis for our
8 liquid feed is compost and worm castings. We also
9 apply sea kelp and a rock mineral, rock dust, and
10 molasses, and we put that in a compost tea brewer
11 and brew that, and we apply that to our media and
12 our reservoir system.

13 MR. THICKE: Is that sufficient for
14 feeding the plant? Don't you have any other
15 minimal, I mean, whatever kind of feed for the
16 plant, too?

17 MR. ARCHIPLEY: No, it is not. Now,
18 sometimes we -- it is sufficient. There are some
19 times, especially when we grow crops like tomatoes,
20 where we may need additional nutrients, and that's
21 where we might supplement with, A, additional
22 molasses, which we prefer, but it depends on

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1 accessibility or, B, additional fish emulsion in
2 either powder or liquid form, depending on the
3 type, the availability and the increase possibly
4 in phosphorous and calcium and magnesium.

5 MR. THICKE: Thank you.

6 MR. CHAPMAN: Steve?

7 MR. ELA: Yes. I'm curious -- I
8 appreciate your comments, but the enabling
9 legislation were the organic program that the NOP,
10 one of the references is for the crop production
11 farm plan in terms of soil fertility, an organic
12 plan shall continue provisions designed to foster
13 soil fertility primarily through the management of
14 the organic soil through proper tillage and crop
15 rotation and manuring. And I'm curious how, given
16 that that's the legislation we have to comply with,
17 I'm curious about how you would say that your system
18 would comply with that.

19 MR. ARCHIPLEY: I can understand that
20 interpretation, but in that same document it also
21 says that these (inaudible) that doesn't preclude
22 you from participating (inaudible) and food

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1 companies worry about field fertility because that
2 doesn't apply. So, legally, this has already been
3 discussed (inaudible) if certain rules won't apply
4 to you, that doesn't preclude you from becoming
5 organic.

6 And I'd just like to drive home the
7 point is fish emulsion a liquid form or a powder
8 form? Is one of those more organic than the other?
9 Lastly, if we were to ban liquid nutrients today
10 or, excuse me, if you were to ban hydroponics today,
11 would these liquid nutrient companies go out of
12 business? I just talked to someone recently that
13 numerous companies take scrap from grocery stores
14 and turns it into a liquid organic nutrient. I
15 asked him are you seeing increased sales to
16 greenhouses, and, because of discussions going on,
17 he said no, but it's because that was such a small
18 segment of their market share anyway, it doesn't
19 matter. The vast majority of growers using liquid
20 nutrients and it'd be great (inaudible) and he says
21 because that's what we do. Well, we'd all like to
22 be in that position and base our standards around

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1 what we do on our farm and exclude everybody else
2 and exclude that competition. We've got to look
3 forward, not back.

4 MR. CHAPMAN: Okay. Thank you very
5 much, Colin. I don't see any other questions at
6 this time, so thank you for your testimony.

7 MR. ARCHIPLEY: Thank you.

8 MR. CHAPMAN: Up next, I have Larry
9 Griffis. Larry, have you joined us? Hearing
10 nothing, we'll move on to Reyna Ventura. Reyna,
11 have you joined us? How about Tim Mann? Tim Mann,
12 are you on the line?

13 MR. MANN: Tim Mann is here.

14 MR. CHAPMAN: All right, Tim. You're
15 up.

16 MR. MANN: Okay, I'm up. Can you hear
17 me well?

18 MR. CHAPMAN: Yes, we can.

19 MR. MANN: Okay. First, aloha from
20 Hawaii. My wife, Suzanne, and I became the first
21 organically-certified aquaponic farm in the world
22 in 2008. We are just like any other organic

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1 farmer. We use all organic inputs, beneficial
2 insects, and no prohibited substances. The only
3 difference between us and other organic farmers is
4 that our plants use an extremely small amount of
5 soil while other organic farmers use a lot.

6 Neither do we use much water. Our
7 irrigation water is contained in food-grade water
8 containers instead of using irrigation pipes and
9 canals. As a result, we only use about two to three
10 percent of the water it takes to grow the same
11 things in the soil. This makes aquaponics
12 incredibly efficient at water use.

13 Now, the water efficiency aquaponics
14 brings to the table is extremely important. We
15 can't afford to be arrogant about water because we
16 are living in a world where water is no longer the
17 guaranteed commodity it used to be. Any water
18 conservation technology with aquaponics we feel
19 should be welcomed with open arms.

20 Because we aquaponics farmers do not
21 depend on the soil, we can use marginal land for
22 farming that's not usable to organic farmers

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1 growing in the soil. This actually helps them out
2 because it conserves fertile land for their use.

3 Now, we have personally planted orchard
4 and row crops into a patch of soil on our farm
5 consisting entirely of gravel and fist-sized
6 rocks. And that area turned into rich dark soil
7 full of worms, mycorrhizae, and decaying organic
8 materials within five years' time. It began by
9 simply watering the plants in the gravel with
10 aquaponics water.

11 In fact, this facet of aquaponics
12 ensures that it completely complies with Section
13 205.200, production practices implemented in
14 accordance with this subpart must maintain or
15 improve the natural resources of the operation,
16 including soil and water quality. Now, you guys
17 have got that requirement, but you don't require
18 that organic soil farmers can turn infertile sandy
19 or gravelly soils back into fertile soils. We can
20 do that easily with aquaponics.

21 Now, this is my last point, and this is
22 kind of a hot button. There's some studies

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1 starting to pop up that show as high as 40 percent
2 of the organic produce items on the supermarket
3 shelves have conventional non-organic,
4 organophosphate pesticide residues higher than
5 that could have gotten on them from accidental
6 over-spray. In other words, some organic farmers
7 are cheating and the public is becoming aware of
8 it. This is not good for the organic movement in
9 general.

10 Now, you can't cheat aquaponics. In
11 fact, we can't even use some of the
12 organically-approved sprays because they get back
13 to our fish and it kills the fish. Because of the
14 fish, aquaponics is more organic than conventional
15 organic. It's guaranteed organic, and that's a
16 marketing benefit. I can see why the soil-based
17 organic producers don't want us advertising this
18 stuff.

19 What's the simple way to solve this
20 problem? Require that all hydroponic, aeroponic
21 --

22 MR. CHAPMAN: I'm going to need you to

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1 --

2 MR. MANN: Pardon me?

3 MR. CHAPMAN: You're run through your
4 time.

5 MR. MANN: This is the last sentence.
6 The simple way to solve the problem is require that
7 all of these producers put hydroponically-grown,
8 aeroponically-grown, and aquaponically-grown on
9 their organic packaging and marketing, and then let
10 the consumer decide. What could be fairer than
11 that? Let the consumer decide.

12 MR. CHAPMAN: Thank you, Tim. I'm not
13 seeing any questions from other folks. Tim, do you
14 have a citation on that study that you referenced
15 about the --

16 MR. MANN: Yes. Give me an email
17 address, and I'll send you some scientific study
18 citations.

19 MR. CHAPMAN: Can you send it to
20 Michelle? Do you have Michelle's email?

21 MR. MANN: Oh, sure. Got Michelle's.
22 No problem. I've got it on my to-do list.

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1 MR. CHAPMAN: No other questions, so
2 thank you for your time, Tim. And --

3 MR. MANN: Thank you and aloha.

4 MR. CHAPMAN: Aloha. Is Esteban on
5 the line? Esteban? Hearing none, is Herman on
6 the line?

7 MS. ARSENAULT: We can see a number,
8 but he doesn't seem to be, we aren't able to hear
9 him. But his number is listed. Herman?

10 MR. CHAPMAN: Herman, are you there on
11 your line? Are you muted on your side? All right,
12 Herman. Sorry about that. It's not working out.

13 Next up, Nathan. Nathan, are you on
14 the line? Hearing nothing, Aviva Glaser. Aviva,
15 are you on the line?

16 MS. GLASER: Yes, I am.

17 MR. CHAPMAN: All right. Aviva,
18 you're up.

19 MS. GLASER: Yes, hi. My name is Aviva
20 Glaser, and I'm a senior quality specialist at the
21 National Wildlife Federation based in Washington,
22 D.C. I want to thank you all for the opportunity

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1 to provide comments, and I wanted to comment
2 specifically on a National Organic Standards Board
3 discussion document on eliminating the incentives
4 to convert native ecosystems to organic
5 production.

6 I really appreciate that NOSB is
7 keeping with science to consider this important
8 issue. We also really appreciate that the organic
9 programs faces a clear value on the conservation
10 of biodiversity, which is, of course, so important.

11 As such, we think it's absolutely
12 critical that organic certification does not
13 incentivize, either intentionally or
14 unintentionally, the conversion of natural
15 ecosystems into agricultural production.
16 Unfortunately, however, the organic program's
17 three-year waiting period for transitioning to
18 organic production has the potential to incur a
19 conversion in the native ecosystem and now in crop
20 land without a history of pesticide use offer an
21 opportunity to bypass the waiting period. Without
22 a clear disincentive for habitat conversation,

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1 this can threaten native habitats across the world
2 from the disappearing native grasslands in the
3 Northern and Great Plains to tropical
4 deforestation in South America.

5 And so we wanted to urge NOSB to act very
6 quickly to close this loophole. We certainly
7 appreciate the desire to specifically target
8 high-value conservation lands, as outlined in the
9 discussion document. We would actually recommend
10 a rule change that will protect all native
11 ecosystems without a reported cropping history
12 against conversion. We think this can be done
13 easily through a rule change in the land
14 requirement section, and that would say that
15 certified operations must not have cleared,
16 burned, drained, cultivated, or otherwise altered
17 lands that have no reported cropping history in the
18 previous five years preceding the date of
19 application for certification and that that can be
20 documented by USDA, your other governmental
21 entities, the Farm Service or USDA records.

22 We know that there is a lot of

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1 substitution programs out there internationally
2 that actually have this in place. So we really
3 urge you to act swiftly to close this loophole. We
4 believe it compromises the integrity of the organic
5 label and actually risks damage to the reputation
6 of the organic program.

7 So thank you for the opportunity to
8 provide comments on this.

9 MR. CHAPMAN: Thank you, Aviva. I
10 apologize for butchering your name.

11 MS. GLASER: No problem at all.

12 MR. CHAPMAN: I don't see any questions
13 for you from the Board, so thank you for your
14 testimony. Next on the list, is Freeman Allen on
15 the line? Freeman, are you there? Hearing
16 nothing, moving down to Jaydee Hanson.

17 MS. JORDAN: Yes, hi. This is Claire
18 Jordan. I'm speaking on behalf of Jaydee Hanson
19 at Center for Food Safety. Hello?

20 MR. CHAPMAN: Yes, okay. Go ahead.

21 MS. JORDAN: Thank you. This is on BPA
22 and packaging. The continued allowance of BPA in

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1 packaging use for organic products undermines
2 consumer faith in the organic label. BPA's
3 capacity to leach into food when present in
4 packaging and the underlying disrupting impacts to
5 consumers make it unsuitable for organic products.
6 Studies demonstrate that avoiding BPA- packaged
7 foods results in direct decreases in BPA levels in
8 the human body.

9 Due to these concerns, the FDA no longer
10 allows BPA in baby bottles, sippy cups, or infant
11 formula packaging. It is highly likely that BPA
12 is in packaging for some organic foods. A 2016
13 study compared the presence of chemical
14 contaminants in the urine of consumers in Israel
15 and found that preferences for organic products did
16 not have an impact on the levels of BPA in
17 participants' urine.

18 Due to the human health concerns, no
19 organic product should be packaged in materials
20 containing, lined with, or otherwise incorporating
21 BPA. The NOP must exclude it from organic food
22 packaging.

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1 Additionally, CFS strongly urges the
2 NOSB to prohibit other common packaging materials
3 that have negative human health impacts, including
4 orthophthalates and nanomaterials. CFS has
5 petitioned the FDA to ban orthophthalates as food
6 additives due to research showing that they are
7 endocrine system-disrupting chemicals. There is
8 evidence that organic food companies are using
9 orthophthalates in their packaging and that these
10 chemicals also leach into food products,
11 especially fatty products like cheese. CFS is
12 currently working with other groups to have organic
13 cheeses in the U.S. tested to see if they are
14 contaminated like the Belgian market.

15 CFS conducted an extensive review of
16 animal and human studies for the 30 approved
17 orthophthalates as part of our petition to FDA.
18 Summaries of the scientific literature were
19 submitted with our written comments.

20 The use of nanosubstances in food
21 packaging and in food contact substances
22 represents a growing concern for organic

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1 consumers. Food-related nanotechnologies are
2 being deployed to extend the product shelf life,
3 particularly using anti-microbials, like
4 nanosilver, that are embedded in the packaging to
5 serve as a preservative, anti-microbial, or
6 anti-fungal.

7 The authority already exists within the
8 organic rule to prohibit nanomaterials, and it
9 states that packing materials and storage
10 containers that contain synthetics, fungicide,
11 preservative, or fumigant are prohibited in
12 organic. We urge the NOSB to seek clarification
13 with NOP that nanomaterials in packaging are
14 prohibited within the organic rule. The NOSB must
15 reject the petition from safe tracers to add short
16 DNA tracers to the National List. The production
17 of the short DNA sequences involve use of excluded
18 method, mainly in vitro nucleic acid technologies.
19 The short DNA sequences are clearly nucleic acid
20 and polymer chain reacts in technologies used to
21 create large numbers of copies a specific short DNA
22 sequence. The process of synthesizing huge

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1 numbers of these short double-stranded DNA
2 sequences entails the use of an in vitro nucleic
3 acid technique and so must be considered an
4 excluded method.

5 Other methods of traceability are
6 available, such as using a paper trail. Moreover,
7 approving the use of short DNA traces without
8 requiring a paper trail could result in
9 encouraging a kind of fraud wherein a DNA tracer
10 approved to track organic products could be applied
11 to a non-organic product. This would allow the
12 non-organic product to pass as organic. Rather
13 than detecting fraud, they then would be used to
14 commit fraud.

15 Thank you.

16 MR. CHAPMAN: Thank you very much.
17 Asa has a question for you. Asa?

18 MR. BRADMAN: Yes. Related to the BPA
19 in food contact material -- and this question is
20 also put out to the general community. We need to
21 have more discussion about this. But have you
22 thought about alternatives and, of course, the

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1 concerns about, you know, BPF and some of the
2 structurally-related compounds, but have you also
3 looked more generally at other alternatives and
4 have any input or thoughts about what would be
5 preferred materials?

6 MS. JORDAN: Yes. I think that,
7 unfortunately, Jaydee wasn't able to give his
8 testimony his today, but he would be best equipped
9 to answer that. But I believe that was our
10 comments that we submitted for this NOSB meeting,
11 that we talked about that and put information into
12 those comments.

13 MR. BRADMAN: Thank you. And just,
14 you know, as you know, this really opens up, I
15 think, a Pandora's box of issues that we're all
16 going to have to think carefully about going
17 forward.

18 MS. JORDAN: Yes, absolutely. And
19 thank you for the opportunity to testify.

20 MR. BRADMAN: I'm done.

21 MR. CHAPMAN: Yes, okay. Thank you
22 very much. Thank you. Next up, we have Douglas

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1 Doohan. Douglas, have you joined us?

2 MR. DOOHAN: Yes, I am on the call.

3 Can you hear me?

4 MR. CHAPMAN: Yes, we can, Douglas.

5 Go ahead.

6 MR. DOOHAN: Thank you. My name is
7 Doug Doohan, and I'm a professor of horticulture
8 and crop science at the Ohio State University.
9 I've been working with organic farmers in Ohio and
10 other states for more than 19 years providing
11 education, research results, and weed control. It
12 is very clear to me that the organic farm industry
13 needs access to new tools for weed control and that
14 natural product and organically-based herbicides
15 must be part of the toolkit.

16 Organic farmers overwhelmingly rely
17 upon physical methods of control to manage the many
18 weeds that survive the crop rotation. The
19 physical controls I'm referring to, natural and
20 synthetic mulches, primarily plastic; thermal
21 control; and, most important, the use of tillage
22 in cultivation.

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1 Simply stated, tillage and
2 cultivation, along with weeding by hand, are the
3 main methods of controlling weeds in organic
4 agriculture. The net result is that weed control
5 still tops the list as the number-one production
6 problem of our industry. To make matters worse,
7 the reliance on steel in the field as the primary
8 method of control is degrading soils and minimizing
9 the many beneficial environmental impacts of
10 organic production.

11 As a board, you have an opportunity to
12 improve organic production benefits to all of the
13 industry stakeholders by enabling limited and
14 appropriate use of herbicides. I'm certain that
15 most organic farmers will only use herbicides in
16 two situations: first of all, when weather
17 conditions prevent the use of tillage,
18 cultivation, or hand-weeding; and, two, when soil
19 health dictates a reduction in the amount of soil
20 disturbance.

21 I'm aware of nine herbicides that are
22 approved for organic production, and I believe that

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1 all of these are either vinegar, cinnamon oil, or
2 limonene-based. Approving the use of soap-based
3 herbicides would provide organic farmers with more
4 effective and robust products and, for that reason,
5 I support their addition to the approved list.

6 I hope you will take this
7 recommendation very seriously. By doing so, you
8 will help many farmers and, ultimately, society.
9 And I thank you for this opportunity.

10 MR. CHAPMAN: Thank you very much,
11 Doug. I see a question from Francis. Francis, go
12 ahead. Francis, are you on mute?

13 MR. THICKE: I'm sorry. I was on mute.
14 Thank you, Doug. And as a crop producer myself,
15 organic, I understand what you're talking about.
16 And the question that I have and that I contemplated
17 about this is if we had some soap-based herbicide
18 that was universal like glyphosate, would it become
19 the magic bullet that we would be universally
20 spraying that everywhere and what are the
21 consequences of that? I don't know. I just raise
22 that question.

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1 MR. DOOHAN: I have wondered about the
2 same thing because it's very clear that
3 conventional farmers rely very heavily upon
4 herbicides as risk reduction, risk management
5 tools. That's really why they use them more than
6 anything else. They reduce risk.

7 We can say that, at this stage of the
8 game, that it's somewhat of a non-issue because
9 there are no products on the horizon or any
10 technologies on the horizon that will allow any of
11 the herbicides that are currently approved, as well
12 as soap-based herbicides that we're interested in
13 seeing approved, in a selected way. These are
14 non-selective herbicides that you cannot spray on
15 a crop.

16 Selectivity of herbicides, either
17 through the natural tolerance that certain crops
18 have to particular chemicals -- corn is very
19 tolerant to the herbicide atrazine, as you probably
20 know very well, or through engineered tolerance in
21 the case of glyphosate resistance and some other
22 manmade resistances, those are the bases of

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1 selectivities. Otherwise, if you spray it on the
2 crop, it's going to kill it. And the materials
3 that we have, you cannot spray them on a crop.

4 So I think, by their very nature,
5 there's not going to be the degree of dependence
6 upon them that we have seen in conventional.

7 MR. THICKE: Thank you.

8 MR. CHAPMAN: Thank you. I have
9 another question from David.

10 MR. MORTENSEN: Could you say a little
11 bit about the efficacy and how they're used or would
12 be used?

13 MR. DOOHAN: We need products of better
14 efficacy than we currently have, and the soap-based
15 products, I believe, do have the potential to be
16 more effective than the products that are currently
17 available, which, for the most part, in my opinion,
18 are just not adequate for the job that they're
19 intended for for the use.

20 So would you mind repeating your
21 question? I'm sorry.

22 MR. MORTENSEN: Yes. I was just

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1 wondering in the testing and the work that you've
2 done, like what the efficacy is like. Is it a
3 significant improvement over other things? I've
4 not seen them used in the field.

5 MR. DOOHAN: I believe that, based on
6 what I've seen, soap-based products are probably
7 have the broadest activity compared to the products
8 that are out there. Vinegar and cinnamon oil, in
9 particular, have not proven to be very effective
10 in the testing that I've been involved in.

11 MR. MORTENSEN: Okay, thanks.

12 MR. CHAPMAN: I don't see any more
13 questions, so thank you, Doug. We appreciate your
14 time.

15 MR. DOOHAN: Thank you.

16 MR. CHAPMAN: That concludes our list
17 of public comment for this webinar. We're about
18 ten minutes ahead of schedule. I want to thank
19 members of the public for spending your time on the
20 call with us and providing testimony. This is
21 valuable to our process. I also want to thank the
22 Board members for their time and listening to and

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1 asking thoughtful questions. And I thank the
2 program for managing and running this call nobly.

3 MS. ARSENAULT: And congratulations to
4 you, Tom. Beautifully done. Thank you so, so
5 much. Thanks to everybody listening. That was
6 the smoothest webinar for public comment we've had
7 so far, so very nicely done all around.

8 MR. CHAPMAN: Yes. Thank you all.
9 And for those of you who will be there, I look
10 forward to seeing you all in Denver if you can make
11 it. Thank you again. Have a great day.

12 (Whereupon, the above-entitled matter
13 went off the record at 3:50 p.m.)

14

15

U.S. DEPARTMENT OF AGRICULTURE

+ + + + +

NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

MEETING

+ + + + +

WEDNESDAY

APRIL 19, 2017

+ + + + +

The Board met in the Majestic Ballroom
of the Sheraton Denver Downtown Hotel, 1550 Court
Place, Denver, Colorado, at 9:00 a.m., Tom
Chapman, Chairperson, presiding.

BOARD MEMBERS PRESENT

TOM CHAPMAN, Chair
SUE BAIRD
HARRIET BEHAR
ASA BRADMAN
JESSE BUIE, Secretary
LISA DE LIMA
STEVE ELA
DAVE MORTENSEN
JOELLE MOSSO
EMILY OAKLEY
SCOTT RICE
A-DAE ROMERO-BRIONES
DAN SEITZ
ASHLEY SWAFFAR, Vice Chair
FRANCIS THICKE

STAFF PRESENT

MICHELLE ARSENAULT, NOSB Advisory Board
Specialist, National Organic Program
LISA BRINES, Ph.D., National List Manager,
National Organic Program
PAUL LEWIS, Ph.D., Director, Standards
Division, National Organic Program
MILES MCEVOY, AMS Deputy Administrator
JESSICA WALDEN, Materials Specialist, National
Organic Program

ALSO PRESENT

ISAURA ANDALUZ, Co-Founder, Cuatro Puertas
CHRISTIE BADGER, National Organic Coalition
JO ANN BAUMGARTNER, Executive Director, Wild Farm
Alliance
ANAI BEDDARD, Lady Moon Farms
THOMAS BEDDARD, Lady Moon Farms
ROSEMARY BILCHAK
ALESIA BOCK, Managing Director, AgriSystems
International
NANCI BURTMAN, Volunteer, Food & Water Watch
VANESSA CAMPUZANO, Intern, Food & Water Watch
DAN CARROTHERS, Global Business Director, Agro

Green Business Division, Emery Oleochemicals
DAVE CHAPMAN, Long Wind Farm
CHRIS CIOLINO, Agro Green Business Division,
Emery Oleochemicals
THEOJARY CRISANTES TAMAYO, Wholesum Family Farms,
Inc.
JENNY CRUSE, Accredited Certifiers Association
GREG CUNNINGHAM, Scotts Miracle-Gro Company
KELLY DAMEWOOD, California Certified Organic
Farmers
BRUNNO DA SILVA CEROZI, Production Manager,
Superior Fresh
GERALD DAVIS, Grimway Farms
JEFFERSON DEAN, Organic Grain Growers Chapter,
Ohio Ecological Food and Farm Association
ANTHONY DUTTLE, Director of Agronomic Services,
Tanimura and Antle
MARTIN EDDY, Kansas Organic Producers; OFARM
COURTNEY ELLIS
TINA ELLOR, Technical Director, Phillips Mushroom
Farms
JAY FELDMAN, Executive Director, Beyond
Pesticides
DARLENE FLORENCE, Research Manager, Agro Green
Business Division, Emery Oleochemicals
LEE FRANKEL, Executive Director, Coalition for
Sustainable Organics
CAROLINE FRONING, Innophos
NICHOLAS GARDNER, Manager of Regulatory Affairs,
International Food Additives Council
JIM GERRITSEN
MAX GOLDBERG, Founder, Organic Insider; Founder,
Living Maxwell
TIM GORDON, Colorado Hemp Industries Association
TOM HARDING, Shenandoah Growers
CAMERON HARSH, Senior Manager for Organic and
Animal Policy, Center for Food Safety
SHANNON HELMS, Global Regulatory Manager, CP
Kelco
WIL HEMKER, Fellow, University of Akron Research
Foundation
ZAREB HERMAN, The Hain Celestial Group

KIKI HUBBARD, Director of Advocacy, Organic Seed Alliance
WANDA JURLINA, Technical Service Manager, CP Kelco
MARNI KARLIN, Karlin Strategic Consulting
MARK KASTEL, Co-Director, The Cornucopia Institute
LORI KLOPF, Regulatory Affairs, ICL Food Specialties
JESSICA KNUTZON, Marketing Specialist, CP Kelco
PHIL LAROCCA, LaRocca Vineyards
ALAN LEWIS, Natural Grocers
NATE LEWIS, Foreign Policy Director, Organic Trade Association
AMALIE LIPSTREU, Policy Coordinator, Ohio Ecological Food and Farm Association
PATTY LOVERA, Food and Water Watch
RICHARD MATHEWS, Executive Director, Western Organic Dairy Producers Alliance
PEGGY MIARS, Executive Director, OMRI; IFOAM Organics International
MADISON MONTY, Policy Advisor, Northeast Organic Farming Association of Vermont
DAVID MOORE, Neudorff
GAIL NELSON, G&G Connections
JANEL RALPH, President and CEO, Palmetto Synergistic Research
TERRY SHISTAR, Beyond Pesticides
MICHEAL SLIGH, Rural Advancement Foundation International
LAUREN STANSBURY, Communications Director, Hemp Industries Association
DEMETRIA STEPHENS, Stephens Land & Cattle
ALBERT STRAUS, Straus Family Creamery
LISA TROPE, Food and Water Watch
BETH UNGER, CROPP Cooperative
CHARLOTTE VALLAEYS, Senior Policy Analyst, Consumer Reports
CHERYL VAN DYNE, International Pectin Producers Association
DIANE WILSON, Director of Nutrition Services, Nature's One
ABBY YOUNGBLOOD, National Organic Coalition

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1 P-R-O-C-E-E-D-I-N-G-S

2 10:08 a.m.

3 MR. McEVOY: Okay, I think we're going
4 to get started.

5 Welcome, everyone. Nice to have
6 everybody here in Denver, beautiful day
7 yesterday. Mountains are sparkling out there.

8 So, welcome, and we're opening the
9 Spring 2017 NOSB Meeting. Just a little bit --
10 just a very little bit about Colorado.

11 There are 491 certified organic
12 operations in Colorado. The Colorado Department
13 of Agriculture is based here in Colorado, and
14 certifies a majority of those operations, but
15 there are many other certifiers that are also
16 operating in Colorado and protecting the
17 integrity of the organic sector here in Colorado.

18 So, we want to thank all of them for
19 the work that they do to protect organic
20 integrity. We also want to thank all the farmers
21 and processors and handlers here in Colorado that
22 are -- are producing organic products and selling

1 and distributing those products. So, thanks to
2 all of them, as well.

3 So, I am Miles McEvoy, the Deputy
4 Administrator of the Agricultural Marketing
5 Service's National Organic Program, and with me
6 here from USDA today I have Michelle Arsenault,
7 who is the NOSB Organic Advisory Board
8 Specialist.

9 I have Jessica Walden, who is with the
10 Standards Division and is the main technical
11 support for the subcommittees of the National
12 Organic Standards Board, and then in the back
13 over there, I have Paul Lewis, who is the
14 Director of the Standards Division. He is the
15 one that makes all the regulatory and guidance
16 type of activities happen at the National Organic
17 Program.

18 Then next to him is Lisa Brines, Dr.
19 Lisa Brines. She is our National List Manager.

20 So, thank you and welcome to everyone
21 that's here today. We look forward to a great
22 meeting.

1 I'm going to apologize now, that I am
2 going to have to step out a couple of times
3 during the next couple of days for some other
4 meetings that I have to attend. So, Paul Lewis
5 will be up here being the -- representing NOP at
6 that time.

7 So, with that, I'll turn it over to
8 the Chair, Tom Chapman.

9 CHAIR CHAPMAN: Thank you, Miles.
10 Hello and welcome, everybody. Thank you for
11 traveling here today to participate and observe
12 the National Organic Standards Board meeting.

13 I hope everyone is well rested and
14 prepared for a few busy days. I'm going to
15 briefly review the agenda, and then we'll go onto
16 NOSB member introductions.

17 Then after that -- so, starting with
18 the agenda that -- we will then hear from an NOP
19 report from the Deputy Administrator Miles McEvoy
20 and a national list update from Dr. Brines.

21 I will then have an opportunity to
22 give a brief update and after that, we'll move

1 onto public comment, and that's what we'll spend
2 the rest of today doing, as well as tomorrow
3 morning.

4 After that, we'll move onto the
5 subcommittees handling, livestock, and CACS
6 tomorrow, and after that on Friday, we'll start
7 with crops, followed by PDS and materials.

8 We'll finish the day recognizing the
9 new members and going through the work agenda
10 item and wrapping up any remaining business.

11 Most importantly, the wifi password.
12 It's Nosb2017, all one word, capital N lowercase
13 OSB.

14 With that, we'll start with member
15 introductions and we'll start here --

16 MS. ARSENAULT: I was just going to
17 say the password is not case sensitive, just so
18 you know.

19 CHAIR CHAPMAN: Not case sensitive,
20 there you go. NOSB, capitalized or not, your
21 choice.

22 We'll start with member introductions,

1 and we'll start down here with A-Dae. A-Dae, if
2 you could just give a brief introduction about
3 yourself and your background.

4 MEMBER ROMERO-BRIONES: Good morning.
5 I am A-Dae Briones. I currently work for First
6 Nations Development Institute. We work with
7 indigenous farmers across the nation.

8 MEMBER DE LIMA: Hi. I'm Lisa de Lima.
9 I'm in the retailer seat. I work for MOM's
10 Organic Market. We're an organic grocery store
11 chain in the Mid-Atlantic, and this is my third
12 year on the board.

13 MEMBER BRADMAN: My name is Asa
14 Bradman. I helped co-found the Center for
15 Environmental Research and Children's Health at
16 UC Berkeley, and I'm a professor there.

17 I've also worked for a few decades in
18 issues around environmental health in agriculture
19 communities. We get pesticides exposures, child
20 health and development. A new member of the
21 board.

22 This is my first meeting, of course,

1 and early in life, I also spent some time
2 working, taking care of chickens and chicken
3 production, and then in Oregon, packing them off
4 for slaughter, and I picked apples and grapefruit
5 commercially, and also worked commercial
6 beekeeper, and have spent a stint of time also
7 looking at issues around acid rain and impacts on
8 vegetation and soil chemistry and surface water
9 chemistry.

10 MEMBER MOSSO: Good morning. Joelle
11 Mosso. I work at Olam Spices and Vegetable
12 Ingredients, Olam SVI is what it's known for. We
13 process organic tomatoes and do retail co-
14 manufacture items for organic, as well as are a
15 large manufacture of dehydrated onion and garlic
16 and imported spices from our origin facilities.

17 Prior to Olam, I worked at Earthbound
18 Farm for many years, from organic integrity
19 through quality and food safety.

20 I'm a pathogenic food microbiologist
21 by training and I serve currently as the Director
22 of Purees and Natural Products for Olam.

1 MEMBER ELA: Steve Ela. Ela Family
2 Farms, here in Colorado, over on the western side
3 of the state. I'm a new member. I'm an organic
4 tree fruit grower, fourth generation, here in
5 Colorado.

6 I also have background in soil science
7 and other biology and geology and so, that's
8 pretty short.

9 MEMBER MORTENSEN: Good morning. Dave
10 Mortensen. I am from Pennsylvania. I have been
11 conducting research and teaching and outreach
12 teaching at farmer workshops on sustainable and
13 organic methods for the last 30 years, 15 in
14 Nebraska and 16 -- 31 -- 16 at Penn State.

15 I also serve on the Pennsylvania
16 Association for Sustainable Ag Board there and my
17 area is ecologically-based pest management, and
18 we've done a lot of systems work on farm over the
19 years, where we do a lot of the ecosystem service
20 assessments and that sort of thing.

21 Happy to be here. It's my first
22 meeting, as well.

1 MEMBER BUIE: Good morning. Jesse
2 Buie. Ole Brook Organic, Brookhaven,
3 Mississippi. I'm certified in mixed vegetables
4 and melons, turmeric and ginger.

5 I've sat in the producer's seat and
6 I'm Secretary of the Board.

7 MEMBER SWAFFAR: I am Ashley Swaffar.
8 I sat in the farmer's seat. I own a small
9 certified mixed vegetable farm in Arkansas and I
10 do a lot of animal welfare inspections and
11 organic inspections all over the country, and I'm
12 the chair of the livestock committee and vice-
13 chair of the board.

14 MEMBER SEITZ: Good morning. My name
15 is Dan Seitz. I'm a public member on the board,
16 and this is my second year.

17 I serve as the Executive Director for
18 the Council on Naturopathic Medical Education,
19 which accredits doctoral programs in naturopathic
20 medicine, and I'm also the board president of a
21 food co-op and I serve as the chair of the policy
22 development subcommittee.

1 MEMBER RICE: Good morning. I'm Scott
2 Rice. I sit in the certifier seat and I am with
3 the Washington State Department of Ag Organic
4 Program, where I've been for about 10 years, and
5 currently the accreditation and outreach lead
6 there, and also chair the CACS subcommittee, and
7 this is my second year on the board.

8 MEMBER BAIRD: Good morning. I am Sue
9 Baird. I am the Executive Director of the Mid-
10 America Organic Association. I have been
11 involved with organic since it's -- before it
12 became a law. I've served as certifiers. I've
13 served as inspectors and reviewers.

14 I am happy to be here. I have no
15 commercial vested interest in anything, anymore.
16 I used to at one time, and I think that puts --
17 Steve is laughing at me.

18 I'm here to protect in my mind, my
19 grandchildren's health. So, that's why I'm here.

20 This is my first time here and I am
21 now the vice president of the livestock
22 committee. So.

1 MEMBER OAKLEY: I'm Harriet Behar. I
2 live in Gays Mills, Wisconsin. I'm the chair of
3 the materials committee. This is starting my
4 second year.

5 I work for the Midwest Organic and
6 Sustainable Education Service, which is not a
7 membership organization, but we work with
8 literally thousands of organic farmers around the
9 Upper Midwest and actually, the whole country and
10 even the world.

11 I am the main person who answers the
12 organic info line, and believe me, I get just
13 about every question you can imagine, and in
14 addition, I have my own certified organic farm,
15 certified since 1989. I am a beekeeper. I'm happy
16 to hear Asa, that you are a beekeeper. So, maybe
17 we'll be able to get the apiculture standards
18 once things loosen up there at the federal level,
19 because you have two people on the board that
20 could maybe give some good input.

21 So, besides having a commercial
22 beekeeping operation, we also grow vegetables for

1 Organic Valley at times and I sell to a local
2 food co-op.

3 I also grow and process medicinal and
4 culinary herbs on my farm, and I sell those to
5 manufacturers and to retailers and what else do I
6 do? I do a lot of different things.

7 I'm on the Wisconsin Organic Advisory
8 Council. I'm also on the NRCS State Technical
9 Committee. I have written certification --
10 transition to organic conservation plans, so, and
11 I sit in the environmentalist seat.

12 MEMBER OAKLEY: Good morning. My name
13 is Emily Oakley, and I have Three Springs Farm in
14 Northeastern Oklahoma. We're a small scale,
15 basically three acre vegetable farm. We have
16 other land, but the rest is basically a wildlife
17 habitat.

18 We sell directly to our consumers
19 through farmer's markets and CSAs, and I've been
20 certified organic for 10 years and I've been --
21 this is my 14th season of farming. First three
22 years were on leased land that couldn't be

1 certified yet. Thank you.

2 MEMBER THICKE: Good morning. My name
3 is Francis Thicke. I sit in environmentalist
4 seat, and the chair of the crop subcommittee, and
5 this is my last year on the board, and I am an
6 organic dairy and crop farmer in Iowa and
7 actually started organic farming in 1975.

8 CHAIR CHAPMAN: Thank you, Francis.
9 I'm Tom Chapman from Clif Bar & Company in
10 Emeryville, California. I sit in the handler's
11 seat. This is my third year on the board and I
12 am currently chair of the NOSB.

13 Thank you, members, for spending your
14 time here with us today, and all the time you
15 spent getting prepared for this meeting.

16 Up next is the Secretary's report.
17 Jesse?

18 MEMBER BUIE: Mr. Chair, the minutes
19 of the November 2016 biannual public meeting have
20 been distributed behind the reference tab in your
21 binder. Are there any comments or corrections?

22 CHAIR CHAPMAN: Seeing no objection,

1 we'll approve the Secretary's report by
2 consensus. So approved.

3 MEMBER OAKLEY: Yes.

4 CHAIR CHAPMAN: So approved. Up next
5 is the USDA NOP Report with Miles McEvoy. Miles.

6 MR. McEVOY: Okay, good morning. Nice
7 to be here. Need my little cue sheet here, oh,
8 and I have the controls. Good.

9 Okay, so, I'm going to cover a number
10 of different topics today, if I can get this to
11 work. Do you want to do the slides, since I can't
12 seem to get this to go? Great, thanks.

13 Okay, so, first of all, these are --
14 this is what I'm going to cover today. First of
15 all, accomplishments. There is a lot to
16 celebrate in the organic space.

17 First of all, the Organic Livestock
18 and Poultry Practices Final Rule was finalized in
19 January, and I think it's really a pretty amazing
20 accomplishment that -- lot of work by the organic
21 community, by this board, the National Organic
22 Standards Board to come up with

1 comprehensive recommendations and if you
2 remember, that was in December 2011, and it took
3 us -- took AMS to finalize that a number of
4 years, and that was finalized last year.

5 So, a lot to celebrate there, in terms
6 of the finalization of that organic livestock and
7 poultry practices rule.

8 You all know that that is -- that the
9 effective date of that has been delayed to May
10 19th, and the rule is under review. But
11 nevertheless, the rule is published as a final
12 rule.

13 The other thing I'm going to mention
14 is increase in the number of organic operations.
15 So, there's a lot of -- a lot of things to
16 celebrate there, in terms of more and more
17 farmers and processors and handlers are involved
18 in organic production.

19 There is some information from Penn
20 State University that shows that organic
21 production, these are organic hot spots around
22 the country, lead to greater economic viability

1 and prosperity in these counties where there's a
2 lot of organic production.

3 So, the growth of the number of
4 organic producers and handlers is good for the
5 rural economy and for U.S. agriculture.

6 I'm also going to cover a little bit
7 of the organization of USDA, AMS and NOP, kind of
8 just how USDA is organized and what's happening
9 with the new administration.

10 Then talk about NOP's strategic goals
11 and activities, global organic control systems,
12 what we're doing in terms of protecting organic
13 integrity and what our priority areas are for the
14 upcoming year. Next slide. Give it a try. Oh,
15 did I do that? Okay.

16 Okay, so, there is an announcement
17 coming out today, a press release today, about
18 the increase in the number of certified organic
19 operations. At the end of 2016, almost 25,000
20 certified organic operations in the U.S. This is
21 a 13 percent increase over the last couple of
22 years.

1 Double-digit growth, in terms of
2 number of certified organic operations. So, we
3 have seen large increase in the sales of organic
4 products over the last few years. It's also nice
5 to see that there's increase in number of farmers
6 and businesses involved in organic production and
7 handling.

8 There is a lot of things we do to
9 support this growth. We do a lot of training.
10 We have our sound and sensible initiatives that
11 provide technical assistance. But I would say
12 that the thing that really supports growth is
13 protecting organic integrity, ensuring the
14 integrity of the seal, so that consumers have
15 confidence in the -- in the organic products that
16 they purchase.

17 The Organic Integrity Database, which
18 I'll talk about in a little more detail later on,
19 that -- the -- that -- the success of that
20 project enables us to get counts on the number of
21 operations a lot earlier than in the past, than
22 in our past methodology, and so, we hope as we

1 increase the quality of the information submitted
2 by the certifiers into the database, that we'll
3 be able to publish these -- this information
4 about the size of the organic sector earlier and
5 earlier every year.

6 So, visually, this is what it looks
7 like. There was a huge amount of growth in
8 number of operations between 2005 and 2008, and
9 then it leveled out for a few years there, and
10 then you see in the last few years, a significant
11 growth in the number of certified organic
12 operations in the U.S.

13 Okay, so, moving onto USDA. So, USDA
14 is a huge federal department with many agencies
15 within it, and it had over 100,000 employees in
16 the -- the last administration, and has around
17 that now. We will see over the next few years,
18 how that all works out.

19 So, currently at USDA, we do not have
20 a Secretary. The Secretary has had his -- his
21 hearing, but his confirmation session is next
22 Monday. We have heard that it's likely that he

1 will be confirmed on Monday and will start work
2 next week, which is great. It's nice. It will
3 be nice to have some political leadership at
4 USDA.

5 There have been people from the new
6 administration at USDA, but they are basically
7 just keeping the wheels on the bus and keeping
8 things rolling along, as we're waiting for the
9 political folks to come into USDA, and there are
10 many of these political folks that will be coming
11 into USDA over the coming months. I think it's
12 over 400 people that fill political positions at
13 USDA. It's a huge department.

14 So, all those various offices that are
15 in the Office of the Secretary that report to the
16 Office of the Secretary, those have political
17 appointees.

18 So, you have the Deputy Secretary,
19 which is the next big appointment, and then
20 Director of Communications, Inspector General,
21 General Counsel, those -- there is all political
22 appointees there.

1 Then you have the seven mission areas
2 at USDA and under-secretaries for each of those
3 mission areas.

4 So, Natural Resources and Environment,
5 which includes the Forest Service and Natural
6 Resource Conservation Service, Natural Resource
7 Conservation Service, of course, does a lot of
8 work to support organics through there --
9 through their EQIP program and transitions
10 program.

11 Under-Secretary for Farm -- Foreign
12 Agricultural Services. So, that's FSA, the Farm
13 Service Agency which the cost-share program is in
14 that agency for organic certification cost-share,
15 as well as the Foreign Ag Service that we work
16 very closely with on our international
17 arrangements, equivalency and recognition
18 agreements.

19 Then we have rural development, food,
20 nutrition and consumer services, where you have
21 the SNAP program or food stamps. Food safety,
22 which is the meat inspection. Research,

1 education and economics and finally, on the right
2 here, you have marketing and regulatory programs,
3 where the National Organic Program is.

4 So, there need -- so, it -- the point
5 here is that there's a lot of political people
6 that still will be nominated and have to go
7 through the confirmation process and get
8 appointed to these various positions, and that
9 takes time. It's going to take quite a bit of
10 time.

11 So, within the marketing and
12 regulatory programs, we have three agencies.
13 Agricultural Marketing Service, where the
14 National Organic Program is. APHIS, the Animal
15 Plant Health Inspection Service that we work with
16 very closely on looking at some of the organic
17 imports issues, in terms of ports of entry, and
18 then the Grain Inspection, Packers & Stockyards
19 Administration.

20 Okay, so, now, we go to AMS. So,
21 within all that -- within the department and all
22 those various agencies and offices, we have the

1 Agricultural Marketing Service with it -- which
2 in the scheme of USDA, is a relatively smaller
3 agency, and it has nine programs, dairy,
4 specialty crops, cotton and tobacco, the National
5 Organic Program, of course, livestock, poultry
6 and seed, transportation and marketing,
7 compliance and analysis and science and
8 technology.

9 The National Organic Program is the
10 newest and the smallest program within AMS. So,
11 within a small agency within USDA, we're also a
12 small program within USDA.

13 Some of the services that USDA
14 provides. They do a lot of the standardization
15 and grading and quality verification for a
16 variety of different fruits and vegetables,
17 cotton, livestock products, as well.

18 They do a lot of price reporting
19 through market news, including a lot of organic
20 price reporting, which is a very important
21 service that's provided to the organic sector.

22 Commodity procurement, which is where

1 USDA is buying commodities, mostly for the school
2 lunch program. So, that's a big activity within
3 AMS. All the check-off programs, research and
4 promotion and marketing orders and agreements,
5 that's part of AMS's portfolio. The National
6 Organic Program, transportation services,
7 wholesale and farmer's markets.

8 So, a whole bunch of stuff in a small
9 agency, and the National Organic Program in and
10 of itself has a whole bunch of things that we do.

11 So, now, let's move to the National
12 Organic Program. Our mission is to ensure the
13 integrity of the USDA organic products throughout
14 the world. Organic integrity from farm to table,
15 consumers trust the organic label, the concept,
16 and we're protecting that integrity from the
17 farm, through all the handling, distribution and
18 all the way to the marketplace.

19 Our authority is under the Organic
20 Food Production Act and the USDA Organic
21 Regulations.

22 So, how we're organized is in four

1 divisions. We have the Office of the Deputy
2 Administrator, which is overall administration
3 and priorities, communication, handling the FOIA
4 requests, budget and personnel things, and then
5 the three divisions.

6 Standards Divisions, which the
7 National Organic Standards Board mostly interacts
8 with. They're the ones that work on rules and
9 guidance, instructions and the national list and
10 deal with the recommendations directly from the
11 National Organic Standards Board.

12 We have the Accreditation and
13 International Activities Division. They do the
14 accreditation oversight of certifiers and handle
15 most of the work with the equivalency
16 arrangements and our recognition of foreign
17 governments conformity assessment systems.

18 Then the Compliance and Enforcement
19 Division that handles complaints, conducts
20 investigations and initiates enforcement actions.

21 So, that's a general overview of how
22 NOP is organized and how we fit into the overall

1 USDA and AMS structure.

2 So, in terms of leadership at the
3 National Organic Program, I report to Bruce
4 Summers, who is the acting administrator of the
5 Agricultural Marketing Service, and then my
6 direct report is Associate Deputy Administrator
7 Dr. Jennifer Tucker, and within the Office of the
8 Deputy Administrator there is a total, including
9 Jenny and myself, of eight people.

10 We have the Standards Division, who
11 the director is Dr. Paul Lewis, and there is nine
12 staff in that division. We have the
13 Accreditation and International Activities
14 Director Cheri Courtney, and she has eight staff
15 total there.

16 Compliance and Enforcement has nine
17 staff, and then we have a FOIA office that has
18 two staff with three contractors.

19 So, relatively limited personnel to do
20 a lot of stuff, and we feel like we -- we get a
21 lot of stuff done with a limited amount of
22 people.

1 So, our strategic plan has five core
2 focus areas. People and process, making sure
3 that we have great people to do the work, that
4 they're properly trained and that they have the
5 equipment they need to effectively do their work,
6 and that we're always looking at our process and
7 how to most efficiently and effectively get the
8 work done and look at how to improve it, to make
9 improvements over time.

10 Protecting organic integrity, that is
11 our focus. A lot of our activities focus around
12 how do we protect organic integrity through the
13 global control system, working with certifiers,
14 doing enforcement, very much a focus of the work
15 that we do.

16 Market access has to do with ensuring
17 that there are opportunities for farmers and
18 ranchers and processors and handlers to
19 participate in the organic market if they choose
20 to do so, so they have the information they need,
21 the information about the standards and how to
22 comply, if they want to sell in the local market,

1 regional market, and then for international
2 markets, working with other countries to ensure
3 that U.S. organic products have access to foreign
4 organic markets, as well.

5 Clear standards is ensuring that the
6 organic regulations are clear and enforceable,
7 always making improvements to those, based on
8 implementing recommendations from the National
9 Organic Standards Board.

10 Then finally, build technology that
11 advances organic integrity. I'll talk a little
12 bit more about that. That's primarily around the
13 organic integrity database, but we have some
14 other initiatives on that area, as well.

15 So, we currently have around 36
16 employees. If you've been paying attention over
17 the last few years, that's significantly less
18 than we have had in the past. We've had a number
19 of people move onto other jobs over the last year
20 or so.

21 We have a number of vacancies
22 currently, but we have a new administration that

1 had a hiring freeze in place until very recently,
2 and now we have a new order from the Office of
3 Management and Budget about reorganizing
4 government, that we have to address before we can
5 move forward with any hiring.

6 So, we have a vacancy in terms of our
7 assistant director in the Accreditation and
8 International Activities Division. Renee Mann
9 has left federal service to go hike the
10 Appalachian Trail, which sounds really appealing
11 at the moment, and had some other changes, as
12 well.

13 So, our budget has been -- is a
14 relatively modest budget, 2012, 2013 under \$7
15 million, went up to \$9 million in 2014 and has
16 stayed fairly stable for the last three years,
17 through 2016. We are funded through next week at
18 the 2016 level. So, we'll see what happens after
19 next week, but that's -- our funding runs out
20 April 28th, and for next year, we don't know.
21 So, stay tuned.

22 Our responsibility is 82 accredited

1 certifying agents worldwide. So, we have had a
2 couple of new certifiers that we've accredited
3 over the last year. There are certified organic
4 operations in over 120 countries and \$43 billion
5 in U.S. organic sales.

6 So, we used to like to say that we had
7 one employee for every billion dollars in sales.
8 Now, we even got a better return on your
9 investment, with going down to 36 employees, and
10 I'm sure the sales are way over \$43 billion now.
11 So, we should get something, some credit for that
12 or some kind of benefit.

13 Anyway, in terms of process
14 improvement, there is a lot of things that we do
15 in this area, in terms of quality management
16 systems. We do internal audits every year. We
17 do the management review, where we're looking at
18 all the various audits that we have and looking
19 at things that we want to focus on, in terms of
20 improvement.

21 Our real focus area in terms of
22 improvement this year is in our quality systems.

1 There were some findings about some weaknesses in
2 our record keeping, in quality systems, so we
3 have a concerted effort to make some improvements
4 in our document control and our records
5 management.

6 We also have a number of external
7 reviews and audits that are done. We have peer
8 review that's being conducted through ANSI. We
9 had a report to the board last Fall and our
10 corrective action report to that report is now
11 available on our website, and we have the start
12 of this year's review is happening right now.

13 We also have assessments by foreign
14 governments and those assessments that foreign
15 governments make of the USDA's organic program
16 are available on our website, once they are
17 finalized.

18 Finally, something to pay attention to
19 over the coming months. The Office of Inspector
20 General has been doing an audit on our organic
21 equivalence arrangements, as well as imports and
22 so, that report should be published in the next

1 couple months and should have some very good
2 information for things that we can do to improve
3 oversight over imports.

4 We use a team approach. We used a
5 team approach, for instance, for the organic
6 livestock and poultry practices final rule. If
7 you remember that -- that -- the comment period
8 for that ended in July of last year, and we
9 worked -- had a lot of people working on that
10 project, both throughout the National Organic
11 Program. We had a number of people working on
12 it, as well as people throughout the department,
13 Office of the Chief Economist. We had APHIS and
14 FSIS and NRCS that were helping us with different
15 sections of that rule, as well as input from FDA
16 and EPA.

17 So, very much attribute our success
18 there to that team approach that we utilized.

19 Okay, so, moving onto the core part of
20 protecting organic integrity. There we go. This
21 might be a little small print here.

22 But this is our quarterly report. We

1 have not published this yet. But this is some of
2 the information that we will publish on our
3 quarterly update, in terms of compliance and
4 enforcement for fiscal year 2017, that starts in
5 October of 2016.

6 So, what I want to point out here is
7 that incoming complaints for the first two
8 quarters are getting close to 200 incoming
9 complaints, and the number of completed reviews
10 and investigations is less than 100.

11 You'll see this trend over the last
12 number of years, that we're getting significantly
13 more complaints than we're closing every year.

14 So, we need to do something about that, because
15 it's not a sustainable system to be receiving
16 more complaints than we're able to handle.

17 So, we're looking at ways that we can
18 reorganize or rethink how we're doing this
19 compliance work, because getting additional
20 resources is challenging at this time. So, we
21 have to think how we can be more effective at
22 handling these incoming complaints.

1 In terms of the kinds of actions that
2 we take, cease and desist orders. We've done six
3 of those over the last six months, notices of
4 warning, 29, and investigative referrals, 18 over
5 that time period, and then settlement agreements
6 which can be both from complaints, but also from
7 other actions that USDA AMS takes.

8 There's been 15 of those. We have not
9 had any consent decisions during this time period
10 and civil penalties were \$45,000 in the first
11 quarter and \$38,000 in the second quarter.

12 Another thing that is a big activity
13 that happens at the National Organic Program is
14 handling appeals. So, there's a number of
15 different types of appeals that are received.
16 This is required by statute and regulation, that
17 we have and expedited appeals process within the
18 Agricultural Marketing Service, and so, that --
19 there's a variety of different things that can be
20 appealed.

21 So, certifier's actions can be
22 appealed, if they're proposing suspension or

1 revocation of certification, then they can --
2 then that party that's being -- has that proposed
3 adverse action can appeal to AMS.

4 If a certifier is denying
5 certification, they can appeal that to AMS.
6 Actions that NOP takes can also be appealed.
7 Cease and desist notices are appealable, a denial
8 of reinstatement, a reinstatement of
9 certification is appealable, and then if we're
10 taking a proposed action to suspend or revoke
11 accreditation, that's also appealable.

12 Our goal here on appeals is to have an
13 average closure of 120 days. We are -- we're
14 pretty much meeting that goal. That is a
15 significant improvement from five years ago, six
16 years ago, when it was over two years was the
17 average time for an expedited appeal process. So,
18 we've made a lot of improvement in that area over
19 the last few years.

20 We've had 23 appeals come in over this
21 time period, and not that many that have led to
22 decisions or closures there. You can see the

1 numbers, but there is a number that are working
2 through the process.

3 But, so, the point here is, this is --
4 this takes a lot of our resources to handle this
5 appeals process within the National Organic
6 Program.

7 The next thing that I'm pointing out
8 is administrative proceedings.

9 So, when there is an appeal, there's
10 many different things that can happen. An appeal
11 can be sustained. Appeal can be denied. It can
12 be dismissed or it can be settled.

13 If an appeal is denied, that is we are
14 agreeing with the certifier or with the National
15 Organic Program's proposed adverse action. Then
16 the operation has the right to request a hearing
17 in front of an administrative law judge, and if
18 they do that, then there is a lot of work that we
19 have to do.

20 We work with our Office of General
21 Counsel and we have to prepare a complaint to get
22 that process started.

1 So, that complaint goes out to the
2 party. Then we work with the Office of the
3 Administrative Law Judge to schedule the hearing,
4 and that -- this leads to -- to eventually a
5 hearing or I'll -- in many cases, there will be a
6 consent order that's determined before it gets to
7 hearing.

8 A lot of work for us to do, to work
9 with OGC, to make sure that this is happening,
10 and we currently have a number of different
11 complaints and things that are working through
12 that process, that are in process at the National
13 Organic Program.

14 Freedom of Information Act is also
15 something that we have a lot of resources that
16 are devoted to, a very important part of the work
17 that we do. We're required to disclose
18 information that's requested under FOIA, except
19 for things that fall under one of nine
20 exemptions, and that protects the interest of
21 personal privacy and for law enforcement. FOIA
22 requests are processed within 100 -- within 20

1 days and NOP staff are responsible for
2 identifying what we consider responsive records,
3 what are things that could be included in that
4 request.

5 Then those records, once those are
6 identified, they have to be -- ensure that they
7 are complete and then redact any information that
8 falls under one of those nine exemptions.

9 Some FOIA requests are very straight
10 forward. But many are -- involve hundreds or
11 thousands of pages and years of records through
12 that process.

13 We have two NOP staff members full
14 time that work on FOIA. We also have three full
15 time contractors working on FOIA and additional
16 staff is used as needed.

17 Currently, we have 12 open FOIA
18 requests, two that are under appeal and we have
19 seven that are under litigation. So, there is a
20 significant amount of resources that are devoted
21 to our FOIA responsibilities and efforts.

22 We are trying to post the --

1 everything that is released through FOIA on --
2 through the AMS FOIA reading room. So, you can
3 go to the AMS FOIA reading room to see those
4 documents. You won't see all those documents
5 there, because we have -- it takes us a while to
6 get those things through the process, but that's
7 the intent, is to get everything that's released
8 into that FOIA reading room.

9 Okay, moving onto accreditation of
10 certifiers. This is a very critical part of the
11 work that we do, the oversight of certifiers to
12 ensure that they're -- they're complying with the
13 requirements.

14 We do the five year -- they have a
15 five year accreditation cycle. So, we do the
16 renewal audits every five years. They have a
17 midterm audit. We also do compliance audits,
18 when we feel it's necessary to ensure that their
19 corrective actions from an audit are being
20 implemented.

21 We also do witness inspections, where
22 we are observing an inspector in the field doing

1 the work, and we do review audits where we go out
2 to operations, to see that the inspection was
3 complete and thorough.

4 There are 82 accredited certifiers and
5 the audits that we're conducting in 2017 are
6 quite extensive in terms of foreign audits,
7 Brazil, Australia, Vanuatu, which I guess is
8 somewhere in the Pacific and does a lot of
9 coconut, Haiti, Ukraine, Bolivia, Peru, Turkey,
10 Germany, Holland, Canada, Mexico, and Greece.
11 So, lots of audits in foreign countries.

12 Domestic audits are -- many states are
13 included there. So, you might wonder with such a
14 small staff, how do we go to all these various
15 places.

16 Our auditors are quite busy. They are
17 on the road a lot, conducting these audits. All
18 these audits tend to take at least a week. So,
19 this is a lot of time. Often, there is more than
20 one auditor that's involved, and but we also
21 utilize auditors from the livestock and seed
22 program that help us to conduct this work.

1 So, that -- lots of activities in this area.

2 We also have the recognition and
3 equivalency work. So, we have recognition of
4 foreign governments, New Zealand, Israel and
5 India. We did assessments of those government
6 programs in 2016 for India and Israel and we just
7 completed the assessment of New Zealand, just a
8 few weeks ago.

9 We also have equivalency arrangements.
10 We have five of those and so, we also conduct
11 assessments to ensure that those equivalency --
12 the terms of those equivalency agreements are
13 met.

14 We have equivalency discussions
15 underway with Mexico and Taiwan. Mexico is
16 implementing their Mexican organic regulations by
17 the end of the month. So, that's -- a lot of
18 attention is there. There is a lot of trade that
19 we have with Mexico. It's a big market for U.S.
20 organic products. So, lot of attention on Mexico
21 right now.

22 Argentina has officially applied for

1 equivalency and we understand that Chile is going
2 to apply for equivalency very soon.

3 Okay, moving onto the technology area.
4 We do have the organic integrity database. This
5 was part of the 2014 Farm Bill. We had \$5
6 million to support the work to develop this
7 database. Contains up to date information,
8 increases supply chain transparency and enhances
9 the integrity of the organic controls system.

10 Hopefully, you all are using it. It's
11 really an amazing resource and we continue to
12 make improvements to this database, though we are
13 running out of funding for the improvements to
14 the database, we do have funding to maintain the
15 database. We do have a lot of ideas of how to
16 make further improvements to the database. But
17 resources are becoming limited.

18 There is a feature, a relatively new
19 feature, advanced search. So, you have a way of
20 finding the information you're looking for, in
21 terms of what part of the world, a country or
22 state that you're looking for a product. You can

1 look for specific products. You can look for
2 things that are certified or suspended. It
3 allows you to really refine the search that
4 you're looking for.

5 One of the things that we're really
6 working with is with certifiers, in terms of the
7 quality of the information that they're
8 submitting, and you'll see as you work with this
9 database, that the quality is a little mixed.
10 Some certifiers provide much better quality
11 information than others, and we're trying to get
12 certifiers to use the -- a taxonomy of products,
13 so that these search engines will work much
14 better and there is more consistency in how the -
15 - the database works.

16 So, a lot of work and a great team
17 that's been developing this database.

18 We also have a new feature which is a
19 federal certificate. So, we do offer to
20 certifiers that they can use this federal
21 certificate.

22 So, one of the challenges in

1 conducting inspections is that there are 82
2 different types of organic certificates, because
3 there are 82 different accredited certifiers and
4 they all have their -- their separate forms and
5 they all look a little different. They're
6 required to have certain information on there,
7 but they don't have a standard look and feel.

8 So, we've been advocating that there
9 should be one USDA certificate that certifiers
10 use. We don't have the regulatory authority to
11 require that, but we are certainly offering this
12 -- this service.

13 There are two certifiers that are
14 using this certificate, and when they use this
15 then you can go to the integrity database and see
16 the certificate and the certificate has various
17 features. I'm not really good at these kind of
18 things, but like that QFR thing or QR thing, that
19 some kind of link back to the database, so it's
20 supposed to help with security and veracity of
21 the certificate.

22 Okay, so, so, new features for

1 integrity database.

2 In terms of clear standards, I already
3 talked about some of the regulations and
4 guidance. Organic livestock and poultry
5 practices. The effective date has been delayed
6 until May 19th. It is currently under review by
7 the administration. The administration is -- as
8 I said, is not really settled yet. So, stay
9 tuned on that one.

10 Sunset 2017 Proposed Rule, the comment
11 period for that closes today. So, that's a
12 proposal to remove 11 substances from the
13 national list, and then we did have open for
14 public comment, the calculation of the percentage
15 of organic ingredients in multi-ingredient
16 products. That comment period was extended to
17 April 7th, and that is now closed.

18 Normally, when I am talking about
19 rules and guidance, I have a lot of things about
20 things that we're working on. But there is not a
21 lot that we're working on because we don't have a
22 new administration and we have some new executive

1 orders that we have to kind of understand what
2 they mean, before we can move forward with rule
3 making.

4 We are working on organic import
5 instructions. These are instructions to
6 certifiers and to importers, because that's not
7 rule making. So, we have some authority to get
8 instructions out to certifiers.

9 We did post a short video on organic
10 integrity in the supply chain a couple weeks ago,
11 really encourage the certifiers and any handlers
12 to take a look at that. This is an area that
13 we'll be putting a lot of focus on, in terms of
14 ensuring that we use our existing regulatory
15 authority to ensure integrity in long and complex
16 supply chains, and we are working on grower group
17 instruction based on the NOSB recommendations
18 from 2002 and 2008.

19 This would be instructions for
20 certifying grower groups, which are very common
21 way of certifying groups of farmers in Latin
22 America, Asia and Africa.

1 Okay, that's all I got on standards.
2 That way? Thank you. That's not working either.
3 Oh, there we go.

4 Okay, so we have a global organic
5 control system. We work with many different
6 foreign governments and certifiers. As we all
7 know, organic trade is expanding, over \$80
8 billion in just the U.S. and EU organic market.
9 Those are the largest markets around the world,
10 but we're seeing it -- emerging markets in places
11 like Mexico and other countries, as well.

12 Many governments have established
13 organic standards and control systems. We are
14 working to -- with those governments, some of
15 those governments to improve the quality of the
16 work that they do. We're actually doing training
17 next week in Chile with Latin American countries
18 on ISO-17011 and competent authorities in
19 procedures, under organic systems.

20 Fraudulent certificates continued to
21 be identified. We just announced this morning,
22 some additional fraudulent certificates. So,

1 that's still a problem, and we have alleged
2 violations in foreign countries, and they can be
3 quite complex and challenging.

4 We have an ongoing investigation of
5 the increase in the amount of organic corn and
6 soy that's coming in from Eastern Europe,
7 especially from Turkey. It's a lot of questions
8 on how did over a few years, such an increase in
9 the amount of organic corn and soy get produced
10 and distributed from that region.

11 So, we have a lot of activities
12 looking into that and investigating that.

13 So, the organic control system is --
14 starts with the organic standards, ensuring that
15 they are comprehensive and clear, enforceable,
16 and then it's the certifiers that verify that
17 organic farmers and handlers are complying with
18 those organic standards.

19 So, they're the critical component
20 that verifies that the system is working, and
21 then the accreditation body and in our case, it's
22 AMS's National Organic Program, we ensure that

1 the certifiers are doing their job properly, that
2 they're doing thorough and complete inspections,
3 that they have qualified personnel, that they're
4 meeting all of their responsibilities as
5 certifiers, because certifiers are really the
6 ones that are doing the bulk of the work. We
7 can't -- we certainly can't do it with 35 people,
8 when there's tens of thousands of operations
9 around the world.

10 Certifiers are very important, in
11 terms of the enforcement of the standards. They
12 enforce the standards by -- under their
13 authority, by issuing notices of non-compliance
14 and ensuring that corrective actions are taken,
15 and then when they are not adequate, that they're
16 -- that they do proposed -- or suspensions and
17 revocations for those operations that do not meet
18 the requirements.

19 Then competent authorities, which are
20 the governments. We also have our authority and
21 responsibility, in terms of oversight of
22 certifiers, and we also do enforcement, as well.

1 So, all those various things work
2 together for this organic control system.

3 So, this is just an example of that in
4 action. This is a grain and rice operation in
5 Argentina. You can see part of the process where
6 there is an interview out in the field, and
7 looking at records. So, this system of
8 inspection and certification is operating
9 worldwide because organic is a worldwide system.

10 So, certifiers, as I said, are central
11 to the control. They are the ones that are
12 really the basic folks that are ensuring
13 compliance with existing regulations. So, go
14 certifiers.

15 This is some of the things that they
16 do. They first and -- they look at the organic
17 system plans. They review those organic system
18 plans for all kind of components, that the inputs
19 are complete, the inputs are compliant, that the
20 materials are compliant, and when we talk about
21 inputs, it's also any -- for a handler, it's the
22 inputs that they're buying organic ingredients or

1 organic products that they're buying, ensuring
2 that they are verified, that they're coming from
3 a certified organic source and meet the
4 requirements looking at the record keeping
5 systems, and then looking at the production and
6 handling systems within the plan.

7 Then they conduct the inspections, at
8 least an annual inspection. In addition, they
9 also do unannounced inspections and when they're
10 doing those inspections, they're seeing that the
11 organic system plan is accurate, that it's
12 complete and that it's fully implemented, and
13 they're reviewing the records and ensuring
14 traceability of product through the audit trail
15 and conducting mass balance audits.

16 All certifiers are required to do this
17 and they should be doing this, and we're ensuring
18 through our role, that they are doing this.

19 They also issue certificates. Those
20 annual certificates and then in certain cases,
21 transaction or import certificates are involved,
22 for specific shipments, and attestation

1 statements they may be issuing when we're talking
2 about Canada. So, these are some of the core
3 activities that certifiers do.

4 In terms of the product movement, it
5 can be quite complex and quite long. Again, I
6 apologize, this is a little small. But on the
7 far right, there are a lot of growers and the
8 growers may be submitting product to various
9 elevators, and then there's brokers and handlers
10 involved, and another broker, another warehouse,
11 then an exporter, then you have a ship that's
12 taking all the product over to the U.S. It goes
13 through a port of entry and then gets distributed
14 in the U.S., and this is just for one supply
15 chain.

16 One of the challenges that we have is
17 that there are operations that are excluded from
18 certification. They're not required to be
19 certified. So, anyone that sells labels or
20 represents products as organic is required to be
21 certified with some exemptions and they can be
22 excluded from certification if they're only in

1 handling already packaged product, but anybody
2 that's re-labeling or packaging or re-packaging
3 product has to be certified, and we're trying to
4 make sure that that is happening throughout this
5 complex supply chain.

6 So, in terms of record keeping, this
7 is one of my favorite parts of the National
8 Organic Program final rule. So, this is 205.103.
9 So, my favorite part, bedtime reading every
10 night.

11 Certified operation must maintain
12 records concerning the production, harvesting and
13 handling of agricultural products that are sold,
14 labeled or represented as organic. So,
15 everybody's got to keep records if you're a
16 certified organic operation and then such records
17 must be adapted to the particular business.

18 So, this is really nice. Really
19 beautiful because it allows that flexibility for
20 businesses to use their existing record keeping
21 system to comply with the requirements. But the
22 next part is really, really critical.

1 It has to fully disclose all
2 activities and transactions of the certified
3 operation in sufficient detail, as to be readily
4 understood and audited.

5 So, certifier comes in, an inspector
6 comes in, readily understood and audit-able, and
7 if not, that's a violation, and certifiers need
8 to make sure that if this is not true, that these
9 operations are not getting certified or are
10 improving their systems, so that this is true,
11 that the records are in sufficient detail to be
12 readily understood and audited. So, anyway, my
13 favorite part.

14 So, here are some of the records that
15 may be part of this process. Records verifying
16 that incoming product is organic with the amount
17 of the product, organic certificates for all
18 incoming products and ingredients, invoices,
19 purchase orders, bills of lading, scale tickets,
20 handler organic certificates and contracts that
21 handlers have with others. Those are important
22 to review and are important records.

1 Certificates of analysis, product
2 specification sheets, raw product inventory
3 reports and records, weigh tickets, receipts and
4 tags, clean truck affidavits or clean ship
5 affidavits.

6 So, many different types of records
7 may be relevant and are part of that organic
8 control system that are inspected and audited by
9 certifiers.

10 So, we -- I already mentioned the
11 excluded operations that may not be certified.

12 So, what happens for these non-certified
13 operations? Who keeps those records, if the
14 supplier is non-certified?

15 We don't have a lot of authority,
16 direct authority over these non-certified
17 operations. So, the real authority and the real
18 area that we have that leverage is on the
19 certified operations.

20 So, they are the ones that are
21 responsible for the product, whether they're a
22 buyer of the product or a seller of the product,

1 and in those cases, under the regulations they --
2 those records must be -- have sufficient detail.
3 They must maintain that traceability,
4 demonstrated through that audit trail, they must
5 prevent contamination and commingling, and they
6 must be available at inspection. Very important
7 components of this whole process that these
8 records are available.

9 Okay, so, that's a little bit of a
10 focus on that, but I know there's been a lot of
11 concern about that. This will be a lot of our
12 focus this coming year, is working on organic
13 integrity and supply chain, and with this -- one
14 of the other things that we're doing is training
15 and if this works, we're going to show you a
16 little bit of a video here, and if it does not
17 work, we won't show you the video.

18 This is a video that we created
19 primarily for certifiers and inspectors about the
20 inspection process, and it's a choose your own
21 adventure video, where you get to make the right
22 choices in inspector and the wrong choices in

1 inspector, and it's very, very well done, and
2 really what it will help inspectors and
3 certifiers do their job appropriately.

4 We're currently translating this into
5 Spanish, so we are making this available in
6 Spanish, as well.

7 So, it looks like it will not work,
8 but I encourage people going to the -- it does
9 work? Okay, or not?

10 Okay, we will, in the interest of
11 time, I think we'll move on. So, but it's really
12 great. I really encourage people to take a look
13 at it. It's pretty -- it's very professionally
14 done and it's pretty fun and you get to play like
15 you're an organic inspector, which is one of the
16 best jobs ever.

17 Okay, all right. So, with that, I
18 just have -- so, our priorities for this coming
19 year, as I said, organic integrity in the supply
20 chain, training certifiers and handlers,
21 implementing better oversight system for imports
22 and auditing certifiers and ensuring adequate

1 controls for long supply chains, especially those
2 involving imports.

3 So, we're aren't going to be doing a
4 lot of rulemaking this year, but we have a lot of
5 other work that we'll be focusing on and be able
6 to accomplish a lot.

7 So, thank you very much for your time
8 and listening, and for all the work that the
9 National Organic Standards Board does and all the
10 work that the organic community does to protect
11 organic integrity, and with that, I'll open for
12 questions. Thanks.

13 CHAIR CHAPMAN: Any questions for
14 Miles? Harriet?

15 MEMBER OAKLEY: I just want to
16 congratulate you for all the work that you're
17 doing in the enforcement area. As organic
18 continues to grow, we'll still have an -- at
19 times, it might be malicious intent, but many
20 times, it's just ignorance of our rules, that why
21 people use the word organic or are representing
22 things that, you know, they should not represent

1 with the organic seal or the organic label, and I
2 really appreciate all the work you're doing in
3 that area and as an advocate for organic, I'll
4 try to see what I can do with the legislators to
5 increase, if we can, your budget and at the
6 least, hold it where it is.

7 MR. McEVOY: Okay, thanks.

8 CHAIR CHAPMAN: Any other questions?
9 Ashley?

10 MEMBER SWAFFAR: As I'm really sad
11 that we're losing a really great board member
12 this year, but Miles, when will that posting be
13 up for our environmentalist open seat?

14 MR. McEVOY: Right. So, we did --
15 yeah, we will have a nomination coming out
16 relatively soon or applications for nomination
17 for the one open board position that will -- that
18 will be Francis's position that will be open
19 sometime in the next month or so, and that's a
20 long process, but the notice will be open for 60
21 days, 60 days, once that gets through the
22 clearance process.

1 It's getting close but things go very
2 slow at this point in time with the new
3 administration.

4 CHAIR CHAPMAN: Any other questions?
5 All right, I had a few, so, just wait till the
6 end. Which one to start with first?

7 The QR codes that you mentioned on the
8 certificates, do you know if those are available
9 to certifiers if they didn't want to use your
10 certificate, but used your QR code?

11 MR. McEVOY: I don't know. I could
12 find out.

13 CHAIR CHAPMAN: Okay, and then you
14 talked a little bit about the import oversight
15 team. I was wondering if you could give us a
16 little bit more detail about that. Who was on
17 that and what was their scope of responsibility?

18 MR. McEVOY: Sure. So, the import
19 oversight team has a number of different
20 projects.

21 So, it includes people from all parts
22 of the national organic program, so compliance

1 and enforcement, accreditation and standards, and
2 so, a lot of what they're doing is working with
3 other agencies.

4 So, we have entered into a memorandum
5 of understanding with the APHIS's
6 plant production and quarantine to look at
7 instituting a check-off system for imports to
8 ensure that any organic imports that may be
9 fumigated don't get into the organic stream of
10 commerce.

11 So, we've been working very closely
12 with APHIS PPQ on developing systems that will
13 enhance the integrity of that system.

14 We're also looking at the various
15 types of databases that are used for imports.
16 Currently, there is only -- there is the
17 harmonized trade code system that has about 40
18 organic codes and there are thousands of organic
19 items that are in trade.

20 So, there is also the ACE system that
21 the custom and border patrol is responsible for,
22 the automated controlled environment and so,

1 we're looking at are there ways of having an
2 organic designation so that we could track all
3 organic imports, not just those that have the
4 harmonized trade code system.

5 We're working on mutual training with
6 APHIS PPQ, training them more on the organic
7 standards, so their agents at the ports of entry
8 have more information about what to look for.

9 We have the organic import certificate
10 project. So, we have developed a proposed rule
11 to require import certificates for all imports,
12 not just imports coming from certain countries
13 that we have equivalency arrangements with. So,
14 that's in process.

15 So, that's a quick overview of some of
16 the activities that that import team is doing,
17 but a lot of it is working with APHIS and CBP on
18 -- on the port of entry area.

19 CHAIR CHAPMAN: Thank you. One last
20 question. So, you mentioned you're working in
21 120 countries, 82 certifiers, \$43 billion in
22 sales, double digit growth of operations with a

1 staff of 36, two of which are dedicated to FOIA.

2 How are you managing? What impact is
3 this having on your priorities?

4 MR. MCEVOY: What's -- well, it
5 doesn't impact any of the priorities. But it is
6 a lot of -- a lot of activities, a lot of work
7 that we are responsible for and that we do.

8 A lot of it, we are able to do because
9 of the great work that really, the certifiers do,
10 and then we also have in terms of overseas, we
11 have cooperation with foreign governments, in
12 terms of oversight.

13 But it is quite challenging. As I
14 mentioned, we are challenged especially on
15 handling the number of complaints that are coming
16 in. So, we're looking at ways to improve that
17 process to be more efficient and effective at the
18 same time.

19 Yeah, it is challenging, and we do
20 have a very heavy workload at the National
21 Organic Program.

22 CHAIR CHAPMAN: Emily?

1 MEMBER OAKLEY: Can you share with us,
2 some of the ways that you're looking to make the
3 complaint process a little bit easier to deal
4 with or is that still in the works? But anything
5 that you could share with us, I'd love to hear.

6 MR. McEVOY: Yeah. It's really very,
7 very, very much in the beginning stages.

8 Betsy Rakola, who is our new
9 compliance and enforcement director, she just
10 came back from maternity leave about a month ago.
11 We have started an outside analysis of the
12 current process, to look if there is
13 efficiencies.

14 What we are looking at is improving
15 the intake process, because we identified that as
16 a bottleneck that our intake process is -- has
17 some, I guess quick wins of ways that we can get
18 things moving along a little more quickly in the
19 process. So, yeah, it's very preliminary at this
20 point.

21 CHAIR CHAPMAN: Scott?

22 MEMBER RICE: Hi. Certifiers are

1 always really excited about instructions coming
2 out and we're just wondering if there's a time
3 line for that, when we might see that organic
4 import instruction.

5 MR. MCEVOY: Well, I have my time line
6 and then we have the clearance process. So, we
7 would hope to get that out some time early in the
8 summer.

9 CHAIR CHAPMAN: Harriet?

10 MEMBER OAKLEY: I know things are
11 moving very slow, but in the past, you've had a
12 list of things that were like in line, like
13 origin of livestock, apiculture standards,
14 guidance on pesticide drift and how certifiers
15 should deal with that.

16 I mean, those are things that are just
17 coming off the top of my head. I imagine those
18 things have not completely gone away, but I'm
19 wondering if there is still any movement or so,
20 when things start to free up, would we start
21 seeing some of those things move through for
22 comment or implementation?

1 MR. McEVOY: Yeah. Well, we don't
2 have the new administration here and we have some
3 executive orders that we have to understand the
4 meaning and how -- of those and how they affect
5 rule making.

6 So, all those types of activities,
7 there's a lot of things that have already been
8 done. There were some things that were in
9 clearance, like apiculture and pet food, origin
10 of livestock, there is a lot of things that are
11 in -- and aquaculture all have significant amount
12 of work that has been done.

13 So, that is not lost, it's just
14 sitting there. But there is no movement on
15 anything of a significant nature until we have a
16 new political leadership and we understand what
17 the administration wants to do around significant
18 rule making. So, that's going to, it could be
19 quite a while before we know what, if anything,
20 can move forward.

21 CHAIR CHAPMAN: Any other questions?
22 Seeing none, thank you very much, Miles,

1 appreciate your time and the information you've
2 shared here today.

3 Up next on the agenda is the Materials
4 Update and Summary of New and Outstanding
5 Petitions by Dr. Brines.

6 DR. BRINES: Good morning, and for
7 those looking at the agenda, it looks like we've
8 skipped over something, but we actually
9 intentionally moved it until after my
10 presentation. So, don't worry, we're coming back
11 to the NOSB update.

12 Okay, all right. So, good morning.
13 So, just a brief presentation today, giving the
14 board an update on the status of petitions and
15 technical reports that are in process, and I'll
16 talk a little bit today about some of the
17 procedures that will be used later in this
18 meeting to vote on specific materials.

19 This particular presentation will be
20 posted on the NOP website. So, for those that are
21 taking notes, the full presentation will be
22 available on the NOSB meeting page.

1 Okay, so, at this meeting we are going
2 to be addressing two petition materials which are
3 on the agenda and there are also 35 materials
4 that are up for Sunset under 2019.

5 So, this will be the first meeting
6 where the Board will be considering those 35
7 materials for Sunset. There will also be voting
8 happening at the second meeting, but that won't
9 be until Fall.

10 In terms of the criteria that the
11 Board will be looking at in terms of evaluating
12 the materials, whether those are petition
13 materials or sunset materials, all of those
14 criteria are provided for under the Organic Foods
15 Production Act of 1990.

16 We also have clear petition guidelines
17 and questions in the technical report, that are
18 all derived from those OFPA criteria.

19 So, in looking at petition materials
20 that come in, the technical reports and the
21 documents that the NOSB puts together through the
22 subcommittees for review and for public posting,

1 all of those elements are derived from the
2 criteria in the Organic Food Production Act that
3 give the basis for how material should be
4 evaluated for organic compliance.

5 There are different criteria that
6 apply materials, whether they use on the
7 production side for crop or livestock uses versus
8 handling or processing, and there are also
9 additional criteria in the regulations, in
10 addition to those in OFPA for synthetic
11 processing aids and adjuvants and those are at
12 Section 205.600(b).

13 Okay, so, for the crops portion of the
14 agenda, at this meeting there are no petition
15 crop materials on the agenda. There is a
16 proposal from the crops committee regarding
17 marine algae listings on the national list.

18 This was not related to a petition but
19 was an agenda item that the crops subcommittee
20 had asked to add to the work plan following the
21 Sunset 2017 review of certain substances, and
22 that was an agenda item that the NOP agreed to

1 have on the work plan. So, it's not petition
2 related, but came through a different mechanism.

3 But there are some other petitions
4 that are outstanding and waiting for crop
5 subcommittee proposal.

6 So, currently we have under
7 subcommittee review, petitions for allyl
8 isothiocyanate (AITC). Some of those may remember
9 that that was a petition material that came
10 before the Board previously. So, this is a new
11 petition, including new information that's asking
12 for a Board to reconsider the petition material.

13 There's also a petition for ammonium
14 nonanoate, also as reviewed by this Board
15 previously. There is a new version of that
16 petition. The initial one was sent back by the
17 Board. So, we're working on getting that posted.
18 It may happen this week or next week, but there
19 is a new petition seeking subcommittee
20 reconsideration.

21 In addition, there are petitions for
22 anaerobic digestate, fatty alcohols, natamycin,

1 polyoxin D zinc salt, and that polyoxin D zinc
2 salt was also a re-petition and a petition for
3 sodium citrate.

4 In support of this review, the
5 subcommittee has requested the development of
6 several third party technical reports that are in
7 various states of development, and once those
8 technical reports have been developed, and
9 approved by the crop subcommittee, they will be
10 posted on the NOP website and available to the
11 public.

12 Okay, so, for the livestock
13 subcommittee, they have several petitions that
14 are also under review that won't be addressed at
15 this meeting, but you can look forward on either
16 the Fall meeting or later, and we have petitions
17 pending currently for glycolic acid, sulfur,
18 hypochlorous acid, thymol, and 10 aquiculture
19 petitions that have been on hold for a while.

20 So, the petition for hypochlorous acid
21 was submitted after the most recent
22 recommendations from the Board on hypochlorous

1 acid. So, it's seeking additional uses beyond
2 what was in the previous recommendations, and
3 again, we do have several technical reports that
4 had been requested from the livestock
5 subcommittee that are in various stages of
6 review, and those will be posted once they're
7 complete.

8 Okay, from the handling committee, at
9 this meeting, the Board will be considering
10 proposals for two petitions, Short DNA tracers
11 and L-methionine. Those petitions are available
12 on the NOP website. There were no new technical
13 reports that were developed for those two
14 petition materials in support of their review.

15 Then we do have several other
16 materials issues that are pending full Board
17 determination that came from the handling
18 subcommittee.

19 So, again, these are not things that
20 came from petitions, but separate materials
21 issues that were added to the handling
22 subcommittee's work agenda.

1 Those include a potential annotation
2 change for Tocopherols, a list -- proposal for
3 marine algae listings, which affect several
4 materials that are currently on the national
5 list.

6 A proposal for ancillary substances
7 used in cellulose, which is our -- cellulose is
8 already on the national list, and a discussion
9 document regarding the use of Bisphenol A in
10 packaging, and the BPA proposal is just a
11 discussion document, and as per the current
12 policies of the Board, discussion documents are
13 not voted on at the meeting. They're generated
14 for additional information from the public, but
15 could become a proposal at a future meeting.

16 In terms of other petitions that are
17 currently pending before the handling
18 subcommittee, there is a petition for Sodium
19 dodecyl benzene sulfonate, that petition was
20 considered at a previous NOSB meeting and
21 deferred for a future meeting. So, that's still
22 under review, but is not on the agenda for this

1 meeting.

2 There is also a petition for silver
3 dihydrogen citrate and natamycin. Those two have
4 technical reports that have been requested from
5 the handling subcommittee.

6 There's also a petition for Sodium
7 chlorite for the generation of chlorine dioxide
8 gas which was on a previous agenda, but we don't
9 have any revised proposal out yet.

10 So, again, those proposals -- all the
11 petitions are available on the NOP website, and
12 the technical reports once completed, will be
13 posted there, as well.

14 There are a few other petitions on 606
15 or agricultural substances that are petitioned to
16 the handling committee, as well.

17 Two petitions that were submitted by
18 the same petitioner for Ethiopian pepper and
19 Japones pepper, and the recent petition for
20 Tamarind seed gum that was submitted to the
21 handling committee.

22 So, those are currently under review.

1 No technical reports have been requested for
2 those three materials.

3 In terms of other technical reports
4 that are in development, we have -- again, the
5 Bisphenol A, we have a technical report that is
6 currently in development, as well as one for
7 anaerobic digestate in crops.

8 That anaerobic digestate report was
9 requested in response to a petition, but has a
10 broader scope beyond just what was requested in
11 the petition, and that is fairly close to being
12 finalized. So, I expect it to be on the NOP
13 website not too long.

14 There was a new technical report
15 associated as a follow-up from the Sunset 2017
16 review of newspaper and other recycled paper, and
17 that report was developed and is now currently
18 available for the public on the NOP website.
19 There is not a proposal for that particular
20 listing on the agenda for this meeting.

21 Okay, so, in terms of voting
22 procedures, for the two petition substances that

1 are on the agenda for this meeting, the Board
2 will take two different votes for each particular
3 petition material.

4 The first motion will be a
5 classification motion on how the material should
6 be classified. That would be classified as
7 either synthetic or non-synthetic for crop and
8 livestock materials or agricultural and non-
9 agricultural for handling materials.

10 Second motion will be a motion,
11 whether material should be listed, removed or
12 amended from the national list. So, in this
13 case, the two petitions are asking that the
14 material be added to the national list. So, the
15 motion will be made to list the material on the
16 national list, and with the motion being made
17 that way, it will take a two-thirds majority to
18 add that material to the national list.

19 So, with a Board of 15 members here it
20 will take 10 votes for both the classification
21 motion and for the listing motion to pass.

22 Okay, so, just a little bit about the

1 Sunset 2019 listing.

2 So, there are 13 listings under
3 consideration by the crops committee, eight for
4 livestock and 14 for handling.

5 In this -- it's a little bit novel
6 process for us in that many of those materials,
7 all except one, don't actually have a Sunset date
8 of 2019. So, they have been advanced earlier in
9 the Sunset process, based on the recommendation
10 that came out of the Board at the Fall meeting,
11 to more efficiently organize the Sunset 2017
12 workload.

13 So, rather than having close to 200
14 materials all reviewed in one year, they're being
15 re-distributed over the next couple of years.
16 So, that's why these were sent to 2019, 34 of
17 those materials have been advanced for this early
18 review. But again, they won't be voted on until
19 the Fall meeting.

20 The one material that does have a 2019
21 Sunset date is the crops material biodegradable,
22 bio-based mulch film.

1 Okay, so, I think mentioned that, so
2 again, these materials will be considered at this
3 meeting, voted on at the Fall meeting.

4 For those interested, we do have in
5 the NOP program handbook on our website, a list
6 of all the materials on the national list, as
7 well as their sunset dates. So, those sunset
8 dates are updated with the publication of final
9 rules or final notices, under the NOP sunset
10 process.

11 So, again, these ones won't show a
12 sunset date of 2019, but they are being advanced
13 earlier, based on that NOSB recommendation, and
14 that's available on the website for those that
15 want to look at the current sunset dates.

16 I think that is all that I have today,
17 but I'm happy to take any questions that the
18 Board may have. Thank you.

19 CHAIR CHAPMAN: Any questions for Dr.
20 Brines? Dan?

21 MEMBER SEITZ: How -- let's say a
22 sunsetting material up for sunset is moved forward

1 in this process, as you say most of them are, and
2 the board votes that material off the list.

3 How does the actual -- what is the
4 date when that would take effect, assuming that
5 the rule process goes forward?

6 In other words, you're re-distributing
7 all the sunset dates, but are you changing the
8 actual time when something would be sunsetted?

9 DR. BRINES: It's a good question.
10 So, there was some guidance in the recommendation
11 from the Board in the Fall, in terms of what the
12 intent was on when those materials would come off
13 the list.

14 On a practical manner, the material
15 will come off the list when AMS completes the
16 rule making to take it off the list. So, we'll
17 have to go through the rule making process,
18 propose removal, take public comment and then
19 implement a final rule, and that final rule will
20 have an effective date.

21 So, at this point, it will depend on
22 what comes out of the Board, in terms of what

1 that effective date may be, but we do have some
2 more flexibility for those that have later sunset
3 dates.

4 CHAIR CHAPMAN: But to clarify, the
5 recommendation was to align with the original
6 sunset date, and we can make that wording clear
7 in our sunset recommendations.

8 Any other questions for Dr. Brines?
9 Thank you, Dr. Brines.

10 DR. BRINES: Thank you.

11 CHAIR CHAPMAN: Up next is the chair's
12 report. So, please bear with me, as I talk on
13 for a little bit.

14 Again, I want to welcome everyone here
15 in attendance. I know folks have traveled from
16 far and wide to come here. For some, this may be
17 your first meeting, for others, one of many.

18 But what brings us all here today is
19 that we deeply care about this organic movement.
20 We have some weighty issues on our work agenda.
21 Some things have lingered for some time and we
22 have to integrate fissures in our organic

1 community.

2 I'm not Pollyanna enough to think that
3 we'll be able to make everyone happy, or even
4 equally unhappy, like good regulation normally
5 does. But I hope that we can at least respect
6 and agree that we all are starting from the same
7 place. That is we all care about this organic
8 movement, as we're nurturing it and developing it
9 through these years.

10 We might not all be able to agree
11 where it should go, but I think we can respect
12 that we all care deeply about the movement
13 itself.

14 Hopefully, we can build on the
15 starting place of mutuality to find greater
16 common ground.

17 I wanted to thank the public for
18 bearing with us in the program during this change
19 in administration. I recognize our proposals for
20 public comment were available woefully late, and
21 this was a product of the pains of a massive
22 administration change, something our community is

1 fairly new to having deal -- to deal with, given
2 that we served under the same Secretary of
3 Agriculture for the last eight years, and have
4 only undergone one major administration change
5 since the standards were effective in 2002.

6 However, I look forward to working to
7 the appointment of the Secretary of Agriculture
8 and working on an line agenda that brings value
9 to organic farmers, handlers and consumers alike,
10 through these voluntary regulations.

11 I also look forward to working on an
12 agenda that continues to promote and grow the
13 organic marketplace, while maintaining strict
14 consumer confidence in that label.

15 So, despite this short period of time
16 that our proposals were available, we did receive
17 over 2,000 written comments and will have just
18 under 12 hours of oral comment here at this
19 meeting and through the webinar.

20 So, that represents about 55 percent
21 of our total time at this meeting, from those
22 numbers, you can tell that we have both a very

1 engaged public and a Board that really
2 appreciates and values those comments.

3 I'm always very impressed by the range
4 of comments and the thoughtfulness of those
5 received.

6 Also want to warmly welcome my fellow
7 NOSB members, especially our new ones who are
8 just realizing what they got themselves into.
9 Your service and commitment to the organic
10 community is invaluable and I thank you for your
11 countless hours, unpaid, away from your farm,
12 from your students, from your colleagues and
13 especially your family.

14 I would be remiss if I didn't
15 recognize a major accomplishment that occurred in
16 January of this year. The program finalized and
17 published the Organic Livestock and Poultry
18 Practices Rule, and really want to thank the
19 program for their tireless work on getting this
20 rule published.

21 This was the impressive of this
22 accomplishment cannot be underscored enough, and

1 it was a product of several NOSB recommendations
2 over several years, culminating in the unanimous
3 recommendation in 2011.

4 After countless public comment and
5 input, this proposal was widely supported by both
6 the community and the industry, from major trade
7 associations, to non-profits, to small livestock
8 and poultry farmers that look forward to working
9 with the new Secretary on implementing these
10 necessary requirements to a voluntary standards
11 and we stand ready to answer any additional
12 questions that the administration may have with
13 that.

14 MEMBER SWAFFAR: Tom, I just wanted to
15 chime in here and -- is that okay?

16 CHAIR CHAPMAN: Yeah.

17 MEMBER SWAFFAR: I just want to also
18 echo how proud I am to see this rule come into
19 effect.

20 I spent a lot of time at past NOSB
21 meetings, commenting in support of this rule.

22 This is -- this rule is critically

1 important and especially for the poultry
2 industry. Every week, I'm out inspecting poultry
3 farms and I hear from those producers how excited
4 they are for this rule to go into effect, and
5 especially how critical this rule is for the
6 success of their business.

7 This rule will greatly improve the
8 lives of millions of organic animals, and most
9 important part is allowing those animals
10 significant access to the outdoors, and so, I
11 would also just like to say thank you to Miles
12 and the entire department for all your hard work
13 on bringing this rule forward.

14 CHAIR CHAPMAN: Thank you. Harriet?

15 MEMBER OAKLEY: I would like to add to
16 that, that when I read that regulation, I could
17 really see how the department, the agency had
18 really read the comments, had taken into account,
19 the numerous stakeholder comments and feelings
20 and this -- our voluntary regulation is really
21 representing what the stakeholders want that
22 organic label to mean, and I totally agree with

1 Ashley there, that this is what the producers
2 want. This I what they want and it's going to
3 improve their bottom line. It's going to improve
4 their farms and it's going to improve the trust
5 in the organic label, and I just think it was a
6 tremendous undertaking and a very excellent final
7 product.

8 CHAIR CHAPMAN: Thank you. With that,
9 I am now going to take care of some housekeeping
10 items, and then we'll move onto a break, and
11 after that, public comment.

12 So, first off, I'd like to review the
13 NOSB conflict of interest policy, which is
14 written out in accordance to our policy and
15 procedures manual. This is going to be a little
16 bit of boring talk. I apologize in advance.

17 NOSB members are classified as
18 representatives under the Federal Advisory
19 Committee Act. Each representative is appointed
20 to articulate their view points and interests of
21 a particular interest group.

22 The Organic Food Protections Act

1 prescribes these interest groups, which includes
2 farmers and growers, handlers, certifiers,
3 environmentalists and conservationists,
4 scientist, consumers and public interest groups,
5 as well as retailers.

6 As such, NOSB members are expected to
7 provide independent or not expected to provide
8 independent expert advice, but rather advice
9 based on the interest groups served.

10 NOSB members represent the interests
11 of a particular group, as such many of these
12 interests are acceptable interests.

13 In the interest -- any interest is
14 acceptable if it's carried out on behalf of the
15 represented group, and if the Board member
16 receives no disproportionate benefit from
17 expressing that interest.

18 True conflicts arise when an interest
19 directly or disproportionately benefits a member
20 or a person associated with that member or could
21 impair the member's objectivity in representing
22 their group or has the potential to create an

1 unfair competitive advantage.

2 The appearance of a personal conflict
3 and loss of impartiality while not a true
4 conflict must also be considered when conducting
5 NOSB business.

6 To manage conflict of interest our
7 procedures are, once a discussion document
8 proposals are posted for public comment, each
9 NOSB member is to review those documents from all
10 subcommittees and research any potential
11 conflicts of interests due to their affiliations
12 or relationships.

13 Prior to the meeting, the program
14 provides a matrix of all the NOSB members that
15 lists all the items being considered at that
16 meeting. That's what's being displayed right
17 now. Sorry, I just lost my place, and members
18 use this matrix to disclose conflicts of
19 interests, for us to reference for recusals when
20 voting on these items.

21 If an individual is unsure if they
22 have a conflict of interest, then the question is

1 posed to the DFO, the NOP and working with the
2 USDA Office of Ethics as needed, determination
3 will be made whether a conflict of interest
4 exists.

5 The matrix is again, now being
6 displayed and as you can see, we have no recusals
7 on items before us.

8 If there were recusals, we would also
9 remind Board members at the start of each
10 subcommittee, but given that we have no recusals,
11 we will not be doing that at this meeting.

12 If Board members wish to disclose any
13 additional information about their interests,
14 they are welcome to do so at this time. This is
15 a general request and is voluntary. No specific
16 statements are required, but I do ask, does
17 anyone wish to make a statement at this time?
18 Asa?

19 MEMBER BRADMAN: Just a very quick
20 statement. I was remiss in my self-introduction
21 to mention that I'm also on the Board of Trustees
22 of the Organic Center. It's a volunteer

1 position. Really, all my work around these
2 issues are volunteer and I have no vested
3 interested, but I wanted to also mention that.
4 Thank you.

5 CHAIR CHAPMAN: Okay, and I for
6 myself, Clif Bar & Company, may use or have
7 suppliers who may use or may be under
8 consideration of using items up for sunset on the
9 handling lists, and our supply chain may use
10 items up for sunset on the crops list, but these
11 do not disproportionately benefit myself of my
12 company, and therefore, do not represent a
13 conflict of interest.

14 All right, moving on from conflict of
15 interests.

16 I ask folks to be courteous of their
17 neighbors, public commenters and to the Board,
18 please, please silence your phones, your
19 computers, and take any conversations outside to
20 the hallway.

21 Please try not to be distracting to
22 the Board or presenters if walking around the

1 room or using media to document this meeting.

2 We do have a stand placed up here.
3 We'd ask the public to refrain from coming behind
4 those, as it's distracting to the Board member
5 listening to testimony or deliberating on the
6 issues at hand.

7 This is not to deter the public
8 interaction with individual members during the
9 break. We still encourage that.

10 Those being disruptive will be warned
11 and if disruption is continued, they will be
12 asked to leave the meeting.

13 I do plan on running a tight ship, but
14 with a bit of humor now and then and my only ask
15 is that you laugh at all my jokes, starting right
16 now.

17 For the -- those of you who don't have
18 a calendar, tomorrow is April 20th, and for those
19 of you who don't know, there will be a 4/20 rally
20 occurring in downtown Denver. There will be
21 additional security at this hotel and if you are
22 stopped, please do tell them that you're

1 attending the NOSB meeting in the Majestic
2 Ballroom, and I do ask that you give yourself
3 extra time to arrive tomorrow. If you have public
4 comment and are not staying at this hotel, they
5 are expecting around 50,000 to 100,000 folks in
6 the downtown area.

7 All right, lastly, a reception is
8 being held tomorrow at 6:00 p.m. at the Whole
9 Foods Market, Rocky Mountain Regional Office.
10 It's a little north of the ballpark, I believe.
11 So, folks will likely need to cab there.

12 But that's it for me right now. So,
13 we'll take a break and we'll start back up at
14 11:00. So, that will be about 25 minutes from
15 now. Little bit earlier than what's listed on
16 the agenda. Thank you, guys.

17 (Whereupon, the above-entitled matter
18 went off the record at 11:42 a.m. and resumed at
19 11:44 a.m.)

20 CHAIR CHAPMAN: So, we're ready to
21 about get started with the public comment section
22 of the agenda.

1 We're going to pull up some slides
2 real quick to go over the public comment policy
3 as it's taken from the NOSB policy and procedures
4 manual.

5 I just want to point out that all
6 persons wishing to comment here were generally
7 asked to sign up in advance. We will work with
8 folks that walk in, as time allows, and people
9 will be called to speak in order of the listing.

10 However, if we are running ahead of
11 schedule like we are now, or behind schedule,
12 which we will likely be later, your time may
13 shift. So, do be prepared to be early or late.

14 Michelle, can you go to the next
15 slide?

16 The time allotment for public comment
17 will be three minutes. You'll get a yellow light
18 when there is one minute left, and then it will
19 go red, as the time expires.

20 Michelle, do we want to test the
21 system out, so folks can see it?

22 All right, tells some jokes. I got

1 no jokes. Jokes, anyone, from the Board? Jokes?
2 Jokes, anyone? Miles? Nothing. That's pretty
3 weak.

4 All right, I'll actually just keep
5 yapping on, in the time period until the red
6 light goes off.

7 So, when that red light goes off,
8 please finish up at your sentence. I do hate
9 interrupting folks. But in order to ensure equal
10 access, I will interrupt you. If you continue
11 for too long after that red light, but don't run
12 away quite yet from the podium. We will ask the
13 Board members if they have any questions for you
14 and proceed from there.

15 If you have a presentation, there is
16 a remote for you to use, to click through the
17 slides, and then moving down.

18 Persons are asked to give their names
19 and affiliations for the record. I'll be asking
20 everyone -- there we are. So, I guess I have to
21 stop talking now.

22 I will be asking everyone to start by

1 saying their name and affiliation for the record.
2 We ask that you disclose all relevant
3 affiliations pertaining to matters of business
4 before the Board.

5 If members of the NOSB want further
6 clarification, I do encourage you to ask
7 questions after the public commenter finishes
8 their comment.

9 I will be asking for this name and
10 affiliation before each commenter, to remind
11 folks and to also give you an opportunity to set
12 your name straight for the record, as I will
13 likely have butchered it when I called you up. I
14 apologize for that in advance. It was a joke you
15 guys were supposed to laugh at.

16 No proxies are allowed, and we also
17 ask that commenters refrain from making personal
18 attacks or remarks that impugn the character of
19 another individual.

20 If I do hear something of the nature,
21 I will interrupt the commenter and ask him to
22 refrain from the activity, and we also ask that

1 commenters be clear and succinct. It is your
2 three minutes to talk about what you wish,
3 previous point notwithstanding.

4 But just because you may be able to
5 speed read does not mean that we are good at
6 speed listening. So, this is the guidance that
7 we give.

8 So, with that, that's all I have for
9 public comment introductions, and we'll start
10 with the first public commenter, Theo, and up on
11 deck after Theo is Les Frankel.

12 Theo, for the record, can you please
13 state your name and relevant affiliation?

14 MR. CRISANTES: Hi, Board members.
15 Yes, my name is Theojary Crisantes. Just Theo
16 for short. I work for Wholesum Harvest. I'm a
17 grower, so, I'll start my comment now.

18 My name is Theojary Crisantes. I'm a
19 grower at Wholesum Harvest. We grow vegetables
20 in open field, shade houses, and greenhouses,
21 both in the ground and in containers.

22 I'd like to take this opportunity to

1 comment on the crop subcommittee discussion
2 document about agriponic, hydroponics, aquaponics
3 from April 2017.

4 Specifically, the statement regarding
5 plant-based materials, like coconut coir, wood
6 shavings and peat, used as a growing medium and
7 defined as biologically recalcitrant, resistant
8 to biological attack, they will break down slowly
9 over time, but do not serve as a substantive
10 source of nutrients for plants being grown.

11 As stated in written comments, there
12 is ample literature that describes these plant-
13 based materials such as coconut coir, as a source
14 of nutrients for plant growth.

15 Together with micro-biological
16 activity, they're an excellent growing media.
17 We've been growing vegetables in coconut coir for
18 more than 10 years and our own observations and
19 microbiological analysis coincides with this
20 literature.

21 Please refer to our written comments
22 for reference on the literature.

1 Furthermore, I would like to comment
2 on the proposed definition of hydroponic systems.

3 To include in the definition, the
4 concept of biologically recalcitrant soil --
5 solid materials, in my mind, creates confusion
6 and departs from the previous definitions this
7 Board has put forward in the past.

8 I would like to suggest that more --
9 a classic definition of hydroponic growing
10 systems would be adopted to read the following:

11 The production of normal terrestrial
12 vascular plants grown in a medium that is only
13 constituted by inert solid materials, to which
14 and inorganic nutrient solution is added.

15 To address some of the questions from
16 the discussion document, I would like to add that
17 regardless of the production method, liquid
18 fertility needs should be addressed by site-
19 specific conditions determined by the grower in
20 according with his or her organic system plan.

21 My comment on the Canadian standard is
22 that it's currently under revision, to address

1 the volume requirements, and this standard does
2 not address site-specific conditions, that
3 generate different soil volume requirements --
4 requirements for different crops and growing
5 regions.

6 Thank you for the opportunity to
7 comment and at this time, are there any questions
8 from the Board?

9 CHAIR CHAPMAN: Thank you. Thank you.
10 Any questions? Francis?

11 MEMBER THICKE: Thank you, Theo. You
12 mentioned that the coconut coir does provide
13 substantial nutrition for your plants.

14 Can you tell me what percent of your
15 plant nutrition rely on for coconut coir?

16 MR. CRISANTES: I didn't say that it
17 provided substantial. I said that it provided
18 nutrition for the plants.

19 So, in -- there is -- you know,
20 literature that states that it provides potassium
21 and other micro-nutrients.

22 So, I think there is no one single

1 input that is like a -- that it will have every
2 single answer to all the questions.

3 I think to think that one single input
4 can actually provide everything is very, you
5 know, short-minded or something like that.

6 So, it's the combination of coconut
7 and other inputs that creates the -- that creates
8 the nutrition.

9 CHAIR CHAPMAN: Emily and then
10 Harriet.

11 MEMBER OAKLEY: Thank you. I believe
12 you stated that you've been growing in coconut
13 coir for 10 years.

14 MR. CRISANTES: Correct.

15 MEMBER OAKLEY: Have you been
16 certified organic that whole time?

17 MR. CRISANTES: Yes, ma'am.

18 MEMBER OAKLEY: Okay.

19 CHAIR CHAPMAN: Harriet?

20 MEMBER OAKLEY: Is your operation
21 undercover or are you doing containers in the
22 field without covers, plastic covering?

1 MR. CRISANTES: It's -- we have it
2 under covers. So, it's a glass greenhouse. The
3 ones that we have our containers. Yes, it is
4 under cover.

5 MEMBER BAIRD: You said you go both in
6 ground and container growing.

7 MR. CRISANTES: Correct, yes, ma'am.

8 MEMBER BAIRD: Do you -- could you
9 tell us a percentage of additional inputs that
10 you would use in in-ground versus container or is
11 there a difference?

12 MR. CRISANTES: I don't find any
13 differences. There is -- there is -- you know,
14 there is different inputs that are used in one
15 system and then the other. But there is not a --
16 not -- I wouldn't say there is more inputs used
17 in one or the other.

18 I think that it becomes question of
19 site-specific conditions, and that's why we grow
20 both grow open field, shade houses, plastic
21 houses, because depending where we're at and the
22 conditions that we're growing those vegetables,

1 you know, we find that most suitable system or
2 approach that would work for there.

3 You know, we have a greenhouse in
4 Arizona, which is, you know, very arid and I
5 would say, you know, the conditions there for the
6 soil are not the best, but Arizona has a really,
7 really good sunlight, for example, and so,
8 chasing sunlight, we decided to establish
9 ourselves in Arizona, and that's why we choose
10 containers in that particular situation.

11 MEMBER BAIRD: Could I do a follow up?

12 CHAIR CHAPMAN: Yeah.

13 MEMBER BAIRD: Okay, have you done any
14 type of research showing nutrient density of
15 those foods that are grown in the -- in the
16 ground versus those that are grown in your
17 container systems?

18 MR. CRISANTES: No, ma'am. We're just
19 growers. You know, we're not --

20 MEMBER BAIRD: Okay. Okay.

21 MR. CRISANTES: Exactly.

22 MEMBER BAIRD: Okay, thank you.

1 CHAIR CHAPMAN: Any other questions?
2 Sorry, I didn't see you. We'll do Ashley and
3 then Asa, yes.

4 MEMBER SWAFFAR: So, I have a question
5 that nobody can answer. But do you know that if
6 what percentage of like the tomatoes, cucumbers,
7 peppers, eggplant, squash, that you grow, as an
8 industry, what percentage of those are grown
9 organically in containers or hydroponically?

10 MR. CRISANTES: As far as I know, the
11 SCAN data is only divided between greenhouse and
12 open field, because it goes back down to the POU
13 number and there is no difference between POU
14 numbers for tomatoes in the ground or tomatoes in
15 containers.

16 So, it would be, you know, very
17 difficult to come down and explain, you know, and
18 pinpoint that, and I -- I -- you know, it's not --
19 - I wouldn't have information to comment really
20 on that, and that's why the data probably doesn't
21 exist.

22 CHAIR CHAPMAN: Asa?

1 MEMBER BRADMAN: Looking at your
2 website, but do you produce any conventional
3 produce, as well?

4 MR. CRISANTES: No, we don't.

5 MEMBER BRADMAN: So, it's all organic?

6 MR. CRISANTES: Yes, sir.

7 MEMBER BRADMAN: Okay, then --

8 MR. CRISANTES: We produce, sell,
9 distribute organic produce. That's our business.

10 MEMBER BRADMAN: Okay, then the
11 question I have, perhaps for additional
12 presenters is, I want to hear the difference
13 between an organic container system and a non-
14 organic container system. I don't know if you
15 could comment on that.

16 MR. CRISANTES: Well, I can comment on
17 what makes organic containers, and I think the --
18 you know, the grave challenge is the nutrition
19 piece, because it -- it requires you to be very
20 careful in providing a great balance between the
21 inputs that you use and the biology that is
22 created in the roots.

1 So, for example, trying to have their
2 right balance of bacterial and fungi in the
3 roots, is quite important. Brewing teas, compost
4 teas, that are fungal or bacterial, depending on
5 the season, and so, turning -- I think the most -
6 - the biggest challenge is doing that, and I
7 think that's where the skepticism from some
8 members come from, because they don't understand
9 that piece, and I've had sent a letter to the
10 Board, inviting everybody on the Board to come
11 and visit our facilities in Arizona, so you guys
12 could, you know, see for yourselves, what it
13 takes to do it, that you can -- you know, we've
14 been certified for a long time and we've been
15 inspected many, many, many times.

16 So, by our grade inspector, I would
17 say Quality Assurance International, and so, you
18 know, having you guys come over is something that
19 we would proud of, to show you guys how it's all
20 done, so you can understand that piece, which is,
21 I think the most compelling one.

22 CHAIR CHAPMAN: I'm going to wrap this

1 up. So, Ashley and then I have a question and
2 we'll wrap it up.

3 MEMBER SWAFFAR: Sorry, I just wanted
4 to say thank you for answering the questions that
5 the crop committee posed. Not very many people
6 answered the question, and those are critical.

7 MR. CRISANTES: Thank you.

8 CHAIR CHAPMAN: And then I have one
9 last question for you, Theo.

10 Can you speak to how your operation
11 meets the soil ecology requirements under the
12 regulations as they're written today?

13 MR. CRISANTES: And you're referring
14 to soil fertility, composting, manuring and --
15 okay, and crop rotation.

16 So, what we do specifically and it's
17 really site-specific. But I'll talk a little bit
18 about the one in Arizona.

19 So, we use the compost -- sorry, we
20 use the coconut coir to grow the tomatoes and
21 then once the cycle of the tomato is finished on
22 the coconut coir, we take that coconut coir and

1 take it to our fields outside the greenhouse.

2 We introduce that coconut into the
3 soil. We do that because we want to be able to
4 continue the cycle of that -- of that -- of that
5 coconut coir and create the manuring process, and
6 be able from there to -- it has a lot of
7 biological activity. It has a lot of nutrients.
8 It has a lot of life left into it.

9 So, we bring it in. We incorporate
10 into the soil and then we grow Sudan grass.

11 The Sudan grass is then used for
12 composting in our own facilities. But the great
13 majority of the production of that Sudan grass
14 ends up in a local -- with a local farmer there
15 that uses it to feed his cows.

16 With the trimmings of the tomatoes, we
17 use that as well, to create compost. Part of our
18 compost recipe includes the tomato leaves,
19 includes the coconut that we use to grow, as
20 well.

21 So, cycling is something very
22 important and it's something that's embedded in

1 the way that we, you know, that we produce
2 tomatoes.

3 So, going back a little bit on the
4 nutrition piece inside the container, there is a
5 lot of cycling that needs to take place, for
6 those inputs to be available for the plant.

7 So, the presence of microbiology in
8 the roots creates that -- you know, helps create
9 that process.

10 So, I don't know if I answered your
11 question to your satisfaction.

12 CHAIR CHAPMAN: Thank you. With that,
13 thank you for your time in answering our
14 questions, Theo. We'll move onto the next
15 speaker.

16 MR. CRISANTES: Thank you.

17 CHAIR CHAPMAN: Next up is Lee Frankel
18 and on deck is Christie Badger.

19 Lee, please start with your name and
20 relevant affiliations.

21 MR. FRANKEL: Sure. I'll take care of
22 that housekeeping first. Thank you.

1 My name is Lee Frankel, I'm the
2 Executive Director of the Coalition for
3 Sustainable Organics. Thanks.

4 On behalf of the members of the
5 Coalition for Sustainable Organics, I thank you
6 for the time you are volunteering to help
7 maintain the integrity and value of the USDA
8 organic program.

9 The first and foremost, I urge extreme
10 caution with the approach being proposed by the
11 crops committee to use Section 205.105 to ban
12 various production methods.

13 The definition of hydroponics is
14 written in a way that will eliminate the use of
15 nursery trees, early generation sweet potatoes
16 and other critical important seeds by many
17 organic growers when Section 2508 of the OFPA is
18 applied.

19 Second, the NOSB has been presented
20 with data through the task force and written
21 testimony showing that all organic systems share
22 an active biology that ultimately helps to care

1 and feed the plant in a symbiotic manner.

2 However, there is still questions
3 about the biology of organic container systems.
4 So, I came up with an illustration of what this
5 may look like terms that we are more familiar
6 with.

7 Non-organic is represented by this
8 tasty meal from across the street, and the
9 salad of mixed greens with tomatoes represents an
10 organic production system.

11 Both system provides calories, but
12 they interact with our bodies in very different
13 ways.

14 Now, think of the bowl as growing in
15 the outer crust of the earth, and this platter as
16 a container system. Both systems are organic but
17 each has its advantages and disadvantages.

18 Likewise, other soil or containers can
19 be appropriate methods, depending on the site-
20 specific conditions a grower faces.

21 There are a few statistically
22 significant differences in between the biology of

1 growing organic in containers or in the outer
2 crust of the earth, as has been documented and
3 prepared for publication by Dr. Martin Dufresne
4 of Agriculture and Agri-Food Canada.

5 Of those few differences found in the
6 research, it actually showed slightly higher
7 levels of biological activity in container
8 systems.

9 Third should be called the standards
10 of other countries. The Canadian standard does
11 not require being in the outer crust of the earth
12 and describes the parameters of how to use
13 containers and now, here is an example of the
14 recommended European standards where this plant
15 in its container is still organic. But if I cut
16 it, now it's no longer can be sold as organic.

17 So, are those other countries really
18 just regulating supplies in the market with their
19 regulations, rather than showing a deep belief in
20 the absolute necessity to only grow organics only
21 in the outer crust of the earth?

22 Ultimately, we should let the

1 consumers of the United States help guide a
2 decision. In a survey of regular organic U.S.
3 consumers presented at the Fall NOSB meeting it
4 showed that U.S. consumers overwhelmingly support
5 the continued inclusion of containers in the USDA
6 organic program, and believe that the integrity
7 of the USDA program would decline if
8 certification were to be revoked for organic
9 production systems. Thank you.

10 CHAIR CHAPMAN: Thank you, Lee. Any
11 questions for Lee? I see Francis, then Harriet,
12 then Ashley. Francis?

13 MEMBER THICKE: Thank you, Lee. Can
14 you tell us a little bit more about your
15 organization, when it was formed and who are
16 members of it?

17 MR. FRANKEL: Certainly. You know, I
18 think as the NOSB was starting to reactively
19 consider the question of, you know, what are the
20 roles of containers and production systems not on
21 the outer crust of the earth, you know, number of
22 growers that used those methods started to show

1 up and testify a couple years ago at the Spring
2 NOSB meeting.

3 I think, you know, roughly then
4 shortly thereafter, the hydroponic task force was
5 formed, I guess people saw how that, you know,
6 got changed from its original vision of kind of
7 creating the nice data set for you guys to use,
8 to something much more policy oriented.

9 So, I guess growers got together, just
10 over a year ago, to come together and say, okay,
11 let's kind of pool our resources, do research,
12 try and serve the needs and answer the questions
13 of the NOSB.

14 So, there was roughly 40 growers that
15 are members, that are currently organic certified
16 producers that included containers as some part
17 of their production systems.

18 CHAIR CHAPMAN: Harriet?

19 MEMBER OAKLEY: I'm looking at your
20 produce there. It looks like it's mostly annual
21 crops. Is that correct?

22 MR. FRANKEL: I guess for this

1 demonstration, it's annual crops. But there's
2 perennial growers, as well.

3 MEMBER OAKLEY: Right, but for you --
4 so, if -- if we had a container standard that
5 required a certain percentage of soil or compost
6 to be in your substrate, could you transition
7 your operation over to that type of production?

8 MR. FRANKEL: I guess different
9 members have different systems.

10 So, for some, if you're looking at a
11 shorter crop that -- you know, does need lots of
12 aeration and maybe it's a good idea to put
13 earthworms in there.

14 If you're growing berries in a
15 container, for five to seven years, you know,
16 that will ruin the aeration of the system, and
17 so, maybe it's not such a good idea to have that
18 level of biology. So, it kind of comes back to
19 each individual grower, kind of what they're
20 growing, how long they're growing it, and whether
21 they're just kind of doing it for a real purpose
22 of if they're just doing it to kind of hit a

1 checkbox on the standard somewhere.

2 So, I guess that's -- if somebody
3 growing -- based on the system, you know, if
4 they're going to be harvesting that product in a
5 matter of weeks, you know, yes, they can throw a
6 pinch in there, but it's not necessary -- you
7 know, the biology that they're trying to support
8 in their root zone doesn't dictate that that
9 would necessarily be a best practice.

10 So, some people can do it, but again,
11 it depends on the site-specific conditions.

12 CHAIR CHAPMAN: Ashley?

13 MEMBER SWAFFAR: So, can you answer my
14 question? Do you know what percentage of each
15 organic vegetable or herb is grown in containers
16 or hydroponically?

17 MR. FRANKEL: Sure. I can try and
18 elaborate on the data that Theo just referenced,
19 because I know some SCAN data, as he said, you
20 know, the current distinction is just between
21 greenhouse and in the ground, as opposed to in a
22 container and in a greenhouse, in the ground.

1 You know, I guess that division is
2 roughly about 30 percent or 35 percent of retail
3 sales are now greenhouse grown in the organic
4 category, and their growth rate was two or three
5 times the rate of -- in the field product for
6 tomatoes, cucumbers, bell peppers, and I haven't
7 seen data for the other products.

8 MEMBER SWAFFAR: Follow up to that.
9 So, that's not specifically for organic. That's
10 for all?

11 MR. FRANKEL: No, that's for --
12 specifically for the organic POU.

13 MEMBER SWAFFAR: Okay, but one thing
14 I would like to see, since you're speaking for
15 that industry is, I would like to see those
16 numbers, if you can somehow gather them.

17 You know, what percentage of tomatoes
18 are grown --

19 MR. FRANKEL: Certainly.

20 MEMBER SWAFFAR: -- hydroponically or
21 containers, you know, we'll have the Fall meeting
22 to -- I would love to see that.

1 MR. FRANKEL: Okay, I'll try and
2 follow up sooner than that, to see if I can get
3 access to some of the SCAN data.

4 CHAIR CHAPMAN: Emily?

5 MEMBER OAKLEY: Ashley, I was just
6 going to note that those would be retail sales in
7 a grocery store setting, but they wouldn't
8 necessarily -- well, they wouldn't reflect
9 direct-to-consumer sales, and a lot of organic
10 farmers do do direct-to-consumer sales.

11 MR. FRANKEL: And then, I guess again,
12 one of the other weaknesses of that data set is
13 Costco isn't necessarily a regular supplier of
14 data to that system, but they do have in their
15 spec, that for the organic tomatoes, cucumbers
16 and peppers, that it needs to be container grown.

17 So, I guess you lose some and gain
18 some in different places.

19 CHAIR CHAPMAN: I think we'll go with
20 Francis and then we'll end the questions here.
21 Francis?

22 MEMBER THICKE: A question about your

1 graph. I remember looking at the full survey and
2 the survey said that previous to this question,
3 they listed all of the benefits of container
4 growing and hydroponics and then came back and
5 asked, do you think it's good, and could you tell
6 us what that paragraph was, that was --

7 MR. FRANKEL: I had provided a copy of
8 that full report one more time --

9 MEMBER THICKE: Okay.

10 MR. FRANKEL: -- in a written
11 comments.

12 MEMBER THICKE: Well, I just wanted to
13 point out that first there was a series of
14 statements given to the person -- people being
15 asked the question about all the benefits of
16 hydroponics and then came back and answered the
17 question, if it's good.

18 So, it would seem a little bit loaded,
19 I would have to find out.

20 MR. FRANKEL: We can try to write the
21 information in a -- as non-biased way as
22 possible, but again, I guess everybody has to say

1 something at some point. So.

2 CHAIR CHAPMAN: Thank you, Lee. Up
3 next we have Christie Badger and following that
4 is Jacob Moore.

5 Christie, if you could speak -- say
6 your name and affiliation for the record.

7 MS. BADGER: Christie Badger.
8 National Organic Coalition. Ready? Okay.

9 Thank you for the opportunity, as
10 always, to be a part of this exciting process,
11 and thank you to you for the important work that
12 you do to further strengthen the organic label
13 and the organic integrity.

14 I want to thank the handling
15 subcommittee for providing transparency into the
16 ancillary substances in cellulose. The list
17 includes some substances, but should not be used
18 in organic production.

19 The presence of these materials on a
20 list of materials used in organic products
21 reveals problems with the process that
22 identifies, but does not evaluate ancillary

1 substances.

2 Due to the objectionable
3 characteristics of these, the NOSB should
4 prohibit their use and the proposal should be
5 turned down. The proposal raises larger issues
6 and shouldn't make it clear that a policy of
7 allowing additional ancillary substances based on
8 functional class as proposed by the handling
9 subcommittee does not make sense.

10 The integrity of the organic label
11 depends on the NOSB performing its role in
12 evaluating substances as a gatekeeper of the
13 national list. It is imperative that the NOSB
14 develop a process for reviewing ancillary
15 substances that allows the Board and the public
16 to evaluate hazards of the materials.

17 NOC does not support the petition to
18 add short DNA tracers to the national list
19 because they were created using excluded methods
20 and do not meet the OFPA criteria of
21 essentiality.

22 We do, however, support the need for

1 a verification system to strengthen organic
2 integrity and would request that the CACS take up
3 the issue by adding certification for exempt
4 handlers to the work plan.

5 Indeed, from our conversation with Mr.
6 McEvoy at the NOC pre-NOSB meeting, it would
7 appear that this is an issue on which the NOP
8 would welcome additional recommendations.

9 As Miles pointed out, the current
10 focus of the NOP will be on organic integrity and
11 supply chain, and what can be done in the short
12 term to address issues created by exempt handlers
13 until further rule making can take place.

14 We strongly encourage the NOSB to take
15 advantage of this opportunity to further explore
16 implementing existing organic requirements to a
17 broader range of current exempt organic handlers.

18 NOC thanks the crop subcommittee for
19 the good work done on the proposal to strengthen
20 and clarify the requirements for the use of
21 organic seed. It's clear that much consideration
22 was put into the proposal and much progress made.

1 However, we feel there is still work to be done.

2 Here again, we would point to concerns
3 around uncertified seed dealers and handlers that
4 are not being addressed.

5 In addition to my work with NOC and an
6 organic inspector, performing approximately 200
7 inspections a year, I see issues around
8 uncertified seed dealers and handlers regularly.

9 As the subcommittee noted, it's very
10 clear that this has turned into a loophole, when
11 it comes to the use of organic seed.

12 CHAIR CHAPMAN: Thank you. Any
13 questions for Christie? Dan?

14 MS. BADGER: Be kind.

15 MEMBER SEITZ: Could you elaborate a
16 little bit more on the concerns about ancillary
17 substances?

18 As I read about them, apparently these
19 are used but then kind of disappear from the end
20 product or they leave trace elements. On the
21 other hand, it seems to me sort of intuitively
22 that you would to take a look at every substance

1 that somehow is involved in producing an organic
2 product.

3 So, just if you could explain a little
4 bit more about your concerns about that.

5 MS. BADGER: Okay. Sorry, I'm just --
6 I have a couple notes here, I wanted to put up,
7 in case that question came up.

8 So, specifically, on -- on this
9 proposal, vinyl chloride and Kymene were both --
10 are both genotoxic carcinogens, which are
11 considered to have no threshold below which they
12 do not cause cancer.

13 Vinyl chloride is classified as a
14 Group 1 carcinogen by the IARC and Kymene is a
15 brand name product whose ingredients are
16 considered trade secret. However, so, IARC
17 doesn't have a rating, but the MSDS sheet for
18 Kymene states that it is genotoxic carcinogen.

19 So, given that the fact -- given the
20 fact that there is no threshold below which they
21 do cause cancer, whether or not they -- you're
22 saying that they at some point, disappear from

1 the product?

2 MEMBER SEITZ: No, I'm just trying to
3 understand a little bit, how we look at them as a
4 Board because they seem to -- the indication that
5 I get is that somehow they're used in processing,
6 but then they more or less disappear, maybe
7 leaving trace elements. But I'm trying to
8 understand what is really happening with these --
9 these ancillary substances from your perspective.

10 MS. BADGER: If they do leave trace
11 elements, that's obviously a huge concern for
12 these two products.

13 I know when we were discussing this,
14 I said as a consumer of organic products, it
15 makes me extremely angry to think that I could
16 have been feeding this to my child.

17 Frankly, these two products from a
18 Google search came up, to show that they were
19 Group 1 carcinogens.

20 So, I'm perhaps, not even suggesting
21 that there is a lot of work to be done on this.
22 Perhaps a Google search before we post something

1 would be a good idea. Our consumers do it. So.

2 CHAIR CHAPMAN: Thank you.

3 MEMBER MORTENSEN: Christie, could you
4 -- could you finish the last point on the
5 loophole and just --

6 MS. BADGER: Under -- I'm sorry?

7 MEMBER MORTENSEN: On the seed
8 guidance loophole that you were referring to.

9 MS. BADGER: Thank you. I appreciate
10 that.

11 Yes. Okay, so, I ended -- and that
12 was from a quote from the subcommittee's work
13 about the loophole.

14 As noted previously, given the stated
15 current focus of the NOP, it would appear that
16 it's just an opportune time for the CACS to add
17 this certification of exempt handlers and seed
18 dealers to their work plan, and based on these
19 comments along with other issues presented in our
20 written comments, NOC would request that the NOSB
21 not pass the seed proposal as written.

22 If you would like more information

1 about how it creates a loophole, I'd be happy to
2 answer that, as well, if that's what you're
3 asking, Dave, or I'd be happy to talk with you
4 more about it.

5 MEMBER MORTENSEN: Maybe we could talk
6 about it later, but I think you answered what I
7 was asking.

8 MS. BADGER: Okay.

9 MEMBER MORTENSEN: Yeah.

10 MS. BADGER: Great.

11 CHAIR CHAPMAN: Thank you, Christie.

12 MS. BADGER: Thank you.

13 CHAIR CHAPMAN: We'll be moving on now
14 to Jacob Moore and on deck is Mark Kastel. We're
15 working on getting an on deck chair over here,
16 but if the people on deck could go hang out near,
17 Dr. Brines, that would be appreciated. So, we
18 can quickly move between folks.

19 Is Jacob Moore here? Jacob Moore
20 going once. Jacob Moore going twice. Mark,
21 looks like you go from on deck to on.

22 So, the new on deck is Tom Harding.

1 Tom Harding could go over by Dr. Brines. That
2 would be appreciated.

3 MR. KASTEL: I didn't have a chance to
4 warm up. She's not starting me yet, and I hope
5 you'll have as many questions for the public
6 interest community as some of the corporate
7 lobbyists and industry folks. Thank you.

8 My name is Mark Kastel. I'm the --

9 CHAIR CHAPMAN: I'm sorry, Mark, can
10 you also for the record, state your name and your
11 affiliation? I apologize.

12 MR. KASTEL: Okay, start over again.

13 Okay, good morning. My name is Mark
14 Kastel. I'm the Co-Director of the Cornucopia
15 Institute. We have a staff of 12 from Portland,
16 Maine to Portland, Oregon, including attorneys
17 with backgrounds in environmental and animal and
18 agricultural law, experts in farm policy and
19 agricultural economics and scientists.

20 Organics is a values-based industry.
21 Cornucopia's focus is on protecting the
22 fundamental ethical precepts that this -- that

1 has garnered strong support in the marketplace
2 and made this an economically successful
3 industry. Much of this success is now at risk.

4 Organic family farmers who milk cows
5 are having their milk checks cut and some are
6 losing their businesses. Families who produce
7 eggs can't compete with organic farms with a
8 million birds in confinement, in automated aviary
9 systems, and in some commodities like soy beans,
10 80 percent or more of the opportunities for
11 families to make a living here in the U.S.
12 benefitting from the success of organics has been
13 lost.

14 At this meeting, we will discuss
15 whether or not to throw out some of those
16 fundamental values and whether we are going to
17 continue the economic opportunities that we've
18 gained by shifting diets to healthier fare here
19 in the United States, or whether we're going to
20 hand that over to the agroindustrial sector.

21 I can remember back in the 70s and
22 80s, one of the mantras of the organic movement

1 was feed the soil, not the plants. The focus was
2 on building organic material, biological activity
3 and nutrients that would create long term, truly
4 sustainable mediums to grow our food in, better,
5 more nutritious food, more flavorful food, while
6 protecting the earth.

7 Now, corporate lobbyists in this room
8 are going to tell you that feeding plants
9 continuously with a liquid fertilizer solution is
10 either pure water, sprayed through the air or in
11 containers filled with mostly inert ingredients
12 is organic.

13 This is a gross betrayal of the
14 organic movement. Stare decisis is the legal
15 axiom that guides the United States Supreme Court
16 in not overturning rulings, after issues have
17 been thoroughly and carefully vetted.

18 Just because the major organic
19 industry lobby group and the hydroponic industry
20 now want to apply the term organic to hydroponic
21 fruits and vegetables should not justify
22 overturning prior NOSB deliberations with the

1 public's input and running roughshod over
2 language in both the existing regulations and the
3 enabling legislation that require careful soil
4 stewardship as a pre-requisite for organic
5 certification.

6 There is a higher authority in the
7 U.S. There is a higher authority than the USDA
8 or even a higher authority than the federal
9 courts, and that will decide these issues, the
10 organic consumer. Thank you.

11 Oh, thank you. I did speak to the
12 chair briefly. I'd like to close just by saying a
13 few words about Dave Engel, who many of us know.

14 Dave recently passed away. He was a
15 pioneer in this movement and attended many NOSB
16 meetings over the years. Dave was one of seven
17 founding farmers who launched the crop
18 cooperative that later became Organic Valley and
19 served on its first Board of Directors.

20 He ran Wisconsin's OCIA chapter and
21 would later be instrumental in forming MOSA and
22 MOSES, which now runs the largest organic farming

1 conference in the country.

2 In recent years, he's also operated
3 Nature's International Certification Services,
4 blessed be the memory of Dave Engel and Maarten
5 Sampson, who also recently passed away and was a
6 pioneering inspector. Thanks for that
7 opportunity.

8 CHAIR CHAPMAN: Thank you, Mark.
9 Thank you for bringing up Dave Engel's memory.
10 His loss was felt by our community.

11 MR. KASTEL: So, if there is any
12 questions.

13 CHAIR CHAPMAN: Any questions for
14 Mark? Dan and then Ashley.

15 MEMBER SEITZ: Just to try to
16 understand the essence of your comment, would you
17 say that there is any issue with how the law and
18 the regulations are written, from your
19 perspective, in terms of protecting what you
20 could consider the integrity, or is it more how
21 they are enforced?

22 MR. KASTEL: Yes. I think it's current

1 enforcement problem.

2 The USDA National Organic Program very
3 quietly allowed a select group of certifiers to
4 decide to certify hydroponic production without
5 the use of soil.

6 It's very clear in both OFPA and the
7 initial regulations, the current regulations,
8 that soil stewardship building soil, maintaining
9 and improving soil fertility is part of the pre-
10 requisite for gaining certification.

11 If somebody tells you that you have to
12 have a certain components on your automobile,
13 Federal Highway Transportation Safety
14 Administration, or it's not road worthy or a
15 state administration, and you don't use part of
16 those components that are required, you're
17 operating illegally, and you know, in terms of
18 this comparison, we don't have the science
19 either.

20 You asked the representative from
21 Wholesum Harvest, which is a multi-billion dollar
22 corporation and to answer a question they didn't,

1 number one, a minute percentage of their
2 production is in soil. Almost all of it is
3 hydroponic under glass or plastic, and when you
4 asked -- and I can't remember if it was you, Dan,
5 that asked about the nutritional content and they
6 said they didn't know, I'll quote Jesse Jackson
7 who once said, "If you want the right answers,
8 you have to ask the right questions."

9 So, if you want to depend on plausible
10 deniability, don't ask those questions.

11 The Cornucopia Institute doesn't have
12 the resources to do that kind of testing. The
13 industry could have done it a long time ago, if
14 they wanted. We're looking into right now.

15 But, you know, certainly we shouldn't
16 sanction hydroponic production, until we know
17 whether part of the promise in organics which is
18 not just lessening the toxic load on our bodies
19 and our blood streams, but it's also documented
20 to increase nutritional level.

21 There is a lot of peer-reviewed
22 science that supports that, but nothing that's

1 been peer-reviewed that supports hydroponics as
2 being on a par with that organic production.

3 CHAIR CHAPMAN: Thank you. Thank you,
4 Mark. Any other questions for Mark?

5 MEMBER BRADMAN: I had a question. In
6 some of the comments, there was a suggestion that
7 there could be perhaps, another label for
8 hydroponic, and then I think when I think of
9 compromise, I also think of, if there was an
10 environmentally sustainable hydroponic or
11 container system, if it were labeled properly, do
12 you think that could fit in with the NOP or would
13 require some other kinds of label?

14 MR. KASTEL: We haven't asked our
15 legal team to take a look at whether or not
16 labeling -- an extra label in addition to
17 organics, would be legal.

18 I think it would be quite confusing to
19 the consumer. We're not fundamentally opposed to
20 organic production, and I buy organics once in a
21 while that are labeled organic. I don't consider
22 that on a par with traditional organic

1 production.

2 But once in a while in the winter, I
3 might want a tomato that's not available locally
4 and I don't have a greenhouse grower. It's an
5 exception.

6 But to take the organic label and put
7 it on that production and it's happening right
8 now, there is no consumer information right now.
9 You won't know, unless you look for that Wholesum
10 Harvest sticker, and that's just one brand,
11 whether your Driscoll's brand berries are from
12 hydroponics or whether your tomatoes -- and they
13 don't say it's hydroponic on there. Just happens
14 to have their trade name.

15 So, certainly, the sustainable -- call
16 this Coalition for Sustainable Agriculture -- Mr.
17 Frankel is a contract lobbyist who works for
18 them. They form this to try to convince you
19 folks that that production was on a par.

20 They could certainly develop their own
21 label and sell the public on the superiority of
22 their products, in their mind, and we would be

1 happy in the organic community, to compete with
2 that and there is nothing wrong. That's what our
3 capitalistic system is all about, is giving
4 consumers choice and accurate information, so
5 they can make discerning purchasing decisions.

6 CHAIR CHAPMAN: Thank you, Mark. Any
7 additional questions? Thank you.

8 MR. KASTEL: Thank you, Mr. Chair.

9 CHAIR CHAPMAN: Up next is Tom Harding
10 with Nancy Burtman on deck. Tom, if you could
11 start with your name and relevant affiliations.
12 Thank you.

13 MR. HARDING: Tom Harding and I'm
14 speaking on behalf of Shenandoah Growers in
15 Harrisonburg, Virginia, who is a certified
16 organic greenhouse producer. They produce
17 organic living herbs in containers.

18 Good morning to everybody, and thank
19 you for all the good work on the NOSB and the
20 NOP.

21 I will not reiterate in detail what I
22 will be passing around, which was also on the

1 webinar the other day. But I wanted to highlight
2 some points about, first of all, the components
3 of the soil mix.

4 Our blend of soil mix is put together
5 all through -- through compost and a number of
6 other materials, all of them approved by the NOP.
7 The nutrient solution is composed from vegetative
8 matter, which is then utilized again, approved
9 NOP materials, and to increase the biological
10 capability of that material, and at the same
11 time, provide nutrition to the plant and
12 hopefully to the consumer.

13 This biological activity is very
14 critical and making sure that it produces that
15 type of plant is critical to us.

16 The other thing is the water system.
17 Our whole water system is either from the well,
18 not much of it is collected from the greenhouses,
19 through the root system. None of it is again,
20 exited to the outside. It goes through a
21 filtration system. It is cleaned and it is
22 reused.

1 The pest management system is an
2 organic integrated pest management system using
3 all aspects of integrated pest management that
4 are approved for organic use, including pests
5 that we release.

6 The technology is a cutting edge
7 technology. It's a gutter system. It has been
8 approved both in Europe and in America. It's been
9 certified organic for a number of years, and the
10 important thing about that is we're on six acres
11 down in the Shenandoah Valley. That same six
12 acres, in order to produce what they produce
13 annually there, would take 180 acres of actual
14 field grow.

15 The important thing here is to
16 recognize that we employ over 1,100 employees
17 throughout the company and each of them are very
18 proud of the living herbs they produce in pots,
19 that go to retailers, directly to consumers to
20 finish their growth and for utilization.

21 We believe there is plenty of room in
22 the organic market for certified organic

1 container units that in fact, meet the
2 requirements of the National Organic Program.
3 It's critical that we hold those standards and
4 clearly define what is truly a hydroponic system,
5 what is a containerized system and even what
6 those components, whether it be soil, a soil mix,
7 a compost or other materials, that all of it
8 meets the requirements.

9 You must clearly define what that term
10 means and all of the components that make up
11 what that system will be defined as.

12 Please remember that in the next 20
13 years, based on FAO, container or I should say
14 greenhouse and protective systems will grow at
15 least 40 percent and that most of that will be
16 done in urban and suburban areas, utilizing old
17 buildings and a number of other things.

18 Do not cut the technology off because
19 it's an opportunity for us to clearly define that
20 they will all be under certified organic
21 provisions. Thank you all very much.

22 CHAIR CHAPMAN: Thank you, Tom. Any

1 questions for Tom? Harriet?

2 MEMBER OAKLEY: So, Tom, did you say
3 that the Shenandoah growers are growing in soil,
4 is that correct, or soil mix and what percentage
5 --

6 MR. HARDING: It's a composite mix of
7 compost --

8 MEMBER OAKLEY: -- what percentage of
9 the mix is soil or compost?

10 MR. HARDING: I don't know. I don't
11 think much of it is soil. I think most of it is
12 compost and other materials that they blend
13 together.

14 MEMBER OAKLEY: And then what
15 percentage of the nutrient requirements -- these
16 are annual plants?

17 MR. HARDING: These are grown on a
18 routine basis. They mature to a degree and then
19 they're sold to the consumer for further growth
20 and utilization.

21 MEMBER OAKLEY: Oh, so, they're
22 growing plants for sale? It's a bedding plant

1 business?

2 MR. HARDING: No. It is a living herb
3 business --

4 MEMBER OAKLEY: I see.

5 MR. HARDING: -- in pots.

6 MEMBER OAKLEY: So, they sell basil
7 plants. Somebody can take it home and --

8 MR. HARDING: Correct, and finish off.

9 MEMBER OAKLEY: -- and take off leaves
10 and the plant keeps growing?

11 MR. HARDING: Exactly.

12 MEMBER OAKLEY: Okay, what percentage
13 of the nutrient requirements of the plant are
14 provided by outside liquid fertility inputs?

15 MR. HARDING: I think it's about a
16 50/50 mix.

17 CHAIR CHAPMAN: Thank you.

18 MEMBER ELA: I'm curious, given that
19 that's a living thing that you're selling to the
20 consumer, and presuming the consumer is not
21 adding any other fertility, once they take it
22 home, how long will that plant continue to -- to

1 -- I'm going to say thrive or survive in that --
2 in that soil or compost, once the consumer has
3 it?

4 MR. HARDING: Good question.
5 Normally, between 30 and 60 days, depends upon
6 the husbandry of the consumer.

7 CHAIR CHAPMAN: Thank you. Emily?

8 MEMBER OAKLEY: So, depending upon the
9 husbandry, does that mean if the consumer adds
10 liquid fertility themselves, it will last longer
11 or if they add nothing to it, how long will it
12 live?

13 MR. HARDING: Important is adding
14 water to it.

15 CHAIR CHAPMAN: A-Dae?

16 MEMBER ROMERO-BRIONES: Just curious.
17 You mentioned at the end of your presentation, 30
18 to 40 percent of these operations will be in
19 urban areas. I mean, I didn't catch that last
20 part. Can you speak to that?

21 MR. HARDING: That's a good point.
22 FAO has put out a report based on what they see

1 the future being in trying to feed a hungry
2 world, and one of the things that was said in
3 that report was that in the next -- by year 2020,
4 more or less, we will have grown 40 percent of
5 protective or greenhouse types of systems.

6 Many of those will be grown in
7 suburban and urban areas, particularly if you go
8 to New York City right now, there are a number of
9 these type of greenhouse systems, many of them
10 under artificial lighting of course, but some
11 not, that are growing plants for local
12 consumption in those cities, and I don't see that
13 trend stopping at the moment.

14 MEMBER ROMERO-BRIONES: Can you
15 mention the report title one more time?

16 MR. HARDING: It's an FAO report. I
17 would be glad to send it to you, so you have the
18 access to that FAO report. It's a composite
19 report with a lot of different other things, and
20 looking at the future of agriculture and how it
21 feeds the world.

22 MEMBER ROMERO-BRIONES: Thank you.

1 CHAIR CHAPMAN: Please send that
2 report to Michelle.

3 MR. HARDING: Thank you.

4 CHAIR CHAPMAN: We'll be looking at
5 that. Tom, thank you for your comments. Up next
6 --

7 MR. HARDING: Thank you.

8 CHAIR CHAPMAN: -- we have Nancy
9 Burtman and on deck is Michael Sligh. Just so
10 people realize, we are running about 15 minutes
11 behind the schedule at this point. Nancy, please
12 state your name and record -- name and
13 affiliations for the record.

14 MS. BURTMAN: Okay, my name is Nancy
15 Burtman. I am volunteer for Food and Water
16 Watch, and I'm here as a consumer who is directly
17 impacted and extremely concerned about the use of
18 oil and gas drilling waste water on organic
19 crops.

20 Federal regulations prevent drillers
21 from disposing of this wastewater in rivers and
22 streams, yet this water can sometimes meet state

1 quality standards, for what I don't know, and it
2 doesn't cover dangerous chemicals used in
3 fracking like benzene, a cancer causing chemical
4 which can stay in the water.

5 Farmers in some parts of California
6 are irrigating their organic crops with water
7 from districts that accept drilling wastewater.
8 Some farmers know this and some do not.

9 We know California has more organic
10 farms than any other state and makes up 40
11 percent of all organic sales in the country.
12 Consumers have no way of knowing if the food they
13 buy has been irrigated by drilling wastewater and
14 it uses 175 different chemical constituents.
15 This is why I am here today.

16 So, what can you and your Organic's
17 Board do about this? We need your help. You
18 need to admit this is an issue and address it.

19 That organic label on a food product
20 has to mean something. I'm one of a growing group
21 of the population who must, due to medical
22 reasons, do something and eat organic foods only.

1 I can't eat at restaurants or a
2 friend's houses. I can't buy any organic crops
3 from California at all. I get very sick.

4 I special order seeds for my garden.
5 I take a lot of supplements, vitamins, and when I
6 find something "good", I buy as much as I can.

7 Even though I'm so careful, I still
8 get sick two to three times a week, and I only
9 buy organic foods.

10 So, there is a part of the population
11 that has to deal with this daily, that have
12 reaction to the chemicals in our food, and you
13 need to help us know that organically labeled
14 foods are organic only.

15 Two, you need to consider the impacts
16 of fracking and using wastewater as discussions
17 are held on how to prevent contaminating organic
18 production.

19 Three, you need to help spread the
20 details about OFPA's efforts to address fracking
21 in their area and share this plan with other
22 certifiers and the USDA, to help organic farmers

1 defend themselves from fracking.

2 Four, you need to talk, and talk
3 loudly about the impact fracking on organic farms
4 and call for it to end. I go to Whole Foods,
5 Natural Grocer's, Sprout's, Trader Joe's, and no
6 one at these stores knows about this and how long
7 has this been going on? At least two to three
8 years I've been reading about it.

9 So, the time is now for the Organic
10 Board to help us, so when we buy something
11 organic, we know it really is organic because we
12 depend on that label to mean that these things
13 aren't getting into the foods that we're eating
14 and making us sick and other people sick, and
15 they're not even aware of it. Thank you for your
16 time.

17 CHAIR CHAPMAN: Thank you, Nancy. Any
18 questions for Nancy? Dan?

19 MEMBER SEITZ: I'm curious. How do
20 you know for sure that there are organic farmers
21 that may be using water that comes out of a
22 fracking operation?

1 MS. BURTMAN: Well, I've read a lot of
2 articles that state that they've been selling
3 that water to the farmers, and it's been stated
4 as fact.

5 I've read a lot of articles. I could
6 pass them along to you. Some of the farmers
7 don't know it is that kind of water, because it's
8 been "treated". Yet a lot of the chemicals still
9 come through in the treating of it, and I just
10 assumed I was fine because I was buying organic.
11 But I was still getting sick.

12 I went back to the doctor and got
13 treated, and discovered that -- I don't know if
14 I'm addressing your question. I might be going
15 around it but --

16 MEMBER SEITZ: No, that's fine. That
17 -- you've read a number of articles and it might
18 be good to forward those.

19 MS. BURTMAN: I would be happy to do
20 that.

21 MEMBER SEITZ: Thanks.

22 CHAIR CHAPMAN: Please share those

1 with Michelle and she can --

2 MS. BURTMAN: Okay.

3 CHAIR CHAPMAN: -- circulate them to
4 the Board. Any other questions? Emily? Emily,
5 Sue and then Miles.

6 MEMBER OAKLEY: I just wanted to ask
7 if you'd read part of OFA's public comment, which
8 was a fact sheet from the California Water Board
9 regarding produced water and irrigation water,
10 because I agree, this is definitely not something
11 that organic farmers want consumers to be
12 concerned about.

13 But according to that fact sheet
14 whether or not -- you know, I can't vouch for it,
15 but they say that they used produced water not
16 from fracking, but from oil and gas activities.

17 So, I just wanted to point you to that
18 fact sheet, and maybe contact the California
19 Water Board for potential further questions that
20 you might have.

21 MS. BURTMAN: Right, and I've read
22 it's from both sources, from both the oil and

1 gas, and the fracking water. I've heard they've
2 used both those sources, and they have had a
3 water problem there.

4 So, you know, they need to grow their
5 crops and use some kind of water, but isn't there
6 any other kind of water, and then the -- the
7 issue comes up, well, you're working so hard to
8 grow crops that are organic. You're getting the
9 soil. You're getting the crops, and then if
10 you're using water, that negates it as being an
11 organic -- you know, organic produce.

12 So, it's like how can you label it
13 organic when putting the water to grow it negates
14 is as being organic, because we know what the
15 organic label means.

16 So, it's bringing in all the things
17 that you have kept away from it, and it kind of
18 makes it a moot point, and I wouldn't even know,
19 if it didn't make me sick.

20 CHAIR CHAPMAN: Thank you, Nancy.

21 MS. BURTMAN: I mean, I have a lot of
22 friends who do organic and they're fine. The

1 chemicals don't affect them. I just happen to be
2 one of those group of people who reacts to those
3 chemicals and --

4 CHAIR CHAPMAN: Thank you, Nancy. We
5 have Sue and then Miles, and then we'll wrap it
6 up.

7 MEMBER BAIRD: I am sorry for your
8 chemical imbalance. I've got a friend who is
9 incredibly, and I know that it's a real problem.

10 My question to you, as NOSB, are you
11 asking us to -- to perhaps write that as a
12 prohibition to organic farmers, that they can't
13 use fracking -- fracked water? What are you
14 asking us to do?

15 MS. BURTMAN: Well, what I'm asking is
16 that how did this ever come to be, that we're
17 using water on organic crops that keep it from
18 being organic, because organic is free of
19 pesticides, chemicals and all those other things,
20 yet the water is now making those organic crops
21 not organic anymore.

22 It's compromising it and it should not

1 be labeled as organic, if we're allowing the use
2 of these water -- of this water, that's coming
3 from the oil and gas and the fracking waters, it
4 shouldn't be allowed to be labeled organic unless
5 a better water source is being used to grow those
6 crops. That's what I'm saying.

7 CHAIR CHAPMAN: Thank you.

8 MS. BURTMAN: It like negates it. It
9 shouldn't be allowed to be labeled as organic
10 because we've seen that label to mean something
11 very specific. The public sees that label and
12 thinks, oh, okay, this is a special food product
13 that we can rely on to buy and feed ourselves and
14 our families --

15 CHAIR CHAPMAN: Thank you.

16 MS. BURTMAN: And --

17 CHAIR CHAPMAN: Thank you, Nancy.

18 MS. BURTMAN: -- that's what -- okay.

19 CHAIR CHAPMAN: Miles?

20 MR. MCEVOY: Yes, water is really
21 interesting in the USDA organic regulations.
22 It's not really addressed in much detail, in

1 terms of water as an input.

2 There is the requirement under 205.200
3 about organic operations, organic producers in
4 particular have to maintain or improve soil and
5 water quality.

6 But in terms of water as an input, the
7 regulations are pretty silent on that, and there
8 is a wide diversity of water sources that are
9 used by organic farms around the world. It's
10 something that the Board and the program haven't
11 really looking into in a lot of detail.

12 In terms of fracking water, we have
13 looked at that, and we have not identified any
14 organic farms that are using any water from
15 fracking operations and I think we've also -- I
16 don't think it's allowed in farm production at
17 all to use any water from fracking operations.

18 Now, the produced water that you were
19 speaking about, there is some of that that is
20 being used that's from -- not from fracking, but
21 from oil production and that's the report that
22 Emily was referring to.

1 MS. BURTMAN: Talking about, yeah.

2 MR. McEVOY: Right. But fracking
3 water is not being used.

4 MS. BURTMAN: Okay, well, I'd be happy
5 to get those articles and send them along to you.

6
7 CHAIR CHAPMAN: Thank you, Nancy.

8 Please do.

9 MS. BURTMAN: Okay, thank you.

10 CHAIR CHAPMAN: Up next is Michael
11 Sligh, and Dave Chapman is on deck. Michael, if
12 you could start by stating your name and relevant
13 affiliations for the record.

14 MS. SLIGH: My name is Michael Sligh
15 with the Rural Advancement Foundation
16 International, and a part of the ever growing
17 alumni of the NOSB.

18 I have six issues I am trying to bring
19 before the Board. I'll probably make it through
20 three.

21 The first is that now is the time for
22 us to be united in positive communications on the

1 multiple benefits of organic to the U.S. economy.
2 We must do a better job about reaching to the new
3 administration, the new Congress and especially
4 to the new Secretary of Agriculture, for them to
5 understand that organic is unique in the federal
6 regulatory framework, that we are built on the
7 idea of having regulation and in fact, we came
8 and asked for regulation.

9 So, this is a critical understanding
10 for them to take home, and that the current
11 proposed USDA budget cuts pending ag
12 appropriations and the ongoing new Farm Bill
13 cycle require all of us to really fully engage
14 this because the outcomes of this will determine
15 our future growth and prosperity.

16 The NOSB must also play a role in
17 this, in communicating your research priorities
18 to the new Secretary as early as possible, so
19 that they understand specifically what our needs
20 are as we go into this new round of the Farm
21 Bill.

22 Secondly, new genetic techniques. We

1 strongly urge the NOSB to reconvene this ad hoc
2 working group and to finish this work and bring
3 it to a final vote by the Fall meeting.

4 This is critical because this is
5 timely to similar activities happening in other
6 countries, as well as the IFAOM World Congress in
7 India in the Fall. It would be very, very
8 important for the NOP to be able to provide
9 either guidance or instruction to the organic
10 certification community about this issue, so that
11 we don't end up with market disruption and
12 problems in the near future.

13 Thirdly, the issue of organic seed
14 purity. I have gone into some detail in the
15 written paper, about the larger macro challenges
16 that we have in getting regionally adapted seeds
17 to farmers. I urge you to look at that as well as
18 our link to a larger paper on this topic.

19 But I also want to say was one of the
20 authors of the original allowance for non-organic
21 seed, that we did this on purpose to recognize
22 that this is something that will affect farmers

1 in 120 countries, and that we also don't want to
2 inadvertently reduce agriculture bio-diversity on
3 agricultural farms, and that I would argue that
4 that is a better measure of our progress, as to
5 whether or not we are indeed increasing
6 agricultural bio-diversity on organic farms.

7 That was our intent with the
8 definition and that was our intent with allowing.
9 You should think of it not so much as a loophole,
10 but more as a safety valve.

11 CHAIR CHAPMAN: Thank you, Michael.
12 Any questions? Harriet?

13 MEMBER OAKLEY: I'm kind of interested
14 in what your critical area of concern is.

15 MR. SLIGH: Thank you for asking,
16 Harriet.

17 I guess this is an issue that I bring
18 to the new NOSB. This is the pattern -- we have
19 this re-occurring pattern that we have not
20 resolved, where the NOSB will make
21 recommendations, maybe over a long period of
22 time, and the USDA sometimes not really -- you

1 know, able to move that recommendation fast
2 enough into regulatory clarity.

3 So, we fall in this kind of grey area
4 where the market goes faster than our ability to
5 have regulatory clarity.

6 So, some of the examples that are very
7 frustrating to all of us on all sides of the
8 issue, you know, the access to the outdoors, the
9 hydroponics, the aqua-culture, the long list of
10 things and potentially, the new genetic
11 techniques could be another one of these examples
12 where the market grows faster than our ability to
13 have regulatory clarity.

14 So, I challenge this Board to look at
15 this as a root cause analysis, to figure out what
16 it is that we can do different, to break this
17 pattern, so that we don't have so much division
18 that is across our community, because it hurts
19 people on all sides, if we don't have that
20 clarity in real time.

21 So, I just say we've tried many things
22 in the past. The department has tried many

1 things, but I would say to date, we have not come
2 up with a solution to prevent that re-occurring
3 pattern.

4 CHAIR CHAPMAN: Thank you, Michael.
5 Any additional questions? Thank you.

6 MR. SLIGH: Thank you.

7 CHAIR CHAPMAN: Up next is Dave
8 Chapman. On deck is Madison Monty. Dave, you
9 could start with your name and relevant
10 affiliation.

11 MR. CHAPMAN: Hi. I'm Dave Chapman.
12 I'm an organic farmer. I've farmed organically
13 at Long Wing Farm in Vermont for the last 37
14 years, and I also served last year on the USAD
15 Hydroponic Task Force, where I learned a great
16 deal about this subject.

17 I want to talk about a phrase that is
18 currently popular with hydroponic supporters.
19 The circular firing squad.

20 This phrase implies that we all agree
21 on the important things and we are being divided
22 over a trivial side issue. But the current

1 debate is actually about what organic stands for.

2 Some claim the foundation of organic
3 farming is just avoiding synthetic fertilizers
4 and pesticides. This is a misunderstanding.

5 The foundation of organic agriculture
6 has always been the development and maintenance
7 of fertile living soil. We believe all benefits
8 proceed from this starting point. Healthy
9 plants, healthy animals, healthy humans and we
10 now learn a healthy climate.

11 The outcome of this debate will decide
12 if the USDA is still worthy to serve and protect
13 organic integrity. If you decide that soil is
14 unimportant, certified organic will continue as a
15 brand, but it will lose its place as the world
16 leader of the healthy soil movement, and the
17 world needs that movement now, more than ever.
18 We are running out of time.

19 The USDA had the legal right to define
20 organic in keeping with OFPA. But it has never
21 been given permission to reinvent organic in
22 order to serve the market needs of favored

1 enterprises.

2 The NOP was created to serve and
3 protect, not to reinvent. Hard-won trust in the
4 organic seal is being destroyed and it will not
5 be easily won back.

6 This is the most important
7 recommendation you will ever make. You will
8 either tear apart the organic movement or you
9 will start to restore it.

10 When organic certification is reduced
11 to a marketing strategy that misleads consumers,
12 it loses its soul and it will soon lose its
13 followers, as well. How long will organic
14 flourish without those who have built it?

15 If certification no longer represents
16 soil health, many will move on. We will build
17 something that supports real organic with soil as
18 the center of a living system, that includes
19 plants, animals and microbes. The world needs
20 your leadership now, more than ever. So, please
21 choose well. Amazingly, I finished before the
22 bell.

1 CHAIR CHAPMAN: Thank you, Dave.
2 Questions? I have Francis, Harriet, Ashley, Asa,
3 Joelle, Steve. We'll start with Francis and
4 Harriet, and then I'll go around again.

5 MEMBER THICKE: Thank you, Dave. In
6 your work on the hydroponics, can you give us a
7 perspective, do you believe there is a difference
8 between hydroponic drilling and container
9 drilling and what that distinction might be, and
10 also this term biologically recalcitrant as a
11 medium, how that all -- what is your perspective
12 on that?

13 MR. CHAPMAN: I'd say you know, the
14 task force was quite divided. About two-thirds
15 of the task force were ardent hydroponic
16 supporters and about one-third were ardent soil
17 supporters.

18 In the soil perspective, well, let me
19 give the real world perspective first.

20 In the real world, hydroponic
21 vegetable growing, most tomato, pepper, cucumber
22 and berry production takes place in containers,

1 and the growing medium is either rockwool, which
2 is like fiberglass insulation or coco coir, and
3 they're used fairly interchangeably. Growers
4 might go one way or the other.

5 Some people like coco. Some people
6 like rockwool. They like coco because it doesn't
7 break down easily and it's very nice. It recovers
8 when you dry it out and the oxygen comes in for
9 the roots.

10 So, just because something is growing
11 in a container does not make it hydroponic.
12 Hydroponic is whether or not you're feeding
13 liquid to provide the nutrition of the plant.
14 Did I -- I think I missed part of your question.

15 CHAIR CHAPMAN: Yeah, thank you, Dave.
16 So, we have several folks here, so try to focus
17 on answering the specific question.

18 MR. CHAPMAN: I'm trying. Sorry.

19 CHAIR CHAPMAN: Yeah, no problem.
20 Harriet, then Ashley, Joelle, Steve and Dan.

21 MEMBER OAKLEY: I'll follow up on
22 Francis's -- I'll follow up on Francis's

1 question, and that is in a container, where there
2 is mostly compost or soil, and if the plant is
3 getting 90 percent of its nutritional needs from
4 that container --

5 MR. CHAPMAN: Yes.

6 MEMBER OAKLEY: -- you know, it's a
7 big enough container and it has enough living
8 soil compost in there, would that be acceptable
9 for you to see that as -- as it not being
10 hydroponic --

11 MR. CHAPMAN: Right.

12 MEMBER OAKLEY: -- and instead being
13 an acceptable system for organic?

14 MR. CHAPMAN: Yes. I believe there is
15 a problem in there. The task force report did
16 take that on, and our final recommendation from
17 the soil subcommittee was that from the point of
18 view of certification, we recommended to follow
19 the EU model of it must be grown in the ground
20 unless it's sold in the container in which it's
21 grown.

22 I believe it's possible to have a

1 container system for sure, that is -- would have
2 90 percent of the benefits of soil grown and I
3 would call it hydroponic, but it's very easy to
4 game that system.

5 So, if you could ensure that there was
6 adequate soil volume and a limitation on the
7 liquid feed, so that the plant was actually
8 getting its nutrition from the natural biological
9 processes in that soil, I think that would be
10 acceptable, just hard to do from a regulatory
11 point of view.

12 CHAIR CHAPMAN: Thank you. Next I
13 have Ashley.

14 MEMBER SWAFFAR: So, I have two
15 questions. First question is can you describe
16 your crop rotation practices in your greenhouses?

17 MR. CHAPMAN: Sure. Yeah. So, she's
18 been reading my mail.

19 So, we don't rotate our crop in my
20 greenhouse. We rotate the soil and it's quite
21 interesting, actually.

22 We're starting to cover crop the soil

1 when we take it out and we'll grow a legume grass
2 mix for three or four years and then bring it --
3 add it -- let it rot down in the pile, add it to
4 our compost when we change the soil.

5 We have a very expensive greenhouse.
6 We are not Luddites, contrary to popular stories.
7 We have high level of technology and it's
8 expensive.

9 So, we need to have a high return for
10 that. We can't cover crop in our greenhouse
11 economically. But we want the benefits. So,
12 we're rotating the soil.

13 MEMBER SWAFFAR: Okay, and my next
14 question, you said in your comments just to
15 Francis that hydroponic, you define that as if
16 you're feeding liquid to the plant.

17 What percentage of nutrients come from
18 liquid fertilizers in your facility?

19 MR. CHAPMAN: None, and I actually
20 have grown in containers in the past, and I also
21 fed zero liquid. So, it was all coming from the
22 compost. We use a little organic Alfalfa meal.

1 Yeah. It's very possible. The conversation
2 about our choice being a choice between
3 hydroponic or not having that kind of level of
4 production is -- it's not a true choice.

5 CHAIR CHAPMAN: Thank you. Joelle?

6 MEMBER MOSSO: My questions have
7 already been asked.

8 CHAIR CHAPMAN: Okay, Asa, did you --
9 sorry, I missed you.

10 MEMBER BRADMAN: I had -- I was kind
11 of repeating a question earlier --

12 CHAIR CHAPMAN: Sure.

13 MEMBER BRADMAN: -- although I have a
14 second. The first being, you know, I think I've
15 read some of your comments related to labeling,
16 and the possibility of another label, and I
17 wonder if you see if there were an
18 environmentally sustainable system that could be
19 container, or even hydroponic, or water based,
20 I'll even go further than just hydroponic.

21 Do you think that could fall within
22 the NOP program if there was a distinction, so

1 consumers who are concerned about these issues
2 could make a choice?

3 MR. CHAPMAN: My personal opinion,
4 Asa, is that organic means fertile soil.

5 So, I believe the appropriate way for
6 the bioponic industry to proceed is to do a PVP
7 with the USDA, that's a process verified program.
8 They create their own label. They advertise it
9 to the customers. The USDA inspects and says,
10 yes, you are meeting your standards. We verify
11 that, and then you have total integrity.

12 I think that they could do a booming
13 business. I agree, many consumers don't care.
14 But unfortunately, many people do, and the way
15 it's going now, it's not going to go well. They
16 could do that. It would work.

17 CHAIR CHAPMAN: Thank you.

18 MEMBER BRADMAN: I have a follow up,
19 but we're using too much time.

20 CHAIR CHAPMAN: Is it brief?

21 MEMBER BRADMAN: I'll ask the
22 question.

1 CHAIR CHAPMAN: Go for it.

2 MEMBER BRADMAN: You can interrupt if
3 it's not brief.

4 CHAIR CHAPMAN: Go for it, Asa.

5 MEMBER BRADMAN: The question is about
6 liquid feeding.

7 It seems like one of your real
8 concerns is about the use of liquid fertilizers
9 in greenhouse or container systems as kind of
10 pushing it over into organic -- into a non-
11 organic model, paradigm.

12 What about if we're using liquid
13 feeding systems in a soil based systems, perhaps
14 if there's very low fertility, then we may
15 actually lose it -- using a large percentage of
16 liquid feeding in that environment, potentially.
17 I don't know --

18 MR. CHAPMAN: Yeah, absolutely.

19 MEMBER BRADMAN: -- the details here,
20 but I'd be interested to hear your comments on
21 that.

22 MR. CHAPMAN: I advocate following the

1 standards of the Soil Association in England,
2 where they limit liquid feeding to 20 percent of
3 the nutrients that the crop requires regardless
4 of whether it's in the field or in a greenhouse,
5 and I think that's a good standard.

6 I hope that we're not permitting
7 straight fertigation in the field. It's not
8 according to the standards. We shouldn't be.

9 CHAIR CHAPMAN: Thank you. I have
10 Steve and then Dan.

11 MEMBER ELA: That was my question.
12 So, thank you.

13 CHAIR CHAPMAN: Thank you, Steve.
14 Dan?

15 MEMBER SEITZ: My question has been
16 answered.

17 CHAIR CHAPMAN: Excellent. Is there
18 any other questions I missed?

19 Thank you, Dave, for --

20 MR. CHAPMAN: Thank you very much.

21 CHAIR CHAPMAN: -- taking all of our
22 questions. Very appreciated.

1 Up next I have Madison and following
2 Madison is Courtney Ellis, if you go to the on
3 deck spot. Madison, could you state your name
4 and affiliation for the record?

5 MS. MONTY: Sure. My name is Madison
6 Monty and I'm Policy Advisor for the Northeast
7 Organic Farming Association of Vermont.

8 NOFA Vermont and Vermont organic
9 farmers represent over 1,200 member and close to
10 700 certified organic producers and handlers.

11 I appreciate this opportunity to
12 address the Board, and I'll be commenting today
13 on two discussion documents including eliminating
14 the incentive to the organic ecosystems to
15 organic production and hydroponics, aquaponics,
16 aeroponics, as well as a proposal on
17 strengthening the organic seed guidance.

18 While we haven't found this to be a
19 significant issue in Vermont, we support the
20 NOSB's efforts to prevent the conversion of
21 native ecosystems and high value conservation
22 land to organic production, and we appreciate the

1 discussion document on this topic.

2 In general, we believe a rule change,
3 rather than the issuance of guidance by NOP will
4 be the best approach to addressing this issue.
5 We also generally support an extended five year
6 waiting period for land that has recently been
7 converted from a high value conservation land or
8 native or fragile ecosystem.

9 We also support the NOSB's
10 recommendation for a rule change to require
11 annual documented improvement for sourcing and
12 using organic seed and planting stock, as long as
13 it is understood that there may be circumstances
14 that would warrant an exception.

15 For example, a producer may increase
16 their production in a crop where organic seed is
17 difficult to obtain, and therefore, their annual
18 sourcing percentage would decrease in that
19 situation.

20 In addition, we don't support the
21 inclusion of language that would require full
22 compliance with 205.204(a) because we don't feel

1 it would be fair to burden the farmer with
2 sourcing organic seed and planting stock that
3 might not yet exist.

4 Finally, as you all know, the NOSB's
5 deliberations around hydroponic, aquaponic and
6 agroponic systems have substantial ramifications
7 for the future of organic.

8 Although there is a continuum of
9 methods used in greenhouse and container
10 production, as has been discussed, we believe the
11 distinction between the two ends of this
12 continuum, one being in-ground farming and the
13 other being bioponic systems is clear enough for
14 the NOSB to move forward with a prohibition of
15 the latter in organic.

16 While some container production may be
17 -- may approach the in-soil end of the continuum,
18 we prefer a situation where only in-ground
19 production can be labeled organic, aside from
20 some exceptions for bedding plants and herbs as
21 in the EU standard.

22 With regard to fully mature crop

1 production in containers, clear standards are
2 needed before this type of can be considered to
3 meet the basic principles of organic in the
4 letter and spirit of OFPA.

5 These standards would need to specify
6 the percentage fertility provided by liquid
7 fertilizers and include clear requirements for
8 soil volume and compost.

9 To that end, we support the
10 recommendations of the 2010 NOSB recommendation
11 subcommittee of the hydroponics task force for
12 liquid fertilization, soil volume and compost,
13 which Dave just mentioned.

14 Lastly, I wanted to address two of the
15 subcommittee's specific questions. The first
16 regarding an alternative label under OFPA for
17 hydroponics.

18 We're not confident that this would be
19 a meaningful solution, as it may still be
20 challenging for consumers to distinguish between
21 soil grown and hydroponic and may add to
22 confusion in the marketplace. Okay.

1 CHAIR CHAPMAN: You want to finish
2 your last sentence?

3 MS. MONTY: Yeah, sure. I was just
4 going to add that if a distinct hydroponic label
5 is going to be established, we would support an
6 alternative, you know, outside of the OFPA label
7 under a separate USDA program, as Dave just
8 discussed, as well.

9 CHAIR CHAPMAN: Any questions for
10 Madison? Harriet?

11 MEMBER OAKLEY: So, even in ground
12 production, say in a greenhouse, how do you, as a
13 certifier, deal with artificial light, as well as
14 continuous use of some -- like a plastic
15 landscape cloth?

16 MS. MONTY: We generally support the
17 use of artificial light, consistent use of
18 artificial light, only for the production of
19 transplants and not for mature crop production,
20 and as far as plastic landscape cloth, that would
21 be a better question for Nicole Dehne, who is our
22 certification director, who will be commenting

1 tomorrow. She could answer that more fully for
2 you.

3 CHAIR CHAPMAN: And you, Steve.

4 MEMBER ELA: Just to clarify what you
5 said. So, at this point, you would -- your group
6 would support just soil based systems and you
7 prefer to leave the container issue to be defined
8 later at this point, draw the line on soil or not
9 and then -- and then back up and allow containers
10 as we define a more clear standard, is that
11 correct?

12 MS. MONTY: Yeah, basically, yeah. We
13 would like to see container standards develop
14 more clearly and we definitely support that work.

15 But at this point, since there aren't
16 clear standards for container production, we
17 think in ground is the best approach.

18 CHAIR CHAPMAN: Joelle?

19 MEMBER MOSSO: I have a question
20 regarding in ground growing.

21 If you were to use the substrates that
22 are normally used in container growing and

1 recreated that in ground, how would you view
2 that?

3 MS. MONTY: I don't know how that
4 would be done. I mean, I think it would still --

5 MEMBER ELA: You incorporated it into
6 the --

7 MS. MONTY: -- a question of the --

8 MEMBER ELA: -- majority of this top
9 soil --

10 MS. MONTY: Okay.

11 MEMBER ELA: -- so that it would be in
12 the root zone.

13 MS. MONTY: Uh-huh. I mean, I think
14 really the question at the end of the day is
15 where the plants are getting their nutrients
16 from, and I think if the plants are getting the
17 majority of their nutrients from the soil, rather
18 than the liquid feeding system, then that is
19 acceptable.

20 CHAIR CHAPMAN: Any additional
21 questions? Thank you very much.

22 MS. MONTY: Thank you very much.

1 CHAIR CHAPMAN: Up next is Courtney,
2 followed by Vanessa Campuzano. Courtney, if you
3 start with your name and relevant affiliations
4 for the record.

5 MS. ELLIS: Yes. My name is Courtney
6 Ellis. I am a nutrition therapist here in
7 Denver, and just to let you guys know, some of
8 the clients that I see regularly have digestive
9 issues, dysbiosis, auto-immune disorders and so
10 forth.

11 So, basically I want to start out by
12 saying this consumer driven rise of organic whole
13 foods is not a trend. It's a matter of life or
14 death for some people.

15 Organic food is vital to our health
16 and well-being and should be viewed as medicine
17 and every time we put something into our bodies,
18 we need to decide if this is going to hurt us or
19 help us.

20 The food we eat, the water we drink
21 and the air we breathe directly affect our health
22 and when we water down our standards or require

1 exemptions to the rules set in place for safety
2 and quality, our farmers, our soil, our
3 environment and our health suffer.

4 Food is not just fuel. It's
5 information and it communicates with our cells,
6 and every time we eat our food sends messages to
7 release hormones into immune cells. It also
8 communicates with our genes, by telling which
9 ones to turn on and which ones to turn off.

10 Our soil needs several minerals to
11 grow food and we need those minerals to survive.

12 Phytonutrients are part of the plant's
13 immune system and organisms in the soil stimulate
14 the plant to make more phytonutrients. Just as
15 the plant needs those nutrients, so do we.

16 Soil based organisms support our gut
17 health and immune responses. They help plants
18 grow and without their protection, healthy plants
19 become malnourished and are susceptible to
20 disease or contamination.

21 To quote Dr. Josh Axe, "Just as plants
22 grow best in healthy soil, teaming with highly

1 active micro-organisms, we too need these
2 organisms to live a long and healthy life."

3 We now know that soil based organisms
4 nourish cells in the colon and liver and create
5 new compounds as B vitamins, K2, antioxidants and
6 enzymes. Soil based organisms can destroy or
7 crowd out harmful pathogens and kill off bad
8 bacteria that combine to puncture the gut wall.

9 There is a place for hydroponic foods,
10 but in my opinion, it should not be included
11 under the organic standard, and when I worked
12 with clients on improving their health, I need to
13 know they are getting healthy soil with their
14 food or some of them are just not going to get
15 better.

16 On a quick other topic on oil
17 wastewater and organic foods. Cruciferous
18 vegetables such as broccoli, cabbage and
19 cauliflower all have the phytonutrient
20 isothiocyanate which neutralize free-radicals and
21 cause cell damage, as well as protect against
22 certain cancers.

1 If a client is facing cancer and wants
2 to use these nutrient dense foods as part of
3 their treatment plan, how does allowing oil
4 wastewater irrigation factor into it? How is
5 allowing benzene along with other chemicals we
6 don't know about, considered organic?

7 There are over 100 different chemical
8 constituents that have been reported in this
9 wastewater. How many more have not been
10 reported?

11 Our water treatment plants are
12 antiquated and failing all across the U.S., and a
13 prime example of that is benzene showing up in
14 our water supply, even after that water has been
15 treated.

16 Consumer purchase of organic produce
17 and products are skyrocketing and by choosing
18 organics we are sending a message that we want
19 GMO-free foods, we want foods free of pesticides
20 and herbicides, and we certainly don't want food
21 that has been watered with the oil wastewater.
22 Thank you so much for your time.

1 CHAIR CHAPMAN: Thank you. Any
2 questions? Thank you. Thank you.

3 MS. ELLIS: Thank you so much.

4 CHAIR CHAPMAN: Up next is Vanessa.
5 Is Vanessa here? Vanessa, going once. Vanessa,
6 going twice. No Vanessa.

7 Is Patty from Food and Water Watch
8 ready? Patty, you're up next and Abby is on
9 deck. Patty, if you could start, when you get up
10 there, I apologize, for just pulling you up, with
11 your name and affiliation for the record.

12 MS. LOVERA: Yeah, and I just heard
13 that Vanessa was dealing with a parking meter.
14 So, maybe she can get back in the queue when
15 she's back in.

16 Hi. My name is Patty Lovera and I
17 work for Food and Water Watch in our Washington,
18 D.C. office, and you've heard from several other
19 folks from here in Colorado, that are either
20 staff or volunteers with us, and they're here
21 because they're your customers. They're organic
22 consumers.

1 We're -- Food and Water Watch is also
2 a member of the National Organic Coalition, and
3 so, you're going to hear comments from them on
4 other topics, which we support, but I wanted to
5 spend a couple minutes kind of talking about the
6 bigger picture of why we think it's important for
7 the organic community to start talking soon and
8 loudly about the impact of oil and gas drilling
9 is having, not only on the environment, but on
10 our food system.

11 So, people are becoming more aware of
12 the impacts on our environment, of our public
13 health of this industry, but it's becoming
14 increasingly clear to us that this is an industry
15 that is becoming into conflict with our food
16 system, whether it's the drilling sites
17 themselves, whether it's traditional drilling or
18 fracking, the pipelines and infrastructure that
19 it takes to move the oil or the gas, and even the
20 tentacles extend even further into communities
21 that don't have gas, but have something like
22 sand, that has to be used in fracking wells, that

1 comes from specific parts of the country, like
2 Southeastern Minnesota and
3 Southwestern Wisconsin.

4 So, the tentacles of this industry
5 spread very far and they spread in rural
6 communities where we raise our food.

7 So, water use is an issue. We're
8 going to see conflict between farmers who need
9 that water just to access it to grow, especially
10 in places like Colorado, the contamination of the
11 water that comes back out after it's used in the
12 drilling. You've already heard a little bit
13 about in some parts of the country where we have
14 disposal issues of how we dispose of that
15 contaminated water and if it ends up in a system
16 that's used to irrigate food, and organic isn't
17 exempt from this conflict.

18 It's not fair. But it's happening,
19 so, and consumers are starting to become aware of
20 it and they feel like it's one more thing that
21 they now have to ask, and organic is the place
22 they go to get more of those reassurances.

1 So, we think it's time for organic to
2 really start talking about this. There's a
3 couple levels and ways that I think organic can
4 do that.

5 One, on specifically on this
6 California produced water situation, organic
7 could be very clear and ask the Governor of
8 California to stop allowing this waste to be
9 disposed into systems that are used to irrigate
10 food crops. That practice could stop and then
11 you wouldn't have to have this conversation about
12 is it happening, is it not happening.

13 We support OFPA's mitigation plans to
14 help farmers protect themselves and we think that
15 as you talk about contaminated inputs, that water
16 should be a part of that conversation.

17 Bigger picture. We think that
18 organic, it's time for organic to really join a
19 really growing very loud, very you know, really
20 overdue movement to ban fracking, which can't be
21 done safely, and to really illustrate that our
22 food system is part of what's at stake.

1 It's happening all over the country.
2 You won't have to do it by yourself. Three
3 states have banned fracking. Maryland just
4 signed a bill two weeks ago, three weeks ago, a
5 Republican Governor signed a bill in Maryland to
6 ban fracking because he said it couldn't be done
7 safely.

8 So, it's time for organic to join in
9 that conversation, to join in that fight and
10 really elevate what's at stake, which is the --
11 whether we have a healthy environment, where we
12 can grow the food people are looking for, so we
13 just urge you to join in that movement, because
14 there's lot of folks doing it. It's a good place
15 to be.

16 CHAIR CHAPMAN: Thank you, Patty. Any
17 questions for Patty? All right. Emily, Harriet,
18 Scott and Dan and anyone on this side? No. Just
19 want to note, we're 30 minutes behind schedule.
20 So, please try to keep it brief and the answers
21 relevant to the questions. Go, Emily.

22 MEMBER OAKLEY: Hi, Patty. Thank you,

1 and I am from Oklahoma, which is a state that is
2 definitely experiencing these issues and know
3 farmers that have experienced these issues.

4 The CACS has been discussing this and
5 one thing that we're wanting help from
6 stakeholders with is identifying the link between
7 these issues with OFPA and the regulations, and
8 if you can help us identify how we can work
9 through the regulatory framework on this, that
10 would be very beneficial for us.

11 So, it's more of a comment or a
12 request, than a question at this point.

13 MS. LOVERA: Sure. Happy to do that.
14 Some of those were talking in the hall, already
15 this morning, about how do we start doing that,
16 and happy to come up with ideas to start that.

17 CHAIR CHAPMAN: Thank you. Harriet?

18 MEMBER OAKLEY: So, my understanding
19 is, and I know you're more of an expert in this
20 than I am, that fracking and the movement of gas
21 and oil is regulated state by state, and I know
22 that Minnesota, and every state had it

1 differently.

2 So, I know Minnesota and Wisconsin,
3 and I know Minnesota has administrative law,
4 which has a mitigation plan that is law, that if
5 a pipeline is proposed, to even go through
6 organic land, they are requested or they're
7 supposed to look at an alternative to not even go
8 through the organic land, and I know that's a
9 part of -- OFPA has done that.

10 In Wisconsin, we don't have the same
11 type of system and it's -- but the gas and oil
12 companies have agreed voluntarily to do it.

13 So, I think the -- one of the issues
14 that I struggle with is, how can we, as a federal
15 advisory group make any influence on these state
16 by state regulations that really are the place?

17 I mean, what we want to do is have
18 them avoid the organic land to begin with, when
19 they're planning, but we can't -- you know, I
20 don't know how we can even make that
21 recommendation because it's a state by state
22 issue, my understanding.

1 MS. LOVERA: It's excessively
2 complicated, regulates pipelines, depends what's
3 going through the pipe.

4 There is a federal rule. There's a lot
5 of state rule and it depends on the specifics of
6 the circumstances. But I think there is a
7 question too about whether the organic community
8 and that includes the NOP and the NOSB, can start
9 just putting this out there as part of the
10 conversation of what's at stake, and I think what
11 OFPA is doing to help land owners protect
12 themselves is important.

13 If there's a way to get other
14 certifiers having that conversation, to share
15 that, so it's not state by state, people are
16 doing it in more of a unified way.

17 So, I'm happy to think through the
18 regulatory angles, but I think there's also a
19 communication bully pulpit angle that we're
20 asking for organic to step up to as well.

21 CHAIR CHAPMAN: Scott and then Dan.

22 MEMBER RICE: Emily captured my

1 points. We've just -- we've been addressing this
2 at the CACS level and would really love input on
3 how in our authority under the rule, that we
4 could best do that, and just you know, reiterate
5 to you and OFPA that this is -- we're hearing
6 this and we're hearing it loud and clear, and I
7 think I can speak for a number of us, we as
8 individuals care about this, but it's really just
9 struggling to, as a Board and how we can best
10 address in a way that is meaningful and have
11 impact.

12 MS. LOVERA: Again, similar answer.
13 I'm happy to stay in touch and think of ideas and
14 share them.

15 CHAIR CHAPMAN: Dan?

16 MEMBER SEITZ: So, from what I've
17 read, there is no question that water that comes
18 out of a fracking operation is filled with all
19 sorts of noxious chemicals.

20 But we hear this distinction with
21 produced water and is that water also
22 contaminated? I'm just kind of curious about

1 that.

2 MS. LOVERA: Well, stunningly, there is
3 not a lot of people paid to look at that and
4 figure that out.

5 We have one study for one water
6 district in California that did testing one time,
7 and they found some chemical components higher
8 than drinking water levels.

9 A lot of these chemicals don't have
10 agricultural standards. They never got it dealt
11 with.

12 There is also a study, which can round
13 up and share with the Board, that came from UC
14 Berkeley that did find some chemical constituents
15 in the wastewater after it went through what the
16 water district said was sufficient treatment, and
17 that's about what we have.

18 So, there is a lot of questions. This
19 is kind of a tailor made case for precaution.
20 There is no need to dispose of this wastewater in
21 the system that's providing the water we grow our
22 food with, and the Governor of California could

1 stop it.

2 MEMBER SEITZ: And then just one other
3 question.

4 Just as we saw with the DARK Act that
5 when states starts doing progressive things
6 around regulation, there's sometimes an attempt
7 to preempt that on the federal level.

8 Is anything like that happening with
9 fracking on the federal level and do we need to
10 be just cognizant of that?

11 MS. LOVERA: We always need to be
12 cognizant of that. Whenever people do something
13 progressive at the state level, we always need to
14 be aware.

15 Lots of people are on patrol for that.
16 There is a really active keep it in the ground
17 movement, talking about this, and so, they're
18 definitely on alert and I think we'll see other
19 states take this action and then we'll have to
20 stay alert to make sure that something -- there's
21 no shenanigans at the federal level.

22 That happens at the state level too,

1 unfortunately. People in Colorado experienced
2 that. There are towns in Colorado that said you
3 can't do fracking in our city limits. The state
4 tried to preempt them and it's still ongoing as a
5 fight.

6 So, it happens at every level, which
7 is why we need the biggest movement we can, with
8 the most number of stakeholders to say this is an
9 unacceptable practice.

10 CHAIR CHAPMAN: Thank you, Patty. Up
11 next, we have Abby Youngblood and on deck, we
12 have Charlotte from consumer reports.

13 Abby, for the record, can you state
14 your name and affiliation?

15 MS. YOUNGBLOOD: Hi. I'm Abby
16 Youngblood with the National Organic Coalition.

17 Good afternoon. My name is Abby
18 Youngblood and I'm the executive director of the
19 National Organic Coalition, or NOC, and I want to
20 thank you NOSB members. Your work to create a
21 strong organic label continues to be essential,
22 especially as we head into a new administration.

1 We believe that the success of the
2 organic label and organics role as an engine for
3 economic activity and job creation depends on
4 having clear and consistent standards, and we
5 look forward to partnering with you, to further
6 your efforts to maintain the integrity of the
7 organic label.

8 I want to start by drawing your
9 attention to the issue of peer review. This past
10 year, a panel was established to examine the
11 National Organic Program's accreditation
12 procedures.

13 This process known as peer review is
14 required by the organic law and regulations and
15 it's this independent evaluation of the NOP's
16 competence in carrying out its activities, as
17 part of what gives us the confidence in the
18 organic seal, and I want to urge the NOSB to
19 actively engage in this process, which is
20 foundational to organic integrity by taking a
21 close look at both the process that is being used
22 for peer review, as well as the results that came

1 out of that 2016 report, and this is an area that
2 needs more work and the NOSB has a role to play
3 here.

4 So, please see our more detailed
5 written comments on the subject of excluded
6 methods.

7 A big thank you to the NOSB for the
8 excellent work done in Saint Louis by adopting
9 the proposal. You brought clarity to the organic
10 standards. There's still many to be determined
11 techniques. We support including four of these
12 in the list of excluded methods, this genesis,
13 intra-genesis, transposals and agro-infiltration.

14 We urge the NOSB to fully resolve the
15 other to be determined techniques after
16 additional vetting and debate. We urge the NOSB
17 to recommend a national pilot study to gather
18 data on the presence of GMO materials in seeds
19 and crops. Finding from this study could help
20 the NOSB and future discussions about the
21 presence of excluded methods and this discussion
22 on thresholds.

1 On hydroponics, the National Organic
2 Coalition acknowledges that organic agriculture
3 is about more than just the inputs used. We
4 believe hydroponics advocates have muddied the
5 waters by claiming that soil ecology operates in
6 systems that use inert or recalcitrant materials
7 as a growing medium, and by describing these
8 systems as contain production rather than
9 hydroponics production.

10 These systems rely on outside liquid
11 fertility inputs for all or most of their
12 fertility needs and as such, these hydroponic
13 systems are inconsistent with organic principles.

14 Thank you, NOSB members for all that
15 you do. We greatly appreciate and value your
16 service to the organic community.

17 CHAIR CHAPMAN: Thank you. Any
18 questions for Abby?

19 All right, thank you, Abby. Charlotte
20 is up next. On deck is Rosemary Bilchak. Sorry
21 if I butchered that name.

22 Just so you guys know, the agenda did

1 have us breaking at 12:45. I'm going to run
2 until 1:00, as we're a half hour behind schedule.
3 We'll break at 1:00 until 2:00 and start promptly
4 back at two.

5 Charlotte, can you start with your
6 name and affiliation for the record?

7 MS. VALLAEYS: Sure. My name is
8 Charlotte Vallaeys and I'm a Senior Policy
9 Analyst with Consumer Reports.

10 First, I'd like to say welcome to the
11 new Board members, and thank all of you for your
12 time and commitment to this Board's important
13 work.

14 To start, I'd like to say a few words
15 about Consumer Reports.

16 We're an independent, non-profit
17 organization and we work side by side with
18 consumers to create a fair, safer and healthier
19 world.

20 For 80 years, Consumer Reports has
21 provided evidence-based product testing and
22 ratings, rigorous research, journalism, public

1 education and policy action on behalf of
2 consumers.

3 We work in many areas, including
4 efforts to create a safe and sustainable food
5 system. In many ways, our vision for a safer and
6 more sustainable food system aligns with organic.
7 We believe in the integrity of the label is worth
8 protecting and where warranted, its standards
9 should be improved.

10 Now, to the topics you are discussing
11 at this meeting.

12 Sodium phosphate should be removed
13 from the national list. A high intake of
14 phosphorus is associated with negative impacts on
15 bone, kidney and heart health. No single
16 phosphate food additive can be implicated as an
17 isolated risk factor. It is the widespread use
18 of phosphate food additives, like sodium
19 phosphate and their cumulative impact that raises
20 health concerns.

21 The prohibition on sodium phosphate
22 and other standards, including the EU and Japan,

1 shows that it is not essential.

2 We urge you to reject the petition for
3 short DNA tracers, because they were created
4 using excluded methods and are not essential. We
5 are concerned with the process the Board uses to
6 review ancillary substances. We're especially
7 concerned with Kymene and vinyl chloride as
8 ancillary substances for cellulose. We ask that
9 you ensure that these materials do not end up in
10 organic foods.

11 Finally, I would like to share the
12 results of a consumer survey that we released
13 today.

14 When shopping for groceries, more than
15 a quarter of Americans say that they often or
16 always buy foods labeled organic. Among those
17 consumers, 86 percent say that it is very or
18 extremely important that the animals used to
19 produce organic foods are raised on farms with
20 high standards for animal welfare.

21 We also asked specifically about
22 outdoor access for hens that lay eggs that are

1 labeled organic, since so much of the controversy
2 around this new rule is around this issue.

3 Among organic consumers, 83 percent
4 say that it is highly important that eggs labeled
5 organic come from hens that were able to go
6 outside and move around freely.

7 The USDA should make the organic
8 animal welfare rule effective right away. Please
9 do reach out to us if you have questions and
10 thank you for considering our comments, and
11 again, thank you for your work.

12 CHAIR CHAPMAN: Thank you, Charlotte.
13 Any questions for Charlotte? Harriet?

14 MEMBER OAKLEY: So, for sodium
15 phosphate, it is used many times in just
16 minuscule quantities, used in milk products, and
17 I'm just wondering if the dire health effects
18 are, you know, viewed in these minuscule
19 quantities that are used.

20 MS. VALLAEYS: Yes, so the studies
21 have shown that as food additives, that the
22 intake and the impact is different from

1 phosphorus in whole foods and that the widespread
2 use at -- in the food supply, processed foods is
3 creating these health impacts for consumers.

4 So, if somebody is choosing only
5 organic thinking that that is a healthier safer
6 option, but it still has the sodium phosphate,
7 they could potentially if they only eat processed
8 foods, but it's organic, they could still have --
9 they could still reach those levels, where it
10 would have, according to the studies, negative
11 impacts.

12 Also, on sodium phosphate
13 specifically, mac and cheese for example, if you
14 go to the store, you can find two boxes of mac
15 and cheese both labeled organic, one has it, one
16 doesn't.

17 So, I think when shoppers choose
18 organic, part of it is that they are avoiding
19 these kinds of additives, and it shows that it
20 can be done to make these products without them.

21 CHAIR CHAPMAN: Thank you. Any
22 additional questions?

1 I also wanted to thank you for your
2 comments on L-methionine. I thought they were
3 well reasoned and well written and I know you're
4 no fan of synthetic vitamins and minerals. But I
5 hope the Boards reads those as well. Thank you
6 for that.

7 MS. VALLAEYS: Yes, you're welcome.

8 CHAIR CHAPMAN: Seeing no other
9 questions, thank you Charlotte.

10 Up next is Rosemary and following that
11 is Vanessa. Rosemary, if you could start with
12 your name and affiliation for the record.

13 MS. BILCHAK: Rosemary Bilchak.
14 Hotchkiss, Colorado. We are -- we live five
15 hours west of Denver and we are OSGATA members.

16 My husband is registered pesticide
17 sensitive with the Colorado Department of
18 Agriculture on the advice of his oncologist for a
19 very rare form of Leukemia.

20 We are organic farmers, however, we
21 have been prevented from doing what we love
22 because of ongoing pesticide drift and a

1 complicit Department of Agriculture.

2 USDA NOP accredits CDA, the Ag
3 Department to certify organic farmers in
4 Colorado. However, CDA has failed to protect our
5 right to farm organically.

6 Since 2010, our neighbor has been
7 contaminating our property with pesticides. He
8 uses a truck-mounted fogger, an industrial-sized
9 fogger that sends up ultra-low volume pesticides
10 that by design, travel hundreds or even thousands
11 of feet. This picture demonstrates what that
12 looks like.

13 Over the last six and a half years,
14 CDA has found toxic contamination of our property
15 multiple times, yet declares that such
16 contamination "does not constitute the use of
17 this pesticide in an unsafe manner".

18 Meanwhile, I have received notice from
19 the same CDA that we cannot be certified organic
20 because of this very same contamination. We find
21 ourselves in a double bind that denies us the
22 full use and development of our private property.

1 CDA has not even responded to our
2 multiple requests to revoke the public health
3 applicators license from this individual. This
4 license that allows is travesty to continue.

5 This license is usually reserved for
6 trained public health officials, not for an
7 individual who has failed the test multiple
8 times, has violated the label multiple times, has
9 stated under oath that he would continue to
10 spray, even if the result of that spray was my
11 husband's death.

12 Has been found in contempt of court
13 for violating a permanent injunction order,
14 specifically crafted to limit his renegade
15 spraying and protect our farm, and has been sent
16 to jail and fined for this offense, yet this man
17 still has his license.

18 I am here today to tell you that we
19 are just one organic farm who has been impacted
20 by chemical trespass. Our region has the highest
21 concentration of small organic farms in the State
22 of Colorado, and that entire community, which is

1 a significant economic driver in that rural area,
2 is at risk because CDA has failed to do its job.

3 Since CDA is accredited by USDA, we
4 want you to compel CDA to be responsible for the
5 protection of organic farmers. We plead with you
6 to help us find some justice, some way out of
7 this horrific catch-22, that allows continued
8 toxic pollution, yet denies us organic
9 certification as the result of that very same
10 contamination.

11 CHAIR CHAPMAN: Thank you.

12 MS. BILCHAK: Thank you.

13 CHAIR CHAPMAN: Any questions for
14 Rosemary? Harriet and Emily.

15 MEMBER OAKLEY: In the upper Midwest
16 where I live in Wisconsin, actually, the State of
17 Minnesota has a pretty big problem with pesticide
18 drift on the regulatory side, because the
19 Minnesota Supreme Court declared that even if
20 organic land was drifted upon, that crop could
21 still be sold as organic.

22 So, the farmer didn't lose

1 certification, but the farmers actually don't
2 want to sell that crop as organic. They want the
3 NOP to have their backs.

4 So, I have been talking with the
5 program for a while to get some clarity there.
6 The case did go to -- we tried to move it forward
7 and I was helping the farmer and the lawyer, to
8 try to move it forward to the Supreme Court of
9 the United States, and it went through two hoops,
10 but it didn't get through the third. So, it was
11 not reviewed.

12 So, right now, there's actually one
13 farmer who continually gets sprayed upon and then
14 continually -- the certifier does not de-certify
15 that land, and then he appeals to the NOP to have
16 his certification removed, which the NOP has
17 done.

18 So, he is really in a catch-22, as
19 well. But this is a big issue. Many states does
20 have trespass laws that do cover pesticide drift.
21 But since we are the great minority of
22 agricultural production, it seems like we don't

1 get the protection that we deserve. So, I very
2 much sympathize with you.

3 MS. BILCHAK: My understanding of that
4 case was that they did not -- they decided that
5 they needed to have damages, to be able to say
6 that is was trespass.

7 This case says and it's in the -- I
8 can give you the case number. It actually set
9 precedent nationwide that pesticide drift in and
10 of itself, without proof of damages is trespass,
11 and the court has stood behind that.

12 Now, it's only in one. It's in the
13 Delta District Court in Colorado. But people
14 need to cite it and use that, but it has -- I
15 mean, the court has stood up and said you are in
16 contempt of court for his violation of that
17 order.

18 CHAIR CHAPMAN: Thank you. I want to
19 remind members to keep the questions short, as we
20 are 30 minutes behind schedule. Emily?

21 MEMBER OAKLEY: This was just a
22 question for Miles.

1 Is there any avenue that she can
2 pursue with the NOP for this situation?

3 MR. McEVOY: Yeah, I was going to make
4 a comment about pesticide drift. It is a very
5 complicated topic, and it's mostly -- it's kind
6 of like the -- the fracking and the oil and gas
7 thing. It's regulated more by the states than by
8 the Federal EPA.

9 EPA has some overarching regulations
10 about drift, but they're implemented by State
11 Departments of Agriculture, and there's different
12 legal precedence in different states.

13 I'm from Washington State and the
14 legal precedent we use there was strict
15 liability. So, if you can show damage, it was
16 relatively easy to receive compensation.

17 Oregon has in their Courts, determined
18 it was chemical trespass. So, again, it's
19 relatively easy there, whereas in my
20 understanding, California, you have to prove
21 negligence in order to recover damages.

22 So, it's a complicated multi --

1 different state legal determinations about drift
2 and what's damage and how do you get compensated
3 for it.

4 In terms of the National Organic
5 Program, the regulations, if there's application
6 of a prohibited substance, even if it's coming
7 from drift, then the -- the crop cannot be
8 considered organic. It doesn't necessarily
9 affect certification, but that crop could not be
10 considered organic, and we're looking at this on
11 a case-by-case basis. We have looked at
12 potentially providing instruction or guidance,
13 but that's probably going to be very difficult,
14 and it's more likely that we'll just keep dealing
15 with it on a case-by-case basis.

16 But if you could provide me with your
17 contact information, we can discuss more, whether
18 or not there's anything we can do.

19 MS. BILCHAK: Okay, I have given the
20 two letters from the CDA for copies. Is that
21 sufficient or do you want more?

22 MR. McEVOY: Yeah, that will work.

1 Thank you.

2 MS. BILCHAK: Okay.

3 CHAIR CHAPMAN: Thank you very much.

4 Thank you for your testimony.

5 Up next we have Vanessa, and then we
6 will be breaking for lunch.

7 MS. CAMPUZANO: Hi. Thank you for
8 being compliant with my parking meter issues.

9 Sure, all right. Hello. My name is
10 Vanessa Campuzano and I'm an intern at Food and
11 Water Watch.

12 So, I am 19 years old, and I'm a
13 sophomore at the University of Colorado Denver.

14 There seems to be a stereotype
15 surrounding college students that they all eat
16 Ramen noodles or dining hall food and they're too
17 lazy or broke to eat healthy and cook for
18 themselves.

19 I however, put a lot of time and
20 conscious effort into cooking healthy meals and
21 using organic ingredients whenever I can.

22 It has come to my attention that these

1 ingredients that I spent more money on may be
2 grown with oil and gas drilling water.

3 While the wastewater is treated before
4 it is transported to water districts, testing has
5 shown the numerous chemicals can persist after
6 treatment.

7 An analysis conducted by UC Berkeley
8 researchers found that drillers who provide
9 wastewater for irrigation have reported using 173
10 different chemical constituents. Eight of these
11 chemicals are on California's Proposition 65
12 list, and 10 are known or suspected carcinogens.

13 This water then goes to agricultural
14 fields for conventional and organic farms.

15 The National Organic Standards Board
16 needs to address this issue. It won't go away on
17 its own and consumer confidence in organic food
18 is at risk.

19 The Board should consider the impacts
20 of fracking and drilling wastewater as part of
21 the discussion on preventing contaminated inputs
22 in organic production.

1 I urge you all to think about the
2 impacts fracking has, not only on our air, but
3 our water, food and health as well. Thank you.

4 CHAIR CHAPMAN: Thank you. Any
5 questions for Vanessa?

6 MS. CAMPUZANO: Have a good lunch.

7 CHAIR CHAPMAN: Thank you very much.
8 So, we will be in recess for an hour and start
9 back promptly at 1:00 p.m.

10 First up when we start back is Lisa
11 Trope from Food and Water Watch. Thank you guys,
12 very much.

13 (Whereupon, the above-entitled matter
14 went off the record at 1:40 p.m. and resumed at
15 2:05 p.m.)

16 CHAIR CHAPMAN: Okay, we're going to
17 get underway. It is 2:04, and we do have a
18 quorum of members back here.

19 Up first was Lisa Trope. Is Lisa
20 Trope here? And then after Lisa, we have Cheryl
21 Van Dyne on deck. Cheryl Van Dyne.

22 Lisa, if you could start by stating

1 your name and affiliations for the record. Thank
2 you.

3 MS. TROPE: Sure. Lisa Trope with
4 Food and Water Watch.

5 Okay, so my name is Lisa. I am an
6 organizer here in Denver with Food and Water
7 Watch Colorado. We currently have over 55,000
8 supporters across the state, and Food and Water
9 Watch has been highly involved in communities to
10 fight the fracking industry, because of impacts
11 on health, homes and water.

12 Currently, unfortunately, here in
13 Colorado there are 52,000 active fracking wells
14 and counting, and we've worked with local
15 municipalities to pass bans and moratoriums on
16 fracking in five different communities around
17 Denver.

18 People are really fighting for their
19 livelihoods here, and they're not only worried
20 about health and their homes and water, but also
21 on impact that it's having on their food.

22 So, I know that Patty and a number of

1 others spoke about wastewater. But I'm actually
2 going to speak a little bit about the impact that
3 the oil and gas industry is having here on
4 Colorado, and how we have to be keeping them in
5 mind when it comes to organic labeling.

6 To date, water usage, spills and air
7 pollution all are having an impact on our food
8 here in Colorado. It takes between one and eight
9 million gallons of water to frack one well, and
10 we have 52,000 wells here in Colorado. So that's
11 a huge amount of fresh water that's being used.

12 We're finding that farmers are having
13 to compete with frackers for that fresh water.

14 Secondly, in 2015 the oil and gas
15 industry reported that there was 615 spills in
16 Colorado. That's on average of two -- a little
17 less than two spills a day. Ninety of those
18 spills contaminated ground water.

19 I have worked with the Valley Organic
20 Growers Association in -- or near Paonia, a few
21 hours from here, and currently Paonia and that
22 valley is taking on a huge fracking site fight.

1 If we see the same kind of water usage
2 and possible spills in that area, it could be
3 completely catastrophic for those farms.

4 Finally, air pollution is a really big
5 issue. Fracking creates ozone level smog, and
6 that doesn't only cause health issues, but also
7 decrease in crop yields.

8 Denver was last year, ranked eighth
9 most polluted city in the country, and that was
10 because of increased population growth and oil
11 and gas development. Fort Collins, which is also
12 a hub for farms, is in the top 10 most polluted
13 cities in the country, and unfortunately, that
14 polluted air doesn't just stay in those areas.

15 So today I'm asking the National
16 Organic Standards Board to address the issue
17 because failing to talk about continues to put
18 consumers' confidence in your product at risk and
19 also the quality of the product itself.

20 The National Organic Standards Board
21 has spoken about publicly about the impacts of
22 GMO crops on their organic community, and we

1 really are urging the Board to talk about the
2 impacts that organics -- or that fracking and oil
3 and gas development is having on organic farms.

4 We need to take a stance away from the
5 oil and gas development towards clean energy that
6 is going to have the kind of harm that it's
7 currently having here in Colorado and across the
8 country on things such as organic food.

9 CHAIR CHAPMAN: Thank you.

10 MS. TROPE: Thanks for your time.

11 CHAIR CHAPMAN: Any questions? Thank
12 you for your comments.

13 MS. TROPE: Thank you.

14 CHAIR CHAPMAN: Up next, we have
15 Cheryl Van Dyne. Is Cheryl here? Is Jessica
16 Knutzon here or Wanda Jurlina?

17 All right, how about Wayde Jester? Is
18 Wayde Jester here? All right, we'll just keep
19 going down the list. Alan Lewis? Is Alan Lewis
20 here?

21 All right, Alan, come on up, and after
22 Alan we have Martin Eddy from OFARM on deck.

1 Martin, if you could go to the on deck chair,
2 that's appreciated.

3 Alan, when you get up here if you
4 could state your name and affiliation for the
5 record.

6 MR. LEWIS: Thank you, Mr. Chair.
7 Alan Lewis. I work with Natural Grocers.

8 As a reminder, Natural Grocers is a
9 62-year-old company, still family run, and we've
10 been certifying our producers for many decades,
11 and we very much welcome the Organic Foods
12 Production Act, I think when we were 35 or 40
13 years old.

14 At the moment, we have 140 stores in
15 20 states. All of our stores are certified
16 organic processors or handlers within a year of
17 opening. We also have a certificate for our food
18 processing in Golden, which is 110,000 square
19 feet.

20 My comments today to the Board have to
21 do with organic plus, and just a reminder that
22 grass-fed milk is now by consensus among the

1 industry, 100 grass-fed. Grass-fed meat, based
2 on the American grass-fed standard is 100 percent
3 grass-fed, and we're putting pressure on the
4 organic standard where it hurts the most. It's
5 hard catch up, and so we're seeing these
6 additional certifications and seals accompanying
7 organic.

8 As was discussed quite a bit in the
9 last few days, the problem with contaminated
10 organic seed, organic plus seed would be seed
11 that isn't organic -- isn't contaminated with
12 genetically engineered organisms, and let's not
13 get started on the non-GMO project.

14 So more and more, we seem to be
15 mounting a defense of sub-standard standards,
16 even if the animal welfare rule actually gets put
17 into place, and we certainly understand the
18 technical difficulties and the attractions of
19 economies of scale.

20 But if the organic seal raises
21 skeptical and pointed questions instead of strong
22 consumer confidence, as other people have said,

1 farmers will flee it.

2 So let's be honest, we're not the only
3 game in town anymore. So we need to watch out
4 when we find ourselves explaining the need for
5 organic plus.

6 So, hydroponics is one of these sub-
7 standard standards. Consumer trust drives our
8 grocery business. We remain staunch for
9 supporters and defenders of the National Organic
10 Program, but on behalf of our customers who can't
11 participate in or endorse the torturous
12 justifications being used to make the claim that
13 soil-free and sunlight-free growing is really,
14 you know, organic. Look ma, no pesticides.

15 Hydroponics can be a very fine, safe,
16 nutritious system with which to grow food, but it
17 has a bright future. We're told earlier, it will
18 grow 40 percent quickly. Great. But it's not
19 organic to the consumer.

20 I'd like everyone here to visit the
21 Colfax Store, just a 15 minute walk. Some of
22 there you were there yesterday for the NOC lunch.

1 Check out our 100 percent organic produce
2 section, and take special note of how few
3 remaining hydroponic items there are that we are
4 allowing to sell for now and how they're being
5 properly called out for our consumers as
6 hydroponic organic.

7 CHAIR CHAPMAN: Thank you.

8 MR. LEWIS: Welcome to the era of --

9 CHAIR CHAPMAN: Thank you, Alan.

10 MR. LEWIS: -- organic minus, and if
11 that doesn't break your heart, nothing will.
12 Thank you.

13 CHAIR CHAPMAN: Thank you, Alan. Any
14 questions for Alan?

15 Seeing none, thank you very much for
16 your testimony.

17 Up next is Martin Eddy followed by
18 Cheryl Van Dyne. Cheryl can go to the on deck
19 chair, and Martin, if you can start with your
20 name and affiliation for the record.

21 MR. EDDY: Howdy. I'm Martin Eddy.
22 I work for Kansas Organic Producers. We're

1 affiliated with OFARM, which is seven organic
2 farming marketing co-ops, and so that's what
3 we're working with.

4 I was really heartened by the listing
5 of the fraudulent certifications. Those came out
6 in the last couple days. Part of the issue it
7 got with the organic certification, of course,
8 it's a blended standard of marketing and
9 production standards, which leads to dissonance
10 sometimes.

11 Going back on that, I'd like to know
12 the -- so, what happened with us is that prices
13 were going down. Farmers kept asking us, why is
14 that? Why is that? I thought, well, let's find
15 out. Let's educate ourselves instead of just
16 being pissed off.

17 So basically, where a lot of the roads
18 led us to was the ECHO, as you know, importing --
19 being a certifier from Turkey and exporting of
20 grain from Turkey and the Ukraine. It's been de-
21 certified by Europe, as you know, and Canada.

22 So was a year ago, April 6th, entered

1 into an agreement. NOP tried to de-cert them,
2 and that didn't work too well. So, we had an
3 agreement.

4 Twelve months after April 6th, we're
5 supposed to have an onsite inspection. I wanted
6 to know what the status of that is, if it
7 actually happened.

8 There is no provision in the agreement
9 that if that inspection doesn't happen, for them
10 to continue to be certified in the United States.

11 So it seems like the crux of the
12 matter seems to be CFR 205.101 and then the sub-
13 section that takes us to .272. The co-mingling
14 must implement measures to prevent co-mingling.
15 I'd like to know more about that.

16 The big thing that we really noticed
17 is when the bulk ships have been coming in now,
18 that's a 450,000 bushel of grain. That's what my
19 co-op produces in a good year, one ship. That's
20 like, do the math, that's about 3,000 acres of
21 organic production that was just kind of thrown
22 under the bus right there.

1 So I'm wanting to know, I'd like to
2 see a clean-down log for something of that size.
3 It's like a small factory, and the thing that
4 we've been noticing is that you can trace these
5 ships quite easily on the net. They come in,
6 it's organic certified, then they load with
7 conventional grain and go right out.

8 That makes me wonder, how much does it
9 cost to clean those down, and how complete are
10 they doing, you know? When we work with truck
11 loads and that sort of thing, we're very careful
12 about that, and it's an expense.

13 Okay, well, we can just move passed
14 that little piece.

15 Then on the last page, I was wondering
16 if the NOP is going to harmonize with the EU on
17 the residue testing machine, how -- what the
18 status of that is. Got 23 seconds here.

19 Then I'm also -- started going through
20 the tracing system that the EU is implementing,
21 going digital. I was wondering if NOP is
22 considering, or USDA is considering any kind of

1 similar thing, and that's implement that myself
2 in that right now.

3 So that's it. Golly. I got it with
4 four seconds to go. All right.

5 CHAIR CHAPMAN: Thank you very much,
6 Martin.

7 MR. EDDY: Oh, we got more than that.
8 I could -- but -- any questions?

9 CHAIR CHAPMAN: Harriet?

10 MEMBER OAKLEY: So one thing that's
11 been nagging my mind here is with the imports,
12 the issue with the imports --

13 MR. EDDY: Right.

14 MEMBER OAKLEY: -- if the imports all
15 went away, could we feed all the organic
16 livestock in the United States from North
17 American sources, Canadian and the U.S.?

18 MR. EDDY: And of course, the answer
19 to that is no, and so, that's why this is so
20 tricky, and part that comes with that question
21 is, we fully -- that's why the co-mingling thing
22 is so important.

1 We have satisfied ourselves, just from
2 the research and people we've talked to, there
3 are really good organic, certified organic
4 farmers worldwide. We have no quarrel with that.

5 But it seems to be the chain of
6 custody, I think that's been mentioned, from the
7 farm to the bulk ship, somewhere in there, or
8 from the farm to the -- when it ends at the Port
9 of Indiana and Michigan or whatever, there is a -
10 - that's a really problematic area, and we
11 suspect -- I mean, I'm not -- there's been co-
12 mingling with the gray grain or whatever.

13 That's why residue testing might be
14 useful. But just -- and also the certification
15 of importers and handlers. That whole little
16 2.272 thing, to me, seems to be the crux of the
17 whole deal, and I think there's been talk about
18 modifying that.

19 That's real tricky. I'm not saying you
20 have an easy job here.

21 MEMBER OAKLEY: So, you're not saying
22 to get rid of imports --

1 MR. EDDY: Oh, absolutely --

2 MEMBER OAKLEY: But you just --

3 MR. EDDY: To answer your question --

4 MEMBER OAKLEY: But --

5 MR. EDDY: -- no but --

6 MEMBER OAKLEY: But the imports should
7 have the integrity --

8 MR. EDDY: Yes.

9 MEMBER OAKLEY: -- that the domestic
10 has.

11 MR. EDDY: Yes.

12 MEMBER OAKLEY: Okay.

13 MR. EDDY: And then we're also taking
14 steps to -- we have -- we're holding a series of
15 beginning organic farmer meetings and so forth.
16 We had one in Western Kansas. We'll have one in
17 Eastern Kansas.

18 But we're really working towards
19 growing more -- because the thing is, the plants
20 I feel -- maybe I'm being a little odd here, but
21 once something called organic agriculture or that
22 looks like more biological agriculture, that's

1 the direction we need to go, because conventional
2 farming -- I talked to conventional farmers, and
3 they're quite clear. They're in a little box and
4 it's dying. You know, and so we need to help them
5 get out of that.

6 CHAIR CHAPMAN: Thank you.

7 MR. EDDY: Any other questions?

8 CHAIR CHAPMAN: Thank you. Any other
9 questions? Thank you, Martin.

10 MR. EDDY: Great. Thank you.

11 CHAIR CHAPMAN: Up next is Cheryl and
12 after Cheryl is Jessica Knutzon. If you can go
13 to the on deck seat. Cheryl, if you could start
14 with your name and affiliation for the record.

15 MS. VAN DYNE: Hello. My name is
16 Cheryl Van Dyne. I am speaking on behalf of the
17 International Pectin Producer's Association. I
18 am the Global Director of Regulatory Affairs for
19 CP Kelco. Did I turn it off? I did this last
20 time.

21 IPPA, which is the International
22 Pectin Producer's Association, supports re-

1 listing of pectin non-amidated forms only to 7
2 CFR 205.606.

3 The International Pectin Producer's
4 Association is a global association of companies
5 that manufacture pectin, and together IPPA
6 produces over 95 percent of all pectins worldwide
7 in commercial volume.

8 So commercial pectins are obtained by
9 extraction of selected, suitable, edible
10 vegetable raw material, and pectin is naturally
11 present in all land plants, but especially
12 abundant in fruits.

13 The principle raw material containing
14 pectin is in a form that's suitable for
15 commercial production of products with useful
16 gelling and stabilizing properties are pectin --
17 I'm sorry, are citrus fruit peel, lemon, lime and
18 orange or apple pomace.

19 The raw materials used in pectin
20 production are all byproducts of industrial juice
21 production or citrus oil production. Thus,
22 pectin products are converted from byproducts

1 into high-quality specialty ingredients.

2 Specific, desirable, function
3 properties of the pectin produced, especially the
4 gel formation and the stabilizing features are
5 controlled through selection of proper raw
6 materials and by observing specific suitable
7 extraction and processing conditions.

8 So at this time, no member of IPPA
9 produces an organic certified pectin, and it is
10 to the best of IPPA's knowledge that there --
11 organic is not available globally in today's
12 market.

13 Members of IPPA concurrently still
14 support the fact that all -- that at present,
15 organically produced raw materials are neither
16 available in a quantity nor in a quality that
17 could be the basis for substantial industrial
18 production of commercial organic pectin products.

19 To the best of IPPA's knowledge, this
20 situation is not likely to change for several
21 years, and as such, organic pectin will not be
22 commercially available in the near future.

1 I'm willing to take questions and my
2 team, as well, if you have questions about
3 pectin.

4 CHAIR CHAPMAN: Harriet?

5 MEMBER OAKLEY: What is the barrier to
6 producing pectin organically?

7 MS. VAN DYNE: I'm sorry?

8 MEMBER OAKLEY: What is the barrier to
9 producing pectin organically?

10 MS. VAN DYNE: There are no suitable
11 raw materials available at this time.

12 What happens is the juice or oil
13 production, where the juices and oils are
14 extracted, the waste peel goes into co-mingled.

15 So, they're just not segregated as
16 organic, and there is just not enough of it to
17 make organic pectin available.

18 CHAIR CHAPMAN: Any additional
19 questions? Thank you very much.

20 Up next is Jessica, and following
21 Jessica is Wanda Jurlina. Jessica, if you could
22 start with your name and affiliation for the

1 record.

2 MS. KNUTZON: Sure. I'm Jessica
3 Knutzon. I'm a Marketing Specialist at CP Kelco,
4 and before I start, I recommend that you not ask
5 me questions because Wanda is coming up next and
6 she's our pectin expert. So.

7 CHAIR CHAPMAN: Please speak into the
8 mic.

9 MS. KNUTZON: Okay, is that better?
10 Okay, so, why pectin? Let me see here.

11 Pectin provides a unique texture and
12 viscosity. The gel textures themselves are also
13 unique, vary from soft and spreadable and to firm
14 and cuttable.

15 It is a hydrocolloid that protects
16 proteins, ensuring that proteins remain intact
17 with a smooth mouth feel. It is the only
18 ingredient on the NOSB list that provides this
19 property.

20 It is a clean label, allergen-free
21 option that emulsifies and aerates, while
22 enhancing stability and shelf life.

1 Many ingredients are not able to
2 perform in an acid environment, making pectin a
3 unique solution for products that fall within an
4 acidic PH range.

5 Typical products that contain pectin
6 are jams, jellies and spreads; bakery fillings
7 and glazes; yogurt, white mass and fruit;
8 beverages; flavor emulsions and dressings; and
9 gelatin-free confectionary products and fruit
10 snacks.

11 My colleague Shannon will go over this
12 later today as well, but there are plenty of
13 products, including jams, jellies, and preserves
14 that require pectin under the standard of
15 identity. Other products that use it as well
16 within this category are spreads.

17 So squeezable all-fruit products,
18 reduced sugar products and no sugar added
19 products that typically require pectin in order
20 to work correctly.

21 Pectin provides a gel-like structure
22 in these products. It also controls water, so

1 the structure of these products stay intact.
2 Pectin also suspends fruit and marmalade
3 products, which you may be able to see in this
4 photo here of yellow marmalade.

5 Within beverages, typical products
6 include the reduced sugar fruit products that we
7 now see as a trend. Consumers want the full
8 sugar texture and flavor but with the low sugar
9 actually in the product, and pectin helps deliver
10 that with smooth mouth feel stability and
11 maintaining within the acidic systems.

12 Here you can see an -- it's an
13 orange smoothie beverage, and on the right side
14 is the control. So, there isn't a pectin in
15 this, and all the protein settles at the bottom.
16 It becomes sandy and gritty, and it's not
17 pleasurable to be drinking this.

18 So if you put in pectin on the left,
19 you see everything stays suspended within the
20 beverage.

21 With yogurt mass, it provides
22 viscosity and texture. It controls water and whey

1 off. The fruit, same with the yogurt fruit prep
2 as well and for -- it helps you keep everything
3 separated within the container, both for the
4 consumer and the manufacturer. This is a
5 benefit.

6 Typical products within this category
7 within confectionary products are fruit leathers,
8 gummies and gummy vitamins. It is one of the
9 only products that provides a vegan solution for
10 those who do not want to use gelatin in their
11 gummies, and the texture of these products go
12 from easy-to-chew to texture -- easy-to-chew
13 texture that goes from soft to firm. So you get
14 everything in between that you need, and that's
15 it.

16 CHAIR CHAPMAN: Thank you. Any
17 questions? Thank you very much.

18 Up next is Wanda, and on deck is Wayde
19 Jester, if Wayde is here. If Wayde Jester is not
20 here, we'll be going to Max Goldberg.

21 Jessica, if you could start with your
22 name and affiliation for the record.

1 MS. JURLINA: Yes. My name is Wanda
2 Jurlina. I'm the technical service manager for
3 CP Kelco.

4 I spent my entire career working with
5 ingredients that thicken in gel water, and mostly
6 in food applications, but also in some non-food
7 applications, as well.

8 So what I've got for you today is to
9 address the essentiality of pectin for people who
10 are making products in the organic category.

11 So I've gone through, and I've pulled
12 out some information to start with on some of the
13 other ingredients that are approved for use in
14 organic applications, on either List 605 or 606,
15 so that you have a comparison of some of the
16 properties of these ingredients.

17 Jessica has introduced you to some of
18 the functionalities of pectin itself, but there
19 are many reasons that folks use these ingredients
20 in different products, and these are just a
21 couple that I'd like to touch on.

22 So we're talking about a category of

1 ingredients where some of them actually provide
2 gel structure. Others actually just provide
3 thickening or viscosity.

4 We've got some ingredients in this
5 category that can actually stabilize proteins at
6 low PH, when they go through heat treatment, so
7 that you have a stable, safe to consume beverage.
8 We have other products that are used just to
9 enhance the mouth feel in beverage applications,
10 and we've got ingredients that are both acid
11 stable and not acid stable.

12 So, I put a comparison here together
13 for you comparing pectin to carrageenan, which
14 the Board voted at the last meeting to remove
15 from the list, as well as locust bean gum and
16 guar.

17 You'll see when we're looking at the
18 products or the properties of pectin compared to
19 the competition, it has a very unique set of
20 properties that allow for its use in systems
21 where we can't use these other ingredients that
22 are listed as suitable for use in organic

1 products.

2 The second list I've put together for
3 you will be better in the public record than it
4 is here on the screen, because it is tiny, but we
5 tried to address all of the different
6 hydrocolloids or gums that are on the list and
7 how they compare in different applications.

8 When I've spoken to the Board in the
9 past before, I've shared with you that each one
10 of these ingredients have an incredibly unique
11 set of properties that dictates their use in
12 particular systems.

13 With pectin, it is unmatched in low PH
14 systems where it's providing either a gel
15 structure or just controlling the texture and the
16 product.

17 So things like jams, jellies and
18 spreads which there are regulations mandating its
19 use, the things like yogurt fruit preps for
20 organic yogurt products, where there is really
21 nothing that matches the flavor release and the
22 texture that it brings to those products.

1 As Jessica mentioned, I'd be happy to
2 answer any questions you have.

3 CHAIR CHAPMAN: Thank you. Dan?

4 MS. JURLINA: Yes?

5 MEMBER SEITZ: So on your website, you
6 list sugar beet pulp as a major source for your
7 pectin, and do you source that free of GMO sugar
8 beets, because that's --

9 MS. JURLINA: That's a great question,
10 yes.

11 So, the sugar beet pulp that we source
12 for one specific type of pectin, and that is a
13 non-gelling grade of pectin, that is grown in
14 Europe. It is a non-GM sugar beet that is used.
15 We don't actually process any pectins in the U.S.
16 where the GM sugar beets are grown. So that is
17 all coming out of Europe. So it is non-GM.

18 CHAIR CHAPMAN: Steve?

19 MEMBER ELA: I'm curious, you -- over
20 here. Your colleague listed the low sugar, you
21 know, consumers wanting low sugar products and my
22 understanding that at least on the national list

1 right now, it's the non-amidated pectins that
2 we're allowing.

3 MS. JURLINA: Right.

4 MEMBER ELA: But my understanding is
5 the low sugar products actually have to use the
6 amidated forms. Are there any alternatives for
7 those low sugar products?

8 MS. JURLINA: There's basically two
9 categories of low-methoxyl pectins. There are
10 the amidated pectins, and there are my low-
11 methoxyl conventional pectins.

12 Historically, folks liked working with
13 the amidated pectins because they're a little bit
14 easier to work with, but there are families of
15 low-methoxyl conventional pectins that are not
16 amidated and are suitable for use in low solid
17 systems. So, there is products out there?

18 MEMBER ELA: Okay, and so would those
19 fall under the current listing for pectin?

20 MS. JURLINA: Yes. They would be
21 suitable for use in organic products.

22 CHAIR CHAPMAN: Any additional

1 questions? Thank you very much.

2 MS. JURLINA: Thank you.

3 CHAIR CHAPMAN: Is Wayde Jester here?
4 Going once. Going twice. Max, you are up, and
5 on deck is Jim Gerritsen.

6 Max, if you could start with your name
7 and affiliation for the record.

8 MR. GOLDBERG: Sure. My name is Max
9 Goldberg. I am the founder of Organic Insider
10 and a founder of Living Maxwell, an organic food
11 blog.

12 Thank you to the NOSB. Being on the
13 NOSB is a tremendous amount of work, and I
14 greatly appreciate your efforts.

15 There is two things I wanted to
16 discuss today. One is hydroponics.

17 While there is tremendous merit in
18 hydroponics, it is absolutely not organic. The
19 organic food production act of 1990 requires
20 maintaining and improving soil fertility as the
21 foundation of organic agriculture. If that is
22 the case, I don't know why there is any

1 discussion about hydroponics or any container
2 growing system being organic, and those
3 hydroponics or container growing systems adding
4 to soil fertility is a major, major stretch.

5 As being on the NOSB, it's a
6 tremendous responsibility, and you have the
7 future of organic in your hands. With
8 hydroponics, with soil, we are talking about the
9 absolute basis of organic, and the fact that it
10 is being deliberated is putting the future of
11 organic in jeopardy. So that's number one.

12 The second point I wanted to bring up
13 was glyphosate. In the NOP Handbook Section
14 2611-1, dated July 22nd, 2011, the prohibited
15 pesticides for NOP residue testing, which organic
16 certifiers are supposed to test a minimum of five
17 percent of their certified operations on an
18 annual basis, it lists all of the prohibited
19 chemicals such as DDT, chlorpyrifos, atrazine,
20 naled and many, many other chemicals. Glyphosate
21 is not on that list, and as you know, California
22 just listed glyphosate as a cause of cancer.

1 It's the world's most ubiquitous chemical. The
2 World Health Organization said it is a probable
3 human carcinogen, and I urge the NOSB -- I'd like
4 to know why it's not on that list, and I'd like
5 to urge the NOSB to try to get it on that list.

6 CHAIR CHAPMAN: Thank you very much.
7 Any questions for Max?

8 MR. GOLDBERG: Does the NOSB have no
9 comment about why it's not on the list?

10 CHAIR CHAPMAN: Asa, do you have a
11 question?

12 MEMBER BRADMAN: Well, it's a question
13 -- a comment.

14 I do know one thing that glyphosate is
15 very difficult to measure in environmental
16 samples at low levels, and there are a number of
17 laboratories that are currently developing
18 methods, some of which are reliable and some not,
19 and one thing is that I think the technology,
20 even in the next few years, is going to change.

21 I don't know if historically that's an
22 issue, but it could be part of it.

1 MR. GOLDBERG: Well, I know right now
2 there's a glyphosate residue certification
3 program in effect right now.

4 So this is something that I urge the
5 NOSB to really push, because we've already --
6 it's what's been tested. Reports that have come
7 put done by the Detox Project and Food
8 Democracy Now is showing that there are organic
9 products contaminated with glyphosate, and I
10 would urge the NOSB to really push on this.

11 CHAIR CHAPMAN: Thank you, Max. Any
12 other questions? Yes, Miles has a comment.

13 MR. McEVROY: Yes, we put together that
14 list of substances that can be tested under the
15 residue testing rule that went into effect in
16 2012, 2013.

17 So prior to that time, residue testing
18 was done by certifiers when they suspected that
19 there was a problem, and after 2012, it was
20 required that certifiers do -- at least five
21 percent of the operations that they certify, that
22 they test them for residues.

1 We didn't specify what they would test
2 for, and they can, and we do tell them, that they
3 can test for whatever they think is the most
4 likely thing that they may be able to find.

5 So they can test for GMOs. They can
6 test for antibiotics in dairy production. They
7 can test for glyphosate.

8 The list of those -- those listed of
9 chemicals is a fairly standard process to do a
10 multi-residue test where you can check a lot of
11 different chemicals at the same time in the -- in
12 various classes of pesticides, and it does not
13 include glyphosate. But there's nothing that
14 prevents a certifier for testing for glyphosate
15 if they choose to do that with the resources that
16 they have.

17 MR. GOLDBERG: Okay, all right. Thank
18 you.

19 CHAIR CHAPMAN: Thank you very much.
20 Scott has one more. Max, we have one more
21 question.

22 MEMBER RICE: I would just add one

1 more comment from a certifier working with a lab.

2 Our lab has come to us proactively and
3 said, hey, you know, we're interested in or have
4 some ideas about expanding or fine-tuning this
5 list, whether it's not seeing a particular
6 chemical that is very present or relevant in the
7 crops that we see, or expanding it to things that
8 they think would be more likely to come up.

9 But again, the glyphosate in our
10 experience and from what we understand from the
11 lab is very difficult to test for.

12 MR. GOLDBERG: Thank you.

13 CHAIR CHAPMAN: Thank you. Up next is
14 Jim Gerritsen followed by Janel Ralph on deck.

15 Jim, if you could start with your name
16 and affiliation.

17 MR. GERRITSEN: I'm Jim Gerritsen. I'm
18 a farmer. Our family has a 60-acre seed farm in
19 northern Maine. We've been certified organic by
20 MOFGA for 35 years.

21 During that time, I served for 25
22 years as a volunteer on the MOFGA certification

1 committee. So I'd like to stress my gratitude
2 for all the work that the members of the Board
3 put in. I'm one of those that understands what
4 kind of sacrifice that you're making for the good
5 of the organic community, and it's appreciated.

6 So in addition to farming, I'm also
7 president of the national membership trade
8 association called OSGATA, and that stands for
9 Organic Seed Growers and Trade Association.

10 So I've got -- can you circulate that
11 around? I gave you a stack of papers. Can you
12 circulate them?

13 So I've got two pieces of paper here
14 that I want to refer to. One talks about the
15 issue of seed purity, and I want to make two
16 points.

17 One, we've come up with a definition
18 of organic plant breeding, which is by design,
19 lay language for farmers and consumers, and the
20 most important phase within that, if there is
21 ever any confusion as to whether a material is
22 genetically engineered or not, we feel that the

1 basic concept is if there is manipulation at a
2 sub-cellular level, that's genetic engineering.
3 Monsanto and their allies can come up with
4 interesting descriptions, but the bottom line is,
5 if there is sub-cellular manipulation, that does
6 not fit organic.

7 The other thing which I want to point
8 out, which we have pointed out to previous NOSB
9 meetings in the past, is that our organization,
10 comprised of certified organic farmers, certified
11 organic seed companies, accredited certifying
12 agencies, and organizations and individuals that
13 support the growth of organic seed, we have put
14 this issue out to our membership, and we with
15 consensus, came up with a standard that as far as
16 we're concerned, organic seed should be only
17 viewed as organic if it is free of genetic
18 content.

19 The second page I want to make
20 reference to, and that's that the idea of soil as
21 being the foundation of organic farming. If you
22 don't have soil, you're not organic. So

1 hydroponic needs to come up with their own
2 program, and it should not be part of the organic
3 system. It doesn't meet the requirements in the
4 Organic Foods Production Act, nor in the federal
5 rule. Happy to take any questions.

6 CHAIR CHAPMAN: Thank you, Jim. Do we
7 have any questions? Thank you, Jim.

8 Up next I have Janel, and on deck is
9 Demetria Stephens.

10 Janel, if you could start with your
11 name and affiliation for the record.

12 MS. RALPH: My name is Janel Ralph,
13 and I am the president and CEO of Palmetto
14 Synergistic Research. We produce a line of hemp
15 products, therapeutic hemp products.

16 First, I would like to thank everyone
17 at the USDA who has taken the time to commit to
18 exploring the opportunities that industrial hemp
19 has to offer.

20 I would like to start by telling you
21 a little about myself and how I got into the hemp
22 industry.

1 I produce a line of products made from
2 the hemp plant known as Palmetto Harmony. These
3 products are high in cannabidiol and are used by
4 medically complicated individuals, including my
5 youngest daughter, Harmony.

6 This is why I feel that properly
7 certified organic hemp is not only a necessity,
8 but in my business, should be a requirement.

9 My youngest daughter Harmony was born
10 with a rare genetic condition called
11 lissencephaly, otherwise known as smooth brain.
12 She began having seizures at six months old, and
13 within a few years, was having hundreds of
14 seizures a day. Her medical team had all but
15 given up on her. After six failed anti-epileptic
16 drugs including three 30-day courses of twice a
17 day steroid injections, we were sent home on
18 hospice and told she was out of options.

19 That's when we exploring cannabidiol
20 produced from the hemp plant.

21 For those that don't know, cannabidiol
22 is the predominant compound in the hemp plant.

1 It is non-psychoactive, and has been proven to
2 have zero health risks. It works as a powerful
3 anti-inflammatory and neuro-protectant, and in my
4 child's case, was what she needed to help curb
5 her seizures to the point that she is now living
6 a manageable life.

7 The problem I ran into and why I
8 ultimately decided to start producing Palmetto
9 Harmony was because I was not able to find truly
10 organic products.

11 Most of the cannabidiol products on
12 the market are riddled with pesticides,
13 chemicals, even mold, and parents like myself and
14 sick people deserve to choose a better product
15 that has the USDA organic stamp of approval.
16 This way we know what we are getting and
17 consuming.

18 The problem is that while Palmetto
19 Harmony products are grown under the definition
20 of hemp in the Federal Farm Bill, the USDA signed
21 onto the statement of principles on industrial
22 hemp, which provided a contrary definition of the

1 plant, and the NOP is basing its instruction on
2 certifying hemp organic as articulated in the
3 statement of principles on industrial hemp.
4 Which is disturbing to think that my company,
5 even though we grow and process under stricter
6 guidelines than required by the USDA for organic,
7 even though we send every batch off to be ISO
8 certified and lab tested for heavy metals,
9 pesticides, herbicides, microbials, molds, and
10 residual solvents, we still would not qualify
11 under the outdated definition of hemp that the
12 USDA interpreted in the statement of principles.

13 What would hemp processors have
14 difficulty -- would hemp processors have
15 difficulty becoming USDA organic certified based
16 on this interpretation?

17 I feel that these important issues
18 need to be brought to your attention today. Some
19 of the most important hemp products that truly
20 need to be stamped organic certified will not be
21 able to attain this sought after certification,
22 and why I am speaking to you today, I feel that

1 properly certified organic hemp in my industry is
2 not a necessity, but in my business, should be
3 mandatory.

4 In my assessment, the only people that
5 this will damage are the medically fragile who
6 are just wanting to have a naturally organic
7 substance they can trust to consume.

8 I beg you to please look at these
9 issues and adjust them accordingly. The ability
10 to purchase a USDA organic certified cannabidiol
11 hemp oil as a health and wellness supplement was
12 not available to me, but I'd like to make it
13 available to others. I thank you for your time,
14 and I hope one day that Palmetto Harmony line of
15 products will proudly be stamped USDA organic
16 certified.

17 CHAIR CHAPMAN: Thank you. Questions?
18 I have Dan.

19 MEMBER SEITZ: This is a question for
20 Miles, just as -- for my understanding.

21 Where does USDA certification come
22 into play with health and wellness products as

1 opposed to food products?

2 MR. McEVOY: Well, under the USDA
3 organic regulations, it refers to agricultural
4 products. So anything that could be considered
5 an agricultural product could be certified
6 organic.

7 So that would include some health and
8 wellness products. So for instance, a massage
9 oil made out of natural oils from almonds or
10 olives could be certified organic, because it's
11 agricultural ingredients.

12 So does that answer your question?

13 MEMBER SEITZ: Yes, and then just one
14 other question for clarification, and I think
15 it's apropos on the eve of the 4/20 celebration.

16 Where do federal regulations around
17 hemp come in to play with say a product like this
18 being considered by the NOSB?

19 MS. RALPH: Well, my product is grown
20 compliant under the Federal Farm Bill of 2014.
21 We grow in Kentucky under the KDA's federally
22 sanctioned program. So it is a legal hemp

1 product, just like any hemp product that you
2 import from out of states -- overseas, but we
3 only grow in the United States. We don't import
4 anything.

5 Also, to answer your question, it's
6 very much an essential oil. It's just an
7 essential oil that stems from the hemp plant.

8 CHAIR CHAPMAN: So, we have Harriet
9 next and then Miles.

10 MEMBER OAKLEY: I know they do
11 industrial hemp in Canada. Do you know if they
12 have any organic industrial hemp up there that
13 you can use as the base for your products?

14 MS. RALPH: Okay, so, Canada does
15 import a lot of hemp. But I'm more of the mind
16 set to support hemp industry in the United
17 States. That's why I choose to purchase all my
18 products, and we do grow with very high
19 standards, probably higher than the USDA requires
20 for organic production.

21 I do believe that Canada does have a
22 division of organically certifying hemp.

1 CHAIR CHAPMAN: Miles.

2 MR. McEVOY: Yeah, the hemp topic is
3 complicated and has a lot of different agencies
4 that are involved in that.

5 So I would encourage you to write to
6 the new administration with your request, because
7 I think it's really important that they
8 understand what it is that you are trying to do.

9 I think there is a lot of merit, in
10 terms of what you're trying to get into certified
11 organic and that you have to bring it them and
12 explain it to them. I would write to like the new
13 administrator at AMS, in terms of a contact
14 person, and then we can try to work it through
15 the system, the clearance process, work with the
16 Department of Justice, because they have a lot to
17 say about hemp products.

18 MS. RALPH: Well, I know currently, I
19 think the definition that you guys have for hemp
20 is anything that's used for industrial purposes.
21 You will certify organic. We're just asking you
22 to certify the whole plant organic, all parts of

1 it.

2 MR. MCEVOY: Great. Yes, write to us,
3 and we'll see what we can do.

4 MS. RALPH: Okay, great. Thank you.

5 CHAIR CHAPMAN: Thank you very much.

6 Up next we have Demetria Stephens, followed by
7 Jenny Cruse. Jenny, if you could go to the on
8 deck. Demetria, if you can start by stating your
9 name and affiliation for the record.

10 MS. STEPHENS: So, I am Demetria
11 Stephens. I am from near Jennings on a farm
12 called Stephens Land & Cattle. I'm also
13 affiliated with Organic Seed Growers and Trade
14 Association, and I guess various other
15 organizations, but I'm speaking on behalf of
16 myself, as a fifth generation farmer today.

17 My family has been farming in
18 Northwest Kansas, north of I-70 since the 1800s.
19 It's about a five hour drive, and if you drive
20 along I-70 east of Denver here, you'll see a lot
21 of wheat and corn and beans, soy beans.

22 A lot of that crop is genetically

1 engineered, and here and there, you'll see
2 organic farms isolated. I think there is about
3 150 or maybe 200 organic farms in Kansas and
4 genetically engineered contamination is a big
5 concern for farmers in my area.

6 Of course, corn and soy beans, they're
7 two of the biggest GMO crops in the world
8 probably, but also wheat has been found to --
9 there's been genetically engineered wheat found
10 where it's not supposed to. It's not
11 commercially available, but it was found in
12 Oregon and Montana, outside of trials, it was
13 supposedly destroyed, but they found some
14 contamination in affected markets in Asia.

15 This was not even organic markets.
16 But it's a concern that I face as an organic
17 producer because I have customers thinking that
18 there is genetically engineered wheat out there.
19 And that if my wheat was contaminated, it would
20 be devastating because we grow an old variety
21 called Turkey Red.

22 It's a land race and I am my own seed

1 dealer. I can't go buy someone -- like, I can't
2 go to like a university or a non-organic seed
3 market and find this wheat. It's something that
4 people have saved for generations.

5 So that is a big concern that other
6 farmers that I talk with face also, beyond wheat,
7 and especially when they're trying to market
8 their products, corn is especially promiscuous.

9 So I've heard that part of the problem
10 with imports, an increase in imports, one of the
11 justifications that the buyers are giving for not
12 buying so many organic crops is GMO
13 contamination.

14 So it's something that we would need
15 to address as an organic community, and the seed
16 purity rules that the NOSB will be discussing are
17 very important. So thank you.

18 CHAIR CHAPMAN: Thank you very much.
19 Any questions?

20 (No audible response.)

21 Thank you. Up next is Jenny Cruse
22 followed by Kiki Hubbard. Kiki, if you could go

1 to the on-deck chair. Jenny, you can start with
2 your name and affiliation for the record.

3 MS. CRUSE: Jenny Cruse, Accredited
4 Certifiers Association. The ACA would like to
5 thank the Board and the CACS for its work on the
6 proposal on personnel performance evaluations.
7 The National Organic Program revision of NOP-2027
8 posted in March of this year presents an
9 allowance for certifiers to take a more flexible
10 and risk-based approach to inspector field
11 evaluations. We thank you for your advocacy for
12 that.

13 We acknowledge that the revised
14 version of NOP-2027 resolved the main concern our
15 members had related to the field evaluation
16 process. That is the requirement for annual in-
17 field evaluations.

18 However the CACS discussion and
19 proposal are still worth talking about. I'd like
20 to highlight a couple of topics.

21 The first is related to consistency in
22 inspector training. The CACS proposal stated

1 that NOP trainings must include clear direction
2 as to inspector qualifications, continuing
3 education, annual evaluations and periodic in-
4 field witness audits.

5 We submit that a task force made up of
6 representatives from the ACA and IOIA would be
7 well suited to establish these expectations. Our
8 members have expressed a great deal of interest
9 in collaborating on this in the near future.

10 Our recent survey of our certified
11 members with 22 agencies represented found that
12 this was the second highest ranking ACA working
13 group priority for 2017. The ACA's broad
14 representation in conjunction with IOIA's
15 historical perspective on inspector training
16 would provide a strong foundation for
17 establishment of standardized training
18 expectations.

19 The second topic related to NOP-2027
20 is the use of clear language. Some of the
21 concerns certifiers had with the earlier drafts
22 of NOP-2027 had to do with the statement that

1 certifiers should perform annual field
2 evaluations for inspectors and the fact that the
3 word should was enforced as a must in some cases.

4 While the question of annual in-field
5 evaluations seems to be largely resolved,
6 challenges with the implementation of NOP
7 guidance will persist if the distinction between
8 the words should and must is not recognized. We
9 thank the CACS for bringing this up in the
10 discussion of NOP-2027 and urge use of the
11 Federal Plain Language Guidelines to reduce
12 future confusion.

13 Again, we thank you for your time and
14 work.

15 CHAIR CHAPMAN: Thank you. Any
16 questions?

17 (No audible response.)

18 Thank you, Jenny.

19 Up next is Kiki followed by Terry
20 Shistar. Kiki, if you'd start with your name and
21 affiliation for the record.

22 MS. HUBBARD: Good afternoon. My name

1 is Kiki Hubbard. And I'm the Director of
2 Advocacy for Organic Seed Alliance. We're a
3 nonprofit that works nationally to ensure organic
4 farmers have the seed they need through research,
5 education and advocacy. I'm going to touch on
6 two topics.

7 First, we encourage continued work on
8 the issue of excluded methods, including
9 initiating discussion and decisions regarding
10 methods listed as to be determined in the
11 November 2016 Discussion Document. This work is
12 especially timely given that some of the methods
13 in question are evolving rapidly and have
14 outpaced current regulations, oversee and
15 biotechnology. Organic Seed Alliance is ready
16 and willing to support the NOSB in these
17 conversations in the months ahead.

18 Second, we're very pleased to see the
19 Crops of the Committee Proposal to strength the
20 NOP's 2013 Guidance Document for Organic Seeds.
21 The subcommittee's proposal demonstrates a
22 careful review of public comments and thoughtful

1 consideration of various avenues for which to
2 clarify and strengthen the organic seed
3 requirement.

4 NOSB's ongoing attention toward
5 organic seed underscores the important role that
6 you as a board as well as the NOP and
7 certification community play in fostering organic
8 seed systems. Developing these systems is
9 important not only to help certified growers help
10 meet our regulatory requirements but to ensure
11 that we are advancing seed that helps organic
12 farmers stay competitive through access to
13 genetics that are adapted to organic farming
14 practices, changing climates and that meet
15 diverse and ever-changing market needs.

16 We believe the Crops of the Committee
17 Proposal is generally very strong. We support
18 the proposed regulatory change coupled with
19 stronger guidance for certifiers.

20 There are, however, a few components
21 of the proposal that we would like to see changed
22 before the NOSB votes on this proposal. These

1 changes are essentially language that is set in
2 to provide more clarity for the organic
3 community. They are described in much more
4 detail in our written comments.

5 We therefore request that the NOSB not
6 pass this proposal as written and that the
7 subcommittee continue their work on the proposal
8 based on our comments and those of others in this
9 room with the hope that it will be back on the
10 agenda for a vote this fall.

11 Beyond regulatory change and
12 improvements to the NOP's guidance, we're happy
13 to see organic seed tools, resources and
14 certifier training emphasized as critical to more
15 consistency in enforcing the seed requirement and
16 in advancing organic seed generally.

17 It's understandably difficult for
18 certifiers and inspectors to keep up on organic
19 seed availability by crop and region. More than
20 half the certifiers who responded to a recent
21 survey of ours say that more training and
22 resources are needed to better understand organic

1 seed availability and how to verify compliance.

2 We encourage the NOP to regularly
3 include organic seed topics in certifier's
4 training. And in addition in national training,
5 we encourage training at a regional level which
6 would also be very helpful.

7 And as an organization that leads
8 regular training for farmers on how to conduct on
9 farm variety trials, we believe there's an
10 opportunity for more collaboration and education
11 on how to conduct these trials in the context of
12 organic seed requirement and how to use this
13 information to verify compliance.

14 We are in the preliminary stages of
15 developing a manual on organic seed for
16 certifiers and organic operations with the goal
17 of creating a resource that explains the organic
18 seed requirement and guidance, why organic seed
19 is important beyond a regulatory requirement and
20 ways to measure continuous improvement. Thank
21 you.

22 CHAIR CHAPMAN: Thank you, Kiki. Any

1 questions? Dan.

2 MEMBER SEITZ: If I understood the
3 testimony of someone who testified earlier, there
4 is perhaps a concern if you move too quickly to
5 require organic seeds that might adversely impact
6 diversity of crops. I was just wondering if I
7 understood that correctly what the worry about
8 unintended consequence would be there.

9 MS. HUBBARD: That's a great question.
10 Our intention is never to propose policy changes
11 or actions that force farmers to use seed that
12 isn't appropriate for their farms. At the same
13 time we feel like stronger guidance and
14 consistency in enforcement is important to
15 supporting growth in the organic seed trade.

16 But we have a ways to go to create a
17 robust organic seed supply that fully meets the
18 diverse and regional needs of all organic
19 operations. That diversity piece is critical to
20 that because we don't, of course, want to pass
21 policies that have the unintended consequence of
22 reducing important diversity in the way of our

1 plant genetic resource space.

2 And we support most of the current
3 proposal because the regulatory change and
4 improvements to the guidance we believe are a
5 reasonable next step to measure progress on an
6 annual basis without forcing full compliance in
7 the short term given that the supply isn't there
8 to meet the demand.

9 CHAIR CHAPMAN: Harriet.

10 MEMBER BEHAR: Since Europe has had a
11 longer requirement for the use of organic seed
12 than we have had, how is the maturity of their
13 organic seed availability there in Europe? Or
14 are they struggling as well?

15 MS. HUBBARD: Harriet, I feel like I
16 can't fully answer that question based on my own
17 knowledge base. So forgive me. I do think that
18 their model is worth considering. I don't think
19 we should adopt it fully such as they have a
20 catalog system of sorts -- probably using the
21 wrong word -- where you have to use organic seed
22 listed in their list or supply. I do not think

1 we should move in that direction.

2 At the same time, I think in terms of
3 meeting the full organic seed requirement we will
4 need to take a regional approach and perhaps by
5 crop type so that it is done in a way that is
6 reasonable and is not leaving farmers in a lurch.

7 CHAIR CHAPMAN: Thank you. Up next is
8 Terry followed by Cameron Harsh. Terry, if you
9 can start with your name and affiliation for the
10 record.

11 MS. SHISTAR: Hi. My name is Terry
12 Shistar. I'm on the Board of Directors at Beyond
13 Pesticides. We have a long history of
14 involvement with organic production. We
15 submitted comments on all of the issues before
16 the Board at this meeting, but I'm going to
17 address a few today.

18 There continues to be an
19 unconscionable delay in implementing existing
20 NOSB recommendations for replacing the obsolete
21 references to EPA List 3 and List 4 inert
22 ingredients on the National List with listings of

1 actual approved, nonactive ingredients in
2 pesticide products.

3 We submitted a Beyond Pesticides
4 report that places the issue of inert ingredients
5 into its historical and policy context ending
6 with a proposal from Moving Forward with the
7 consideration of the use of inerts in organic
8 production that is consistent with NOSB
9 recommendations.

10 Inert ingredients make up the largest
11 part of pesticide products are not chemically or
12 biologically inert, are not disclosed on the
13 label and have not been reviewed according to
14 off-book criteria.

15 We looked at active and inert
16 ingredients in pesticides known to be used in
17 organic crop and livestock production and checked
18 them against some toxicity screens. We concluded
19 that there are many more synthetic substances
20 used as inert ingredients in pesticides in
21 organic production. It's 127 and then there are
22 inactive ingredients of 39.

1 Inerts do not differ very much from
2 active ingredients in the range of effects that
3 are seen. There are more inert chemicals used in
4 organic production known to have almost every
5 kind of toxic effect. Of the inerts about which
6 information is available, some present serious
7 problems and some appear to be fairly harmless.

8 Our report lays out a plan for
9 implementing NOSB recommendations on inerts as
10 recommended by the NOSB and incorporates a Safer
11 Chemical Ingredients List and evaluations by
12 EPA's Safer Choice Program. We suggest next
13 steps and an outline for a memorandum of
14 agreement with EPA.

15 We urge the NOSB to recommend
16 prohibition of converting high value conservation
17 land or fragile ecosystems to organic crop
18 production. It should recommend regulations that
19 define high value conservation land
20 scientifically based on ecological value. NOP
21 guidance can clarify by reference to existing
22 databases. The NOSB should perform a

1 comprehensive review of cleaner sanitizers,
2 disinfectants and sterilants that examines the
3 need for new materials in light of alternatives
4 and hazards as required by OFPA.

5 Finally we oppose the proposal of
6 ancillary substances allowed in cellulose. Two
7 genotoxic carcinogens and one poorly defined
8 substance were not reviewed. Thank you.

9 CHAIR CHAPMAN: Thank you, Terry. Any
10 questions for Terry?

11 (No audible response.)

12 Thank you.

13 MS. SHISTAR: We had a lot more
14 questions this morning.

15 CHAIR CHAPMAN: Next up is Cameron and
16 on deck is Jay Feldman. Jay, you can go to the
17 on-deck seat. Cameron, if you could start with
18 your name and affiliation for the record.

19 MR. HARSH: Hi. I'm Cameron Harsh.
20 I'm the Senior Manager for Organic and Animal
21 Policy at Center for Food Safety, an
22 environmental and consumer advocacy organization.

1 CFS supports the definitions of aeroponics and
2 hydroponics in the discussion document and agrees
3 with listing them at 205.105. OFPA provides the
4 practices not expressly prohibited in the statute
5 that are considered allowed, but states that such
6 practices must not be inconsistent with the
7 Organic Certification Program.

8 Suspending plant roots in air,
9 submerging them in liquid solutions or inert
10 media and relying solely on liquid inputs is
11 inconsistent with the organic program.

12 NOSB should continue gathering
13 information on aquaponics to ensure that a final
14 definition captures all systems considered
15 aquaponic which may use solid rooting media and
16 get some nutrients from fish waste in combination
17 from solid nutrient sources. NOSB should
18 continue posing questions to container producers
19 particularly on the types of solid matter
20 including what portion, if any, is soil. They
21 should also continue on the types of sizes of
22 containers used and the details of their plant

1 nutrition strategy.

2 Micronutrients for sulfates,
3 carbonates, oxides or silicates of various
4 nutrients is a categorical listing and is
5 therefore inappropriate as it does not identify
6 specific allowed substances. This reduces
7 transparency and may result in use of substances
8 that have not undergone full review.

9 Micronutrients are an important tool for farmers,
10 but should be individually petitioned and listed.

11 NOSB should also ensure that nanoscale
12 products for listed nutrients are excluded.

13 NOP's 2015 guidance leaves the door open to
14 petitions for individual nano materials. This
15 undermines the organic label. And NOSB must
16 recommend that nano materials be added to 205.105
17 as excluded.

18 CSF appreciates the effort to
19 determine whether marine plants used in organic
20 are compatible based on harvesting impacts to
21 ensure that all materials meet the high bar of
22 organic. The subcommittee must explain its

1 reasoning for the species proposed need
2 recommended listing.

3 It was unclear whether they were
4 proposed because they can be sustainably sourced
5 or if they are simply those that are commonly
6 used. The purpose of this process is to
7 accomplish the former.

8 CFS supports creating disincentives
9 for converting uncultivated land that should
10 remain uncultivated to organic. A framework
11 should be developed to guide determination of
12 when such land may be appropriate for conversion
13 and identify strategies that protect or enhance
14 ecosystems. Forest Stewardship Council is one
15 resource that can be looked to for insight and
16 possible tools related to high conservation value
17 lands including for delineating areas that
18 require total conservation.

19 NOSB should consider recommending
20 language similar to IFOAM as to 205.202(d)
21 establishing that any field which crops are to be
22 sold as organic must not have undertaken any

1 actions that negatively impact high conservation
2 value areas. NOSB should recommend improving
3 requirements for organic poultry related to
4 selecting suitable breeds.

5 CFS urged NOP to do so in the Final
6 Organic Livestock and Poultry Practices Rule by
7 stipulating appropriate growth rates and a
8 minimum age of slaughter. This would prohibit
9 industrial breeds that do not thrive in outdoor
10 systems on 100 percent organic diets, free of
11 synthetic amino acids.

12 AMS agreed that this topic deserves
13 further attention and ask NOSB to explore it.
14 NOSB should follow this instruction and develop a
15 recommendation on poultry breed requirements.

16 CHAIR CHAPMAN: Thank you, Cameron.
17 Any questions? Dan.

18 MEMBER SEITZ: Can you state just the
19 very quick definition of what a nano -- what is
20 it? A nanoparticle?

21 MR. HARSH: A nanomaterial.

22 MEMBER SEITZ: Yes, a nanomaterial.

1 And how does that work its way potentially into
2 food that we're considering organic?

3 MR. HARSH: There's a number of
4 different ways that nanomaterials could be used
5 in organic. One instance is as additives and
6 packaging and plastics. So we also commented
7 that when you look to alternatives for BPA
8 nanomaterials such as nano titanium dioxide
9 should not be used in organic because they can
10 migrate into the food products.

11 In terms of micronutrients, there is
12 nano molybdenum and nano cobalt on the market
13 right now which are nanoscale which I do not know
14 off the top of my head. But our science policy
15 analyst, Jaydee Hanson, is an expert in this
16 field of what is the threshold for scale and size
17 of nanomaterials in particular. But there are
18 nanonutrients on the market used in agriculture
19 today for crops.

20 CHAIR CHAPMAN: Thank you. Any other
21 questions?

22 (No audible response.)

1 MR. HARSH: Thank you.

2 CHAIR CHAPMAN: Thank you, Cameron.

3 I'm just getting some folks from the Board asking
4 public commenters to speak up a little bit. We
5 don't actually have a public comment mic speaker
6 pointing our way. We're going to fix that the
7 next break. But if you guys could just try to
8 speak up a little bit so we can hear you a little
9 bit better.

10 MR. FELDMAN: So you want me to yell
11 at you.

12 CHAIR CHAPMAN: Yell at us, Jay.

13 MR. FELDMAN: I thought so.

14 CHAIR CHAPMAN: And before you start,
15 Jay -- Jay is up and David Moore is on deck -- if
16 you could start with your name and affiliation
17 for the record.

18 MR. FELDMAN: Thank you. Thank you,
19 Tom. I'm Jay Feldman, Executive Director of
20 Beyond Pesticides. I served in the National
21 Organic Standards Board for five years like you
22 all are doing. Thank you for your service.

1 You do great work. But I'm not here
2 to praise you today. I'm here to talk about
3 other issues as you could have guessed.

4 In acting as stewards for organic, you
5 face two critical tasks. One is the deal with
6 what's on your work plan, the National List and
7 the process of reviewing materials and issuing
8 discussion documents. And then you face the
9 other issue of larger issues that are not on your
10 work plan but issues that need to be addressed in
11 a timely way.

12 I'm going to focus on the latter, the
13 second approach, because the integrity of the
14 organic seal is undermined every day when we
15 don't look at these broader issues. I'm going to
16 bring up four issues today.

17 The first is the biodegradable, bio-
18 based mulch film. Obviously, this material was
19 not ready for prime time when it was adopted by
20 and put on the list by the NOSB in the fall of
21 2012. The memo that was put out by NOP that's
22 cited in your documents 55.15.1 talks about 100

1 percent bio-based material.

2 That does not exist in the market.
3 New information has indicated and confirmed the
4 concerns that were raised by many at the NOSB
5 meeting in 2012. Unless you can attach an
6 annotation to that material, it needs to be
7 removed from the list.

8 Contaminated inputs, the Board had a
9 plan for contaminated inputs. And some of these
10 issues have come up previous to my testimony in
11 terms of drift, in terms of compost that's
12 contaminated.

13 We need an action plan on compost.
14 You've got a discussion document that the
15 previous Board has adopted. Go with that and
16 move on that.

17 With inerts, there continues to be the
18 unconscionable delay. This is an issue that the
19 Board addressed in 2010 and then again in 2012
20 and unanimously adopted a plan. We need to carry
21 out that plan and immediately get TRs. You can
22 TRs and move through that process.

1 Hydroponics. Again, a previous Board
2 decision in 2010 clearly stated that organic is
3 soil-based. Unanimously found that. And I don't
4 think that position of the Board has been changed
5 in any way or there is any new information.

6 Finally, the open docket is critical
7 to the work of this Board. You really need to
8 start using the open docket process. Again, put
9 pressure on the NOP to get that docket going. It
10 will enrich the community involvement in the
11 discussion around organic standards. Thank you
12 very much.

13 CHAIR CHAPMAN: Thank you, Jay. Any
14 questions for Jay? Dan.

15 MEMBER SEITZ: I'm told that from a
16 very young age I like to ask lots of questions.
17 I'm still trying to get my mind around inerts in
18 pesticides. Inert sounds like something pretty
19 innocuous. It's inert.

20 MR. FELDMAN: Right.

21 MEMBER SEITZ: And if I understand
22 correctly, they're not always identified if you

1 can just put it in a nutshell for we who are not
2 engaged in pesticide side issues daily. What's
3 the deal?

4 MR. FELDMAN: Yes. As you know, the
5 Organic Foods Production Act intersects with
6 other statutes. And in this case, it's
7 intersecting with the Federal Insecticide
8 Fungicide and Rodenticide Act which defines
9 pesticide as both having an active ingredient and
10 an inert ingredient. It's a term of art.

11 The active ingredient is in the
12 product to attack the target pest. The inerts
13 are in there are as carriers, sticking agents,
14 materials that help deliver the product either as
15 a dust, a granule or a liquid.

16 So the question as Terry mentioned,
17 the issue is that when you look at an actual
18 formulation which includes both the active and
19 inert you actually have a combination of
20 materials of a lot of different chemicals, the
21 majority of which are not the active ingredient.

22 When somebody says glyphosate or

1 chlorpyrifos those are the active ingredients,
2 but they really make up a fraction of the total
3 formulation. So years ago when we wrote the
4 statute, OFPA we said there are inerts out there
5 that are not of toxicological concern and we relied
6 on an EPA list, List 4.

7 It turns out EPA did away List 4
8 because they decided to go to a more streamline
9 process. And in the process of doing that, they
10 notified the NOP and the NOSB that we all would
11 have to come up with our process of reviewing
12 inert ingredients.

13 The Board did that in 2010. Great
14 meeting. Lot of work. Community involvement.
15 2012 tweaked it a little bit. Unanimously said
16 we can do this. Worked with the State of
17 Washington to come up with a list, an armory of
18 what all the inerts were in organic products.
19 And we determined there were about 126 or 123
20 materials that could be divided up over five
21 years and we could review these things. We could
22 get TRs. We would work with EPA's Office of

1 Pesticide Programs and review these things.

2 You know what. Stay ahead of the
3 curve because this is a ticking time bomb. It
4 really is and it's something that we have enough
5 resources in this room and in our community. I
6 even think people out there would volunteer to
7 help with the review of these materials so that
8 we as a community could say we are looking at the
9 total product that we're using as an input into
10 organic production.

11 And we feel good about it. We feel it
12 meets the office standards.

13 CHAIR CHAPMAN: Thank you, Jay. Emily
14 and then Francis.

15 MEMBER OAKLEY: I have to admit that
16 this is a subject that I haven't fully wrapped my
17 head around because I came on and it was sort of
18 on the back burner. Then other issues came
19 aboard.

20 And I guess my question is what
21 happened after 2012 and why didn't that process
22 begin? Is it feasible to reignite that process.

1 I know that Zea was the lead on that and is
2 obviously not on the Board now. Those of us who
3 are on I think are mostly not fully aware as you
4 know which is probably frustrating.

5 MR. FELDMAN: There have been a lot of
6 leaders on this topic. Jeff Moyer with Rodale
7 Institute in 2010 when I came on the board. And
8 then I became the lead and Zea came on the next
9 year and became the lead. Zea is a leader by
10 nature of course.

11 There was a task force with EPA, NOP
12 and two NOSB Board members. For a while we had
13 previous Board members on a task force. And you
14 know things happen. Things get bogged down and
15 things don't move. From our perspective, things
16 could have moved and they should move. This is
17 one of the issues among a handful of others that
18 have been put on the back burner that you can
19 elevate, get back on the agenda, on the work
20 plan, demand to be put on the work plan.

21 I think you can resolve it. I mean it
22 can be done. Why did it get put off? Many

1 different perspective on that I'm sure.

2 CHAIR CHAPMAN: Thank you. Francis,
3 briefly. We're 45 minutes behind schedule. So
4 we're going to have to keep moving along.
5 Francis.

6 MEMBER OAKLEY: I think it is on our
7 work plan still. I just wanted to clarify. It's
8 not that it's off the work plan. I just don't
9 think we've acted on it yet.

10 MR. FELDMAN: The committee should get
11 a report at every meeting as to how it's
12 progressing.

13 MEMBER THICKE: Bio-based mulch, are
14 you suggesting we should sunset it and then if it
15 clears up eventually we can bring it back?

16 MR. FELDMAN: Unless you're able to
17 adopt a very clear annotation that indicates and
18 gives very explicit instructions. I'm very
19 worried, Francis, that what's going to happen
20 with this is that we're going to set an allowable
21 level of non-composted material, non-natural
22 material.

1 So we'll get to the point where
2 there's so much. It's on the list, right. It's
3 allowed. And we're going to start tinkering with
4 the allowable levels of non-natural or non-bio-
5 based material.

6 When you leave, others that have
7 concern about this will see the degradation of
8 that standard. So we need a very clear
9 annotation which we don't have right now that
10 really indicates that it has to be fully
11 degraded. It's got to effectively be removed
12 from the field. And it's going to be 100 percent
13 bio-based. We don't have that right now.

14 CHAIR CHAPMAN: Thank you, Jay.

15 MR. FELDMAN: Thank you.

16 CHAIR CHAPMAN: Up next is David
17 Moore. On deck is Diane Wilson. David, if you
18 could start with your name and affiliation for
19 the record.

20 MR. MOORE: Good afternoon. I'm David
21 Moore. I'm a California licensed agricultural
22 pest control advisor and qualified applicator. I

1 work for Neudorff.

2 I'm here today to urge each of you to
3 vote to retain coppers, fixed coppers, copper
4 sulfate and all soaps on the national list.

5 Fixed coppers and soaps are not
6 harmful to human health or the environment.
7 These materials have no systematic human toxicity
8 and no acute toxicity hazard germane to
9 agricultural use. Existing laws and regulations
10 adequately and appropriately regulate pesticidal
11 use of these materials and safeguard humans and
12 the environment from unlawful exposures and
13 residue.

14 US EPA explicitly states that it has
15 no concerns about human risk from exposure to
16 copper pesticides. The risks of the soap salts
17 to applicators and consumers are negligible.

18 Copper's a necessary nutrient required
19 by all living organisms. It is readily regulated
20 by and metabolized within the human body and
21 deficiency is a far greater health hazard than
22 excess. Copper is widely present in our food and

1 drinking water. This is not considered a risk or
2 a hazard.

3 I also point out that enforcement of
4 the existing copper annotation at 205.601(i)(2) is
5 a separate issue for your vote to retain as is
6 the annotation on herbicidal soaps at
7 205.601(b)(1). Fixed coppers and soaps are
8 necessary for organic production and thus they
9 are widely used. These materials effectively
10 address many common agronomic pests including
11 many challenging key pests of organic crops. The
12 best example of this is fire blight of organic
13 palm fruits which is a significant threat to the
14 orchards and to the livelihoods of these farmers
15 since the Board delisted antibiotics for control
16 of this pest following the events of 2013.

17 Fixed coppers and soaps are completely
18 consistent with both the letter and the spirit of
19 organic agriculture. Both are historic pillars
20 of organic agriculture and predate the NOP and
21 the National List by hundreds of years.

22 Both coppers and soaps are explicitly

1 endorsed by OFPA as allowed synthetics. Indeed
2 copper is the first synthetic material allowed in
3 OFPA at 21.18(c). No new information has been
4 presented to the contrary. So again I encourage
5 each of you to vote to retain coppers and soaps
6 on the National List and to remove the annotation
7 restricting herbicidal uses of soaps at
8 205.601(b)(1). Thank you.

9 CHAIR CHAPMAN: Thank you. Any
10 questions?

11 (No audible response.)

12 Thank you very much. Up next we have
13 Diane Wilson and on deck is Beth Unger. Diane,
14 if you could start with your name and affiliation
15 for the record.

16 MS. WILSON: Can you see me? I'm so
17 short.

18 I'm Diane Wilson. I'm Director of
19 Nutrition Services for Nature's One. Nature's
20 One is the manufacturer of pediatric organic
21 nutrition formulas. And we've been manufacturing
22 these and selling them since 1999.

1 The Board has been dealing with L-
2 methionine for many years. And when it was
3 mentioned by Dr. Brines that we would be
4 discussing the L-methionine petition again today
5 at the last meeting in St. Louis there was a huge
6 groan in the audience. And I can fully
7 understand why because I've been dealing with it
8 since 2012 also.

9 In 2012, the Board met and addressed
10 the petition by the International Formula Company
11 regarding L-methionine and infant formula. At
12 the meeting, I requested that that annotation be
13 expanded to include organic soy, pediatric/infant
14 formulas. The reason being that not just infant
15 formula but formulas for young children,
16 especially young children who require total
17 nutrition from these formulas need L-methionine
18 in their soy formulas as well.

19 Many of you may remember that soy is
20 deficient in methionine which is why it's now
21 allowed in poultry feedings and infant formula
22 and it's needed in pediatric nutrition formulas

1 especially again for children who require these
2 as their sole source of nutrition.

3 Sole source of nutrition can be
4 orally. It can be by tube, either through the
5 nose, through the stomach or through the
6 intestinal tract. That's called enteral
7 nutrition through the GI tract.

8 The specific indications for use of
9 the soy-based formula would be for children
10 galactosemia, a generic disorder where they
11 cannot digest the carbohydrates in dairy
12 products, lactose and galactose. It also is for
13 children who have an intolerance to cow's milk
14 protein. And it's also an indication for use for
15 those families who have tube fed children that
16 need soy-based formulas for vegetarian purposes.
17 They don't want animal products.

18 Now the question becomes are there
19 that many tube fed children in the United States.
20 And the answer is yes. I contacted the Tube
21 Feeding Awareness Group and they estimate that
22 over 100,000 children in the U.S. today are fed

1 by tube, either totally or partially.

2 Now there are no data specifying how
3 many of these are fed on organic formula which
4 are fed soy formula. But if you look at the
5 incidents of cow milk protein allergy today in
6 the United States which is about 2.1 percent of
7 all children, then you can understand that there
8 is a reason for having a soy-based formula.

9 And we've been providing one since
10 1999. And I can tell you we do have children
11 using our formulas as total source of nutrition.
12 The biological value of soy protein is inadequate
13 unless it is supplemented with L-methionine. And
14 I thank you for considering our proposal.

15 CHAIR CHAPMAN: Thank you. Any
16 questions? Asa.

17 MEMBER BRADMAN: I wanted to clarify
18 that statement you said. There's 100,000
19 children in the U.S. being fed by tube.

20 MS. WILSON: By tube, yes.

21 MEMBER BRADMAN: So these are -- I
22 mean I presume these are mostly NICU, prenatal.

1 MS. WILSON: I'm sorry. What was the
2 question?

3 MEMBER BRADMAN: Are they kids in
4 NICUs?

5 MS. WILSON: Not necessarily, no.
6 These are children between the ages of one and
7 usually 13 years of age.

8 CHAIR CHAPMAN: I had some follow-up
9 questions which I think build on yours. Could
10 you speak a little bit to the underlying medical
11 conditions that would perhaps require a gastric
12 tube just so people have a sense of the children
13 that would require this type of formula?

14 MS. WILSON: Any child that's having
15 any kind of dysfunction with swallowing, eating,
16 any kind of cancer of the throat, neck,
17 esophagus, anything like that would require a
18 gastrostomy tube.

19 CHAIR CHAPMAN: Thank you. And then
20 are you aware of any other organic, non-dairy
21 products on the market that are marketed for or
22 that are enteral formula other than yours?

1 MS. WILSON: Yes.

2 CHAIR CHAPMAN: Yes, there are. Thank
3 you.

4 Any other questions? Joelle.

5 MEMBER MOSSO: Of those alternatives,
6 are they all soy-based or are there other
7 alternative plant protein-based?

8 MS. WILSON: There are some
9 alternatives that are made out of whole foods,
10 but they are non-organic. And often times they
11 contain milk protein in the form of whey protein.
12 So for children that have a milk protein
13 intolerance, they would not be appropriate.

14 In terms of organic, there have been
15 rice formulas that have been looked at. But
16 there are a lot of issues with rice-based
17 formulas as a source of protein because one,
18 people are concerned about the arsenic content of
19 rice and secondly they are more deficient in
20 various amino acids, more so than soy protein
21 such as L-lysine and so forth and so on.

22 MEMBER MOSSO: Thank you.

1 CHAIR CHAPMAN: Any other questions?

2 (No audible response.)

3 Thank you very much.

4 MS. WILSON: Thank you.

5 CHAIR CHAPMAN: Up next is Beth. On
6 deck is Chris Ciolino. Sorry if I butchered
7 that. Beth, if you could start with your name
8 and affiliation.

9 MS. UNGER: Thank you, Tom. I'm Beth
10 Unger. I am employed by CROPP Cooperative. This
11 is the nation's largest organic, farmer-owned
12 cooperative in the nation. And we are marketing
13 products under the Organic Valley and the Organic
14 Prairie brands. Today I am coming to you with a
15 request to keep casings on 606 on behalf of our
16 Organic Prairie products.

17 Casings I think if you read my written
18 comments it was mostly about the casings. It's a
19 lot of information because I want to make sure
20 that you'll very well educated about casings.
21 And the comment focused primarily on the hog
22 cases which are so important in the sausage

1 market.

2 Organic sausage is a growing market.
3 It had 21 percent growth in 2016 over 2015
4 according to SPINS data. And as you all know,
5 SPINS data excludes a lot of major retailers such
6 as Whole Foods, Costco, Target, etc.

7 But the organic hog production, just
8 to put this in context for you, is 0.4 percent of
9 the hog production in the United States. So the
10 challenge that happens with casings is all about
11 aggregation.

12 I know that Jean Richardson in a
13 previous discussion with the Board was like an
14 entrepreneur can clean them and do that. It's
15 not really like that. It's a very complex
16 process. It's a salt and water cleaning and so
17 on and so forth.

18 But there is sizing. So they're not
19 all the same size. They have to be into sizes
20 and so on and so forth. When you take a look at
21 the slaughter facilities throughout the United
22 States, the organic slaughter is a small

1 percentage of what they do. It is very
2 challenging to aggregate organic intestines.

3 If that isn't enough of a challenge,
4 the bigger challenge comes from the aggregation
5 of all of the aggregates in order to send it on
6 for further processing to get sized. It simply
7 isn't going to happen in the very near future.
8 The market has not reached a state.

9 I'm hoping Europe will get there.
10 Years ago, I had some conversations with some
11 Europeans about this very same challenges.
12 Europe has a much higher production of sausage
13 than the U.S. does. They can't make it happen.

14 So I wanted to remind you about the
15 criteria for listing on 606. It's when the
16 product is not commercially available in an
17 organic form. This is clearly not available.
18 Thank you.

19 CHAIR CHAPMAN: Thank you, Beth. Any
20 questions for Beth? Dan.

21 MEMBER SEITZ: Is it fair to say that
22 the large majority of the raw products, the

1 intestines, would be from factory farm animals
2 and such?

3 MS. UNGER: That very well could be,
4 Dan. They're all aggregated.

5 CHAIR CHAPMAN: Thank you. Any other
6 questions? Harriet.

7 MEMBER BEHAR: There were some public
8 comments about the concern that the animals the
9 casings come from are fed GMOs and their feed
10 could be contaminated with pesticides. Has there
11 ever been any testing or anything done on those
12 casings to see what they are or if they have any
13 residues that we might be concerned about?

14 MS. UNGER: I'm sorry, Harriet. I
15 cannot answer that question. There may be an
16 answer, but I don't have it.

17 CHAIR CHAPMAN: Any other questions?

18 (No audible response.)

19 Thank you very much, Beth. Appreciate
20 it.

21 MS. UNGER: Thank you.

22 CHAIR CHAPMAN: Up next is Chris

1 followed by Dan Carrothers. Again, apologies if
2 I'm butchering your names. If you could start
3 with your name and affiliation for the record,
4 you can set it straight.

5 MR. CIOLINO: Sure. My name is Chris
6 Ciolino and I am with Emery Oleochemicals Agro
7 Green Business Division. We are the
8 manufacturers of ammonium nonanoate which the
9 Board has looked into off and on the last ten
10 years. I'd like to address the issue of the
11 potential future allowance of soap-based
12 herbicides for use on organic food crops.

13 In any case, one of the things I'd
14 like to point out are what I consider two
15 inconsistencies or disconnects around the whole
16 issue of soap-based products in organic food
17 production. The first one is on soap-based
18 herbicides and whether or not they are aligned
19 with organic production practices.

20 In the 2015 Sunset Review, the NOSB's
21 ruling which was a unanimous vote to not remove
22 soap-based herbicides from the approved National

1 List, the comment was specifically made by NOSB
2 that based on the subcommittee review and public
3 comment the NOSB finds soap-based herbicides
4 compliant with OFPA criteria and does not
5 recommend removal from the National List.

6 However, over the last ten plus years
7 our company and other companies have submitted
8 ammonium nonanoate, one soap-based product, for
9 consideration as a herbicide for organic food
10 crops. And not the only reason for rejection but
11 one of the reasons was that it was cited
12 frequently that the product is incompatible with
13 organic production practices. One of the things
14 we would recommend is clearing that inconsistency
15 up if you consider that an inconsistency.

16 Another inconsistency, we all know
17 that soap-based insecticides are approved for use
18 on organic food crops. On the left side of the
19 screen, we show organic soap-based insecticides.
20 One of these could be ammonium nonanoate used as
21 an insecticide applied directly on the crop.
22 Whatever does not fall onto the crop falls into

1 the ground and then is decomposed by microbes as
2 shown there.

3 In the same example of ammonium
4 nonanoate used as a herbicide, this time it is in
5 the row middles. And whatever doesn't end up on
6 a weed also falls into the ground and decomposes
7 in the same way. Clearly, there's a disconnect
8 here.

9 This chart shows that there's no
10 difference in the environmental fate of the
11 ammonium nonanoate whether it is used as an
12 insecticide or a herbicide. And yet as it is
13 used as an insecticide is sanctioned by the NOSB
14 but not its use in approximately the same area as
15 a herbicide.

16 I ask that NOSB consider the removal
17 of the annotation currently in place of soap-
18 based herbicides that restricts their use to
19 farmstead maintenance and ornamental crops so
20 that organic farmers can use these materials as
21 herbicides around organic food crops.

22 CHAIR CHAPMAN: Thank you. Any

1 questions? Thank you very much.

2 MEMBER BRADMAN: I'm sorry. I do have
3 a question.

4 CHAIR CHAPMAN: Sorry. Asa.

5 MEMBER BRADMAN: What are the
6 restrictions for the EPA registration for these
7 materials?

8 MR. CIOLINO: I'm sorry. Say that
9 again.

10 MEMBER BRADMAN: Are there any
11 restrictions by EPA on the registration of these
12 materials?

13 MR. CIOLINO: No.

14 CHAIR CHAPMAN: Sorry. Steve as well.
15 Chris, we have another question.

16 MEMBER ELA: Sorry. I'm slow in
17 formulating my question. But are there different
18 rates used for herbicide versus insecticide?

19 MR. CIOLINO: Yes.

20 MEMBER ELA: And could that have a
21 reasoning behind? I mean I don't know the labels
22 off the top of my head. Are the insecticide

1 lower rates than herbicide?

2 MR. CIOLINO: Yes, you're absolutely
3 correct. But I guess it would be my question
4 back to the Board. Is that the reason why it is
5 approved for use as an insecticide but not as a
6 herbicide even though the same environmental fate
7 of the product is the same whether it's used on
8 crop? In fact, the herbicide is used in such a
9 manner that it's not intended to ever touch the
10 crop. It's to be the weeds in the row middles or
11 underneath the orchard trees, that type of thing.

12 MEMBER ELA: Can I ask a follow-up?

13 CHAIR CHAPMAN: Yes, but then we'll
14 stop it there.

15 MEMBER ELA: A quick follow-up. I
16 mean some of our materials show that it does have
17 toxicity to soil organisms. So rate effect could
18 be pretty important in that.

19 MR. CIOLINO: Yes, and we'll address
20 that with the third speaker in this series.
21 She'll address some of that on the differences
22 between what happened in 1992 versus 2015 on the

1 assessment of that. Thank you.

2 CHAIR CHAPMAN: Thank you, Chris. Up
3 next is Dan followed by Darlene Florence. Dan,
4 if you would start with your name and affiliation
5 for the record.

6 MR. CARROTHERS: Yes. My name is Dan
7 Carrothers and I'm the Global Business Director
8 for Emery Agro Green Solutions. We're based in
9 Cincinnati and we've been in business for about
10 177 years.

11 First of all, I do want to thank the
12 Board for letting us have the opportunity to
13 speak and also to the NOP.

14 For my comments today, I want to
15 address a couple of areas. One is address
16 previous NOSB assertions that ammonium nonanoate,
17 soap-based herbicides are not required or not
18 needed in organic production and that there are
19 suitable alternatives already approved and then,
20 secondly, for the removal of the annotation on
21 soap-based herbicides.

22 During 2016, Emery conducted a fairly

1 detailed field trial across the United States
2 with organic farmers. We asked them to take the
3 opportunity to use the product and provide us
4 with their insight as to their effectiveness,
5 ease of use, etc. and then also compare it to
6 existing options.

7 As you might see here from the chart
8 behind you, there were a couple of things that
9 came out of it. First of all, there were
10 hundreds of farmers that took part in this in
11 over 20 states across the U.S.

12 What we learned was that 54 percent of
13 those that actually used the product and provided
14 feedback to us said that the current methods that
15 are approved today are not adequate and do not
16 work. Of the ones that did say that they were
17 working, they listed the inability to scale, the
18 labor and the expense associated with it.

19 Eighty-four percent of those people
20 said that if the product were approved by the
21 NOSB they would use it. And finally 51 percent
22 of them said that this was the best natural

1 product that they had ever used.

2 Clearly, from our perspective, there
3 is a disconnect between what has been cited as
4 recently as a 2011 NOSB review and what organic
5 farmers are actually saying across the United
6 States. The products that they're currently
7 using now are not working and they are looking
8 for new alternatives.

9 In addition to the survey, we've
10 gotten feedback from the general public. We've
11 gotten feedback from academia. And to quote one
12 here, Dr. Doohan from Ohio State University who
13 is the Professor of Horticulture and Crop Science
14 "Current practices for weed control are woefully
15 insufficient." Our survey has in fact support
16 that comment.

17 The fact is even more revealing when
18 you look at the disconnect today between organic
19 demand and supply for organic foods. Part of the
20 problem we think can be highlighted around weed
21 control practices which are inadequate. The
22 production capability of organic versus

1 conventional I think most people would agree is
2 somewhere around 20 percent less.

3 What's happening is this supply that
4 we're currently not meeting is being met by
5 imports. We would ask that the NOSB look at
6 first of all taking the annotation off soap-based
7 herbicides and give the U.S. organic farmer an
8 opportunity to have better technology. Thank
9 you.

10 CHAIR CHAPMAN: Thank you. Any
11 questions? Francis and then Harriet and then
12 Steve.

13 MEMBER THICKE: So do you see this as
14 being a nonselective herbicide used pretty much
15 everywhere, kind of like inorganic Round-up?

16 MR. CARROTHERS: I'm not sure I would
17 use that exact term. But what I would say is
18 that we certainly see the opportunity for this
19 product to be used in crop and as my colleague
20 just showed the product as an insecticide is
21 already approved. People can go in and spray
22 their crops with it. All we're asking is that

1 the annotation be in symmetry with the
2 insecticide so that they can certainly spray
3 where weeds are between the rows.

4 There was a question about rates. I
5 think one thing to also keep in consideration is
6 for insecticides there are also multiple
7 applications versus in herbicides. Often one
8 application is all that's used. Sometimes with
9 the rate issue you have to look at the number of
10 applications as well.

11 CHAIR CHAPMAN: Harriet.

12 MEMBER BEHAR: Is this product being
13 used in conventional agriculture? And would
14 there a risk of resistance over time?

15 MR. CARROTHERS: Very good question.
16 The answer is yes, it's being used in
17 conventional today. One of the things about
18 soap-based herbicides, fatty acids, is that we
19 have not seen any documented resistance at all
20 because of the way it works. It actually works
21 by when you spray it on the leaf surface it rips
22 the cuticle open and the weed in this case

1 desiccates.

2 But we have not seen any resistance at
3 all. In fact, in other studies where we looked
4 at combinations with fatty acids with things like
5 pyrethroids or whatever, we see that you can
6 actually get control of some insects that are
7 resistant to certain conventional or synthetic
8 because of the way the fatty acids work. We
9 actually think it could be a good tool in
10 breaking resistance.

11 CHAIR CHAPMAN: Thank you very much.
12 We have Steve and then we'll stop there for the
13 sake of time. Steve.

14 MEMBER ELA: I'll ask a similar
15 question. If these material have toxicity to
16 soil organisms such as earthworms and insects and
17 things, I mean it seems like as an organic mantra
18 or principle we want to avoid those kinds of
19 materials. Could you address why if you're going
20 to use it more widespread how we deal with those
21 toxicities?

22 MR. CARROTHERS: Good question. My

1 colleague, Dr. Florence, will get into it in a
2 little more detail. What we can say is this. In
3 the 1992 EPA Red there were some gray areas
4 around how fatty acids worked in the soil and
5 what they did in terms of some of the
6 microorganisms, etc.

7 In the most recent 2015 Red, they've
8 actually brought a lot of transparency. It
9 actually cleared up a lot of questions about what
10 kind of harm it could have for the soil. I think
11 what we would say at this point is that the way
12 it breaks down and the fact that fatty acids are
13 a food source for microorganisms is actually a
14 positive thing. And we don't believe that that
15 would be an issue whatsoever. My colleague will
16 touch on that in more detail.

17 CHAIR CHAPMAN: Thank you.

18 MR. CARROTHERS: Thank you.

19 CHAIR CHAPMAN: Up next we have
20 Darlene Florence followed by Anais Beddard. If
21 you could come to the on deck circle. And,
22 Darlene, if you could start with your name and

1 affiliation.

2 MS. FLORENCE: Absolutely. My name is
3 Darlene Florence. And I'm a Research Manager
4 with Emery Agro Green Division.

5 I wish to express my support for
6 retaining soap-based herbicides on the National
7 List due to their favorable environmental
8 footprint. Soil microorganisms rapidly break
9 down soap salts into the fatty acid and salt
10 components. Both are naturally occurring.

11 Fatty acids are a significant part of
12 commonly eaten foods. However, soap salts occur
13 in such small quantities that they are unable to
14 be extracted from the environment in an amount
15 sufficient for organic agriculture. Many soap
16 salts also exhibit antimicrobial properties which
17 makes fermentation an economically unviable
18 production method.

19 There are currently approved organic
20 weed control methods that have negative
21 environmental impacts. As a PhD soil scientist,
22 I understand how tillage introduces oxygen into

1 the soil in quantities disproportionate to what
2 would be achieved in a natural ecosystem. This
3 accelerates the breakdown of organic matter which
4 microorganisms and plants depend on for
5 nutrients.

6 Thermal controls such as weed flaming
7 product air pollutants from the combustion of
8 non-renewable, petroleum-based products Vinegar
9 is a human health hazard. The person is subject
10 to severe irritation to the lungs, skin burns and
11 potential loss of vision.

12 Even though soap salts have been used
13 for many years, the data regarding the
14 differences in fatty acid lengths in salts was
15 limited until 2015 when the EPA conducted a
16 revised environmental fate in ecological risks.
17 Previous petitions of soap-based herbicides such
18 as ammonium nonanoate were reviewed using only
19 the EPA's re-registration data from 1992 where
20 only long chains of potassium soaps were
21 considered.

22 For midchain soaps such as ammonium

1 nonanoate there were unknowns regarding the
2 environmental impact. Those questions were
3 answered in the EPA 2015 revised assessment.

4 The effect of either salt potassium or
5 ammonium on honey bees was unknown in 1992. In
6 1995, the EPA determined that both salts are
7 practically benign to honey bees.

8 In 2015, the EPA also revisited the
9 effect of soap salts on aquatic invertebrates.
10 Only potassium salts were considered in 1992.
11 However, due to land restrictions and rapid soil
12 biodegradation, soap salts were prevented from
13 leaching to water sources. Again, this
14 terrestrial application which is on the label
15 mitigates any potential negative effects.

16 Therefore, I ask the NOSB to retain
17 the listing of soap-based herbicides. And I also
18 ask the Crops Committee to consider removing the
19 annotation for these herbicides to provide
20 growers a National List that is consistent with
21 the EPA's 2015 Environmental Risk and Fate
22 Assessment as well as organic philosophy. Give

1 organic growers a competitive advantage by
2 allowing them to control weeds with the same
3 product they already are allowed to use for
4 controlling insects. Permit them to use a
5 material to protect their health and the
6 environment.

7 CHAIR CHAPMAN: Thank you very much.
8 I have Emily and Dave.

9 MEMBER OAKLEY: Hi. Thank you. I
10 wanted to elaborate on your freshwater
11 invertebrates and the toxicity notice and ask if
12 there's a concern of migration or runoff with
13 this product into ponds or other freshwater
14 sources as we see with other conventional
15 herbicides.

16 MS. FLORENCE: In this case there is
17 not. The material is intended to only be applied
18 to the leaf tissue that is unwanted. It dries
19 very quickly. And anything that drops into the
20 soil the microorganisms will consume very
21 quickly. Therefore it's not very mobile. It
22 won't leach down in through the soil and won't

1 leach into water sources.

2 The EPA label prohibits application to
3 or near water sources. That's a very clear
4 limitation by the EPA.

5 MEMBER OAKLEY: Can you just define
6 very quickly for me?

7 MS. FLORENCE: Less than 24 hours.

8 CHAIR CHAPMAN: Dave.

9 MEMBER MORTENSEN: Yes. A question
10 was asked earlier about the rates of the
11 difference between insecticide and herbicide use
12 rates.

13 MS. FLORENCE: Yes.

14 MEMBER MORTENSEN: Could you address
15 that?

16 MS. FLORENCE: Absolutely.
17 Insecticides are used at one to two percent and
18 herbicides are used at four to five percent.

19 CHAIR CHAPMAN: Steve and we'll stop
20 there.

21 MEMBER ELA: I'm wrestling in my head
22 a little bit here because I mean since this is a

1 synthetic substance the other ones you showed,
2 vinegar and such, are naturally occurring
3 materials.

4 MS. FLORENCE: Certainly.

5 MEMBER ELA: And so it seems like the
6 same argument could be made for potentially a
7 variety of other synthetic substances. I mean we
8 know weed control is an issue. But how do you
9 set aside that soaps are more special as a
10 synthetic and should be used versus possible
11 other synthetics?

12 MS. FLORENCE: I look at the safety
13 profile of soaps. They have no mammalian
14 toxicity. No toxicity to birds or any of the
15 other terrestrial organisms. They're used in the
16 soil. They reduce the reliance on tillage which
17 destroys soil structure, introduces oxygen which
18 breaks down organic matter and then reduces that
19 sequestration of carbon. I think this would be
20 a very important tool to be able to kill the
21 weeds and then have them on the soil so that they
22 decompose in the soil and add organic matter to

1 the organic system.

2 CHAIR CHAPMAN: Thank you very much.

3 MS. FLORENCE: Thank you.

4 CHAIR CHAPMAN: Up next is Anais
5 followed by Thomas. But please start with your
6 name and affiliation for the record.

7 MS. BEDDARD: Hi. My name Anais
8 Beddard and I represent the second generation at
9 Lady Moon Farms. This is my third time speaking
10 in front of the NOSB and I see some new faces.
11 Welcome. Everything you guys do is so important
12 and highly valued.

13 Lady Moon is the largest organic
14 vegetable grower east of the Mississippi with
15 farms in Florida, Georgia and Pennsylvania
16 providing year round produce. My parents started
17 farming organically 30 years ago because they
18 felt strongly about growing healthy, delicious,
19 good-for-you food, food that was grown in the
20 soil.

21 At the time, organics did not carry
22 the same weight it does now. It had been around

1 since the beginning of the 19th century
2 officially. But it hadn't received any respect
3 in the larger agricultural industry.

4 My parents were part of a group who
5 believed that this age-old system of growing was
6 the best way of producing food. They fought to
7 heard, struggled to be respected, and were
8 passionate about their cause. And in time, the
9 name organic took on meaning and earned trust in
10 the marketplace.

11 These revolutionaries didn't start
12 farming organically because they could get higher
13 prices for their produce. They started because
14 they believed in the process which focused on
15 soil as the foundation.

16 It is an expensive production system
17 that requires a lot more effort, time and
18 investment to be successful. You aren't only
19 focusing on producing a strong harvest during
20 season but on cultivating an entire ecosystem for
21 the years to come.

22 Crop rotation, cover crops, green

1 manure, these are just a few of the practices in
2 our toolbox and in OFPA that we must utilize to
3 be effective. You aren't an organic grower just
4 by using OMRI-approved inputs. That was and is
5 the whole point of the organic farming model. It
6 is not an input-based system. It is a
7 regenerative model focused on building the soil.

8 When you read OFPA, soil is prevalent
9 throughout all the guidelines. Why hydroponic
10 operations were ever allowed to be certified is
11 beyond me. We diluted the labels integrity while
12 nearly every other country made it stronger.

13 Now we're faced with an industry that
14 continues to post two digit growth, but to what
15 extent. New growing systems based on evolving
16 technology will continue to be developed. That
17 does not mean they should wear the same labels as
18 those systems that are well defined and rooted in
19 the system.

20 It is more important now than ever
21 before to maintain the organic label's integrity.
22 I agree with the discussion document in that

1 hydroponics, aquaponics and aeroponics should be
2 excluded from organic. Container systems that
3 rely predominantly on liquid nutrients are no
4 different from hydroponics.

5 We should adopt the EU's standards.
6 Organic was founded on the principle of enriching
7 the soil which means in the ground. I urge the
8 NOSB to make a recommendation as soon as
9 possible. The expansion of hydroponic operations
10 continues as an astonishing rate and the
11 uncertainty in the marketplace is increasing.
12 The farmers performing fought hard to make
13 organic a respected system. We cannot let their
14 work be lost. Thank you.

15 CHAIR CHAPMAN: Thank you very much.
16 Any questions?

17 (No audible response.)

18 Thank you.

19 MS. BEDDARD: Thank you.

20 CHAIR CHAPMAN: Up next is Thomas
21 followed by Will Hemker. Thomas, if you could
22 start with your name and affiliation for the

1 record.

2 MR. BEDDARD: Thomas Beddard, Lady
3 Moon Farms, and I'm not sure I can follow my
4 daughter, but I'll try. I'm here today to voice
5 my opinion as to what will become of a production
6 system as old as human agriculture yet with its
7 modern roots in post-World War II society.

8 This system was called organic as a
9 nod to the fact that a well-balanced ecosystem
10 needs to be viewed as a living organism. And
11 this system can be summed up in one word, soil.

12 And the OFPA Act, of which the NOP is
13 based on, clearly got this right when soil
14 fertility was the benchmark for being a certified
15 organic farm.

16 It seems there are two sides to this
17 issue. On the one side are those that say
18 hydroponics -- and this does include container-
19 grown crops that get the majority of their
20 nutrients from soluble fertilizers -- should be
21 able to be certified organic, as long as all
22 inputs are allowed under the national law, that

1 their systems contain biology without soil, that
2 they represent new technologies and innovations
3 for producing food.

4 They maintain that allowing
5 hydroponically-produced foods the same organic
6 status as soil-grown foods is progress. One of
7 their chief arguments is that the marketplace
8 needs more organic food.

9 And they are expanding quickly because
10 it is lucrative and growing hydroponically with
11 allowable organic inputs is much easier than
12 growing in the soil.

13 On the other side are those who've
14 maintained that OFPA got it right when it made
15 soil the centerpiece of being a certified organic
16 farm. And my question is, how in a short 27
17 years could something so essential, in fact that
18 which is the whole point of the production system
19 become something old fashioned, something that
20 needs to step aside for progress, something that
21 needs to make way for innovation?

22 No, my friends, innovation was

1 realizing that a truly healthy sustainable
2 farming system that could call itself organic, it
3 had to without compromise be centered around the
4 soil as a living entity. That is innovation.
5 That is progress.

6 And as a farmer looking at his 30th
7 year of being certified organic, I can tell you
8 we have just barely scratched the surface of what
9 all this means, because the complexity is so
10 great.

11 To allow a much simpler, less complex
12 production system to wear a highly coveted and
13 extremely hard-earned seal as certified organic,
14 that to me is not progress. That is capitulating
15 to market forces.

16 When one of your main arguments is to
17 allow a system that is not compatible with OFPA
18 to wear the same seal as a system that is because
19 the market needs more organics to sell seems like
20 watering down the wine.

21 You don't do this to a production
22 system that is not easy to emulate and therefore

1 so well respected around the world. Hydroponic
2 farming is missing the most essential ingredient
3 there is to organic farming, soil.

4 And you can't have organic farming
5 without soil. Organic farming is not about
6 allowable inputs. It's about feeding the soil,
7 not the plant. Hydroponics is the opposite of
8 that. My vote is for the integrity of the
9 production system, not for the benefit of
10 personal interest, and I hope yours will be too.
11 Thank you all for your service.

12 CHAIR CHAPMAN: Thank you. Questions?
13 I have Emily, Harriet, Dan, Ashley and Steve,
14 then we'll stop it there for the sake of time.

15 MEMBER OAKLEY: You thought you were
16 just going to sit back down, huh?

17 MEMBER BEHAR: Well, you had this very
18 interesting --

19 MR. BEDDARD: I was certainly hoping.

20 MEMBER BEHAR: You have this very
21 interesting --

22 CHAIR CHAPMAN: Yes, the slide up here

1 --

2 MEMBER BEHAR: -- title here, like is
3 there a study here?

4 CHAIR CHAPMAN: This slide here is not
5 related to him. It's the next speaker.

6 MEMBER BEHAR: Oh, that's the next
7 one.

8 MR. BEDDARD: Oh, I'm sorry, yes,
9 those weren't my slides. And I'm glad I didn't
10 notice them. I would've been like, what?

11 CHAIR CHAPMAN: Emily?

12 MEMBER BEHAR: So I have a different
13 question then.

14 CHAIR CHAPMAN: I'm sorry, Emily was
15 up first. Harriet, sorry, Emily was up first.

16 MEMBER OAKLEY: Sorry.

17 MEMBER BEHAR: Oh, okay.

18 MEMBER OAKLEY: You mentioned
19 containers, so I wanted to ask if you can
20 envision a system or a proposal that the NOSB
21 might put forth that allowed for container
22 growing based on a high percentage of soil within

1 the container and a limited amount of liquid
2 fertility feeding or if you are opposed to any
3 container growing?

4 MR. BEDDARD: You know, I can't
5 imagine you could actually grow a 90-day crop or
6 something, crops that give out good fruit -- and
7 I mean, in the greenhouses these things go six,
8 eight, nine months -- in a container with the
9 soil without mostly relying on soluble
10 fertilizers.

11 I have tried it years ago up in
12 Pennsylvania in my greenhouse just messing
13 around, and I mean, it's almost a completely
14 different thing. It's so hard to get the
15 balance, and you have to feed it with solubles
16 continuously. So I think the short answer from
17 me to you would be no.

18 CHAIR CHAPMAN: Harriet?

19 MEMBER BEHAR: So in your process, I
20 mean, do you find that you are profitable in your
21 farming system by growing in soil?

22 MR. BEDDARD: Yes, absolutely.

1 CHAIR CHAPMAN: Dan?

2 MEMBER SEITZ: I was wondering if
3 there are any studies out there -- it seemed like
4 the slide that was on there referred to that --
5 that compares the nutritional quality and content
6 of hydroponically-grown crops with the similar or
7 same crops grown in soil?

8 MR. BEDDARD: You know, from what I
9 have read -- and I'm not an expert -- there's
10 just a lot of different studies out there. And I
11 think that it comes down on both sides of it that
12 -- I mean, even between conventional and organic,
13 organics always likes to say it's more nutritious
14 and some studies prove that.

15 I really believe that a society's
16 strength does come from its soils and highly
17 enriched, highly mineralized soils have to be
18 good for all of us. So without any hard evidence
19 -- I'm just not expert enough to really answer
20 that.

21 MEMBER SEITZ: And then just one other
22 question. Sometimes proponents of the hydroponics

1 or container-growing methods cite the fact that
2 you could have degraded soils in which you're
3 growing crops and perhaps you would get something
4 less nutritious. I'm just curious, how would you
5 respond to the fact that the soil quality can
6 vary fairly greatly?

7 MR. BEDDARD: Well, as someone who
8 farms in Pennsylvania, Georgia and Florida in a
9 wide mix of soils, I can attest to the fact that
10 soils change widely from farm to farm, let alone
11 from state to state. But, the basis of organic
12 farming is soil improvement, and you have to show
13 your soil -- your farm plan is improving every
14 year.

15 And from my experience, you can't be
16 successful growing crops unless you are actively
17 improving your soils and making them fertile
18 organically, because we can't rely on solubles,
19 which is an easy, quick fix. We're relying on
20 the complex biology in a healthy soil, but soils
21 always need improvement.

22 CHAIR CHAPMAN: Thank you. Ashley?

1 MEMBER SWAFFAR: What percentage of
2 your nutrients come from liquid fertilizers or
3 solubles?

4 MR. BEDDARD: What percentage of ours
5 come from soluble? We stay well below the 20
6 percent, and it depends on the crop and the time
7 of year. Usually in the colder months -- like in
8 Florida if the weather gets cold -- the solubles
9 react quicker, and we'll use a small amount of
10 that.

11 But, almost all of ours is green
12 manuring, cover cropping and then fertilizers
13 that need to be broken down with the soil
14 biology.

15 CHAIR CHAPMAN: Steve?

16 MEMBER ELA: Following up on that
17 question, if you were just to in your system add
18 water and nothing else, how long would your
19 system sustain itself and keep producing?

20 MR. BEDDARD: So do you mean --

21 MEMBER ELA: I mean, given your soil
22 building and what you're talking about the soil,

1 if you were just to add water to your system and
2 not add any outside nutrition, how long would it
3 continue to produce?

4 MR. BEDDARD: Soils that we have built
5 up over time, you mean?

6 MEMBER ELA: Yes.

7 MR. BEDDARD: You mean, would we be
8 able to pull off a crop?

9 MEMBER ELA: I'm just curious, I mean,
10 how --

11 MR. BEDDARD: Yes.

12 MEMBER ELA: -- how sustaining is your
13 system from the soil? Is it --

14 MR. BEDDARD: I mean, soils need
15 constant improvement, you know, and fertility is
16 important. So no, you have to constantly feed
17 the soil and then allow the soil to feed the
18 plants. You just can't stop feeding the soil and
19 expect your plants to grow.

20 CHAIR CHAPMAN: Thank you. Thank you
21 for your comments.

22 MR. BEDDARD: Thank all of you. I

1 really mean it. You guys -- the volunteer work's
2 unbelievable.

3 CHAIR CHAPMAN: Thank you. And up
4 next we have Wil Hemker followed by Anthony
5 Duttler. If you look at your agenda, for those
6 keeping score, you do notice that we were going
7 to take a break at 4 o'clock, key word is were.

8 We are 30 minutes behind schedule, so
9 we will be not taking that break. We're beyond
10 30 minutes behind schedule. So if you do need to
11 use the restroom or step out, please do so.

12 If you could start with your name and
13 affiliation for the record.

14 MR. HEMKER: I'm Wil Hemker, a fellow
15 at the University of Akron Research Foundation.
16 This board and the NOP must uphold the organic
17 standards so that the consumer can trust the
18 label.

19 The NOSB should not recommend changes
20 to cultivation guidelines counter to the Organic
21 Foods Protection Act. Certified organic,
22 controlled environment, soilless growers do so in

1 a biodiverse environment and deliver quality,
2 safe crops meeting consumer's expectations for
3 certified organic labeled food.

4 Today, I'm going to focus on two
5 attributes of crop grown organically, root zone
6 ecology and heavy metals presence in leafy
7 greens.

8 Organic farming tradition is based on
9 conserving biodiversity. Science has proved
10 diverse and plentiful root zone microbiomes are
11 the outcome of organic farming.

12 Some organic farming advocates say
13 soil biological activity is one of the vital
14 processes enhanced by organic practices. Their
15 inference is that soil has biological activity,
16 and controlled environment soilless has little or
17 none.

18 Well, in 1990s, NASA's Controlled
19 Ecological Life Support System program
20 investigated hydroponic production. They
21 demonstrated that their model crop -- which was
22 wheat grown without soils -- its rhizospheres

1 microbiome was teeming with life at a level of 10
2 to the eleventh, or that's 100 billion cells per
3 gram.

4 Therefore, both soil and hydroponic
5 growing display a similar plentiful root zone
6 microbiome. The microbiome is a symbiosis that
7 brings those elements to the roots.

8 When you survey consumers around the
9 globe, their perception for selecting organic
10 foods have a hierarchy of three importances, food
11 safety, human health and environmental concern.

12 Let us take a look at human safety and
13 human health for organic leafy greens. When we
14 surveyed and we looked at heavy metals analysis
15 of USDA organic certified versus greenhouse
16 hydroponic-grown spinach, we found six times more
17 copper and 60 times more cadmium in field grown
18 than in hydroponics.

19 Thus, the sampling of fresh, field-
20 grown organic spinach cadmium levels exceeded
21 EPA's drinking water limits by 10x.
22 Anthropomorphic pressures are challenging

1 agriculture and production of sufficient
2 quantities of safe food in our world.

3 The NOP must retain standards under
4 the Organic Food Production Act for all
5 cultivation techniques using certified inputs and
6 methods. This program needs to be rooted in
7 strong science and good agricultural practices to
8 certify safe organic crops that are available to
9 the U.S. public.

10 CHAIR CHAPMAN: Thank you. Questions?
11 I see Francis and Steve. Francis?

12 MEMBER THICKE: You mentioned -- over
13 here, sir. You mentioned that the
14 microbiological activity was as high in a
15 hydroponic system versus soil, which is not
16 surprising if you have a lot of labile organic
17 material fed into it.

18 But, what about the diversity of the
19 ecology of the different organisms. Did you
20 measure that?

21 MR. HEMKER: No, those particular
22 scientists did not. They looked at the

1 microbiome as the key intermediate between the
2 elements moving from the medium -- whether it be
3 soil or water -- into the plants.

4 And that's the critical zone if you
5 look at that symbiotic relationship, so that's
6 where the action is.

7 MEMBER THICKE: I mean, if you're
8 throwing in some labile material, you're probably
9 going to get a lot of nitrifying bacteria,
10 certain things that will break that down and feed
11 it to the plant. But is that as diverse as a
12 soil that has a more complex -- I mean, I would
13 think that --

14 MR. HEMKER: That wasn't reported in
15 that literature piece. But, they did do two
16 following studies showing that those were
17 beneficial organisms, and they inhibited
18 pathogenic organisms, such as E. coli and
19 Listeria.

20 CHAIR CHAPMAN: Thank you. Steve?

21 MEMBER ELA: Kind of following up on
22 Francis' question, I was going to ask a very

1 similar thing, but I mean, we're seeing more and
2 more effects of mycorrhiza and that root-soil
3 interaction in terms of nutrition and things for
4 the plants.

5 Any thoughts on that in the sense of
6 -- I mean, you know, Francis was asking about
7 biodiversity within that solution. I'm curious
8 about the same thing, especially with mycorrhiza
9 and some of these other very beneficial things.

10 MR. HEMKER: No. There needs to be
11 more funded research on that to really look at
12 the diversity of the microbiome, and it's
13 complex. Soil is a very complex medium, but all
14 fermentation systems are complex.

15 If you look at it in the processed
16 food industry, hydroponics is beer production and
17 soil production is kimchi.

18 CHAIR CHAPMAN: I'll go with Dave and
19 we'll cut it off there. Dave?

20 MEMBER MORTENSEN: Yes, it seems to me
21 that one of the things that we miss when we're
22 talking about hydroponics is that soils and the

1 dynamics of nutrient delivery by the soil is
2 driven largely by mineralization rates in the
3 soil that is a function of the carbon content and
4 the diverse microflora.

5 That's arthropods, hundreds of them
6 per gram of soil, thousands, maybe millions of
7 fungi and bacteria. It's hard for me to imagine
8 how that diversity -- you just were saying
9 hydroponics are diverse, soils are diverse and
10 they're complex.

11 But the complexity that comes with
12 mineralization of organic matter in a complex
13 colloidal mass just seems to me to be orders of
14 magnitude more complicated and diverse.

15 MR. HEMKER: I agree. It's very
16 complicated. But if you look at an organic
17 soilless grower, they use that same diversity.
18 They just convert it over to -- from that animal
19 or that green manure, compost it into a nutrient
20 medium. They then move that by liquid into the
21 system.

22 I heard this morning a soil-based

1 greenhouse grower that doesn't rotate his crops,
2 but he rotates the soil. What's the difference
3 between that -- other than physical form of a
4 solid -- to that of hydroponics by rotating that
5 crop liquidly coming from a compost system?

6 MEMBER MORTENSEN: I think a
7 difference would be the difference in the
8 complexity of the substrate.

9 MR. HEMKER: It depends on the inputs.

10 MEMBER MORTENSEN: An order of
11 magnitude more complex.

12 CHAIR CHAPMAN: Okay. All right.

13 MR. HEMKER: If you have a complex
14 inputs of compost that make up that beginning of
15 that nutrient solution, then you've got that
16 similar complexity that can take place.

17 I mean, let's take it from this
18 perspective. Organic farming is a technology.
19 You know, it's a know-how, and it's evolved. Now
20 my hometown is Dayton, Ohio. And we're kind of
21 proud about two brothers in that town called
22 Orville and Wilbur Wright.

1 Now, if they started out aviation as
2 a biplane design airplane, and they said anything
3 with less than two wings is not an aircraft, we
4 would be pretty far behind the curve.

5 CHAIR CHAPMAN: Okay. Thank you very
6 much.

7 MR. HEMKER: Let's take a look at
8 technology. How can technology help us feed the
9 world --

10 CHAIR CHAPMAN: Wil, I have to --

11 MR. HEMKER: -- and take care of the
12 planet?

13 CHAIR CHAPMAN: Wil, I'm going to have
14 to cut you off there. Thank you very much for
15 your comments. Appreciate it. Next up, we have
16 Anthony Duttles followed by Haley Walsh.

17 Haley can go to the on-deck chair.
18 And Anthony, if you can start with your name and
19 affiliation for the record.

20 MR. DUTTLES: Yes. Good afternoon, my
21 name is Anthony Duttles, and I am the Director of
22 Agronomic Services for Tanimura & Antle, the

1 employee-owned, family farm based in Salinas,
2 California, which produces both conventional and
3 organic field vegetables, as well as berries.
4 And we also have a greenhouse hydroponic
5 operation in Tennessee.

6 I'm also a certified crop advisor and
7 a licensed pest control advisor. A primary
8 function in my role is to improve the quality of
9 crops while improving the sustainability and
10 long-term health of our farming operations.

11 I'd like to speak in support of
12 organic production in hydroponic systems,
13 particularly regarding the sustainability and the
14 basis of biological processes in hydroponic
15 production.

16 In our hydroponic system, we use a
17 combination of soil media, natural and derived
18 nutrients, as well as additives to the water --
19 organic-based additives to the water, which we
20 use for hydroponic production.

21 In the United States, we have
22 flourished with the healthiest, most diverse food

1 supply in the world. As I am at the forefront of
2 a very small and shrinking proportion of the
3 population that's responsible for keeping the
4 food supply filled, I'm compelled to speak of the
5 responsibility of understanding and improving all
6 aspects of sustainability of our organic
7 production system.

8 As of 2014, the U.S. population was
9 318.9 million people with 54 percent of that
10 population residing in ten states, which include
11 California, Texas, Florida, New York, Illinois,
12 Pennsylvania, Ohio, Georgia, North Carolina and
13 Michigan.

14 Of that 54 percent -- 86.9 million or
15 57 percent of that percentage in those 10 states
16 -- live in states where soil-based farming of
17 temperate vegetables is not possible six to eight
18 months out of the year.

19 To maintain a consistent, viable
20 supply of organic produce flowing, current
21 production practices forced production to parts
22 of the country -- California, Texas and Florida -

1 - where vegetable production is possible for
2 extended periods of the year.

3 Observation of the 2011 USDA
4 statistics of organic production indicate that
5 there were a total of 86,000 acres of lettuce and
6 mixed vegetables produced in the United States,
7 of which 45,682 acres were produced in California
8 alone. That represents 53.2 percent of all the
9 organic production in the United States came from
10 California.

11 Those that are familiar with vegetable
12 production are keenly aware that there are
13 precious few areas in the United States where
14 vegetables can be grown at various points in the
15 calendar to maintain the variety of produce we
16 have grown to expect in our grocery stores every
17 month of the year.

18 The majority of vegetable production
19 areas are vast -- as we've heard, are vast
20 distances from the main markets where organic
21 produce is consumed. The perception that organic
22 or conventional vegetable production is

1 sustainable in 45 of the 48 continuous United
2 States is sadly not feasible.

3 And basically, I want to indicate that
4 the hydroponic production and the use of those
5 facilities facilitates a greatly reduced
6 reflection of inputs that are required to produce
7 those organic crops in those areas and it
8 diversifies --

9 CHAIR CHAPMAN: Thank you for your
10 comments. I'm going to have to stop you there.
11 Questions? I see Emily and Joelle.

12 MEMBER OAKLEY: Hi, thank you. You
13 mentioned that you have mixed conventional and
14 organic production, and I was wondering what's
15 preventing you from being an entirely organic
16 operation?

17 MR. DUTTLE: Mainly the primary focus
18 of that is again, we do both conventional and
19 organic. We have a large production
20 responsibility for supplying both the
21 conventional systems in the United States.

22 We reflect what our customers are

1 looking for in what we're doing. And, yes, we
2 have a desire to increase our organic production.
3 We are working towards that, and we are shifting
4 towards that.

5 CHAIR CHAPMAN: Joelle and then
6 Francis.

7 MEMBER MOSSO: I had a question
8 regarding your hydroponic operation. First is if
9 it's certified organic and second is what kind of
10 substrate --

11 MR. DUTTLE: No, we are not certified
12 organic at this point, and we had entered into
13 switching our operations over to organic
14 production, but because of the issues around the
15 uncertainty of that, we are -- you know, because
16 of the investment that goes with that, we have
17 to, you know, consider all the options with it.

18 We have fully capable of pursuing the
19 organic certifications, but we have not pursued
20 that yet.

21 MEMBER MOSSO: If I may ask a follow-
22 up?

1 CHAIR CHAPMAN: Quickly.

2 MEMBER MOSSO: What would be the
3 change if you were to convert to organic?

4 MR. DUTTLE: The main primary that we
5 would do is, you know -- we undertook this a
6 year-and-a-half ago, and the main things that
7 were limiting us are basically the discussions
8 that we're having here, whether or not it's worth
9 the investment to pursue the certifications.

10 CHAIR CHAPMAN: Francis?

11 MEMBER THICKE: In your hydroponic
12 that you want to switch to organic, what percent
13 of the nutrients come from liquid and what is the
14 makeup of that liquid?

15 MR. DUTTLE: Okay and basically to
16 answer your question, it depends on which
17 nutrient specifically you're looking for. In
18 some cases, we're getting as much as 80 percent
19 of the nutrients from the peat and the media that
20 we're using for our system.

21 We use a combined media, peat media
22 combined on a float system for that. Total

1 amount -- and again going back to the -- and I
2 would challenge this question. So I'll answer
3 your question, but I'm going to answer in part
4 with a question.

5 In terms of organic leafy vegetable
6 production, some of the -- and I'm familiar with
7 this because I'm involved with conventional
8 organic production in an agronomic environment as
9 well. And in those systems, the primary
10 nutrients of nitrogen, potassium are fed through
11 that system -- through a drip system through the
12 majority of the season.

13 So nitrogen and potassium, a
14 significant portion of those nutrients are fed
15 through and supplemented throughout the season,
16 because you can't put enough nitrogen on that
17 through that system.

18 So to answer your question, that needs
19 to be qualified when we're talking about that.
20 So in a hydroponic system -- the system that
21 we're using -- we're using potentially 30 to 40
22 percent of the nutrients that we're providing are

1 from the media that we're using.

2 CHAIR CHAPMAN: Okay. Thank you very
3 much. I have to stop you there, but thank you
4 very much for your comments. Up next, Haley
5 Walsh, is Haley Walsh here? Seeing no one, we're
6 going to move on to Marni Karlin. Is Marni here?

7 CHAIR CHAPMAN: Marni is coming back
8 in a moment here. Is -- oh, she's coming up.
9 Sorry, I was unaware of changes. Marni, are you
10 ready to go? All right.

11 MS. KARLIN: I sure am.

12 CHAIR CHAPMAN: Real quick, though.
13 On deck is Amalie Lipstreu. And Marni, if you
14 could start with your name and affiliation for
15 the record.

16 MS. KARLIN: Yes. Thank you, Mr.
17 Chair. My name is Marni Karlin. I'm here from
18 Karlin Strategic Consulting, consulting on
19 organic food and agriculture policy. And I'm
20 here today representing Naturipe and Munger
21 Farms, a grower-owned producer and international
22 marketer of blueberries, strawberries,

1 blackberries and raspberries, including certified
2 organic blueberries grown both in ground and in
3 containers.

4 Our growers are dedicated to
5 responsible organic container production and
6 comply with the letter and intent of the OFPA and
7 the NOP regulations. And we would love to invite
8 any of you to visit our operations to learn more
9 about our certified organic blueberry container
10 production.

11 My colleague will speak tomorrow about
12 more specifics dealing with our production, and I
13 know he will be best able to answer your
14 questions regarding specific production
15 practices. I'm going to speak a little bit about
16 process and what we believe is an appropriate
17 approach to the certified organic container
18 issue.

19 First, we urge you not to blur the
20 line between hydroponics and container production
21 when considering the compatibility of various
22 production systems with the OFPA and the NOP

1 regs.

2 The discussion document being
3 considered does blur that line in a way that
4 Passports have not done. Passports have
5 considered separate documents and had separate
6 discussions regarding these different growing
7 methods, and we urge you to return to that
8 approach going forward.

9 Second and related, when you continue
10 your work on these issues, we urge you to revise
11 the proposed definition of hydroponics to ensure
12 that it does not inappropriately impact container
13 production. This is important both from a
14 substantive and procedural perspective.

15 Substantively including the term
16 biologically recalcitrant makes the definition
17 over broad and apply not only to hydroponic
18 operations but also to container operations that
19 grow crops with mixtures of soil, compost, peat
20 and coconut core, all certified organic materials
21 that are a mainstay in certified organic
22 production.

1 And procedurally, an attempt to create
2 a hydroponics definition that then applies to
3 container production could be seen as
4 consideration of container production without
5 adequate notice and opportunity for stakeholders
6 to comment.

7 That is that container production
8 considerations are hidden in a document
9 purporting to be about hydroponics. This would
10 not be the open process that Congress expected
11 when it created the NOSB and the OFPA.

12 Third, we would respectfully like to
13 suggest this discussion may be in need of
14 reframing, and the best way to do so is through
15 convening a panel of neutral scientific experts.

16 Rather than asking and answering
17 questions designed to reach one outcome or
18 another, we need to understand the science and
19 through that find a way to compromise and
20 consensus based on the science.

21 We encourage the board to continue
22 work on a discussion document specific to

1 certified organic container production, and we
2 renew our request that the board convene a panel
3 of expert scientists on substrate in soil to
4 present at the next meeting in advance of any
5 determinations on certified organic container
6 production.

7 On behalf of Naturipe and Munger
8 Farms, I thank the NOSB for its service and for
9 the opportunity to comment. Thanks.

10 CHAIR CHAPMAN: Thank you. Questions?
11 Okay. So we're going to start with Steve, Asa
12 and Ashley, and then we're going to hold it there
13 for the sake of time. Steve?

14 MEMBER ELA: So I'm curious with you
15 saying where we're blurring the lines between
16 container and hydroponics, if 100 percent of the
17 nutrition of something grown in a container was
18 say an inert material, would you call that
19 hydroponic or would you call that container?
20 Could you tell me how that line is blurred?

21 MS. KARLIN: So I want to start by
22 saying that I am not a scientist, and this sort

1 of goes right into my suggestion that what we
2 need is have is scientists sort of discussing
3 what the distinctions here are.

4 I would argue that there is a
5 difference between hydroponics and something that
6 is grown in a substrate. And I think that where
7 that difference lies really needs to be informed
8 not by the opinions necessarily of folks in the
9 sector, folks who are growing, but actually some
10 science that understands what the differences
11 are.

12 CHAIR CHAPMAN: Asa?

13 MEMBER BRADMAN: You suggested there
14 should be a panel of experts to discuss some of
15 these issues, and I guess my question would be
16 what specific topics do we really need more
17 discussion on from a panel of experts?

18 And, you know, are we talking about
19 soil biological activity and is the degree of
20 activity kind of a key broker in what's
21 acceptable and what is not acceptable?

22 Do we need information on water use,

1 sustainability, impact on landscapes,
2 environmental degradation, conversion of native
3 landscapes to agriculture?

4 It seems to me that the issues are
5 really broad and that when we say we need a panel
6 of experts, we need clarity. So I'm curious what
7 your vision of that is.

8 MS. KARLIN: Thanks, Asa. I mean, I
9 think really what is primarily needed from my
10 perspective is experts on the biological activity
11 in the soil or the substrate. I think that's
12 what will really get to what the OFPA requires
13 and what the NOP regs require.

14 As to the other things that you've
15 noted, I think some of those are considered and
16 required by the OFPA and by the regs but some of
17 them aren't, and I think that it's important to
18 sort of stick to where the authority lies and so
19 to me that begins with the biological activity.

20 CHAIR CHAPMAN: Ashley?

21 MEMBER SWAFFAR: Okay. So you said
22 blueberries, right, is what you're --

1 MS. KARLIN: Yes.

2 MEMBER SWAFFAR: Do you know what
3 percentage of blueberries are grown in containers
4 that are organic?

5 MS. KARLIN: I knew you were going to
6 ask that question. I don't know the answer to
7 that question, I'm sorry.

8 CHAIR CHAPMAN: Thank you very much.

9 MS. KARLIN: Thanks, Tom.

10 CHAIR CHAPMAN: Up next we have Amalie
11 and following is Jo Ann Baumgartner. Jo Ann, if
12 you could go on deck. And if you could start
13 with your name and affiliation for the record.

14 MS. LIPSTREU: Thank you. My name is
15 Amalie Lipstreu, and I'm a policy coordinator for
16 the Ohio Ecological Food and Farm Association.
17 At the last NOSB meeting, I shared the story of
18 an organic farmer trying to maintain the
19 integrity of his farm in the face of proposed
20 construction of two pipelines.

21 Today, James, a fourth generation
22 dairy farmer is dealing with construction of dual

1 42-inch pipelines diagonally across his grazing
2 fields.

3 Thanks to the Organic Agriculture
4 Impact Mitigation Plan that he used prior to
5 signing an easement, an organic inspector is
6 monitoring the progress of construction, ensuring
7 that all construction equipment is taken off the
8 field at the end of each day, wash stations are
9 utilized to prevent the introduction of
10 prohibited substances, hay bales used for silt
11 fence are inspected to ensure they are certified
12 organic and proper segregation of soils is
13 monitored.

14 It's been a learning experience both
15 for James and for OEFFA as we continue to refine
16 the tools and resources for organic producers
17 working to keep their certification in the face
18 of energy infrastructure. While James is very
19 appreciative of the measures that have been put
20 in place, his experience has revealed additional
21 impacts that could be prevented on other farms.

22 Knee-deep ruts have resulted from

1 construction during heavy rains causing concerns
2 about soil compaction and the possibility of
3 topsoil being washed into subsoil. According to
4 James, this is really disturbing to see
5 considering how we care for the land.

6 Farmers like James are the backbone of
7 the National Organic Program, the stewards of the
8 land, water, air and animals that the public is
9 increasingly looking to support.

10 We can take discrete and deliberate
11 steps to ensure they're supported as they face
12 the challenges posed by the development of oil
13 and gas infrastructure.

14 I cannot stress enough that the
15 operation of these large pipeline projects and
16 the high-pressure hydraulic fracturing wells are
17 much different than the small oil and gas wells
18 farmers have had on their land in the past.

19 Additionally, the high standards of
20 organic production systems mean that those
21 impacts have to be considered well in advance and
22 mitigated.

1 The workload of the NOSB is immense
2 and includes other issues that lack clear
3 regulatory authority, such as genetic
4 engineering. We would not persistently request
5 NOSB involvement in this area if it were not for
6 the fact that farmers are faced with these
7 situations that can and have resulted in the loss
8 of their operations.

9 The NOSB is not going to fix this
10 issue, but there are ways the NOSB can provide
11 clear guidance to organic certifiers and
12 operations. Please consider this issue through
13 the development of a discussion document.

14 CHAIR CHAPMAN: Thank you very much.
15 Any questions? Emily?

16 MEMBER OAKLEY: I just want to
17 reiterate what we spoke with with Food and Water
18 Watch about asking for assistance and helping us
19 figure out how these issues align with OFPA and
20 the standards and where we can specifically
21 tackle them. And then I also wanted to ask how
22 these issues are affecting certification.

1 MS. LIPSTREU: Thank you. I
2 definitely am glad to assist by looking at OFPA
3 and thinking about how we can really find those
4 connections. You know, I guess first I would ask
5 that NOSB can look more closely at this issue.

6 Again, we're by no means asking NOSB
7 to stop fracking. Rather, we're asking that you
8 address these real issues with the attention and
9 respect that you've given other difficult issues
10 in organics, such as the impact of genetic
11 engineering on farms. And that's why we
12 suggested using a familiar tool like a discussion
13 document to start understanding the issue.

14 Secondly, I think by taking a look at
15 organic agriculture impact mitigation plans, it
16 might not only help better think through the
17 issue, but it could also provide ideas for a
18 structure with which to address it.

19 And then I guess there's an
20 opportunity to share as you go both with USDA and
21 other state departments of agriculture. Harriet
22 shared some examples of some states that are very

1 proactive. I would unfortunately say that there
2 are many states that are not only not that
3 proactive but barely even recognize organic
4 agriculture.

5 Almost all states are required to have
6 agriculture impact mitigation plans when
7 pipelines go through, but when we've looked at
8 those agriculture impact mitigation plans
9 developed at the state level, they do not do
10 anything near to what needs to be done to protect
11 the status of organic certification.

12 So finally, you know, and this would
13 definitely take more time, you could advocate for
14 the authority of certifiers to be informed of
15 proprietary chemicals used in the process so that
16 when, again not if but when, accidents occur,
17 certifiers are prepared and know what substances
18 for which to test.

19 CHAIR CHAPMAN: Thank you very much.
20 Up next we have Jo Ann Baumgartner and following
21 that, Lori Klopff. Sorry if I said your name
22 wrong. Jo Ann, if you could start with your name

1 and affiliation for the record.

2 MS. BAUMGARTNER: I'm waiting for my
3 slides. Hi, I'm Jo Ann Baumgartner with Wild
4 Farm Alliance, and we promote a healthy, viable
5 agriculture that protects and restores wild
6 nature.

7 With over 450 comments submitted
8 encouraging the elimination of the incentive to
9 convert native ecosystems, it's clear that the
10 NOSB must adopt a policy now that fixes the
11 unintended consequences of destroying nature
12 caused by the three-year waiting period for land
13 with prohibited materials.

14 In the last 40 years, the earth has
15 lost half of its wildlife populations.
16 Agriculture is predicted to expand by 30 percent
17 into natural ecosystems by 2050. While
18 biodiversity is decreasing, organics increased
19 market share will exacerbate the biodiversity
20 crisis until a new policy is in place.

21 We conducted an informal survey with
22 inspectors and others asking them about native

1 ecosystem conversions. They've seen, and we
2 heard about conversions in the native sagebrush
3 in Oregon and Washington, prairies in Colorado,
4 wetlands in New Mexico, forests in California,
5 native desert and subtropical scrub forest in
6 Mexico and grasslands and wetlands in China.

7 The high conservation value area four-
8 part definition outlined in the discussion
9 document should be used. It addresses rare
10 species, large landscape level ecosystems, rare
11 ecosystems and critical ecosystem services.

12 We agree with the ineligible period
13 for five years after conversion of high
14 conservation value areas. Land coming out of CRP
15 should be part of the assessment. CRP lands are
16 enrolled because they are environmentally
17 sensitive, many are highly erodable and about
18 half the federal status animal species occur on
19 or near CRP lands.

20 In order to determine if an area is of
21 high conservation value, first a desk evaluation
22 is conducted. In the continental U.S., a

1 screening tool can be developed by the
2 NatureServe for the organic community that
3 determines the presence of rare species and
4 ecosystems. About 85 to 90 percent of the land
5 would be excluded.

6 If the land is in the 10 to 15 percent
7 category, producers can request assistance from
8 their state natural heritage programs, which
9 often provide free field environmental reviews
10 worldwide.

11 A desk evaluation can be done using
12 IUCN's Red List, government protected species
13 lists and use the Global Forest Watch free online
14 tool seen here that tracks forest destruction
15 shown in pink.

16 The pink area on this map is the
17 Salinas Valley of California and ground truthing
18 shows that a riparian area forest was cut down.
19 It's not, here we go. We urge you to agree that
20 a new policy is required.

21 Let's keep the process moving forward
22 to determine the best implementation, then NOSB

1 should recommend a rule change and new guidance
2 to the NOP. We cannot wait. Too much is at
3 stake from rare species to the integrity of
4 organic agriculture. Thank you.

5 CHAIR CHAPMAN: Thank you very much.
6 Questions for Jo Ann? Emily, Dan. Okay, I'm
7 going to stop at those two. Emily, go.

8 MEMBER OAKLEY: What do you think
9 about a definition of not converting any land
10 that hasn't been previously cropped or grazed for
11 pasture as opposed to the high value conservation
12 definition? So something a little broader to
13 protect land that is wild in any state.

14 MS. BAUMGARTNER: I think there's real
15 value in considering that. The reason why we
16 went to suggesting the high conservation value
17 areas is because it narrows the scope of how much
18 land would be taken out of that organic
19 agriculture.

20 But the value in what you suggest is
21 it's very simple or maybe not very, but it's much
22 simpler. Farmers who haven't been well educated

1 and certifiers who don't have a lot of background
2 in conservation can understand it. But, it also
3 excludes CRP land, which is a problem like I
4 described.

5 CHAIR CHAPMAN: Dan?

6 MEMBER SEITZ: This is a question for
7 Miles. I've occasionally seen in grocery stores
8 products that are sold as being grown on
9 transitional land. And I think I had read
10 somewhere that there may be some support for
11 people who are transitioning to organic.

12 So I was just curious what can be done
13 on the other side with supporting people
14 transitioning over the three years in order to
15 make the competition here for high value land
16 less dramatic.

17 MR. MCEVOY: Yes, USDA has a lot of
18 different things to support, information for
19 growers that might be interested in converting to
20 organic production.

21 The Natural Resource Conservation
22 Service has grant programs to support the

1 transition from conventional to organic
2 production will help with various kinds of farm
3 plans and some cost share for that transitional
4 period.

5 We provide a lot of information
6 through the one-stop organic portal at USDA about
7 what the regulations are and what the standards
8 are to help people understand what they're
9 getting themselves into.

10 So there's a number different things
11 that USDA has done to provide information about
12 what the standards and how to comply with organic
13 through that transitional process.

14 MEMBER SEITZ: And so my question
15 would be then why is this not enough of an
16 incentive for people to take current land and
17 transition it as opposed to these high value
18 ecosystems?

19 MS. BAUMGARTNER: Because it takes
20 three years to transition that land with
21 prohibited materials. You can transition a
22 prairie overnight. And maybe that prairie has

1 rare species on it, but nobody has looked. And
2 the problem is that we are incentivizing that
3 conversion, whereas conventional agriculture
4 isn't. There isn't anything like that.

5 CHAIR CHAPMAN: Thank you very much,
6 Jo Ann. Up next we have Lori. Following Lori,
7 Caroline Froning is on deck and after Caroline is
8 Peggy just so you guys know the order. Lori, if
9 you can start with your name and affiliation for
10 the record.

11 MS. KLOPF: Okay. All right, thank
12 you. Good afternoon. My name is Lori Klopff, and
13 I am in Regulatory Affairs at ICL Food
14 Specialties, which is a food ingredient company.
15 I'm here to support the continued listing of
16 sodium phosphates on the national list for use in
17 dairy foods.

18 Our company is a member of the
19 International Food Additives Council trade
20 association, and we've submitted very detailed
21 written comments to the NOSB through IFAC.

22 Sodium phosphates have been on the

1 national list for this limited use in dairy foods
2 for many years. They are safe in human foods and
3 have an essential functionality for preparation
4 of certain types of dairy foods. Today, I would
5 like to address some of the concerns and
6 questions that the handling committee has
7 expressed.

8 The listing for sodium phosphates
9 includes ingredients which provide emulsification
10 and stabilization of the natural protein, fat and
11 water in cheese sauces and powders, as well as pH
12 buffering, all of which promote the smooth cheese
13 texture.

14 In the NOSB discussion document, there
15 were several questions raised about sodium
16 phosphates. One was whether phosphates interfere
17 with the human body's absorption of calcium. The
18 answer is no, this is not a concern. Scientific
19 studies have shown that calcium is still
20 bioavailable in the gut whether in dissociated
21 form or as intact complexes.

22 Another similar question was about a

1 relationship between sodium phosphate and calcium
2 sequestration. Again, phosphates do not
3 negatively affect the body's ability to use
4 calcium. More detailed information is provided
5 in our written comments.

6 A comment was made in the discussion
7 document that while sodium phosphates do not
8 cause human health problems, the long-term
9 cumulative impacts are not fully understood. On
10 the contrary, sodium phosphates have been used
11 and studied for decades and found to be safe for
12 humans.

13 Phosphorus is an essential mineral
14 required by the body to function properly. Any
15 extra phosphorus not needed is then excreted in
16 the urine. So there is no accumulation of
17 phosphate in the body.

18 Once again, the discussion document
19 brought up the concern of possible health impact
20 due to the use of phosphates and bowel purgatives
21 and cleansers.

22 Non-food uses of phosphates such as

1 these are not at all relevant since both the
2 method and the levels of use are very different
3 from the low levels that are used in foods.

4 In summary, sodium phosphates have
5 been determined to be safe for human consumption
6 by U.S. and international regulatory agencies for
7 many years. Sodium phosphates are essential in
8 dairy foods, especially in cheese sauces and
9 powdered cheeses to provide texture, taste and
10 stability to these foods.

11 There are not suitable alternatives
12 that provide the same properties in these foods.
13 Without this allowance on the national list,
14 several traditional U.S. foods would no longer be
15 available to the organic food consumers.

16 On a previous slide, I showed a
17 picture of a macaroni and cheese comfort food,
18 and this slide shows some additional organic
19 foods, which use sodium phosphate for their
20 smooth cheese properties. Thank you.

21 CHAIR CHAPMAN: Thank you very much.
22 Questions? I see Harriet and then Lisa.

1 MEMBER BEHAR: Can't sodium citrate be
2 used as well in the same dried cheese products?

3 MS. KLOPF: Sodium citrate has been
4 tested as an emulsifier in some products. It has
5 not in particular these types of products that
6 I've shown as cheese sauces and cheese powders,
7 it is not very effective. It does not provide
8 the same level of both the texture and the taste
9 and the stability.

10 CHAIR CHAPMAN: Lisa?

11 MEMBER DE LIMA: Over here. Hi.

12 MS. KLOPF: Oh, sorry.

13 MEMBER DE LIMA: A previous commenter
14 said that there were similar products on the
15 market, some that contained sodium phosphates and
16 some that did not. So do you know what accounts
17 for that difference? How can one exist with it
18 and one without?

19 MS. KLOPF: Yes. Actually, I'm glad
20 you asked that question, because when I was at
21 the store getting some recent photos, I did
22 notice that as well. So what we did is purchased

1 some of the mac and cheese with no sodium
2 phosphate and did an informal blind comparison
3 test.

4 In our company, there were 14 people
5 who tasted both of these, and it was remarkable
6 the difference. The one with no sodium phosphate
7 was, in my opinion, not a good product. And 13
8 of the 14 people who, you know, did this blind
9 study agreed.

10 It was not a smooth, creamy cheese.
11 It was very grainy. There was no emulsification,
12 so no ability to coat the pasta. The taste
13 itself was not good at all.

14 So, you know, the product is out
15 there. I don't think it will be very long-lived,
16 and it's unfortunate if that's the only product
17 that organics consumers would have.

18 So I would stand by my previous
19 comments that right now sodium phosphates are
20 still essential to be able to produce these
21 products.

22 CHAIR CHAPMAN: Thank you very much.

1 Thank you for your comments. Up next is Caroline
2 Froning, and Peggy Miars is on deck. After Peggy
3 is Shannon Helms.

4 MS. FRONING: Good afternoon. My name
5 is Caroline Froning. I am with Innophos.

6 Innophos is a U.S. company that manufactures
7 ingredients for foods, including phosphates.

8 The company I work for has made
9 phosphates in different forms for over 100 years.
10 From this experience we do understand how sodium
11 phosphates work in dairy foods as an emulsifier.
12 We have spent decades studying them in our
13 research labs.

14 Food manufacturers today are not
15 putting in more sodium phosphates in their dairy
16 foods compared to prior years. If you use too
17 much sodium phosphate in the food, it changes the
18 properties and it makes them unappetizing, the
19 flavor unappealing and so people won't want to
20 buy them.

21 The typical use in dairy products,
22 particularly in processed cheeses is 1 percent to

1 3 percent. Sodium phosphates are also not hidden
2 in dairy foods. The FDA regulations on
3 ingredient labeling clearly require that all
4 sodium phosphates be on a label when they are
5 present.

6 It is true that the amount of
7 phosphorus, which is the elemental form which a
8 phosphate gets its name from, is not listed by
9 amount per serving on a nutrition facts panel.

10 The FDA does not require this, and
11 this is a position the FDA continued even after
12 their careful deliberation in 2016 on revising
13 other aspects of the nutrition panel.

14 Sodium phosphates are safe for the
15 consumption by the general population, and the
16 FDA agrees with that. Typically, the U.S. daily
17 diets are nowhere near the Institute of
18 Medicine's safe upper limit of 4,000 milligrams
19 for daily intake of phosphorus from all sources.

20 We work with food manufacturers all
21 over the world and different food markets have
22 different types of dairy products and different

1 tastes and preferences.

2 The discussion document asks what the
3 EU, European Union, uses in place of sodium
4 phosphates since they are not allowed on the
5 organic list in the EU.

6 The markets are not comparable because
7 the consumer tastes are not the same. That is
8 particularly true when you look at the
9 organically labeled, prepared foods and snacks
10 containing dairy.

11 In our experience, the European
12 organic market has few to none processed powdered
13 cheese and cheese sauce products while the U.S.
14 market does. Because of that, the NOSB should
15 not base its sunset review of sodium phosphates
16 on the EU market.

17 We understand that the National
18 Organic Program is a philosophical goal of
19 organically labeled foods being made of wholly
20 organic and agricultural ingredients, but that
21 goal is not achievable if you would like to
22 maintain the current product offerings in this

1 segment.

2 There are not suitable organic
3 alternatives or agricultural alternatives to
4 replace what phosphates can do for prepared
5 organically labeled foods. So sodium phosphates
6 make it possible for consumers to access the
7 convenience of prepared foods containing dairy.

8 In summary, to keep available the
9 kinds of prepared organic products we have today
10 in the United States, we need to keep sodium
11 phosphates on the allowed list. Thank you.

12 CHAIR CHAPMAN: Thank you. Questions?
13 Thank you very much for your testimony.

14 MS. FRONING: Thank you.

15 CHAIR CHAPMAN: Up next is Peggy
16 Miars. On deck is Shannon Helms and after
17 Shannon is Nate Lewis. If Shannon could come to
18 the on-deck chair. Peggy, if you'd start with
19 your name and affiliation for the record.

20 MS. MIARS: Good afternoon. I'm Peggy
21 Miars, executive director of OMRI, the Organic
22 Materials Review Institute. Welcome to the new

1 NOSB members and thank you all for your hard work
2 on behalf of the organic industry.

3 My colleague, Johanna Mirenda will be
4 talking more about OMRI in her comments tomorrow.
5 So I'll take off my OMRI hat and put on my hat as
6 the North American representative on the
7 Volunteer World Board of IFOAM Organics
8 International.

9 IFOAM is a 45-year-old nonprofit
10 organization that represents organic around the
11 world. We have 800 members in 120 countries and
12 many of those members are farmer groups.

13 We formed a regional IFOAM North
14 America group last year to both bring North
15 American organic issues to the international
16 table and to bring international organic issues
17 to North America. I'm sure you'll be hearing
18 more from IFOAM North America in the future.

19 I want to briefly address a hot topic
20 that many people are concerned about and which
21 Miles mentioned this morning. That's the massive
22 increase in organic grains being exported from

1 Turkey to the United States. This is also
2 happening in Canada and perhaps other countries
3 as well.

4 There are a lot of suspicions and
5 rumors, but no facts of fraud at this time. It's
6 a concern because it affects confidence in the
7 organic label globally. We heard this morning
8 that the NOP is continuing to investigate this.

9 And I want to let the U.S. organic
10 community know that IFOAM Organics International
11 is participating in an anti-fraud workshop in the
12 Ukraine this September, where representatives
13 from around the world will be discussing this
14 topic. This is not solely a U.S. issue. I also
15 want to invite everyone to participate in the
16 19th IFOAM Organic World Congress in New Delhi,
17 India, this November.

18 Putting my OMRI hat back on, I invite
19 you to use OMRI as a resource regarding input
20 materials. We're the materials experts. We're
21 not the government, and we're here to help.
22 Thank you.

1 CHAIR CHAPMAN: Thank you. Any
2 questions for Peggy? Asa?

3 MEMBER BRADMAN: If this is going to
4 be addressed tomorrow, we could put it off, but I
5 wonder if you had any thoughts on the issues that
6 have been raised around inerts?

7 MS. MIARS: Any issues around inerts?

8 MEMBER BRADMAN: Raised around inerts?

9 MS. MIARS: I would defer that to
10 Johanna. She'll talk about that tomorrow or can
11 answer that tomorrow.

12 CHAIR CHAPMAN: Thank you very much,
13 Peggy. You gave us a minute back on our very
14 behind of schedule. Shannon Helms is up next,
15 followed by Nate Lewis, and after Nate will be
16 Alesia Bock.

17 MS. HELMS: I can probably give you a
18 few minutes back as well. Okay, sorry.

19 CHAIR CHAPMAN: If you could speak up
20 and also start with your name and affiliation for
21 the record.

22 MS. HELMS: Yes. My name is Shannon

1 Helms. I am a global regulatory manager with CP
2 Kelco. I think some of my colleagues spoke to
3 you earlier about pectin, and I'm just here
4 really to fill in what was left off with that.

5 It's important for us to let you know
6 that the 21 CFR 150, 110, 140 and 160 list pectin
7 in a quantity which is reasonable to compensate
8 for deficiency, if any, of the natural pectin
9 content of the fruit ingredient. Therefore, we
10 feel pectin is essential in these foods, as does
11 the FDA.

12 And in my slides I've also listed --
13 go to the next one. You did it for me? Sorry,
14 thank you. Yes. So in my set of slides I've
15 also listed each of the individual 21 CFR 150,
16 110 as it pertains to fruit butter, 150, 140 as
17 it pertains to the different fruit jellies, as
18 well as 21 CFR 150, 160 as it pertains to fruit
19 preserves and jams.

20 I can read through all of those, but
21 you guys can see them yourselves as well. We
22 just really wanted to stress the imperative point

1 that they are essential to these fruits, and they
2 are in the standard of identity. Okay?

3 CHAIR CHAPMAN: Thank you very much.
4 Any questions? Thank you.

5 MS. HELMS: Thank you.

6 CHAIR CHAPMAN: Several short
7 speakers, really appreciate it. Up next is Nate
8 Lewis followed by Alesia Bock on deck and after
9 that's Nicholas Gardner. Nate, if you can start
10 with your name and affiliation for the record.

11 MR. LEWIS: Yes. My name is Nate
12 Lewis, foreign policy director with the Organic
13 Trade Association. I've been with OTA for about
14 three years. Prior to that, I was with
15 Washington State Department of Agriculture doing
16 organic certification.

17 I did inspections, certification work.
18 I managed the brand new material list. I'm an
19 expert in residue sampling under the organic
20 regulations. So I want all the new board members
21 and existing ones to consider us a resource.

22 I want to bring your attention to an

1 issue that's come to our attention, which is this
2 concept of bogoponics, where we've converted or
3 we've seen really high value peat bogs being
4 converted to hydroponic operations using BPA-
5 lined containers and bio-based biodegradable
6 mulch films.

7 I'm just joking, but I'm bringing this
8 to do my part in keeping satire alive these days,
9 so I'm not trying to make light of these things.
10 These are very, very important things, but I
11 thought everyone could use a little humor at this
12 moment.

13 On hydroponics, OTA's historical
14 position has been to support the 2010
15 recommendation, which to remind you all defined
16 hydroponics, recommended prohibiting hydroponics
17 and provided strict guidelines around container
18 production and thereby allowing container
19 production. So that's our position. We
20 supported that then.

21 We haven't really seen a full proposal
22 come out to really support or not support on the

1 issue recently, so that position hasn't changed.
2 We provided written comments to you all on the
3 specifics in your discussion document. I hope
4 you took a look at them.

5 But, I think what we really need on
6 hydroponics, this whole issue, is to look for
7 areas of consensus and compromise. Without
8 consensus and compromise, we're not going to get
9 any further down the road.

10 And the status quo is going to remain,
11 which is the allowance of hydroponics, the
12 allowance of container production and a lack of
13 clear guidelines around how those operations
14 should be viewed under the organic regulations.

15 We also think that a scientific panel
16 or an expert panel could be of use, particularly
17 in the areas of agronomy, soil biology and
18 nutrient cycling. I keep hearing this idea that
19 liquid fish fertilizer is somehow a soluble
20 nutrient.

21 My understanding, again I have enough
22 soil science to be dangerous, but my

1 understanding is it's not a soluble nutrient like
2 ammonium nitrate is. It still needs
3 mineralization, you still need biology. So I
4 think getting some clarity there, Mark, please
5 don't take my picture, I would -- okay.

6 And then I've also had some thoughts
7 on the fracking wastewater discussion, which kind
8 of ties into the residue sampling work that I've
9 done with Washington State, where I think it
10 could be a good first step there is to identify
11 the compounds in fracking wastewater which can be
12 tested and which may have some other federal
13 guidelines around health and safety.

14 Our ability to enforce regulations
15 using residue sampling, which certifiers are
16 allowed to do and must do hinges around the EPA
17 tolerances, which are another federal agency that
18 have to do human health and safety. So I'm happy
19 to discuss that a little bit further with folks
20 if you're still interested, but I think there's
21 some first steps we can be taking there.

22 CHAIR CHAPMAN: Than you, Nate.

1 Questions for Nate? I see Francis, Emily,
2 Harriet, Ashley, Steve, Joelle and Asa.

3 MEMBER THICKE: Well --

4 CHAIR CHAPMAN: Hold on. I need to
5 make a list. But we're going to stop you here, so
6 get on the list.

7 MEMBER THICKE: Thank you, Nate.
8 You're popular here.

9 MR. LEWIS: What's that?

10 MEMBER THICKE: You're going to be
11 popular here, looks like.

12 MR. LEWIS: Okay, I guess so, yes.

13 MEMBER THICKE: Say, in your written
14 comments you mentioned that the definition of
15 hydroponics should be amended to include the word
16 sterile. So that means that only sterile systems
17 would be called hydroponic.

18 And I'm wondering if that would -- I
19 can understand that you might start with a
20 sterile media. But then, when it's open to the
21 atmosphere
22 it's going to be, have -- it's going to be alive.

1 And I wonder if, by putting the word sterile in
2 there, it would be a way to define hydroponics
3 away, that wouldn't be any hydroponics because
4 nothing is sterile.

5 MR. LEWIS: Okay, that's a fair point,
6 right. I think we offered it partly because the
7 term bioponics had been removed, which, I think,
8 more accurately describes the types of systems
9 which are currently certified organic that fall
10 sort of in this gray area.

11 I mean, organic operations that are
12 currently certified at -- in a hydroponic sense
13 are substantively different from their
14 conventional counterparts in that they are
15 relying on biology to get those nutrients
16 available, right.

17 So the -- if you don't have the term
18 bioponics, it just becomes really complicated.
19 And I think that the definitions still need a
20 little work to get consensus around.

21 CHAIR CHAPMAN: Emily?

22 MEMBER OAKLEY: I was just going to

1 ask that you use the open docket to provide any
2 fracking comments or areas for the regulation
3 that you think we might work on then.

4 MR. LEWIS: Sure.

5 MEMBER OAKLEY: Thanks.

6 MR. LEWIS: I'd be happy to.

7 CHAIR CHAPMAN: Thank you. Harriet?

8 MEMBER BEHAR: Did you have anything
9 to say about biodegradeable bio-based mulch?

10 MR. LEWIS: Well, there aren't any
11 products on the market that can, that are, that
12 align with the current annotation. So just the
13 mechanics in my brain kind of think it's a little
14 bizarre to add something on the list that wasn't
15 actually petitioned to be added to the list.

16 So working on that issue and trying to
17 remedy it so that the annotation more accurately
18 reflects what actually was petitioned, I think is
19 an appropriate thing.

20 As far as the science about
21 biodegradability and all that kind of stuff,
22 absolutely outside of my wheelhouse.

1 CHAIR CHAPMAN: Thank you. Ashley?

2 MEMBER SWAFFAR: So my question that
3 I keep asking everybody, is do you know what
4 percentage of organic vegetables, herbs, fruits
5 are grown in containers and hydroponics?

6 MR. LEWIS: No, and I think that's
7 largely due to the vagaries of the definition.
8 It's hard to ask producers whether or not they're
9 growing hydroponically if we don't have a
10 definition for that term.

11 So what one person might consider
12 hydroponic, may not be but what -- something
13 else, to someone else. So I think that's a
14 challenging number to get to because of the
15 vagaries there.

16 CHAIR CHAPMAN: Steven?

17 MEMBER ELA: Where would you draw the
18 line between hydroponics and containers?

19 MR. LEWIS: I've done a lot of
20 thinking on that. It's challenging but I think
21 what, where I would draw the line is on what,
22 what's the matrix in which the biology lives. Is

1 the biology that is ultimately cycling the
2 nutrients and bringing things to, making them
3 available to plants in suspension, in solution,
4 or is it living in a solid matrix?

5 And if it's living in a solid matrix,
6 like it is in a container production, you know,
7 2010 recommendation was that that should be
8 allowed, and we continue to think that that
9 should be allowed.

10 CHAIR CHAPMAN: Joelle?

11 MEMBER MOSSO: I'm curious to know
12 what your opinion would be on having an alternate
13 labeling for hydroponics. Should it remain
14 allowed?

15 MR. LEWIS: We had that brought up in
16 our task force as a potential area of compromise.
17 With the proposals getting released with only
18 nine days to comment on them or get our
19 membership together, we weren't able to get to a
20 point where we could really take a position on
21 it.

22 But I think that's an example of an

1 area of compromise that should be considered, or
2 at least talked about. And I am aware that
3 California Certified Organic Farmers came out in
4 support of that in their written comments. And
5 so I think that might be a good group to ask
6 about the thoughts there.

7 CHAIR CHAPMAN: Asa?

8 MEMBER BRADMAN: She kind of asked my
9 question. And I know I would like to hear more
10 about what proposals there are to compromise on
11 the hydroponic container issue.

12 And then also the comment earlier of
13 submitting more comments around fracking and
14 perhaps oil-produced water and, you know, ways to
15 approach that.

16 I'm interested in hearing more about
17 that and --

18 MR. LEWIS: Yes, I can briefly give
19 you just a rundown right now -- and I think --

20 MEMBER BRADMAN: Okay.

21 MR. LEWIS: -- it comes down to three
22 issues. First, you need to know what's in

1 fracking water and what can be tested from an
2 accredited lab. That's a critical piece of, the
3 foundation of residue sampling.

4 Without a threshold that is
5 established by a federal other agency like FDA or
6 EPA around acceptable limits on that, it's hard
7 to take compliance action or say products can't
8 be on or off the market.

9 So doing a research on, you know, what
10 those identifiable compounds may have other, you
11 know, whether they have other federal oversight.
12 And then it would probably require an amendment
13 to the regulations to, you know, give authority
14 to exclude products from market that exceeded
15 those requirements.

16 CHAIR CHAPMAN: Thank you. Thank you,
17 Nate.

18 MR. LEWIS: All right, thanks.

19 CHAIR CHAPMAN: I'd like to make a
20 note here that we had asked members of the public
21 to refrain -- yes, you're done, Nate -- to
22 refrain from interrupting or distracting speakers

1 in the use of media. So I'd just like to remind
2 the public of that. If you are going to be using
3 your media, please give public speakers
4 sufficient space to be able to continue their
5 public comment without distraction.

6 Up next, we have Alesia Bock with
7 Nicholas Gardner on deck and Isaura Andaluz after
8 that. Sorry, if I butchered that.

9 Alesia, if you'd start with your name
10 and affiliation for the record.

11 MS. BOCK: Okay. Hello, my name is
12 Alesia Bock with AgriSystems International and
13 I'm here on behalf of our clients who are
14 certified entities across several processing, as
15 well as handling and growing categories, such as
16 coffee, juices, meat, dairy, cheese, greenhouses
17 and farms. We are here to comment on behalf of
18 our clients for Sunset 2019 materials for the
19 national list. So thank you for the opportunity
20 to speak today.

21 In essence of time, many of the
22 materials on the list for the handler of Sunsets

1 have written comments already submitted through
2 the OTA member surveys to NOSB.

3 We are in support that those materials
4 remain on the list for the reasons given: Due to
5 essentiality, lack of organic alternatives, or
6 having been through several years of Sunset cycle
7 review.

8 Specifically, our clients support
9 relisting the following handling materials:
10 Bentonite, diatomaceous earth, sodium carbonate,
11 nitrogen, carbon dioxide, magnesium chloride,
12 sodium phosphates, pectin, and potassium acid
13 tartrate.

14 These are critical processing agent
15 ingredients for our clients where no alternatives
16 are available or not consistently in use. We
17 support that casings also remain on the list
18 because the organic meat industry supply is
19 small, as you heard earlier, and organic casing
20 options are not yet widely available.

21 In reference to chlorine materials and
22 acidified sodium chlorite, we have specific

1 feedback on these as critical parts of food
2 safety toolboxes for handlers and growers.

3 ASC or acidified sodium chloride is a
4 processing aid that controls microbes on the
5 surfaces of meat, poultry, seafood, and produce -
6 - thoroughly tested and necessary to prevent some
7 of the most pathogenic organism from making
8 people sick, such as E. coli, Salmonella,
9 Listeria.

10 Over 36 major processors use ASC with
11 citric acid to treat their organic products.
12 This is a critical food safety regulation tool,
13 especially in regards to produce safety.

14 Regarding chlorine materials on the
15 Sunset list, this goes across handler, crops, and
16 livestock. I cannot reiterate enough how
17 critical and effective these materials are for
18 sanitation of equipment for organic producers.

19 There needs to be a large enough food
20 safety toolbox to minimize the likelihood that
21 microbials will become resistant or have
22 superbugs. Consumers are counting on safe food

1 and organic food safety recalls tarnish the
2 entire industry and erode consumer confidence.

3 Finally, on Crop Sunset 2019 list, we
4 have support for keeping the following items on
5 the list. Herbicide, soap-based allow the safe
6 control of weeds around facilities.

7 Sticky traps are critical to monitor
8 and trap pests which reduces the need to apply
9 further organic pesticides. Boric acid is a more
10 benign pest control material than many others in
11 use. Fixed copper is in several fungicides that
12 are used as safe options against leaf and stem
13 diseases. Thank you.

14 CHAIR CHAPMAN: Thank you very much.
15 Questions? Thank you very much. Up next is
16 Nicholas Gardner, following that is Isaura
17 Andaluz on deck.

18 Nicholas, if you could start with your
19 name and affiliation for the record.

20 MR. GARDNER: Good afternoon. My name
21 is Nick Gardner and I'm the manager of Regularity
22 Affairs for the International Food Additives

1 Council or IFAC. IFAC is a global association
2 representing manufacturers of food ingredients
3 including a number of additives allowed in
4 organic foods and beverages.

5 IFAC supports the relisting of
6 non-amidated pectin, konjac flour, and sodium
7 phosphates. Non-amidated pectin is used to
8 thicken and gel organic products, particularly
9 jams and jellies, as well as fruit fillings
10 commonly found in baked good. No suitable
11 alternatives exist and organic pectin is not
12 available.

13 Delisting pectin would impact the
14 availability and variety of organic products on
15 the market. Sodium phosphates are also essential
16 for organic production of certain organic dairy
17 products, particularly shelf-stable cheese
18 powders and cheese sauces.

19 We note and support the comments from
20 several organic producers that indicate the
21 essentiality of sodium phosphates. Phosphates
22 are among the most useful and functional food

1 ingredients in the world. Phosphates, including
2 sodium phosphates, have been determined to be
3 safe by regulatory authorities around the world
4 and are used in multiple conventional and organic
5 foods.

6 Alternatives simply cannot compare in
7 many applications. IFAC was disappointed to see
8 continued references in the spring meeting
9 materials to the 2016 technical report on
10 phosphates despite the errors and concerns that
11 we identified with TR in our fall 2016 written
12 and oral comments.

13 Many of the assertions made about the
14 safety of phosphates in the TR are not supported
15 by the majority of scientific literature on the
16 topic. Phosphates additives do not increase
17 serum phosphorus more so than naturally occurring
18 phosphorus.

19 IFAC also objects to TR claims that
20 elevated serum phosphates contributes to the
21 development of renal and vascular disease in the
22 general population. Furthermore, many of the

1 selected studies in TR are observational without
2 measured control of intakes of phosphate
3 additives.

4 Under basic scientific principles,
5 observational studies, at best, can only support
6 correlation not causation. I'll note the Cato
7 report that we have submitted with our comments
8 to the written record. That report was a
9 literature review commissioned by IFAC conducted
10 by the clinical research experts at Cato.

11 They looked at 110 articles about
12 phosphate and potential health impacts compared
13 to 30 by the TR. Cato found that scientific
14 evidence does not support a conclusion that
15 consumption of phosphates results in negative
16 health impacts for the general population.

17 Cato also confirmed that the phosphate
18 additives do not have an accumulative effect on
19 healthy populations and do not contribute to a
20 higher phosphorus load. Thank you.

21 CHAIR CHAPMAN: Thank you. Any
22 questions? Steve?

1 MEMBER ELA: You mentioned you're in
2 favor of relisting konjac flour given that there
3 are organic forms available. Why should we
4 relist it?

5 MR. GARDNER: Yes, so with konjac, one
6 of the things that we've heard is issues with
7 consistency and availability of organic supply.
8 There are probably others here who are organic
9 formulators who could provide a better statement
10 on that, but based upon our survey is it's been
11 inconsistency and quality issues.

12 Having it on the national list for
13 another five years perhaps would allow that
14 supply to catch up. You know, certainly
15 documenting the concern in the transcript of this
16 meeting may help suppliers catch up with the
17 demand.

18 CHAIR CHAPMAN: Dan and Scott, and
19 then I have a question, and we'll cut it off
20 there.

21 MEMBER SEITZ: I think I read a
22 reference to konjac flour that it is a GE crop as

1 well, and I'm wondering if you're aware of that
2 and how do people source their konjac flour to
3 make sure it is not genetically modified?

4 MR. GARDNER: Yeah, actually to the
5 best of my knowledge, it is not a GE crop. I'm
6 certainly happy to look into that, but I am not
7 aware of a GE source of konjac.

8 CHAIR CHAPMAN: Scott?

9 MEMBER RICE: If I could just ask to
10 get more specific data on what the issues in the
11 supply and the quality are, that would be helpful
12 in our decision-making.

13 MR. GARDNER: Sure. Absolutely.

14 CHAIR CHAPMAN: And then my notes
15 about the Cato study. I know it's not available
16 in its entirety. If that was able to be made
17 available between now and the fall meeting in its
18 entirety?

19 MR. GARDNER: Yes. Tom, I -- I think
20 the timing will work out for the fall. You know
21 that the difficulty is getting it through the
22 peer review process and getting it published.

1 That is ongoing.

2 It was ongoing actually in the fall as
3 well. We fully intend to submit that with our
4 comments in the fall, assuming it's available,
5 and we're doing everything we can to get it for
6 you all.

7 CHAIR CHAPMAN: Okay. Thank you very
8 much.

9 MR. GARDNER: Thank you.

10 CHAIR CHAPMAN: We'll move on to our
11 next speaker which is Isaura and on deck is
12 Lauren Stansbury.

13 Isaura, if you could start with your name
14 and affiliation for the record.

15 MS. ANDALUZ: Isaura Andaluz, with
16 Cuatro Puertas in New Mexico. We are working to
17 revive originally Adaptive Seeds in New Mexico.
18 I also sit on the board of OSGATA and the Organic
19 Farmers Association steering committee. My
20 comments today regard the strengthening of the
21 organic seed guidance.

22 We appreciate the efforts NOSB has

1 taken to improve this guidance, yet at what point
2 do we all come together and protect the integrity
3 of organics?

4 Organic seed is the basis of organic
5 production. The growth of organics has not been
6 reflected in organic seed production due to the
7 continuous exemptions by the NOP for the use of
8 commercially produced seed.

9 Ironically, this endless loophole and
10 the lack of standards for seed purity has put the
11 organic market at risk. Organic consumers know.
12 They, like I, want organic products free of
13 pesticides and GE contaminates. If at-risk crops
14 can no longer be considered organic because of
15 uncontrolled contamination, then the facts need
16 to be reflected in the market.

17 The U.S. is unable to meet the demand
18 for organic integrity due to the allowed
19 practices of GE farmers. Continuous usage of
20 contaminated seed can only increase the amount of
21 contamination.

22 Split operations exacerbate this.

1 Cuatro Puertas and OSGATA advocate that organic
2 seeds should have a non-detectable genetic
3 engineer contamination. Many farmers fear this
4 because of the history of cost and the burden put
5 on them. When I asked Secretary Vilsack twice,
6 who would pay for the tests with contaminated
7 corn, which is a staple and sacred food crop in
8 New Mexico, he never responded.

9 The polluter should pay not the
10 contaminated farmer. The polluter must contain
11 their technology. The last round of AC-21
12 committee, which I sat on, resulted in voluntary
13 guidelines that would be implemented at the state
14 level -- identity-preserved crops are to be
15 protected by the farmer. So everything becomes
16 identity-preserved except for GE.

17 If this scenario becomes a reality,
18 the burden would fall on more than the organic
19 farmer. Two recommendations that I have for this
20 committee is that they should follow up on what
21 was left over from the past administration. One,
22 assess availability of organic and non-GE seed

1 varieties nationally, especially within the
2 adapted seeds and, two, to implement protocol
3 created by the National Germplasm collection to
4 protect the collection from GE contamination.
5 This is essential.

6 There's not a person, a corporation,
7 or a government that created a seed. If money is
8 what runs NOSB and the USDA, then the term
9 certified organic will be short-lived. You can
10 plant seeds but you cannot plant money. Thank
11 you.

12 CHAIR CHAPMAN: Thank you. Any
13 questions? Thank you very much. Up next is
14 Lauren Stansbury and on deck is Zareb Herman.

15 Lauren, if you could start with your
16 name and affiliation for the record.

17 MS. STANSBURY: Yes, hello. I'm a
18 little bit hoarse, but hello organic community.
19 I am Lauren Stansbury. I'm the Communications
20 Director for the Hemp Industries Association.
21 Thank you dearly for the opportunity today to
22 explain why industrial hemp grown in the United

1 States should be eligible for organic
2 certification.

3 Let us firstly agree on this point,
4 organic farming is the future. The current
5 schema of industrial chemical agriculture will
6 not deliver us to a promise land of food
7 security, fresh water, or healthy soil.

8 And, increasingly, the American public
9 realizes this. This is evident in the tremendous
10 growth in the organic sector since the
11 establishment of the NOP in 2000. Our mutual
12 friends at the Organic Trade Association cite
13 2015 growth have combined organic food and body
14 care sales at 11 percent over the previous year.

15 Did you know that concurrently growth
16 rate for retail sales of natural and organic hemp
17 and hemp food and hemp body care products
18 exceeded 11 percent. Organic hemp clearly also
19 has a bright future. But excluding certain parts
20 of the hemp plant from organic certification
21 wrongfully threatens this growth.

22 The whole plant, in its entirety from

1 root to flower, is defined as distinct for
2 marijuana. The definition of hemp is a matter of
3 a modicum of THC content. It is not certain parts
4 of the hemp plant that are distinguished from
5 marijuana but rather hemp as a whole.

6 Excluding components of hemp that are
7 not fiber or oil seed, such as flowers, roots,
8 sprouts and leaves from the NOP, impedes growth
9 not only of the hemp industry but of the organic
10 market as a whole.

11 The statement of principles
12 responsible for influencing this decision to
13 exclude parts of the hemp plant from organic
14 eligibility is not legally binding and indeed,
15 the HIA feels it constitutes agency over reach
16 that attempts to regulate hemp outside of and,
17 indeed, in contravention of congressional
18 directive.

19 And this overreach has the consequence
20 of excluding American farmers from the robust
21 economic opportunity this crop offers in its most
22 lucrative form which is as an organic product.

1 May it be clearly understood that the
2 DEA nor any federal agency has any regulatory
3 authority over industrial hemp cultivation, the
4 manufacturing or sale or consumption of hemp
5 product in the U.S.

6 Congress has made this unequivocally
7 clear, not only with the passage of Section 6706
8 of the Farm Bill but, furthermore, Congress has
9 prohibited use of federal funds for DEA or any
10 other federal agencies to inhibit hemp
11 cultivation per the Appropriations Act of 2016.

12 Let the NOP see its own role not as a
13 sycophant to the DEA's botanically uninformed and
14 prejudiced bias against hemp, but rather let the
15 NOP consider how to nurture the growth of an
16 in-demand versatile lucrative and organic crop.

17 Ten more seconds, please. On behalf
18 of the Hemp Industries Association, on behalf of
19 American Consumers of Organic Hemp Products and
20 perhaps most importantly on behalf of the great
21 multitude of farmers who seek to nurture the
22 earth with organic stewardship and to provide

1 their small family farms with this historic
2 American crop, we beseech you to support organic
3 certification of hemp and champion its inclusion
4 in the National Organics Program. Thank you.

5 CHAIR CHAPMAN: Thank you very much.

6 Any questions? Thank you.

7 MS. STANSBURY: And actually, just one
8 more thing. One of your questions to my previous
9 colleagues about whether Canada has an organic
10 program, certification program for hemp --

11 CHAIR CHAPMAN: I'm sorry, I have to
12 cut you off there.

13 MS. STANSBURY: The USDA organic --

14 CHAIR CHAPMAN: I'm sorry. I have to
15 --

16 MS. STANSBURY: -- certification label
17 goes on to products that are created in Canada --

18 CHAIR CHAPMAN: I'm going to have to
19 cut you off there. Thank you for your time.

20 Zareb, you're up next. Tim Gordon
21 after that. Please come to the on-deck chair.
22 Zareb, if you could start with your name and

1 affiliation.

2 MR. HERMAN: Good afternoon, my name
3 is Zareb Herman. I am a nutritionist with the
4 Hain Celestial Group, one of the largest
5 producers of organic products in the world.

6 I'm commenting today primarily to
7 support the continued listing of sodium
8 phosphates and pectin on the national list. Some
9 of our organic snack chips and puffs are coated
10 with powdered organic cheese.

11 This powder cheese relies on disodium
12 phosphate to emulsify the oils in the cheese.
13 Without it, the oil would separate and the cheese
14 would form clumps. This would prevent uniform
15 application and the oily defective product would
16 be unacceptable to consumers.

17 It is well known in the industry that
18 disodium phosphate stabilizes the proteins in the
19 cheese and prevents the oil separation. There
20 are no organic alternatives and there are no
21 other alternatives on the national list that work
22 in this particular application.

1 Regarding concerns over the over
2 consumption of phosphates in the diet, added
3 phosphates in organic foods are minor
4 contributors to total phosphorus intake. As an
5 example, in our cheese snack products, I
6 calculated that the disodium phosphate
7 contributes between 12 and 18 milligrams of added
8 phosphorus per serving. This is less than 1
9 percent of the average person's daily intake of
10 phosphorus.

11 Move onto pectin. Pectin is a vital
12 thickener and stabilizer in some in some of our
13 organic bakery products. Specifically, our
14 fruit-filled organic bars. Pectin is necessary
15 because it is the only hydrocolloid that is
16 stable in acidic products like jams and jellies,
17 fruit yogurts and fruit-filled bakery products.

18 Organic pectin is not commercially
19 available and this includes the particular pectin
20 preparation that is required for our bakery
21 applications. Therefore, we need to keep pectin
22 on the national list until the necessary organic

1 form becomes commercially available.

2 We support also the relisting of
3 bentonite and diatomaceous earth which we use to
4 filter impurities from our expelled or pressed
5 organic oils. We support the relisting of
6 magnesium chloride for organic tofu production
7 and, lastly and importantly, we support the
8 relisting of chlorine materials because they are
9 absolutely necessary to maintain food safety.

10 Thank you.

11 CHAIR CHAPMAN: Thank you very much.
12 Any questions? Thank you. Up next is Tim Gordon
13 followed by Albert Strauss.

14 Tim, if you can start with your name
15 and affiliation for the record.

16 MR. GORDON: Yes. Thank you. My name
17 is Tim Gordon. I am coming to you on behalf of
18 the Colorado Hemp Industries Association and hemp
19 farmers in this great state of Colorado.

20 And I'd like to talk with you
21 specifically, well first of all, I would also
22 like to thank you guys for going through your

1 break and related hearing and giving us solid
2 attention. That's admirable of you. Thank you
3 very much.

4 I'll get right to the point, the
5 recent statement of principles issued by the USDA
6 in regards to industrial hemp, and I can even go
7 through that for you. You've heard my colleagues
8 previously.

9 It states this. The term industrial
10 hemp plant includes Cannabis sativa L. and any
11 part or derivative of such plant including seeds
12 and any such other part of derivative whether
13 growing or not. It is used exclusively for
14 industrial purposes of fiber and seed with
15 tetrahydrocannabinol concentration of no more
16 than 0.3 percent on dry weight basis.

17 The term tetrahydrocannabinol includes
18 isomer salts, salts of isomers, and
19 tetrahydrocannabinoids. The statement of
20 principle is completely off with the Federal Farm
21 Bill Section 706.

22 The statement of principles, like this

1 where we have seen, you know, large scale
2 ramifications really slow an industry's progress.
3 To my understanding, in order to change a federal
4 law like 7606, you need congressional approval
5 and this was not sought.

6 I encourage the NOSB to go back to the
7 USDA and the NOP program and make them aware of
8 Section 7606, that all parts are able to be
9 certified organic under Law 7606 of the Federal
10 Farm Bill. I thank you for your time.

11 CHAIR CHAPMAN: Okay. Thank you very
12 much. Any questions? Thank you very much for
13 your testimony.

14 Up next is Albert Straus, followed by
15 Gail Nelson. Albert, if you can start with your
16 name and association.

17 MR. STRAUS: Yes. Hi, I'm Albert
18 Straus from Straus Family Creamery. We were the
19 first certified organic dairy and creamery west
20 of the Mississippi River, in the beginning, in
21 1994. Now we have nine farms supplying our cream
22 -- we're in northern, California, excuse me.

1 And now we have nine organic dairy
2 farms supplying our creamery. They're all non-GMO
3 verified. We test every load of feed for GMOs
4 and have a specific analysis on every load.
5 Ninety percent of the dairies, close to 90
6 percent of the dairies in Marin and Sonoma County
7 are certified organic.

8 And we've really made a huge progress
9 for showing that dairy farms and farms, livestock
10 farms, are actually part of the solution to
11 climate change through methane digesters and
12 carbonate farming.

13 There is a -- I want to talk about the
14 risk to -- we've seen a flattening of our sales
15 in organic dairy, a flattening or declining
16 sales. At the same time, I'm bringing on more
17 dairies anticipating a higher production. And
18 we're also seeing a lot of extra label claims
19 that say the consumers are confused, that they
20 think they're as good as organic or better.

21 There's a study that just came out
22 from the University of Illinois today saying that

1 people prefer -- the claims of no growth hormones
2 actually is more important than organic. So I
3 want to talk about organic as the gold standard
4 and all these claims that are -- talk about one
5 aspect of organic.

6 And we need to kind of work as a
7 community to educate our consumers and also to --
8 I would like to get recommendations from the
9 Board to the USDA to start regulating some of
10 these extra label claims because it's really
11 important that we hold organic as the gold
12 standard in our industry and in our communities.
13 Thank you.

14 CHAIR CHAPMAN: Thank you, Albert.
15 Any questions? All right, so Dan first, Harriet,
16 Emily, David, and we'll cut it off there for a
17 second time. Go ahead, Dan.

18 MEMBER SEITZ: Are these other labels
19 that you find with various claims, is there a,
20 some sort of strict regulatory process or can
21 anyone create a label and in essence make a claim
22 without there necessarily being a regulatory

1 process backing it up?

2 MR. STRAUS: There's, I'm just going
3 through the process, like there's a lot of, now
4 organic dairies that are labeling 100 percent
5 grass fed, yet the animal was -- American Grass
6 Fed Association standards, it's not 100 percent
7 grass fed. Consumers think that the cows are in
8 pasture year-round. It's not accurate. So
9 accuracy in labeling is something that I'm
10 concerned with and I think there are regulations
11 on that.

12 I think the other parts are
13 perception. Like non-GMO, where there's actually
14 thresholds that are pretty high on, at least,
15 organic feeds, or, yes, organic feeds, there's a
16 5 percent threshold from the non-GMO project.

17 I think consumers are confused by what
18 these labels mean and that they're better or mean
19 as much as organic means, and it's only a part of
20 what organic is.

21 Animal welfare, I mean, some kind of
22 thing. So there are different certifications and

1 things, but I think they're trying to say that
2 they're better or as good or better as organic.

3 CHAIR CHAPMAN: Thank you. Harriet?

4 MEMBER BEHAR: Hi, Albert. I know
5 that you have a very loyal following of
6 customers, but do you feel that perhaps you've
7 peaked in your customer base or, or why do you
8 think there's -- you know we have been growing
9 just exponentially in organic dairy year after
10 year. Where would you say -- you think it's a
11 labeling, that the people are confused or --

12 MR. STRAUS: I think it's a
13 combination.

14 MEMBER BEHAR: -- you're not sure?

15 MR. STRAUS: Personally, I think it's
16 a combination of things. Between plant-based
17 milks, a lot of other label claims like grass
18 fed, non-GMO, consumers don't know.

19 There's -- I have people working for
20 me that don't know that tangerines are, that say
21 non-GMO, are not organic. So there's a lot of
22 confusion out there. And we're going out talking

1 about this, this is what we developed. And we're
2 going to start talking more to our consumers,
3 talking more to our retailers, and everybody
4 about organic values and what it brings.

5 CHAIR CHAPMAN: Thank you. Emily?

6 MEMBER OAKLEY: I agree that consumer
7 confusion is very problematic and I'm wondering,
8 Miles, is there anything that the USDA can do in
9 the absence of the word organic being used in
10 these label claims?

11 MR. MCEVOY: Well, yes, there's a
12 diversity of regulations that oversee these
13 labels, right. So you have FDA has a truth in
14 labeling concept that they would want the labels
15 to be truthful. FSIS has oversight over meat
16 labels. There's a variety of different regulatory
17 authorities that have authority over labels, but
18 many labels making claims, as long as they're
19 truthful claims, are not specifically either
20 certified or regulated by a standard.

21 There's also standards that industry
22 has developed that can then get verified through

1 USDA programs. For instance, the Agricultural
2 Marketing Service Process Verified Program has
3 various programs to accredit a process verified
4 claim. So there's companies that have non-GMO
5 claims that are verified through the Process
6 Verified Program.

7 There is -- the Organic Trade
8 Association has a program for transitional
9 certification that is currently under review from
10 some legal challenges to the ability for us to
11 verify that through the Quality System Management
12 Program. So there's a variety of different
13 possible tools, but organic has a clear statutory
14 and regulatory standard that is kind of somewhat
15 unique to other labeling programs.

16 CHAIR CHAPMAN: Dave.

17 MEMBER MORTENSEN: Yes, I love your
18 graphic because I think your graphic underscores
19 the market advantage of organic and I think the
20 task that in farming and the NOSB has in taking a
21 systems perspective on assessing any of the
22 changes of the kinds of things that we've been

1 talking most all of the day today, so I really
2 appreciate the graphic.

3 MR. STRAUS: Thank you.

4 MEMBER MORTENSEN: I also, having
5 spent a lot of time in my previous, before NOSB,
6 life, I think we're not telling a very good story
7 from a marketing point of view about what, for
8 example, GMO crop production means. For example,
9 that we're increasing pesticide use to the tune
10 of something like 120 million pounds per year on
11 the backs of that technology.

12 So I think the labeling is really
13 problematic in lots of different ways and we
14 should do a better job marketing what it is that
15 we're selling, which is a system, and I like your
16 approach to describing the system.

17 MR. STRAUS: Thank you.

18 CHAIR CHAPMAN: Thank you very much.
19 Thank you, Albert. Up next is Gail Nelson
20 followed by Greg Cunningham on deck.

21 Gail, if you could start with your
22 name and affiliation for your record.

1 MS. NELSON: Yes. My name is Gail
2 Nelson. I'm with G&G Connections. We put people
3 in projects together with an emphasis on
4 hydroponic markets, both here and abroad.

5 Sometimes we have to get out of our
6 comfort zone and not be afraid to change as we
7 are an evolutionary civilization. We are also
8 improving our technology to be more efficient and
9 to satisfy the customer, and we cannot hold back
10 progress for long.

11 The naysayers said that the earth was
12 flat before explorers proved otherwise. People
13 were afraid to change from the horse and buggy to
14 the Model T, a revolutionary intervention.

15 Now we have cars that can park
16 themselves. We've gone from a phone on the wall,
17 to a phone on our wrist. Organic farming
18 technology has not been left behind in this world
19 of evolution. We've gone from plowing fields
20 with horses to new efficient methods of growing
21 organic crops.

22 You've heard today that traditional

1 organic farming in soil has a high-risk of crop
2 contamination, and weed and insect control is
3 difficult. It cannot always be grown locally and
4 it takes up large acres of land while usable land
5 and fresh water is decreasing.

6 As our population grows, so does our
7 need for more organic food. The consumer's
8 demanding chemical-free, healthy, nutritious, and
9 environmental friendly produced food.

10 Traditional organic farmers cannot
11 meet this demand on their own and increased
12 shortages are already being felt in the organic
13 marketplace. Hydro-organic growing fits the
14 criteria and the demands of the consumer. It
15 also fits the criteria of organic with organic
16 inputs and practices while avoiding synthetic and
17 harmful chemicals.

18 There are benefits to growing in soil,
19 but soil is a medium to hold the roots of the
20 plant, and it is difficult to maintain at the
21 organic level. Yes, it has biological activity
22 in the root zone of soil-grown plants, but this

1 activity also takes place in hydroponically grown
2 plants with organic inputs.

3 We know that this type of
4 hydro-organic growing is chemical-free, is
5 healthy, and nutritious. It is earth friendly,
6 respecting, conserving, and preserving land and
7 water. Therefore, it is environmentally resource
8 sufficient.

9 We need to embrace CEA as an
10 organic-growing method made possible because of
11 innovations and technology. Hydro-organic
12 farming has taken organic farming to a higher,
13 safer standard.

14 We have made great strides in
15 eliminating the contamination aspects of organic
16 farming. The term organic is a very effective
17 marketing tool and has become a household brand.

18 Hydro-organic growing can deliver the
19 needs of the consumer. I urge you to recommend
20 the hydro-organic farming certification to
21 continue with added guidelines for hydro-organic
22 growing just as there are guidelines for organic

1 soil growing. Thank you.

2 CHAIR CHAPMAN: Thank you. Any
3 questions? Thank you very much.

4 CHAIR CHAPMAN: Up next is Greg
5 Cunningham, followed by Phil LaRocca.

6 MR. CUNNINGHAM: Hello. Greg
7 Cunningham from the Scotts Company. Thanks for
8 this forum. Yesterday's hydroponics is different
9 than today's hydroponics which will be different
10 than tomorrow's hydroponics.

11 We would ask that the NOSB Board to
12 keep an open mind when evaluating the future of
13 hydroponics and container growing by allowing the
14 USDA, accredited certifying agents, to continue
15 to evaluate each individual operation for its
16 consistency with the NOP rather than implementing
17 a blanket ban on these operations.

18 With today's agriculture becoming even
19 more attuned to water conservation, reduction of
20 pesticide use, pathogens, and GMOs, banning
21 hydroponics for organics use is counterintuitive.

22 Hydroponics is known to reduce

1 inadvertent environmental contamination such as
2 pesticide spray drift, increased pathogen levels
3 from flooding or contact with wildlife and GMO
4 contamination from nearby fields.

5 Hydroponics allows the farmer to
6 ensure every input to the plant as a USDA and NOP
7 allowed substance. As the world's population
8 grows and land that is suitable for agriculture
9 shrinks, the need for evolving agriculture
10 including farming on urban and less than ideal
11 land will continue to be of the utmost
12 importance.

13 We ask that you do not shut out the
14 growth and availability of organic food for
15 future generations. The Scotts Company would be
16 happy to assist the NOSB Board with items such as
17 consumer insights in research and development in
18 order to support the NOSB Board in their further
19 discussion and decisions on the future of
20 hydroponics and container growing. Thank you.

21 CHAIR CHAPMAN: Thank you very much.
22 Any questions? Emily, Scott.

1 MEMBER OAKLEY: Thank you. Do you
2 have any products that the Scotts Company is
3 selling to hydroponic growers currently?

4 MR. CUNNINGHAM: We have some hybrid
5 hydroponic products, we have some synthetics, and
6 we have a few organic, like OMRI-listed
7 hydroponic liquids, and a couple of solids,
8 actually. So, a lot of the products are solid or
9 liquids.

10 And I hear water-soluble a lot, but
11 the water-soluble does not mean it's water
12 soluble or readily available. It actually still
13 needs to be converted to a plant available form.
14 So even in a hydroponics or a container system,
15 that water-soluble has to be converted, to my
16 understanding, to a urea or ammonium nitrogen.

17 MEMBER OAKLEY: Could you provide us
18 with some product lists and the materials within
19 them that you are currently selling to organic
20 hydroponic growers?

21 MR. CUNNINGHAM: Yes, so, our organic
22 hydroponic base is not huge, very small, but we

1 do have, as far as for orienting growers, we are
2 mainly, we have some retail options that we can
3 give you, some formulas and products, yes.

4 CHAIR CHAPMAN: Okay. Thank you very
5 much.

6 MR. CUNNINGHAM: Thanks.

7 CHAIR CHAPMAN: Up next is Phil
8 LaRocca, followed by --

9 MR. CUNNINGHAM: I'm sorry. Does she
10 have a question?

11 CHAIR CHAPMAN: I'm sorry. Can you
12 come back up? We had a question I missed. My
13 apologies. Sue?

14 MEMBER BAIRD: Yes. I thought I heard
15 you say that you have a synopsis of consumer
16 education and preferences for hydroponics. And
17 that would be very helpful if we can have that.

18 MR. CUNNINGHAM: So we don't have
19 that.

20 MEMBER BAIRD: Oh.

21 MR. CUNNINGHAM: But we're more than
22 happy to work with the Board on generating that

1 data. We'd be more than happy to work with you
2 guys in developing a protocol or a statistical
3 analysis that you guys would find valuable. I
4 mean, we're more than happy to work with you
5 guys.

6 MEMBER BAIRD: I think that would very
7 valuable to know what the consumers are actually
8 perceiving, if its organic or not.

9 MR. CUNNINGHAM: Correct. I agree
10 that we're worried about the integrity of the
11 seal, but do we actually know what the consumer
12 feels --

13 MEMBER BAIRD: Right.

14 MR. CUNNINGHAM: -- the seal means.
15 So, we'd be more than happy to work with you
16 guys.

17 MEMBER BAIRD: Thank you.

18 CHAIR CHAPMAN: Thank you.

19 MR. CUNNINGHAM: Thanks.

20 CHAIR CHAPMAN: My apologies. Phil
21 LaRocca up next. After that's Kelly Damewood.
22 Phil, if you could start with your name and

1 affiliation.

2 MR. LARocca: I will try to be as
3 concise as possible. I know everybody's got to
4 be tired. My name is Phil LaRocca. I am the
5 owner and winemaker of LaRocca Vineyards. I'm
6 also the chairman of the board of directors for
7 CCOF, the California Certified Organic Farmers.

8 I have been an organic farmer for 44
9 years. I was first certified back in 1975, and I
10 can honestly say, I've probably spent about half
11 my life in building soil. And I had this concept
12 that when I got older, which I am now, that I
13 would have this rich soil that my plants would
14 love, and it would cut my work down.

15 Well, my plants love it. I did create
16 a rich soil, however, hasn't cut my work down.
17 We still compost and green manure our fields.
18 With that said, I'm speaking here in favor of
19 organic hydroponics with two caveats.

20 One, we should create standards that
21 are strict with a hundred percent organic inputs
22 and two, that we should label it. Most of the

1 growers that I know have no problem in saying
2 that. Prior to me speaking, there were several
3 colleagues of mine that have spoken against
4 hydroponics. A lot of them are friends of mine,
5 I respect them, I know they're good farmers.

6 With that said, we have a 120
7 certified farms at CCOF. And out of those
8 growers, I have several friends that I respect as
9 farmers and I respect as friends, and I know the
10 hard work that they have done to build a small
11 farm and a small business.

12 Now whether the USDA made a mistake or
13 not by certifying hydroponics, it would be so
14 unjust to pull the rug out of these people that
15 have worked so hard to create a very successful
16 business. And they have not complained about
17 strict standards. A lot of them will say give us
18 the strictest standards you can and we'll label
19 it. We have no problem.

20 Let the organic consumer decide.
21 Sometimes we have tendency, as a group here, to
22 negate the concept and the consciousness of

1 organic consumer. I also have a tasting room and
2 in my tasting room, we only serve my wine which
3 is organic and we serve food. Everything that we
4 serve is certified organic.

5 So we ran a little bit a poll. We do
6 have people that come in just to taste wine but
7 the majority, especially my regulars, are organic
8 consumers, organic conscious. We asked them what
9 they thought organic meant. A hundred percent
10 said no chemicals in the food and the second
11 thing that they said is, my God, if you say it's
12 organic, it better be organic.

13 So for these hydroponic people, create
14 strict standards, have them label it and let the
15 consumer decide. Thank you.

16 CHAIR CHAPMAN: Any questions for
17 Phil? I see Francis.

18 MEMBER THICKE: Quick question. I
19 understand your concern about your friends who
20 have a hydroponic operation and you don't want to
21 see them lose it.

22 The question for you is, do you think that

1 if hydroponics becomes accepted, that there will
2 be more and more and more and maybe 80 to 90
3 percent of the produce in California will become
4 hydroponic? And is that of concern to you?

5 MR. LAROCCA: It is not, and I'll tell
6 you why. I am an organic consumer, and I have a
7 pretty good lineage. If I'm in the store, and my
8 kids have testified to this, if I have a choice
9 between the tomato grown in soil or a tomato
10 grown in hydroponic, I'd probably take the soil
11 because I've been a soil farmer.

12 But if I go into the store and there's
13 a conventional tomato and a certified organic
14 hydroponic tomato, I'll pick the hydroponic
15 tomato in a heartbeat.

16 And we have growers that were -- some
17 of them have been certified for 11 years. So,
18 they have their market. And in that 11-year
19 period, I don't really see, at least in
20 California, that there's have been any
21 competition, but you now, if anybody should
22 complain about competition, it's me.

1 I mean, we, I'm in California. We
2 have a minimum wage of \$15 an hour. I have to
3 deal with organic wines coming in from Chile
4 where they're paying \$10 a day for their labor,
5 you know.

6 I can't even produce a wine for what
7 they're selling it per bottle. But you know,
8 this is an open market, market your product. Be
9 the best and market your product. So if people
10 think that tomatoes or whatever grown in soil is
11 better, than promote that and market that.

12 CHAIR CHAPMAN: Thank you. Sue?

13 MEMBER BAIRD: I'm sorry. Are you
14 promoting then that perhaps we create another
15 label so consumers would know that it's
16 hydroponic organic?

17 MR. LAROCCA: Sure. I don't have --
18 as long -- but most of the growers are very proud
19 that they have developed techniques that are a
20 hundred percent organic. So they do want that
21 organic in the label.

22 MEMBER BAIRD: Okay. Thank you.

1 MR. LAROCCA: You're welcome.

2 CHAIR CHAPMAN: Thank you. Next up is
3 Kelly, followed by Tina Ellor. Kelly, can you
4 start with your name and affiliation for the
5 record?

6 MS. DAMEWOOD: Okay. Thank you. My
7 name is Kelly Damewood with CCOF, California
8 Certified Organic Farmers. We certify and
9 advocate on behalf of organic producers
10 throughout the U.S., majority in California.

11 I'd be happy to answer questions about
12 produce water in California. We have looked at
13 this issue and continue to advocate that
14 California authorities adequately oversee the use
15 of this water. But today I'm going to focus on
16 hydroponics and encourage the NOSB to shift its
17 focus from what to exclude and focus on what to
18 require.

19 By only focusing on prohibition, we
20 are missing the opportunity to recommend clear
21 guidance and standards that ensure these unique
22 and evolving systems consistently implement

1 organic principles.

2 No matter where you are on this issue,
3 nobody wants to see a producer just dumping
4 nutrients into water. So it's really time to get
5 detailed feedback from certifiers and producers
6 about what sets organic hydroponics apart from
7 their conventional counterparts.

8 And, as Phil noted, we would encourage
9 exploring options for labeling. It's going to be
10 challenging but perhaps it's a middle road, a
11 solution to move the issue forward.

12 So USDA Organic seal with the term
13 hydroponically grown on primary packing, for
14 example. You know, on one hand, it supports that
15 hydroponic grower who has built their business on
16 USDA Organic Certification while providing more
17 transparency and choice for the consumer.

18 And finally, I would urge the NOSB to
19 look at the big picture and consider that food
20 production has evolved since 1990 and is going to
21 continue to evolve.

22 As a millennial, my generation has

1 been number one consumer of organic product. And
2 I don't want to see a lot of competing labels
3 because I know they are not going to do as good a
4 job as USDA Certified Organic.

5 And it really seems that this is a
6 critical opportunity where we get to decide the
7 future of our movement. Are we going to be an
8 inclusive movement? An exclusive movement? Or
9 the movement to transform our food system? Thank
10 you.

11 CHAIR CHAPMAN: Thank you. Please
12 refrain from clapping. Emily and Steve.

13 MEMBER OAKLEY: I wanted to ask you
14 about something other than hydroponics, if that's
15 all right?

16 MS. DAMEWOOD: Sure.

17 MEMBER OAKLEY: About soil-based
18 herbicides. It seems that you have a number of
19 producers that are certified by CCOF using them.

20 But some of the public comments from
21 both farmers and others seem to indicate that
22 people are using it beyond the annotation for

1 field production, perhaps in orchards and other
2 uses, and so I was wondering, if you're aware of
3 any of those off-annotation uses?

4 MS. DAMEWOOD: I'm not aware, but I
5 would be happy to look into it and follow up with
6 you.

7 CHAIR CHAPMAN: Steve.

8 MEMBER ELA: I'm curious. So since
9 1990, you know, organics have evolved, what you
10 just said. And since 1990, our understanding of
11 soil ecosystems has also evolved significantly.
12 I mean, we always knew they were complex but I
13 think we're moving into where we, you know,
14 realize how much we don't know.

15 And so, in terms of hydroponics, I'm
16 curious, you know, we're manufacturing a system
17 and we're trying to rebuild an organic system
18 similar, you know, something like soils -- and
19 the regulations, you know, you mentioned soils a
20 number of times. How can we as smart humans,
21 recreate a system, hydroponically, that we don't
22 even understand, you know, as a soil and as a

1 soil-based system?

2 MS. DAMEWOOD: If you're asking how --
3 I think it takes all types of production. I
4 mean, that's what we see in California.
5 Hydroponic growers often have in-field production
6 too and are working with, to build soil health as
7 well.

8 I don't think it's about mirroring
9 soil so much as doing the best job possible with
10 inorganic principles for these types of systems.
11 And that's why I'd encourage more detailed
12 comments directly from certifiers, organic
13 producers, about what practices are they using,
14 what is setting them apart from their
15 conventional counterparts.

16 And I think you will get to the core
17 answer of your question, but so far the
18 discussion documents we've been responding to
19 have been on how to be a lot of the defense of,
20 well, if we're going to broadly be prohibiting
21 these types of operations, then we're going to
22 miss the opportunity to consider just what you're

1 asking. How do we ensure that any system bearing
2 the UDSA organic label is aligning with the
3 intent and principles of organic.

4 CHAIR CHAPMAN: Thank you. I'll take
5 it back to Emily and then we'll stop it there.

6 MEMBER OAKLEY: I think that's a good
7 point about asking for the inputs that are being
8 used in the systems. But, I feel when we've
9 asked some of those questions, we've been told
10 that it's proprietary information, and it's been
11 extremely difficult to find out what those
12 systems actually are. So I'm not sure how that
13 conversation would go forward, but I just wanted
14 to put that out there that it's not been easy to
15 get that information.

16 MS. DAMEWOOD: I would also say that
17 I think people are hesitant to put forth what
18 they're doing because of the uncertainty, where
19 it feels like they're being attacked and doing
20 something wrong. And I would be happy to work
21 with our producers to provide us much detail as
22 possible for next commenting.

1 CHAIR CHAPMAN: Thank you. Up next is
2 Tina, followed by Jonah Beeken. Jonah, if could
3 come to the on-deck chair and Tina, if you can
4 start with your name and affiliation

5 MS. ELLOR: My name is Tina Ellor.
6 I'm with Phillips. I'm a mycologist and
7 Technical Director of Phillips Mushroom Farms.
8 And that's a hard act to follow. Well done.

9 Mostly, I'm a mushroom geek, for those
10 who don't know me. There're some up here who do.
11 We've been growing certified organic mushrooms in
12 the mushroom capital of the world, certified by
13 the best certifier. I got to put that in because
14 I heard some of you say that today, PCO, since
15 1997, so 20 years now.

16 Welcome NOSB members, new ones,
17 veterans. I've been at this podium any number of
18 times and this just looks like a great group of
19 people to work with, and thank you so much. I
20 did sit in that seat at one time, and I have some
21 idea of how difficult it is, but in a universe
22 zooming towards complexity, I think your job is

1 on the fast track.

2 I did submit written comments with
3 answers to questions that you put out
4 specifically, so I'm not going to talk about that
5 too much. I want to put in a word for some
6 materials that we would like to see remain on the
7 list. We would like chlorine materials to remain
8 on the list, please. Where possible, we
9 substitute hydrogen peroxide. That's not always
10 possible or safe as it's not as stable.

11 We absolutely depend on sticky traps
12 as part of our integrated pest management. We'd
13 like to see humic acid stay on the list because
14 they help keep our mushroom culture strong and
15 happy, and this helps them resist diseases and
16 pests.

17 I would like to see boric acid remain
18 on the list as sometimes we have, recalcitrant,
19 if I could borrow your word, cockroach problems
20 in our breezeways, and that's a good alternative
21 to, you know, some -- when all else fails, we
22 would like to keep that in our toolbox.

1 I'm going to zoom past, soil is
2 agriculture, because I really wish you wouldn't
3 call it that. There's a lot of great things
4 including mushrooms that don't grow on soil.

5 Now, I realize that we are not
6 excluded by the definition, but because of my
7 perspective of a mushroom geek and all that it
8 implies, all the different ways mushrooms are
9 grown, I think I just have a different
10 perspective on that which, if I have time, I'll
11 talk about, I might not.

12 I want to go down to container growing
13 and I do want to bring up some of those questions
14 because a lot of mushrooms are grown in
15 containers. We do depend on artificial lighting
16 to grow mushrooms. All mushrooms, excluding the
17 white button mushroom, require some light, and we
18 do grow indoors, so we do need to provide some
19 artificial light. Artificial heating and cooling
20 also is necessary.

21 Some species of mushrooms are grown in
22 plastic or wooden trays, and in various types of

1 plastic bags. So just when you're talking
2 through these recommendations, just always keep
3 mushrooms in mind.

4 And I guess we would consider -- oh,
5 I'm sorry. Boy, that was really fast. Thank you
6 so much.

7 CHAIR CHAPMAN: Thank you, Tina. Any
8 questions for Tina? Please stay, Tina. Asa?

9 MEMBER BRADMAN: I have a couple of
10 questions. You mentioned you had problems with
11 hydrogen peroxide. Was that accelerated hydrogen
12 peroxide and have you looked into other
13 alternatives --

14 MS. ELLOR: Oh --

15 MEMBER BRADMAN: -- cleaning
16 materials?

17 MS. ELLOR: No. It's more that we
18 can't always use hydrogen peroxide in place of
19 chlorine because it is not as stable and it's
20 different to use. So, you know, we need to keep
21 chlorine on the list for, especially, food safety
22 concerns.

1 MEMBER BRADMAN: Okay. And then you
2 mentioned keep humic acid. I'm curious, how you
3 use humic acids and whether you made a
4 differentiation between coal-based or kind of
5 natural-based derived humic acids?

6 MS. ELLOR: I don't believe coal-based
7 are allowed. Correct me if I'm wrong, but, no,
8 we don't use coal-based.

9 MEMBER BRADMAN: Okay, thank you.

10 CHAIR CHAPMAN: Thank you very much.
11 Up next is Jonah followed by, is Jonah here?
12 Jonah going once, Jonah going twice. We just
13 saved three minutes.

14 Next up is Jeff Dean. Is Jeff Dean
15 here? Yes, I believe that's Jeff Dean walking
16 up. And on deck is Jody Mason.

17 Jeff, if you could start with your
18 name and affiliation for the record.

19 MR. DEAN: Okay. I'm Jefferson Dean.
20 I'm a member of the Organic Grain Growers Chapter
21 of OEFFA, Ohio Ecological Food and Farm
22 Association.

1 We have about 68 members, average
2 about 300 to 400 acres. I've been farming
3 organically in Northern Ohio for about 25 years.
4 I have 600 acres of certified organic ground. We
5 have raise corn, beans, wheat, sunflowers and
6 clover.

7 About 20 years ago, the organic
8 industry requested USDA to get involved in the
9 organic to help standardize the rules and
10 regulations and to help enforce them.

11 We asked to be regulated with the one
12 set of standards for everybody. As producers,
13 it's our job to follow these rules. It's your
14 job, along with USDA and the certifiers, to help
15 enforce these rules and to preserve and protect
16 the integrity of organic.

17 But the organic industry is under
18 siege on two fronts. First, GMO contamination.
19 Our seed is contaminated, pollinators and wind
20 are contaminating our fields and grain to become,
21 our grain becomes contaminated from them. We
22 know it's coming from our neighbors and it's

1 costing us in sales and in integrity and organic.

2 If my cows were to get out and damage
3 a neighbor's crops, I'd have to pay for the
4 damage. But my crops get contaminated by GMO
5 drift from my neighbors and I have to pay for
6 that too. I don't think that's quite right.

7 The second front is imports. Corn
8 coming in from Turkey increased by 500 percent
9 from 2015 to 2016. That's unbelievable. It's
10 just unimaginable. Most of this is certified by
11 a questionable certifier going through
12 non-certified handlers and brokers. That's
13 unbelievable also.

14 We figured it's costing us about \$3 a
15 bushel. At 18,000 bushels that I produced last
16 year, well, you can do the math. It's not an
17 insignificant amount. We abide by extensive
18 rules and regulations, inspections, a paper trail
19 back to the field where it was grown. If they're
20 following the same rules, that's great. If they
21 are, then it should be easy to verify. So make
22 them verify everything just like we do.

1 When consumers hear about these
2 questionable imports -- and they are hearing
3 about them more and more -- it's disastrous for
4 the integrity of organic.

5 We can't lose this battle. We can't
6 lose our integrity. We, as farmers, are doing
7 our part. You need to do your part. The USDA
8 needs to take decisive action on this right now,
9 immediately. Thank you.

10 CHAIR CHAPMAN: Thank you very much,
11 Jeff. Any questions for Jeff? Thank you.

12 Up next is Jody Mason. Is Jody here?
13 Going once, going twice, that's another three
14 minutes we've just banked.

15 After that is Gerald Davis. Is Gerald
16 Davis here? All right. As Gerald makes it up to
17 the front, after him is Brunno Da Silva Cerozi.
18 Sorry if I butchered that.

19 Thank you, you're on deck. If you can
20 move to the on-deck chair. On deck, so you're --
21 wait. Was the person moving not Gerald? So,
22 Gerald -- Gerald, you're up right now. Brunno

1 you're on deck.

2 And if you can state your name and
3 affiliation for the record.

4 MR. DAVIS: Gerald Davis, Grimway
5 Farms, former NOSB member from 2005 to 2010. I
6 was a primary contributor to the 2010 Crop
7 Subcommittee document concerning container-based
8 greenhouse growing and hydroponics.

9 This document was intended as an
10 interim-type of document, in my opinion, to move
11 forward the development of organic standards for
12 greenhouse growing. Seven years later, we are
13 finally returning to this task.

14 I also contributed in a small way to
15 the Hydroponics Task Force work last year. At
16 the meeting I attended, I was taken aback by the
17 boldness of the hydroponic representatives, the
18 liquid substrate version of hydroponics, and
19 their boldness in saying it should be allowed as
20 organic. And we all heard a lot of statements at
21 this meeting that their claims are really strong
22 and they're really pushing hard for that.

1 Grimway farms produces 30-plus
2 different vegetables grown organically on over
3 35,000 certified acres. We're a very large farm.
4 Since 2007, we have produced organic greenhouse
5 tomatoes in a ten-acre facility. So a small
6 project by our standards, but, our scale that is.

7 It's a container-based system
8 utilizing a mixture of coco coir, compost, ground
9 rock minerals, organic fertilizers, mycorrhizal
10 soluble bacteria and fungal inoculants. It's
11 been a ten-year testing excursion trying to
12 perfect a container-based system that
13 incorporates as much of the organic practices
14 from field-based organic growing methods as
15 possible.

16 Grimway strongly urges the NOSB and
17 NOP to reject allowing liquid substrate
18 hydroponics and to define and come up with
19 guidelines and rules governing container-based
20 production in greenhouses. Any questions?

21 CHAIR CHAPMAN: Thank you. I see
22 Emily, Francis, Ashley, Joelle, and I'm going to

1 start with that. Emily.

2 MEMBER OAKLEY: So are you in
3 agreement with the definitions and the proposed
4 motions that are in this discussion document for
5 hydroponics, aeroponics, and aquaponics?

6 MR. DAVIS: Yes, pretty much. I'm the
7 one who that came up with most of those, so, yes,
8 I'm in agreement with it.

9 MEMBER OAKLEY: Speak a little louder,
10 please.

11 MR. DAVIS: I wrote that language.
12 So, yes, I'm in agreement with that.

13 CHAIR CHAPMAN: Francis?

14 MEMBER THICKE: Do you have any
15 general guidelines to what you think for
16 container growing should be, the rules for
17 container growing? Any parameters, standards?

18 MR. DAVIS: It really needs to be
19 strongly defined because container growing, from
20 my experience and working with it for ten years
21 now, you know, in reference to tomatoes, which is
22 a longer period of crop growth than, say, lettuce

1 or something like that.

2 For a long duration crop like
3 tomatoes, what starts out as a very vibrant crop-
4 supplying soil mixture that you concoct and put
5 all the right ingredients and make it
6 biologically alive, at some point, it breaks down
7 and it begins to require more and more liquid
8 feed, nutrients, to keep that production going.

9 So I would not want to disallow
10 container production but it needs to be very
11 specific on the guidelines you put forth. So we
12 just don't have a kind of a cheap way of doing
13 hydroponics and calling it container-based
14 growing.

15 CHAIR CHAPMAN: Thank you. Ashley.

16 MEMBER SWAFFAR: So I have two
17 questions for you. Do you think the current
18 document that's written on hydroponics is clear
19 enough that containers are completely separated
20 out of that? It draws a line in the sand
21 basically between hydroponics and containers
22 clearly?

1 And then what percentage of your
2 nutrients come from liquid fertilizers in your
3 container system?

4 MR. DAVIS: There's a lot of ways you
5 can produce growth from liquid fertilizer
6 extracted from compost. We did that for a number
7 of years. Works great. Very difficult.

8 You can revert to just using sodium
9 nitrate if you want to as a nitrogen source.
10 Works okay, I guess, but is that what we want?
11 So it's the language we put in that document
12 really is just a starting point.

13 This really needs to be developed if
14 you're going to allow it as organic, because
15 otherwise people just game the system and they
16 start inserting hydroponics in and calling it
17 something that's good. And with organic
18 principles and biological farming, and all the
19 things that are really important with the root
20 dynamics in a soil media, I don't know. It's a
21 big subject that I don't know if it's going to be
22 that easy for a board like this to come up with.

1 CHAIR CHAPMAN: You, no. Do I have
2 someone over here. Joelle. Sorry. Joelle,
3 you're up. Yes.

4 MEMBER MOSSO: Question on your
5 substrate. So you're not including soil as it's
6 currently defined in the discussion document in
7 your substrate mix, is that accurate?

8 MR. DAVIS: Not fuel soil. There is
9 a significant portion of ground rock minerals
10 that we use. So it's not all coco coir.

11 MEMBER MOSSO: So is it of your
12 opinion that if we were to have container growing
13 stipulated with how much soil as it's defined in
14 the discussion document, would there -- what's
15 your opinion on that?

16 MR. DAVIS: The problem with that,
17 containers, most of the greenhouse systems are
18 based on gutter based systems where the container
19 has to sit on top of a support structure which we
20 call gutters, which provides the drain for the
21 water to filter through, and we recirculate it,
22 and reuse, so it's not just thrown off to waste

1 somewhere.

2 You have some weight constraints. If
3 you start adding more and more soil, it becomes
4 too heavy, and we have actually pushed it to the
5 limit with as big a grow bag as we could even
6 without soil and collapsed gutters.

7 So a container based system with soil
8 in it wouldn't look like the standard
9 conventional gutter based system just with soil
10 added because you can't handle the weight.

11 MEMBER MOSSO: Thank you.

12 CHAIR CHAPMAN: Thank you very much.
13 Up next is Brunno, and on deck is Richard
14 Matthews.

15 And if you could start with your name
16 and affiliation for the record?

17 MR. CEROZI: Yes, my name is Brunno
18 Cerozi and I'm here representing Superior Fresh.
19 That is an aquaponics facility located in Hixton,
20 Wisconsin.

21 So traditionally animals were an
22 integral part of agricultural systems. They

1 provided food and fiber, powered farm machinery,
2 and most importantly, were the major means of
3 recycling nutrients back to the soils and
4 nourishing our crops.

5 But since the rise of factory farming
6 with intensification of agriculture and animal
7 production into industrial operations, animals
8 were divorced from our once vastly diversified
9 farms.

10 But in 1980, USDA reporting
11 recommendations of organic farming stated, and I
12 quote, "Animals comprise an essential part of
13 operation of many organic farms. Organic
14 agriculture strongly emphasizes the application
15 of compost and manure and other organic materials
16 to improve soil fertility and its structure."

17 Still in the 80s, following the same
18 trend, research at the University of Arizona,
19 using plants as a natural filter within fish
20 farms began which is known today as aquaponics.

21 So since then, fish became more and
22 more integrated into a comprehensive agricultural

1 analysis. Aquaponic systems surged as an
2 alternative to the indiscriminate overuse of
3 chemical fertilizers in our intensive production
4 systems to re-establish the link between animal
5 and crop production.

6 However, there has been a recent
7 movement to limit the use of the organic label to
8 operations in which plants are cultivated are not
9 directly rooted in soils. But plants do not
10 absorb nutrients directly from soil or the soil
11 particles.

12 Even though there is direct physical
13 contact between a soil particle and the root
14 surface, they need a special medium so important
15 called soil solution. And chemically and
16 functionally speaking, an aquaponics nutrient
17 solution is not different than a soil solution.

18 They contain comparable amounts of
19 dissolved nutrients and an incredibly diverse
20 microbial community lives in there. Think about
21 this, today we face prospects of an emerging food
22 crisis due to a rising world population that

1 wants to eat more high quality food in a changing
2 climate system that is diminishing harvests all
3 over the world.

4 So all organic practices, whether
5 soil-based or aquaponics, I think could join
6 forces to increase food production using our
7 limited natural resources more efficiently.

8 So I'd like to recommend, just a
9 close, the NOSB and USDA to guarantee that
10 aquaponics farmers continue to be part of the
11 USDA organic program. And I encourage the NOSB
12 to get the right information about both systems.

13 CHAIR CHAPMAN: Thank you. I have to
14 stop you there. Thank you.

15 MR. CEROZI: Thank you.

16 CHAIR CHAPMAN: Any questions? Lisa,
17 was that your hand up or no? No. Okay. Not
18 seeing any questions. Oh, we do have one. Emily
19 or Sue?

20 MEMBER BAIRD: Just because they told
21 me I needed to ask it.

22 CHAIR CHAPMAN: Okay.

1 MEMBER BAIRD: No. My question is,
2 the manure from the fish that is being recycled
3 back into the plant operation, what's the waiting
4 period between the time of that water having
5 fresh fish manure in it and then being delivered
6 to the roots of the plants?

7 MR. CEROZI: So I wouldn't call it
8 manure. I would call it aquaponics nutrient
9 solution, and I would say that it would be waited
10 until 24 hours between, when you feed the fish,
11 and that's the similarity between organic,
12 traditional organic practices, and aquaponics.

13 Because when you feed the fish and you
14 can imagine, the food will have to go through the
15 digestive system and usually in tilapia, for
16 example, it would take 24 hours for those
17 nutrients to be fully digested and then released
18 into the water.

19 And the form that the nutrient is
20 delivered in the water, they're readily available
21 for nutrient uptake. So it's quick, and it
22 mimics what happens in the soil, right there in

1 soil solution.

2 As the nutrients are absorbed, there
3 is always a resupply of nutrients in the water.
4 So you see a steady state of a nutrient
5 concentration in the water. So there's never an
6 increase in the nutrition concentration in
7 aquaponics nutrient solutions.

8 CHAIR CHAPMAN: Do that, yes, go
9 ahead.

10 MEMBER BAIRD: So I just want to
11 clarify, so 24 hours between when they excrete
12 the nutrients and it goes to the plants' roots,
13 is that correct?

14 MR. CEROZI: Yes.

15 MEMBER BAIRD: Okay. Thank you.

16 MR. CEROZI: Or less.

17 CHAIR CHAPMAN: Any additional
18 questions? Yes, Harriet.

19 MEMBER BEHAR: Is there an intervening
20 activity where enzymes are added to that nutrient
21 solution before it goes to the plants?

22 MR. CEROZI: Intervening in terms of

1 --

2 MEMBER BEHAR: I thought, aquaponics,
3 there was a use of some enzymes to help digest
4 the nutrients.

5 MR. CEROZI: So, yes, that's a great
6 question. Aquaponics usually picture in fish and
7 plants. But without microorganisms there is no
8 aquaponics. So, yes, there is an intermediate
9 process between when the fish release the
10 elements in the water.

11 For example they release ammonia, and
12 ammonia can be highly toxic for fish if it
13 increases in the water -- the concentration's
14 increased in the water. So you need
15 nitrification to have -- the same thing that
16 happens in soil, the same nitrification, the same
17 microorganisms that live in soil, live in
18 aquaponics, and they're needed.

19 Without microorganisms, there is no
20 aquaponics. And I published, I did my doctorate
21 at the University of Arizona. I spent four years
22 studying aquaponics and the phosphorus dynamics

1 in aquaponics. So not only microorganisms are
2 important for the nitrification process in
3 aquaponics but also for the phosphorus cycle.

4 So I published a paper, and you can
5 find the literature and it's cited in the
6 document that I made available for everyone, that
7 without microorganisms, plants do not thrive in
8 aquaponics.

9 CHAIR CHAPMAN: Thank you. Thank you
10 very much. Up next is Richard Matthews. And if
11 you can start with your name and affiliation.

12 MR. MATTHEWS: I am Richard Matthews,
13 the Executive Director of the Western Organic
14 Dairy Producers Alliance. The organic dairy
15 sector is in a crisis of oversupply, falling farm
16 gate prices, and struggling organic farmers and
17 struggling small organic handling operations.

18 The oversupply, and thus the crisis,
19 is directly attributable to the failure of AMS
20 and the NOP, to perform in conformance with
21 USDA's mission statement. AMS and the NOP have
22 failed to provide leadership, sound public

1 policy, and efficient management.

2 These failures are having an adverse
3 impact on the sustainability of organic dairy
4 producers and small organic handling operations.
5 NOP's failure to complete the origin of livestock
6 rule-making commenced on April 28, 2015, is
7 directly responsible for the dairy sector crisis.

8 AMS leaves WODPA with no choice but to
9 take the origin of livestock issue to, one, the
10 House Committee on Oversight and Government
11 Reform; two, the Senate Subcommittee on
12 Regulatory Affairs and Federal Management and,
13 three, District Court. Any questions?

14 CHAIR CHAPMAN: Thank you. Questions?
15 Ashley?

16 MS SWAFFAR: I have a very off the
17 topic question for you. I didn't see any
18 comments from you guys on emergency use of
19 parasiticides, and I was just wondering if you
20 have any thoughts on that? Or if that puts you
21 on the spot, I'd encourage to use the open docket
22 after this meeting to give us your thoughts on

1 them.

2 MR. MATTHEWS: I can do that. Okay.

3 CHAIR CHAPMAN: Any other questions?

4 Thank you very much.

5 MR. MATTHEWS: Oh, Mark, thank you for
6 the photo op. Thank you for the photo op.

7 CHAIR CHAPMAN: Thank you.

8 MR. MATTHEWS: I will post it on O-
9 Dairy.

10 CHAIR CHAPMAN: Thank you, Richard.
11 Surprise, surprise. This actually concludes our
12 public comment today. We are only 11 minutes
13 over so it worked out kind of in the end. So we
14 are about to go into recess but we will start
15 again tomorrow with public comment and the
16 meeting time is 8:30, so 30 minutes earlier than
17 today's was.

18 But without objection, we will move to
19 recess.

20 (Whereupon, the above-entitled matter
21 went off the record at 6:11 p.m.)

22

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C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Board Meeting

Before: USDA National Organic Standards Board

Date: 04-19-2017

Place: Denver, Colorado

was duly recorded and accurately transcribed under
my direction; further, that said transcript is a
true and accurate record of the proceedings.



Court Reporter

NEAL R. GROSS

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U.S. DEPARTMENT OF AGRICULTURE

+ + + + +

NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

MEETING

+ + + + +

THURSDAY

APRIL 20, 2017

+ + + + +

The Board met in the Majestic Ballroom of the Sheraton Denver Downtown Hotel, 1550 Court Place, Denver, Colorado, at 8:30 a.m., Tom Chapman, Chairperson, presiding.

PRESENT

TOM CHAPMAN, Chair

SUE BAIRD

HARRIET BEHAR

ASA BRADMAN

JESSE BUIE, Secretary

LISA DE LIMA

STEVE ELA

DAVE MORTENSEN

JOELLE MOSSO

EMILY OAKLEY

SCOTT RICE

A-DAE ROMERO-BRIONES

DAN SEITZ

ASHLEY SWAFFAR, Vice Chair

FRANCIS THICKE

STAFF PRESENT

**MICHELLE ARSENAULT, NOSB Advisory Board
Specialist, National Organic Program**
**LISA BRINES, Ph.D., National List Manager,
National Organic Program**
**PAUL LEWIS, Ph.D., Director, Standards
Division, National Organic Program**
MILES MCEVOY, AMS Deputy Administrator
**JESSICA WALDEN, Materials Specialist, National
Organic Program**

ALSO PRESENT

**KRISTEN ADAMS, Midwest Organic Services
Association (MOSA)**
JOHN ASHBY
**JENNIFER BERKEBILE, Pennsylvania Certified
Organic**
ALEXANDER BOLLAG, Recirculating Farms Coalition
BILL BROYDRICK, Broydrick & Associates
LYNN COODY, Organic Produce Wholesalers Coalition
**NICOLE DEHNE, Certification Director, NOFA;
Vermont Organic Farmers**
MARCO DE LEONARDIS, Freeman Herbs
**JACKIE DEMINTER, Certification Policy Manager,
MOSA**
LINLEY DIXON, The Cornucopia Institute
STANLEY EDWARDS, Quality Assurance International
TRACY FAVRE, Quality Assurance International
DAVID FERMAN, NS Brands
MICHAEL HASEY, The Farming Fish
**DAVID HILTZ, Research Director, Acadian Sea
Plants**
**ULRIKE HODGES, Vice President of Business
Operations, SafeTraces**
ANN MARIE HOURIGAN, Danone Wave
IAN JUSTUS, Driscoll's, Inc.
**GARTH KAHL, Common Treasury Farms; Independent
Organic Services, Inc.**
**JASON KAMIMOTO, Vice President of Sales and
Marketing, Rocket Farms**
PAT KERRIGAN, Organic Consumers Association
ED LEHRBURGER, Pure Hemp Technology

SUZANNE MCMILLAN, ASPCA
MARTY MESH, Florida Organic Growers; Quality
Certification Services
MELODY MEYER, UNFI
JOHANNA MIRENDA, Technical Director, Organic
Materials Review Institute
MICHAEL MOLINA, Applied DNA Science
JOAN NORMAN, One Straw Farm
RODRIGO ORTEGA, Green Health
ALEXIS RANDOLPH, Quality Assurance International
STEVE ROSSE, President, Biodegradable Products
Institute Board of Directors
KATHARINA SCHLEGEL, BASF
MARGARET SCOLES, International Organic Inspectors
Association
CORI SKOLASKI, Executive Director, MOSA Certified
Organic
KYLA SMITH, Certification Director, Pennsylvania
Certified Organic

BETH STEPHENSON

CLARENCE WAGNER, CEA Fresh Farms

STEPHEN WALKER, MOSA

RICHARD WALLICK

RUTH WATTS, BASF

JULIE WEISMAN

SAM WELSCH, OneCert, Inc.

JASON WHITCHER

BILL WOLF, Wolf, DiMatteo + Associates

GWENDOLYN WYARD, Organic Trade Association

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P-R-O-C-E-E-D-I-N-G-S

8:33 a.m.

CHAIR CHAPMAN: All right, welcome, everybody, to the second day of the NOSB meeting. We'll come back into session now, and we'll begin again with Public Comment, which will continue until lunch. And then we'll get into the Handling Subcommittee, followed by Livestock, and then CACS.

Before we get into Public Comment, I just want to again review the Public Comment policy as outlined in our Policy and Procedures Manual. So generally if you want to comment to us, you need to sign up in advance. If time permits, we will take last minute sign-ups or walk-ins, but that's really dependent on time.

Our schedule may change. We were both ahead and then greatly behind schedule yesterday. So please just prepare to come early or late. Can you go to the next slide.

The time allotment will be three minutes. I do again ask that you stop at the

1 three minutes. I do not like interrupting folks
2 but will if needed. And that's just in order to
3 ensure equal access. But don't run away, because
4 we may have questions for you.

5 Persons, people are asked to give their
6 name and affiliation for the record at the
7 beginning of their comment. If any member of the
8 board has questions, I encourage you to ask about
9 folks' affiliations to get further clarity. Proxy
10 speaking is not permitted.

11 Public commenters are asked to refrain
12 from making any personal attacks or remarks that
13 might impugn the character of another individual,
14 be it on the board or in the public or part of the
15 program.

16 And then we ask you to be succinct and
17 clear about the issues you want to speak about
18 before the board, so we can comprehensively
19 understand the issues you're trying to convey to
20 us.

21 With that, we'll get started. As a
22 reminder, the light system will give you a warning

1 with one minute left at yellow, and then we'll
2 buzz red when time has run out. And if you have
3 a PowerPoint, there will be a remote up there for
4 you to click through your slides.

5 So getting started, the first speaker
6 for this morning is Joan Norman. And on deck,
7 there's an on-deck chair over here by Dr. Brines.
8 So we ask if you are on deck, that you come to
9 that chair. On deck is Richard Wallick.

10 Joan, if you could start with your name
11 and affiliation for the record.

12 MS. NORMAN: Yes, sir. My name is Joan
13 Norman, One Straw Farm. My husband and I own One
14 Straw Farm, a family-owned and operated vegetable
15 farm in Maryland since 1983. The second
16 generation has returned to the farm, and we found
17 out this week a third generation's on its way.

18 We've always grown organically,
19 becoming certified in 1986, and continued
20 certification for 26 years, until 2012, when we
21 withdrew our application for certification in
22 order to use biodegradable mulch film.

1 All of our growing practices continue
2 to be done organically with this exception. We've
3 been using this mulch for eight years with no
4 negative results.

5 The NOSB voted to allow biodegradable
6 mulch film with a vote of 12-3. Later, the NOP
7 added Memo 15-1. This memo created a situation
8 where no biodegradable mulch films are allowed,
9 which was not the intent of the original vote. My
10 husband and I have spoken at several NOSB meetings
11 on this topic.

12 It occurred to me recently --

13 (Whereupon, the above-entitled matter
14 went off the record at 8:36 a.m. and resumed at
15 8:43 a.m.)

16 CHAIR CHAPMAN: Get it back up and
17 running. But in the interest of time, I apologize
18 if the speakers coming up had a PowerPoint, we're
19 going to just be audio only. And Joan, we'll
20 start your time over from the beginning.

21 MS. NORMAN: Start from the beginning?

22 CHAIR CHAPMAN: Given the amount of

1 distraction.

2 MS. NORMAN: You didn't pull the plug
3 because I withdrew my application, right?

4 CHAIR CHAPMAN: What?

5 MS. NORMAN: You didn't pull the plug
6 because I withdrew my application.

7 CHAIR CHAPMAN: No, we'll start over.

8 MS. NORMAN: I'm just being a smart
9 aleck, sorry.

10 CHAIR CHAPMAN: Is everyone back? Most
11 people are back and the board is settled. All
12 right, so come back to order. We're going to
13 start her time over from the beginning. You
14 ready? All right. Name and affiliation for the
15 record, please.

16 MS. NORMAN: Joan Norman, One Straw
17 Farm. My husband and I own One Straw Farm, a
18 family-owned and operated vegetable farm in
19 Maryland since 1983. The second generation has
20 returned to the farm, and we found out this week
21 a new, third generation's on its way.

22 We've always grown organically,

1 becoming certified in 1986, continued
2 certification for 26 years, until 2012, when we
3 withdrew our application for certification in
4 order to use biodegradable mulch film.

5 All of our growing continues to be done
6 organically with this exception. We've been using
7 this mulch for eight years with no negative
8 results.

9 The NOSB voted to allow biodegradable
10 mulch film with a vote of 12-3. Later, the NOP
11 added Memo 15-1. This memo created a situation
12 where no biodegradable mulch films are allowed,
13 which was not the intent of the original vote. My
14 husband and I have spoken at several NOSB meetings
15 on this topic.

16 It occurred to me recently you were
17 only hearing from us. So I started a petition to
18 share with you the opinions of those who were not
19 able to attend. Like my husband, they are home
20 working in the fields to produce food.

21 Biodegradable mulch is an important
22 part of our farming practices. It saves us water,

1 reduces weed pressure, minimizes soil erosion,
2 keeps produce cleaner, which is an important part
3 of FSMA. Biodegradable mulch is more important
4 that polyethylene mulch for us in several ways.

5 It reduces our labor cost, which is
6 becoming much more important as the minimum wage
7 approaches \$15 an hour. Most importantly, it
8 allows us to get our cover crops planted faster in
9 the fall, which prevents erosion and increases
10 fertility.

11 It also reduces the amount of waste
12 that ends up in a landfill, if the landfill will
13 accept it, and the costs associated with that
14 removal. It doesn't seem organic to put our waste
15 in someone else's backyard.

16 Comments from the petition: I think
17 it's important that the label organic be carefully
18 applied to reflect a truly broad-based and
19 science-based look at what are globally sound
20 practices.

21 What's happening on the focusing on the
22 letter of the law is that factory farms can

1 maintain organic designation, while truly ethical
2 and cautious farmers who follow all best practices
3 lose their designation. I hope for not a
4 loosening of organic farming rules as much as a
5 reasonable inclusion of materials and practices
6 that are truly eco-based on science.

7 From a farmer: I'm a certified organic
8 farmer with over 20 years' experience. Despite
9 using a variety of methods for integrated weed
10 management, including crop rotation, tractor
11 cultivation, hoe and hand weeding, weed management
12 is still a major challenge for some long-season
13 crops, like winter squash, melons, and sweet
14 potatoes.

15 Our farm has not historically used
16 plastic mulch due to the challenges of removal and
17 the environmental costs of disposal. I would use
18 biodegradable film mulch on our farm if it were
19 allowed in organic production.

20 Another says, As an organic farmer, I
21 absolutely need this option for weed control and
22 the overall economic viability of my business.

1 Consumer: We need to continuously be
2 moving towards ways of living lighter on the land
3 and creating less waste that our children will
4 have to deal with. This technique that would make
5 farming easier for organic farmers I believe
6 should be allowed to use this film so it would
7 make their farming methods easier so we can --

8 CHAIR CHAPMAN: If you want to finish
9 your sentence.

10 MS. NORMAN: Continue to get their
11 wonderful and safe harvests.

12 CHAIR CHAPMAN: Thank you. Questions?
13 I see Harriet and then Dan and Dave.

14 MS. BEHAR: Good morning.

15 MS. NORMAN: Good morning.

16 MS. BEHAR: Are you aware that more
17 than 80% of the mulch is a petroleum-based product
18 and that's what's breaking down in your soil?

19 MS. NORMAN: I think there's a comment
20 coming from some other people. But we did know
21 that there's things happening. And petroleum is
22 kind of a -- I know a lot of things, but I think

1 you need to hear the comment from the biochemist
2 who's coming up.

3 MS. BEHAR: So let's say that it is
4 petroleum-based. How would you feel about that?

5 MS. NORMAN: At this point, I still
6 feel better if I'm eating organic produce. I
7 still feel like I have to be responsible for what
8 I'm eating, and putting that petroleum-based thing
9 in somebody else's backyard and saying it's not my
10 problem where it will never go away is wrong.

11 CHAIR CHAPMAN: Dan.

12 DR. SEITZ: So I imagine there are many
13 other farmers in the Northeast who are also
14 planting the same crops as you that are certified
15 organic. How are they dealing with their weed
16 problems so that they're retaining their organic
17 status?

18 MS. NORMAN: They're using the
19 polyethylene mulch and rolling it up and putting
20 it into a landfill. Some of them are burning it,
21 which is not, if their state allows it. Or
22 they're just leaving it on the side of their

1 fields. So it's not going anywhere.

2 CHAIR CHAPMAN: Dave.

3 MR. MORTENSEN: Yeah, good morning.

4 You made the comment that it helps facilitate
5 getting the cover crops down.

6 MS. NORMAN: Yes.

7 MR. MORTENSEN: Could you talk about
8 that just a little bit?

9 MS. NORMAN: So when you have to take
10 it out of the field, what happens is, you know, we
11 have to go through the field, you'd have to lift
12 the plastic, that's one pass through the field.
13 Then it has to be rolled up.

14 It takes four guys several hours to
15 take a field out of production. Because this is
16 broken down, we just roll, take the tractor
17 through with a disk through it, roll up just the
18 drip tape. And it only takes two people, and
19 we're done, in and out of the field in a couple of
20 hours.

21 So in the fall, when we're pressed for
22 time, that becomes absolutely crucial. Before we

1 started using this, we had fields that were left
2 fallow all year because we just couldn't get the
3 cover crop in.

4 MR. MORTENSEN: Okay, very good. Thank
5 you.

6 MS. NORMAN: I'm all done?

7 CHAIR CHAPMAN: Thank you, Joan.

8 MS. NORMAN: Thank you.

9 CHAIR CHAPMAN: So we're going to skip
10 over Richard for now because the AV is not up.
11 Richard, I think you're fine with that. I'm also
12 going to skip over Katharina Schlegel from BASF
13 right now, because you also had a presentation.
14 If you'd like to go, just talk, without the
15 presentation, talk to Michelle and we'll loop you
16 in.

17 But we're going to move on to people
18 who don't have video presentations. And so up
19 next is Linley, followed by Clarence Wagner. So
20 Clarence, you're on deck. Linley, if you can
21 state your name and affiliation for the record.

22 MS. DIXON: Sure, my name is Linley

1 Dixon of The Cornucopia Institute. I have a
2 master's in plant and soil science, and a Ph.D. in
3 plant pathology. I have also worked in extension,
4 and as a plant pathologist at the USDA
5 Agricultural Research Service.

6 My husband and I started an organic
7 farm that now has a 150-member CSA and a farmers
8 market vegetable farm in southwest Colorado.
9 After seven years of farming on rented land and
10 moving the farm location three times, we
11 understand some of the challenges that new organic
12 farmers are facing.

13 I'm a member of local chapters of the
14 National Young Farmers Coalition and the Rocky
15 Mountain Farmers Union. So I regularly hear about
16 the struggles of the beginning organic farmer. At
17 the same time, working for The Cornucopia
18 Institute, I hear from the original organic
19 pioneers, many of whom were part of the movement
20 to create the standards.

21 Neither group has good things to say
22 about what organic has become, yet they both

1 express that OFPA was well written, if it's
2 enforced.

3 As we've seen with organic eggs, where
4 over 80% of the market is now CAFO operations,
5 where outdoor access is a porch, please remember
6 that market forces drive production to the minimum
7 standard. Through your tenure, please keep the
8 minimum standard in line with OFPA, because that
9 minimum standard is what organics ultimately
10 becomes.

11 On hydroponics, attempts to define
12 organic based on biology in the system, it's not
13 in line with OFPA, and all production systems,
14 including conventional systems, have biology.
15 Whether or not fertilizers are readily available
16 to plants or made available by bacteria, that's
17 not the point, that's not OFPA.

18 Container systems aren't organic
19 because they're removed from the regenerative
20 organic practices that cycle nutrients and capture
21 carbon in the soil. And be careful of that word
22 regenerative, because it's quickly replacing

1 organic.

2 We're tomato greenhouse growers in the
3 soil, in the ground. We're avid composters and
4 cover croppers. We use regular fish emulsion on
5 our container transplants, but once we plant, our
6 fertile soil takes care of the rest. These
7 practices are required of organic farmers in OFPA.

8 U.S. authentic organic farmers aren't
9 getting the financial benefits of the increase in
10 demand for organics. Imports in industrial
11 hydroponic container operations that never should
12 have been certified in the first place are the
13 problem.

14 What we need to remember in this room,
15 when we're trying to grow organics, is that
16 there's a massive local food movement sweeping the
17 nation, including thousands of farmers adhering to
18 OFPA that can grow organics if given the
19 opportunity. Let's encourage these farmers to get
20 certified by keeping the standards strong.

21 The organic founding farmers paved the
22 way and taught us to strive for continuous

1 improvement in our systems. They're working now
2 towards no till and greater soil carbon capture
3 and renewable energy in their systems. When they
4 ask for that same continuous improvement in the
5 organic standards --

6 CHAIR CHAPMAN: You want to finish your
7 sentence?

8 MS. DIXON: Sure, it's my most
9 controversial one. They're called the firing
10 squad, hooligans, or Luddites by the industrial
11 players that are profiting from their hard work.
12 But just remember the heart and soul of the
13 foundation of the organic movement in your work
14 when decision-making.

15 CHAIR CHAPMAN: Thank you. Questions
16 for Linley? Emily, Ashley.

17 MS. OAKLEY: Hi, you mentioned the
18 National Young Farmers Coalition, of which I'm
19 also a member. And I'm a really big advocate for
20 beginning and young farmers to get certified, and
21 for direct market farmers to get certified. And
22 I was wondering if you could elaborate a little

1 bit on that.

2 MS. DIXON: It's a huge problem in our
3 area, and these are what I consider organic
4 farmers. And kind of the rumor on the street is
5 that you can get certified to get into Natural
6 Grocers or some of the wholesale markets, but that
7 the prices are so low, and so it's not worth it.

8 And so what they've done in our area is
9 we have a farmer-distributed coop. And people are
10 getting GAP certified for that, but they're not
11 getting organic certified. You know, some of it,
12 I'm going to try to pave the way, but we now are
13 on permanent farmland, we hope.

14 Some of it is because we're all leasing
15 really expensive land. But a big problem is
16 people are just jaded with the organic word, and
17 so they're going to form their own cooperative to
18 distribute and sell themselves as better than
19 organic. And that's what we're doing in our
20 region.

21 CHAIR CHAPMAN: I have Ashley then
22 Harriet.

1 MS. SWAFFAR: Linley, a couple
2 questions for you. So on your organic farm that
3 you have, what percentage of your nutrients come
4 from some type of liquid feeding? And then what
5 is your crop rotation? You say you grow
6 greenhouse tomatoes, can you describe that?

7 MS. DIXON: Sure, yeah, we're huge
8 composters, so that's how we get our fertility.
9 And so I'm not sure if I can figure out the
10 percentage that, you know, a young tomato plant in
11 its container is getting from liquid nutrients.

12 But I would probably say that when it's
13 in that container, you know, it needs fish
14 emulsion once or twice a week for eight weeks
15 until we transplant. So it's not very much,
16 considering then the large bulk of the plant is
17 grown in the soil. So I don't know the
18 percentage.

19 MS. SWAFFAR: So you don't spray or
20 apply anything after you transplant.

21 MS. DIXON: No, no.

22 MS. SWAFFAR: And then crop rotation in

1 your greenhouses, what do you do there?

2 MS. DIXON: Yeah, we go back to
3 tomatoes and basil and peppers in the same
4 greenhouses. But we bring in, you know, similar
5 to Dave Chapman's, we bring in compost material
6 for that fertility and cover crops as well. Like,
7 we'll mow it down and bring that in to the
8 greenhouse.

9 We grow over 40 different crops, so our
10 crop rotations are pretty elaborate. But in the
11 tunnels, we're bringing in material from the field
12 or from composting.

13 CHAIR CHAPMAN: Harriet.

14 MS. BEHAR: So organic is kind of a
15 dance between having no synthetics at all, and
16 being practical so we can actually have organic
17 food, so we can grow crops, we can process crops,
18 we can raise livestock.

19 And I think sometimes it's hard for
20 consumers to understand that perhaps a synthetic
21 might be needed, like baking soda or ascorbic acid
22 or fish emulsion because of the synthetic

1 phosphorus that's added, or what acid is added.

2 So what does Cornucopia do to educate
3 consumers about the challenges of producing food
4 and help them understand that some synthetics and
5 practices might be necessary in order to actually
6 be practical in providing them organic food?

7 MS. DIXON: We post all our NOSB
8 comments on the website. And I think you'll find,
9 for example, you know, for this meeting, our
10 coppers, that's a synthetic. We try to educate on
11 the need for them and the need to use them smartly
12 so that it's not just a regular routine weekly
13 spray.

14 But I think our comments are very
15 elaborate, and so we point consumers in that
16 direction if they're confused about what organics
17 is.

18 CHAIR CHAPMAN: Thank you, thank you
19 very much. Up next is Clarence Wagner. And then
20 it looks like we have our AV up, so we'll do
21 Clarence first, and then we'll come back to
22 Richard after that.

1 MR. WAGNER: My name is Clarence
2 Wagner, CEO of GSSI and International, and
3 consultant to CEA Fresh Farms.

4 I'm speaking in support of continuation
5 of organic certification of hydroponics,
6 aquaponics, aeroponics, and containerized organic
7 growing methods that I am labeling hydro organic,
8 which allow for the cycling of nutrients through
9 biologically diverse process and only use
10 certified organic inputs and practices.

11 In 2002, the NOP acknowledged the
12 advancements of all types of hydro organic farming
13 techniques when they redefined the USDA definition
14 of organic so it did not include the word soil and
15 it could be more broadly applicable beyond field
16 growing.

17 In 2014, they reaffirmed that
18 hydroponics and aquaponics can be continued to be
19 certified. Eliot Coleman's assertion that quote
20 there isn't any soil in hydroponic production, so
21 how it can be organic. Most people think organic
22 production is all about the soil.

1 However, the reality is, they don't.
2 A U.S. study, Organic Hydroponics and Aquaponics,
3 states that consumers associate organic with
4 chemical-free, healthy, and nutritious and
5 environmentally friendly.

6 Over time, the message of the
7 traditional definition of growing organic so as to
8 feed the soil was lost to the consumer because the
9 consumer see all produce as grown in soil.
10 Therefore, soil was not the distinguishing
11 differentiator for the public today.

12 The consumer is more interested in
13 feeding themselves with chemical-free, healthy,
14 nutritious food that is environmentally friendly
15 for them. Those are the attributes that they
16 define as organic on the label today.

17 However, like soil growers, hydroponic
18 and aquaponic farmers also feed the water, if you
19 will, with compost-used nutrient solution, and
20 water feeds the plants.

21 The net result yields the same high
22 quality, chemical-free, healthy food to deliver to

1 the public for what they want to buy as organic,
2 because it is organic. There is room for both
3 techniques in growing, in production of organic
4 food.

5 The NOP should establish a USDA organic
6 regulation for water-based organic methods that
7 clearly outlines what requirements are necessary
8 to continue to receive USDA certification, just as
9 there are for soil-based growing.

10 The only difference between organic
11 methods, inputs, and practices boil down to one:
12 what is the medium, soil or water? We both feed
13 our plants through a medium and have biodiversity,
14 while practicing all other organically grown
15 requirements.

16 Therefore, I recommend that the NOSB,
17 NOP, and USDA should establish a USDA soil organic
18 label and a USDA water organic label, each with
19 its own rules and guidelines to ensure U.S.
20 organic practices are maintained by both.

21 These guidelines would be gratefully
22 received by consumers, the USDA organic

1 certifiers, who have been asking for them, and the
2 organic hydroponic/aquaponic farmers. We need to
3 all work together in both letter and spirit of
4 OFPA and NOP regulations.

5 And it's time for us to come together
6 as one body so as to reinforce and maintain strict
7 organic standards for our various methods of
8 organic growing, and give our nation and the world
9 an abundance of the best and healthiest food
10 available. Thank you.

11 CHAIR CHAPMAN: Thank you. Any
12 questions, Harriet -- oh, Jesse.

13 MR. BUIE: What test do you use to
14 quantify the health of your media system? For an
15 example, in soil, we have the Haney Test. Do you
16 have tests like that?

17 MR. WAGNER: With the media readings in
18 the water and so on, of course we are testing
19 using organic nutrients that are, you know,
20 established and certified as organic.

21 And we can test the water for what's
22 going on within the water, both with the mineral

1 contents as well as the biology that's going on in
2 the water. This can be done very simply by
3 systematic testing, both of the input going in and
4 going out, before it's recirculated.

5 MR. BUIE: Okay, and you are able to
6 quantify the different inputs that you have, a
7 test to quantify these different inputs?

8 MR. WAGNER: Yes, there are laboratory
9 tests that are available and can be used that tell
10 you exactly what the spectrum is going on in the
11 water. Yes.

12 CHAIR CHAPMAN: Harriet, Emily.

13 MS. BEHAR: Can you explain right in
14 the growing area where you grow your hydroponic
15 crops how you promote ecological balance and
16 preserve biodiversity?

17 MR. WAGNER: The plants themselves are
18 creating their own environments within the root
19 system. That's true in water, it's true in the
20 soil. They are taking the nutrients up within the
21 solubility factor with water itself.

22 That's true in water and true in soil.

1 So the biodiversity that takes place that's going
2 on there, which can be shown and tested and
3 proven, is, it's its little environment itself
4 within the rootball of the plant.

5 The same thing is happening in soil.
6 The elements are put in, it's broken down, and
7 then it's taken up with water as a soluble into
8 the plant, so it can give the nutrition to the
9 plant.

10 CHAIR CHAPMAN: Emily.

11 MS. OAKLEY: Could you tell me, sorry,
12 about the fate of the water after it's been cycled
13 through the system and where it ends up, and the
14 testing that's done on it in terms of nutrient
15 load, and, you know, where it ends up.

16 MR. WAGNER: The water itself is
17 recirculated. And so nothing is dumped out. We
18 have nothing expelled from the system itself. So
19 the water is taken and is recirculated.

20 And after it goes off out of the
21 system, to go back into the system, it's
22 completely tested in order to know exactly what

1 the mineral levels are and what the biological
2 levels are, so that it can be re-injected with a
3 nutrient, so it can go back into the plant, in
4 order for the plant to take up what it needs.

5 CHAIR CHAPMAN: Yeah, briefly, and then
6 we'll need to move on.

7 MS. OAKLEY: I don't have a scientific
8 term for this, but basically how do you keep the
9 water from getting funky after all that recycling?

10 MR. WAGNER: It's a --

11 CHAIR CHAPMAN: Could you speak into
12 the microphone, please? Thank you.

13 MR. WAGNER: Oh, I'm sorry. The water
14 is filtered. When it goes out, it's filtered.
15 And then when the filtering takes out anything, of
16 course it's tested constantly in order to be sure
17 there's no unwanted biology going on in there.

18 Which of course you need to do in the
19 field as well. So it's filtered in order,
20 basically purified, and then it is re-inoculated
21 with the elements.

22 CHAIR CHAPMAN: Thank you very much.

1 Sue, and then we're going to have to stop, because
2 we're already 20 minutes behind schedule.

3 MS. BAIRD: Do you have a way to
4 measure in biological activity as opposed to --

5 CHAIR CHAPMAN: Sue can you please use
6 your microphone.

7 MS. BAIRD: I'm sorry, did it again.
8 Do you have a way to measure biologic activity as
9 opposed to just mineral uptake in your plants?
10 Are you doing that?

11 MR. WAGNER: There is a way to test the
12 biology. I mean, how do you test the biology in
13 the soil? You take it and you take a sample and
14 you test the biology, and you have a
15 microbiologist take a look at it. Yes, we can do
16 the exact same thing.

17 MS. BAIRD: You do that same thing.

18 MR. WAGNER: Yes.

19 MS. BAIRD: Okay, thank you.

20 MR. WAGNER: It's the same method. You
21 just take it and check the microbiology going on.

22 MS. BAIRD: Okay, thank you.

1 CHAIR CHAPMAN: Thank you, Clarence.
2 So up next, I have Richard Wallick, and on deck is
3 Katharina Schlegel. Richard, if you'd start with
4 your name and affiliation for the record.

5 MR. WALLICK: My name is Rich Wallick,
6 and I am simply a consumer of what is supposed to
7 be organic.

8 Federal statute and regulation are
9 quite clear. Both intentionally differentiate
10 between fertilizers farmers make and commercial
11 fertilizers that are purchased.

12 For ten years, big organic ag in
13 California was using urea on tens of thousands of
14 acres. According to CCOF, the users include
15 Earthbound Farms, Driscolls, and Grimway Farms.
16 In 2007, NOP staff wanted to take action, yet the
17 CDFA and the CCOF, with NOP's blessing, simply
18 ignored the gross violations.

19 CCOF was aware of the questionable
20 nature of these fertilizers, by its own admission.
21 CCOF claims the right to certify regardless of the
22 use of prohibited substances. This is what

1 happens to small farmers when honest mistakes are
2 made.

3 How does one ask for better flow
4 characteristics and increased nitrogen and be
5 unaware that the wishes are granted? CCOF on what
6 to do when prohibited substance are proven to be
7 used, Miles McEvoy on produce grown with
8 prohibited urea.

9 NOP wanted to disallow the crops to be
10 marketed as USDA organic. Today, we have no way
11 to ascertain whether the certified products meet
12 USDA organic regulations as NOP has, and possibly
13 still does, allow the CCOF to accept
14 determinations by an opaque OMRI.

15 OMRI has absolutely no oversight. OMRI
16 refused permission for NOP to accompany an ISO
17 audit.

18 The NOSB recommended that MROs be
19 accredited or authorized entities and that
20 material decisions only be made by NOP-authorized
21 entities. Unless NOP was requesting a change to
22 OFPA, this means that MROs must be NOP's

1 accredited certifiers.

2 OMRI uses its own advisory board to
3 circumvent USDA organic regulations, resulting in
4 their allowing chemical fertilizers containing
5 prohibited substances, including toxic metals.

6 How does one import commercial fertilizers
7 containing toxic metals without contaminating the
8 soil?

9 NOP 3012 implied that certifiers cannot
10 accept a determination by an MRO that is not an
11 accredited certifier, though it muddies the water
12 by implying that, quote, if their manufacturer may
13 submit their products for review to more than one
14 certifying agent or MRO.

15 From the CCOF form, compost and manure,
16 it appeared the CCOF is currently accepting OMRI
17 determinations. That should read what CCOF
18 accepts, rather than what OMI requests. I did it
19 in three minutes.

20 CHAIR CHAPMAN: Thank you, any
21 questions?

22 MR. WALLICK: Any questions?

1 CHAIR CHAPMAN: Harriet.

2 MS. BEHAR: It's more of a comment that
3 we are working on contaminated inputs on the NOSB,
4 to try to give some guidance to. Because there is
5 consistent inconsistency, and some issues here and
6 there, that this is a complex subject. And so we
7 are taking --

8 MR. WALLICK: This is not a complex
9 subject. This is a question of the law, and the
10 law clearly differentiates where it provides for
11 a zero tolerance on commercial fertilizers.
12 Fertilizers that firms are making on the land have
13 a different set of requirements.

14 This was done intentionally so that
15 there would be no importation of outside
16 prohibited materials to pervert the soil and
17 contaminate the soil. Oh, this is about soil.

18 CHAIR CHAPMAN: Thank you, Richard.
19 Any other questions? Thank you very much. Up
20 next we have Katharina, and on deck is Margaret
21 Scoles. Katharina, can you start with your name
22 and affiliation for the record.

1 MS. SCHLEGEL: So Katharina Schlegel
2 from BASF. Good morning, and we're waiting for a
3 slide. Yeah, good morning, thank you very much
4 for giving me the chance today to talk to you.
5 I'm a microbiologist working on biodegradable
6 polymers in soil at BASF, a producer of
7 biodegradable polymers.

8 I heard that there was a lot of
9 discussion on biodegradable mulch film. And
10 that's why I would like to take the chance and
11 talk to you today about the scientific background
12 of biodegradation of biodegradable polymers.

13 I would like to start with this highly
14 discussed topic of biobased and biodegradable
15 materials. As you can see, there are materials
16 that are biobased and that are, and you have
17 materials that are biodegradable. So it's just
18 the carbon that's deciding if you have something
19 that's biobased or fossil-based.

20 For example, there are materials like
21 the so-called bi-polyethylene, which is completely
22 biobased, but it's absolutely non-degradable. And

1 there are materials which are called
2 biodegradable, but they are fossil-based, so their
3 carbon is coming from a fossil source. But these
4 materials are completely biodegradable, degrading
5 into CO2 and biomass.

6 And of course, there are materials that
7 are in the middle, biodegradable and biobased.
8 All these materials have different properties, and
9 as they do have different properties, you cannot
10 make a mulch film out of all of them.

11 And therefore we have a product on
12 market which consists of a mixture of different
13 polymers which are all completely biodegradable.
14 But some of them are biobased and some are not.
15 And this mixture is needed to have a functional
16 mulch film which is working in the field.

17 So why is it that some materials are
18 biodegradable, others are not? I want to give you
19 a little insight on the biodegradation process,
20 and I know it's a complex topic. I just want to
21 highlight the most important parts. So how does
22 it work if you have a biodegradable coming into

1 the soil?

2 You have the polymer, and the polymer
3 is cut down into small pieces. And these small
4 pieces are then taken up for organisms and
5 degrading to CO2 and biomass.

6 So what is important is organisms do
7 not differentiate between the material that you're
8 having. They do not care if it's fossil-based or
9 biobased. They simply care if they do have
10 enzymes that are able to cut down the polymer into
11 pieces.

12 What you can measure and what comes out
13 is CO2, water, and biomass. Biomass is like the
14 organic material of organisms inside the soil.
15 Unfortunately, only CO2 can be measured.
16 Therefore, we always talk in our standards about
17 the 90% conversion to CO2, simply because we
18 cannot measure biomass.

19 This does not mean that there are any
20 residues left. And we did a lot of
21 ecotoxicological testing. We never found any
22 negative effect on plants, animals, or bacteria.

1 CHAIR CHAPMAN: Thank you. Any
2 questions? Harriet, Steve, Asa, Lisa.

3 MS. BEHAR: Good morning. We talked
4 yesterday, and I am not a scientist, but I think
5 I understand something. I just want you to verify
6 it, and maybe I'll try to clarify things a little
7 bit for the rest of the board too, if what I am
8 understanding is correct.

9 Is that the source of it is petroleum,
10 but in the laboratory, you fractionate that
11 petroleum and produce a molecule that is something
12 that microbes can recognize as food in the soil.

13 MS. SCHLEGEL: Yes.

14 MS. BEHAR: So this is correct, okay.

15 MS. SCHLEGEL: Yes.

16 MS. BEHAR: So actually, the point that
17 you're trying to make here, that it's the
18 biodegradability that we should be looking at on
19 this mulch, and that the amount of the biobased is
20 actually not important. That actually even some
21 things that are biobased are not as biodegradable
22 as the product that you are trying to sell.

1 So I think that part of the issue for
2 the board to think about is how they feel about a
3 material whose mother source is petroleum, how
4 they feel about that biodegrading in the soil. So
5 that's where I think we need to be thinking.

6 I like that Dave is shaking his head,
7 because he's a weed guy. And so I think that
8 maybe that's going to help us understand a little
9 bit where some of our questions are. And so
10 that's what I'm now struggling with.

11 MS. SCHLEGEL: Should I comment? Yes,
12 I totally agree to you. So what is important for
13 these products is that in the end, the natural
14 microorganisms in the soil can degrade it. So it
15 must be make sure that these organisms cut it
16 down, that no other factors do it, but only the
17 soil biology can do it.

18 And that soil organisms take it up and
19 then convert it to CO2 and biomass. This is an
20 important point, that you do not harm the
21 organisms present in the soil, that they are
22 actively taking part, you actually feed them. And

1 that you do not have any ecotoxicological issues
2 for them during the degradation process.

3 So there are some guidelines on the
4 standards, and also which you had for the last
5 time, and they really make sure that you test on
6 these factors and the source of the material. So
7 if something is originally fossil-based, like you
8 said, it's completely converted into some small
9 pieces.

10 Chemically and biologically, it has
11 nothing to do with the petroleum anymore, it's
12 just where the carbon comes from. It needs to be
13 broken down and then used in fractions that
14 organisms can use. And this is the important
15 point.

16 CHAIR CHAPMAN: Thank you. Steve.

17 MR. ELA: So one of the concerns we had
18 in looking at our technical reports and things is
19 that in different soils and different climatic
20 conditions, which, of course, all organic farms
21 represent a huge spectrum of, is whether in some
22 cases, whether these actually aren't breaking down

1 in some situations.

2 So how could you guarantee to us that
3 there's going to be 100% breakdown into that
4 carbon dioxide and biomass in all organic
5 situations? Because I think that's a, we don't
6 want petroleum products and plastic pieces out in
7 our fields.

8 And so we need to make extra sure that
9 that is a complete breakdown in all environments.
10 Could you comment on that?

11 MS. SCHLEGEL: Of course. I mean, it's
12 a biological process, it's biodegradation. It's
13 completely natural process. And we all know that
14 the conditions out there in the world are
15 different in different places.

16 Biodegradable polymers is a technology
17 like any other technology, and of course there is
18 important that the farmers test this technology
19 for their fields. I mean, if you would have a
20 biodegradable polymer in a desert, for example, I
21 think it will take longer than if you have it in
22 an agricultural field.

1 I can never like for any technology
2 give a 100% guarantee on something. I tested in
3 my lab round about 20 different soils and isolated
4 polymer-degrading organisms in a field culture and
5 looked down for polymer degradation. Every soil
6 I tested so far was active.

7 So every soil had degrading organisms.
8 But of course, I cannot give 100% guarantee, like
9 for any other technology.

10 CHAIR CHAPMAN: Thank you. Lisa then
11 Asa.

12 MS. De LIMA: That kind of addressed
13 the same question I was going to ask about the
14 studies, that you saw no negative effects. But
15 how long did you test for, and like how much was
16 the load that you were using? Did you feel like
17 that really was going to truly mimic an organic
18 farm?

19 MS. SCHLEGEL: So we calculated that
20 the load that we would expect would be 0.06% in
21 the soil. We usually take 1.0% inside our
22 testing. Because we wanted to make sure that it's

1 not accumulation of anything. So if you're having
2 a one-year test, for example, we really for our
3 testing increased the concentration to see a worst
4 case.

5 But we are way higher, like 160-fold
6 higher than anything we would expect in nature.
7 And something I forgot to add for the first
8 question, so these products have been used for 15
9 years, and so far we never had a negative
10 feedback. We never had any residue formation or
11 anything that was accounted on.

12 I think it's important to keep on
13 research on that, because we did not sample the
14 whole world. I mean, it's not possible. So what
15 we are doing, we're going out there, we do
16 sampling, we do lab tests with increased
17 concentrations.

18 We make ecotox tests with partially
19 degraded films to see if anything during the
20 degradation process is happening. And yeah, we
21 did not see negative effects.

22 CHAIR CHAPMAN: Thank you, I'm going to

1 stop you there. Asa, do you have a question?

2 MR. BRADMAN: I have a couple of
3 questions. One, how do you do the degradation
4 tests, and what do you test for? And you
5 mentioned that the outcome is CO₂, H₂O, and
6 biomass. Can you be more specific on what that
7 biomass is?

8 MS. SCHLEGEL: That biomass is
9 something that we are also currently doing
10 research on, together also with external partners.
11 We see that the organisms take up the food that we
12 offer them as a polymer. So they take up the
13 carbon.

14 We do that with the ¹³C stable carbon
15 labeled tracer, and we see they take it up and
16 they grow. So they have it inside the cell walls,
17 they have it inside their DNA. This is the
18 biomass, so they multiply on it, they grow on it.
19 And this is what we call biomass.

20 MR. BRADMAN: Okay, and within that
21 biomass, are there any other degradation products
22 that you're aware of?

1 MS. SCHLEGEL: We never found any. So
2 we only found so far like natural occurring amino
3 acids, proteins, fats, this kind of thing.

4 MR. BRADMAN: And when you do these
5 tests, are you doing them on fields and collecting
6 soil samples? Or are you using small chambers or
7 greenhouses, or other more controlled
8 environments?

9 MS. SCHLEGEL: We have different kind
10 of tests. For the CO2 measurement that we are
11 doing, for the mineralization, to follow that up,
12 we have to do lab tests, because we cannot do that
13 in the field. It's simply not possible. So if we
14 test mineralization or label carbon experiments,
15 we do that inside a lab.

16 But we also have field experiments
17 where we follow up how it's degrading. We talk to
18 customers and see that we can sample soils from
19 the fields. So it's a mixture depending on the
20 question, because we cannot, yeah, give answers to
21 all questions just using one test system.

22 MR. BRADMAN: Sure, but if you collect

1 samples from the field, for example, if it's been
2 disked in or something, you may be diluting any
3 materials through kind of a large volume of soil
4 in the upper layers. So have you done any
5 laboratory tests, chamber tests where you've tried
6 to degrade it?

7 MS. SCHLEGEL: Yes, lots of them.

8 MR. BRADMAN: And then analyze the
9 soil, say in a smaller volume from a laboratory
10 chamber?

11 MS. SCHLEGEL: Yeah, we do that as
12 well. I hope that within the next two months, we
13 can publish the method how we do that.

14 We developed together with the ETH
15 Zurich extraction method, so everybody can use
16 that method as well, how to optimize extraction
17 from soils to see if we have residues. So what's
18 happening between and all of that.

19 MR. BRADMAN: Okay, two last questions,
20 and then I'll stop. What percentage of the
21 material is petroleum-based versus bio-based? And
22 is it possible to make 100% bio-based film that

1 would also be fully biodegradable?

2 MS. SCHLEGEL: For biodegradable mulch,
3 it depends on what kind of product you have in the
4 biobased content. Because you have different
5 properties from the different polymers we used in
6 that mixture.

7 And therefore, you can have like
8 something between 10-20% of biobased. But there
9 are different products on the market on that, and
10 they have different properties.

11 What was the second part again? Would
12 it be possible? So in my opinion, it would be
13 very, very difficult. Like I said, all these
14 polymers that we have as biodegradable versions
15 have different properties.

16 So if you want to make a film out of
17 it, if you have like a biobased pile, it's a very
18 tough and strong and rough material. So making a
19 film that's elastic that you can lay it on the
20 ground would be very, very difficult. So
21 therefore, we have this mixture to have it more
22 elastic.

1 And this is the problem with having
2 100% biobased. I don't think you can make a
3 material that's cost-effective and working on the
4 field.

5 CHAIR CHAPMAN: Thank you very much.
6 We're going to have to move on now, but appreciate
7 your testimony. We don't have time, I'm sorry.

8 MS. SCHLEGEL: I'll be here all day,
9 and we can also offer, if we want to have like a
10 joint webinar for everybody --

11 CHAIR CHAPMAN: Thank you very much.

12 MS. SCHLEGEL: It's possible.

13 CHAIR CHAPMAN: So up next, we have
14 Margaret Scoles, followed by Melody Meyer.
15 Melody's on deck. Margaret, can you start with
16 your name and affiliation for the record.

17 MS. SCOLES: Margaret Scoles, the
18 International Organic Inspectors Association.
19 Thank you to the board for your good work,
20 especially for tackling some of the difficult
21 issues at the heart of organic, such as seed
22 purity and disincentivizing the conversion of

1 native ecosystems to organic. And thank you for
2 listening to our many comments.

3 I will comment on the CAC
4 Subcommittee's proposal on personal performance
5 evaluation of inspectors. IOIA delivers training
6 around the world to inspectors and others, and we
7 support inspectors. We do that by working closely
8 with certifiers.

9 Certifiers have supported IOIA's
10 training programs for more than 20 years, and more
11 recently, our peer field evaluation program.
12 We've commented in writing, I will not repeat
13 those here. We did ask that you reconsider your
14 differentiation of certifier staff versus contract
15 evaluators.

16 The most important criterion for
17 evaluators is not whether they're employees or
18 contractors. More important is that they must be
19 trained and experienced as inspectors. If the
20 surgeon operating on me is being evaluated, I
21 would hope that they would be evaluated by another
22 experienced surgeon.

1 We have and will continue to support a
2 risk-based approach to evaluating inspectors that
3 could include credentialing through IOIA's
4 inspector accreditation program, as was suggested
5 by the NOSB in 2011. The most recent, third
6 version of NOP 2027 sufficiently addressed the
7 major concerns voiced by certifiers, as well as by
8 this proposal.

9 I doubt anyone here believes that
10 anything we say is likely to engender yet a fourth
11 version. I want to say two things for the board
12 and the NOP to consider. We've diverted a lot of
13 energy over the past few years resisting
14 evaluations and implementing systems to get them
15 done. It's time to refocus on consistent
16 inspector qualifications and training.

17 So my two things, one, it has not been
18 said enough how good 2027 has been for all of us.
19 Field evaluations have provided valuable
20 information that has informed both the certifiers'
21 in-house training programs and IOIA's training
22 program. Good for NOP for not backing off on the

1 requirement for field evaluation.

2 And second, over the past few days here
3 it's been challenging to stay positive in the face
4 of so much uncertainty. IOIA's request is that we
5 look at what we can do about inspection quality
6 without rule changes or revising the program
7 handbook. We just want your encouragement.

8 The NOSB to encourage the NOP, and the
9 NOP to work with the organic community. That
10 includes ACA, and IOIA, and the NOP, to move
11 forward on raising the bar for inspections and
12 inspector quality and achieving greater
13 consistency.

14 I have no desire to see us follow
15 Germany, where the government approves every
16 inspector for every certifier. The NOP contracted
17 --

18 CHAIR CHAPMAN: Thank you very much.
19 Questions for Margaret? Scott.

20 MR. RICE: Thanks, Margaret. I wanted
21 to clarify part of that proposal that we put
22 forward that, I think there was some confusion on

1 the language around who was evaluating whom. And
2 I think the intent, and obviously it wasn't clear
3 enough, was that there be a distinction between an
4 evaluation and an audit.

5 And we did not want to see peers put
6 into a position of evaluating their fellow peer,
7 and instead have that role be done by the
8 certifier, who is the employer or director of
9 work. So we're trying to, it's a little bit
10 nuanced and we were trying to make that
11 distinction.

12 It wasn't a slight or a thinking less
13 of the inspector-on-inspector audit process. I
14 think there is definitely a place for that. But
15 I wanted to try and clarify that a little bit.

16 MS. SCOLES: Can I respond to that?

17 CHAIR CHAPMAN: Yeah.

18 MS. SCOLES: Yes, it was unclear. And
19 we all, we completely agree that evaluation of
20 inspectors is the responsibility of the certifier.
21 And the field evaluation part is just one part of
22 that. And that's why in our program, we clearly

1 are not evaluating inspectors. We're doing that
2 part, the field evaluation part. Thank you.

3 MR. RICE: Yeah, and one other --

4 CHAIR CHAPMAN: Briefly.

5 MR. RICE: I agree that, I think we'll
6 be shifting the focus to really focus on the
7 inspector qualification and training. And I think
8 it's good to move on from the every year, every
9 inspector issue that we have had. Thanks.

10 CHAIR CHAPMAN: Harriet.

11 MS. BEHAR: Hi, Margaret. In my
12 experience, I became a much better inspector after
13 I also was a reviewer.

14 And I'm wondering, in your inspector
15 trainings, as you're working to improvement, if
16 you're looking at including a module on putting
17 the inspectors on the other side so they really
18 understand what needs to be read by a reviewer, so
19 their reports and their inspection really cover
20 what's necessary.

21 MS. SCOLLES: I totally agree, and I
22 think I became a lot better inspector after I was

1 a reviewer as well. And we are talking with the
2 ACA about how to better train inspectors and how
3 to train reviewers both.

4 And one of the things that I didn't get
5 to say is that in 2011, the NOP contracted with
6 IOIA to propose qualifications and training
7 content, and the concept of operations for
8 training and licensing both inspectors and
9 reviewers. And we feel like the whole reviewer
10 part has been languishing and not addressed well
11 enough. Thank you.

12 CHAIR CHAPMAN: Thank you very much,
13 Margaret. Up next, we have Melody Meyer, followed
14 by Ulrike Hodges from SafeTraces. Sorry if I
15 butchered your name. Melody, if you can start
16 with your name and affiliation for the record.

17 MS. MEYER: Yes, thank you. I'm Melody
18 Meyer, VP of Policy at UNFI, and also the
19 executive director of the UNFI Foundation. UNFI
20 has 40 years' experience distributing organic
21 food. We're the largest distributor of organic
22 food in North America. We care deeply about

1 organic.

2 I want to welcome the new members and
3 ask you to take your time and consider all the
4 views as you learn about these important issues.
5 And I really want to thank the whole board for
6 your extensive work, tireless hours, and
7 commitment.

8 As Tom mentioned yesterday, we all care
9 deeply about organic. That's why we're all here.
10 The deliberations of this committee represent
11 everyone who cares: growers, handlers,
12 manufacturers, and consumers. All actors are
13 integral to your discussions.

14 I heard testimony yesterday on the
15 values of organic, the movement that birthed this
16 amazing industry. Those values, the movement, is
17 also represented through the trade. It is not a
18 separate philosophical entity. Indeed, the trade
19 makes the movement possible.

20 It's the dollars and cents, the
21 economic growth that organic represents for
22 producers, manufacturers, and retailers. For

1 consumers, it's the option to have an informed
2 choice through the USDA label. Expanding and
3 preserving that choice helps consumers avoid
4 persistent pesticide exposure.

5 Limiting organic because of ideologies
6 does not serve anyone, not even the self-
7 proclaimed movement. With that, I ask, Is the
8 outermost crust of the earth the only place
9 organic production can make a difference?

10 Organic regulations must continue to
11 allow growers the flexibility to meet their site-
12 specific requirements. To face our challenges,
13 those ever-evolving challenges in farming, and
14 with respect to the limited resources with water,
15 land, labor, and natural resources, these are more
16 severe than ever.

17 You must fairly evaluate how container-
18 growing methods can help meet the challenges of
19 sustainability, while fulfilling the legitimate
20 and original intent of your organic movement to
21 use biology to cycle natural inputs while avoiding
22 prohibited substances.

1 These methods present a sustainable way
2 to produce food, especially in urban areas, or
3 where access to land and water is a barrier.
4 Feeding more people and future generations with
5 organic food must be our goal.

6 In addition, organic farmers deserve
7 the choice of using biodegradable mulch film.
8 Please do not hesitate to make those choices to
9 make this tool available as soon as possible.

10 In conclusion, I urge the NOSB to adopt
11 balance and moderation, aiming for continuous
12 improvement in the production of the world's gold
13 standard for producing food and fiber. The
14 benefits and challenges of organic production must
15 be weighed as we grow U.S. organic agriculture.

16 Let's be accessible to creativity.
17 Let's not reject progress for attaining
18 perfection. We need to allow for the most
19 progressive and positive tools for organic
20 farmers. We must grow organic to be more than two
21 percent of U.S. organic agriculture. Thank you.

22 CHAIR CHAPMAN: Thank you. Any

1 questions for Melody?

2 MS. MEYER: And I submitted detailed
3 comments on a lot of things earlier, so you have
4 that in writing.

5 CHAIR CHAPMAN: Thank you very much for
6 your testimony.

7 MS. MEYER: Thank you.

8 CHAIR CHAPMAN: Up next, we have
9 Ulrike, sorry again. You'll have a chance in a
10 moment to correct the name. And then up on deck
11 is Marianne Cufone. If you can start with your
12 name and affiliation for the record.

13 MS. HODGES: My name is Ulrike Hodges,
14 I'm from SafeTraces. Coming. Thank you very much
15 for giving me the opportunity to address you this
16 morning. I would like to present our comments on
17 your recommendation on short tracers, Short DNA
18 Tracers. I'll wait a second.

19 There we go. Short DNA Tracers are
20 what we're petition for to be included.
21 SafeTraces, our company, is developing food source
22 assurance solutions. For source verification and

1 traceability, and also for adulteration detection.

2 Our company was founded on the belief
3 that food safety must be improved for organic and
4 conventional foods. We are faced with increasing
5 recalls that undermine the integrity of food
6 labels and threaten the livelihood of farmers.

7 Regulators and consumers are asking for
8 more transparency. And in response, our company
9 uses molecular biology to ensure the integrity of
10 organic food labels, and to help make organic
11 foods safer.

12 This is also a very personal issue for
13 me. I've been lucky to live 25 years in Berkeley,
14 California and enjoy local and organic food. But
15 I do worry about the safety of the food chain and
16 the supply, and the integrity of the labels going
17 forward.

18 What are Short DNA Tracers? They are
19 safe, edible, invisible, flavorless, DNA-based
20 markers. They provide item-level assurance for
21 source verification, purity, authenticity. They
22 are applied to food in parts per billion. That's

1 about a drop per Olympic-sized swimming pool.

2 They're recognized by the FDA as grass.
3 They are non-viable, non-living. It's about 100
4 base pair of DNA from any living thing that can be
5 used to produce this marker. There is absolutely
6 no modification of genetic material for use in the
7 organic foods, and there's no insertion into the
8 food's genome.

9 Tracing food back to its source is
10 time-critical. Existing methods are insufficient,
11 they lack completeness in many cases. Between
12 1992 and 2014, for example, there were 18
13 outbreaks caused by organic food products. The
14 organic sprout contamination in Germany many years
15 ago caused 53 deaths and cost the EU organic food
16 industry over \$2.8 billion.

17 Short DNA Tracers enable us to identify
18 the source of contaminated food in just a few
19 minutes. It's a fast, safe, accurate, cost-
20 effective method that protects consumers and
21 growers. Tracing food back to its source helps
22 prevent fraud.

1 There's increased globalization that
2 threatens the integrity of the food supply. The
3 EU deems some country high risk, the USDA cited
4 the Istanbul port. The NOP receives hundreds of
5 complaints annually. Again, Short DNA Tracers are
6 able to protect consumers and growers and conserve
7 regulatory resources.

8 We urge you to consider that integrity
9 is essential to the organic food industry. We
10 appreciate the opportunity to address you today.
11 The growing challenges that we face with regard to
12 the organic food safety, we have the facts
13 relating and the benefits, so please give us some
14 time and postpone your decision. Thank you.

15 CHAIR CHAPMAN: Thank you.

16 MS. HODGES: Any questions?

17 CHAIR CHAPMAN: Questions? Lisa and
18 then Harriet and then Dan.

19 MS. De LIMA: This is more of a
20 comment, and if you have anything in response.
21 Under our current definition of modern biotech, we
22 define it as the application of in vitro nucleic

1 acid technologies.

2 And so it's my understanding that you
3 guys use PCR to create the large number of the
4 copies of the DNA. And that would fall within our
5 definition of an excluded method.

6 MS. HODGES: Right, and that's where
7 the discussion can continue, I think. I am not
8 the scientist, I'm not the biologist. But the
9 only thing we do is we amplify, and the reason we
10 amplify is that we want to use just a few base
11 pair.

12 Because economically, using more base
13 pair would not make any sense. So it's about the
14 amplification, it's not about multiplication or
15 insertion into the food's genome. So, but we do
16 use the PCR method for that process, that is
17 correct.

18 MS. De LIMA: Right, and that would
19 fall within our excluded method terms.

20 MS. HODGES: And that's where we would
21 like to present more evidence on why we consider
22 this should be included.

1 CHAIR CHAPMAN: Up next, Harriet and
2 then Dan.

3 MS. BEHAR: How does the end user
4 verify, you know, that this is present in the
5 product if you're, you know, as a tracer?

6 MS. HODGES: It is not something where
7 in the near future you're going to wave your phone
8 over it and see where it's from. This is not what
9 we set out to do. We set out to provide a very
10 fast verification method in case there is any
11 question about the integrity.

12 So this is for any large retailer, it's
13 for a processor, it's for a regulator. The
14 process takes about 15 minutes, and it's a swab of
15 the food, in most cases. And it uses off-the-
16 shelf equipment, so it's not like a big,
17 complicated process that requires any skills.

18 CHAIR CHAPMAN: So I have Dan, then
19 Sue, and we're going to stop it there for the sake
20 of time. Dan.

21 DR. SEITZ: It seems to me that if you
22 were to use this to detect fraud in terms of

1 imported grain or whatever, that you'd have to
2 require every producer to use your technology.
3 Otherwise, you'd have some using other, the paper-
4 based approach and others using that. Is that, I
5 mean, is that a correct assumption, that if you
6 were to use it for that --

7 MS. HODGES: It is a correct
8 assumption. You don't have to go all the way back
9 to the producer or the grower even. You can
10 decide at some point during the food chain you
11 want to assign the chain of custody. So you can
12 say upon import, you verify the paperwork, you
13 say, It's fine from here on out. It gets applied.

14 Or you work with your foreign partners
15 and want to assure that your vanilla bean is
16 really from Madagascar and your organic oil is
17 really from Italy.

18 CHAIR CHAPMAN: Sue.

19 MS. BAIRD: Thank you. You did answer
20 a little bit. So this is not something that
21 they're going to insert the DNA splicing tracer
22 into the food that is then going to be consumed.

1 This is a test that you're planning on
2 being used by a retailer or a grain elevator or
3 something at that level, just for a test to be
4 sampled. Or am I misunderstanding?

5 MS. HODGES: The tracer is applied to
6 the food.

7 MS. BAIRD: So it does remain in the
8 food.

9 MS. HODGES: Yes, it does remain in the
10 food. It gets removed from the food the same way
11 that if you wash an apple, if it's applied to the
12 wax, the wax comes off. If you cook your food,
13 after a while, of course, because it's a fraction
14 of DNA, it'll disappear.

15 But it is DNA. I mean, it is
16 comparatively so little DNA. You have much more
17 in your food just by --

18 MS. BAIRD: Right, but this would be
19 applied to a sample for a testing. It's not
20 applied to the whole food chain.

21 MS. HODGES: It is applied to all the
22 food, yes.

1 MS. BAIRD: Oh, it is all food. Thank
2 you.

3 CHAIR CHAPMAN: Thank you very much for
4 your testimony.

5 MS. HODGES: Sure, thanks very much.

6 CHAIR CHAPMAN: Up next, I have
7 Alexander Bollag and on deck is Alexis Randolph.
8 Alexander, if you could start with your name and
9 affiliation for the record.

10 MR. BOLLAG: Good morning. Yes, I'm
11 obviously not Marianne Cufone. My name is
12 Alexander Bollag, I'm with the Recirculating Farms
13 Coalition, representing them on USDA organic
14 certification of hydroponic and aquaponic farms.

15 Currently, hydroponic and aquaponic
16 farms are certified as USDA organic, and they
17 should remain so. These farms, like in-ground and
18 raised bed growing, can meet organic standards.
19 We, too, feed the soil, not the plants, by adding
20 amendments. Soil is about the biology of the
21 system creating nutrients for the plants.

22 The main difference in these versus

1 traditional in-ground or raised bed farms is the
2 medium holding the plants. Some have dirt and
3 others rocks or other media. Hydroponic and
4 aquaponic farms, depending on the design, are
5 essentially container growing.

6 Our executive director, Marianne
7 Cufone, was on the NOP's Hydroponic and Aquaponics
8 Task Force. The discussions were contentious
9 during these meetings. She believes there was a
10 lot of misinformation about how hydroponic and
11 aquaponic farms function.

12 And we're worried that this could
13 result in the NOSB making a bad recommendation for
14 hydroponic and aquaponic farms that meet organic
15 standards to lose the USDA organic label. That
16 would send a terrible message to both farmers and
17 consumers.

18 USDA regularly says it wants to
19 encourage new farmers and engage more young people
20 in growing. Hydroponics and aquaponics do both.
21 Though these techniques are centuries old, like
22 the hanging gardens of Babylon and Chiapas in

1 Mexico, there are new twists making them exciting
2 and innovative.

3 We should be encouraging farmers to use
4 resource-smart techniques and invest the time and
5 money it takes to be USDA organic, not discourage
6 them by taking away the possibility of
7 certification. For consumers, seeing products
8 once labeled USDA organic but no longer carrying
9 the label means they were duped, that the farms
10 and products they bought shouldn't have the USDA
11 organic label.

12 This is a dangerous precedent. It
13 risks the entire integrity of the organic label.
14 These products have not changed. It's just that
15 politics are shifting, and that's not a good
16 reason to pull organic certification from
17 deserving products and farms.

18 The concept of organic is both about
19 known inputs and consistent outputs. And we agree
20 it is about not harming but improving our
21 environment. Years ago, this was primarily about
22 soil, meaning earth. But today it should be more.

1 Many hydroponic and aquaponic farms
2 improve our environment, by using less water, less
3 space, running on alternate energy, recycling and
4 reusing waste, and being located right in the
5 communities where food is used, thus cutting down
6 on fossil fuels for shipping and refrigeration.
7 All of this contributes to a healthier planet.

8 Nowhere in any law or regulation does
9 it explicitly say organics require soil. It says
10 that organics should improve or not harm soil.
11 Certainly, hydroponic and aquaponic farms easily
12 fit this.

13 Hydroponics and aquaponics as styles of
14 commercial growing weren't contemplated when the
15 law for organics was written. But that doesn't
16 mean they should be excluded now based on an
17 outdated rather than an inclusive interpretation
18 of the law.

19 We urge you to take the time to learn
20 more about these growing methods before excluding
21 them all from USDA organic certification.

22 A separate but supposedly equal type

1 label isn't a good approach. There is only one
2 USDA organic. Labeling products as anything else
3 is a waste of time and resources. USDA organic is
4 an important label to consumers. And hydroponic
5 and aquaponic farmers want to be a part of that,
6 not some separate, lesser label as a consolation
7 for losing USDA organic certification.

8 It's unlikely that hydroponic and
9 aquaponic farms will spend time and money on an
10 alternate certification, and they shouldn't have
11 to. Hydroponic and aquaponic farms, if they meet
12 USDA organic standards, should remain eligible for
13 USDA organic certification.

14 Thank you for your time, I'd be happy
15 to take any questions or comments back to
16 Marianne.

17 CHAIR CHAPMAN: Questions? Harriet.

18 MS. BEHAR: Based on the feeling, I
19 believe that you're saying is that hydroponic is,
20 you know, very sustainable. Do you see a time
21 when most, or do you believe that most organic
22 produce should be grown hydroponically for its

1 sustainable nature?

2 MR. BOLLAG: So I think I'll let
3 Marianne answer that officially on behalf on of
4 the organization. But I don't think that that's
5 our, I mean, there's an opportunity for a lot of
6 different methods of growing. I think this is
7 just one more method of growing that should be
8 encouraged.

9 CHAIR CHAPMAN: Thank you very much.
10 Up next is Alexis Randolph, followed by Bill Wolf.
11 Alexis, if you start with your name and
12 affiliation for the record.

13 MS. RANDOLPH: Yes, good morning, my
14 name is Alexis Randolph. I'm from Quality
15 Assurance International. We're an organic
16 certification agency.

17 QAI appreciates the research conducted
18 by the Crops and Handling Subcommittee regarding
19 marine algae-derived materials. However, by
20 annotating all materials with the Latin binomials,
21 the expectation would be for certified operators
22 to obtain information on the species sourced to

1 produce each material.

2 In many cases, this would be a
3 substantial amount of additional work, since the
4 harvested material is several steps back in the
5 supply chain. I've reviewed specification sheets
6 QAI has on file for several of these materials,
7 and most do not specify the class or species of
8 the marine algae.

9 It would be preferential to annotate
10 the algae materials only if the NOSB has found a
11 reason to restrict or exclude species from use.

12 Regarding tocopherols, the update to
13 annotation removing the rosemary oil reference and
14 requiring they are derived from plant oil is
15 supported, as it will not have any adverse impact
16 on products QAI has previously approved.

17 We also appreciate the motivation for
18 adding commercial availability requirements to
19 tocopherols and other materials on 205.605. When
20 this is done, however, it increases the workload
21 and paperwork for certified operators.

22 This is particularly troublesome when

1 it's already known that an organic alternative is
2 not yet commercially available. In lieu of taking
3 this approach one material at a time, I'd like to
4 challenge the NOSB and the USDA to create another
5 mechanism for incentivizing development of non-
6 synthetic and organic alternatives.

7 Perhaps this could be done through
8 outreach, research programs, or grants. Organic
9 operators are already burdened by enormous amounts
10 of additional work and documentation. Let's find
11 another way to force the development of
12 alternative materials.

13 And this relates to the concept of
14 continuous improvement, which is a foundational
15 value of the organic industry. It is relevant to
16 the organic seed proposal, native ecosystem
17 discussion, and many other areas of the
18 regulation.

19 Again, instead of tackling this issue
20 one section of the regulation at a time, there is
21 an often overlooked section, 205.200 which may be
22 useful.

1 It says, Production practices must
2 maintain or improve the natural resources of the
3 operation, including soil and water quality. To
4 codify the industry values of continuous
5 improvement, the NOSB could propose a rule change
6 for 205.200 that removes the word maintain and
7 expands the intent for improvement to all areas of
8 the organic system plan.

9 And finally, I need to clarify our
10 webinar comment regarding sodium phosphate. It
11 was listed for use in non-milk products,
12 parentheses fortification. Sodium phosphate is
13 not used for fortification. It was meant to be
14 listed as non-milk products fortified. Thank you.

15 CHAIR CHAPMAN: Thank you. Questions
16 for Alexis. Francis.

17 DR. THICKE: Thank you. Can you tell
18 us how many hydroponic operations QAI certifies?

19 MS. RANDOLPH: I actually can't tell
20 you off the top of my head. I know that we do
21 certify some.

22 DR. THICKE: Can you give us any

1 ballpark?

2 MS. RANDOLPH: Five maybe.

3 CHAIR CHAPMAN: Steve.

4 MR. ELA: I'm just curious, with the
5 marine algae listing, I obviously hear your
6 comments about, you know, trying to break things
7 down. But if we have concerns about the
8 sustainability of wild harvesting of these kelps
9 and things, how would you propose we deal with
10 that?

11 MS. RANDOLPH: Well, I think we've done
12 an excellent amount of research. And you know, I
13 do support annotating materials on the national
14 list if you have concerns, if you want to prohibit
15 a species from use.

16 But, you know, certifiers go back to
17 the technical reviews, we go back to all of your
18 comments and your deliberations when you put out
19 these proposals for the meeting, and we look for
20 these issues as you've identified. So that when
21 we're reviewing a material, we want to make sure
22 that we're reviewing it for the same use and from

1 the same perspective as you have also reviewed the
2 material.

3 So again, if you have those concerns,
4 I'd go ahead and leave them noted in your -- well,
5 if you're concerned, annotate them. But if you
6 just want us to know what species are commonly
7 used, then go ahead and leave those in your
8 committee comments and in the TRs. We'll find
9 them, we always do.

10 CHAIR CHAPMAN: Thank you for your
11 testimony.

12 MS. RANDOLPH: Thank you.

13 CHAIR CHAPMAN: Up next is Bill Wolf,
14 followed by Bill Broydrick. Bill, can you start
15 with your name and affiliation for the record.

16 MR. WOLF: Hi, I'm Bill Wolf with Wolf,
17 DiMatteo and Associates.

18 Our firm works with growers, companies,
19 NGOs, and governments to grow organic. And I want
20 to thank all of you for your hard work and welcome
21 the five new members. Especially, thanks for
22 volunteering your precious time.

1 We've submitted a range of comments
2 intended to improve the organic standards. Some
3 of them are listed on this slide. They were
4 numerous pages, I won't go into the details. I'd
5 like to get to some other topics as well.

6 We've also made several comments in the
7 past that we included in this year's comments, but
8 I'd like to highlight two notable comments that
9 would have a larger effect on the national list.

10 One of them is requiring organic when
11 available be applied to the entire national list.
12 And two is not making the regulations and
13 annotations too prescriptive. Sometimes we have
14 a unintended consequences for extensive,
15 prescriptive in the regulations rather than in
16 guidance.

17 I'd like to actually talk about two
18 things. One, I have a passion for soils and
19 earthworms, and our comments are rooted in the
20 philosophy of continuous improvement, that organic
21 is striving to use the gentlest methods and tools
22 to produce better food and fiber for people and

1 animals.

2 And one of the principles behind
3 decisions about organic regulations for decades,
4 for decades, has been to think about the
5 biological system. So what is okay in organic?
6 I'd like to introduce the principle of thinking
7 like an earthworm. Visioning what products and
8 practices promote our biotic living systems, that
9 can help sort out what materials are okay.

10 The list criteria attempts to quantify
11 this principle, but was not intended to overly
12 restrict the toolbox of organic producers and
13 handlers. We need choices, not just one solution
14 for a problem. Don't make shrinking the national
15 list toolbox a goal. Be open to innovation and
16 creativity that fits the organic philosophy.

17 The precautionary principle actually
18 cuts both ways. We shouldn't be doing something
19 that would have unforeseen consequences in the
20 future. Will your vote help increase organic
21 acreage and earthworms?

22 Finally, I have another passion, and

1 that's seaweed.

2 CHAIR CHAPMAN: Thank you, Bill. Any
3 questions for Bill? Harriet.

4 MS. BEHAR: Do you feel that, well,
5 maybe you could answer this question: Are there
6 sustainable harvest standards out there, so that
7 if we wanted to look at applying those to input
8 harvest, could that happen for like kelp and maybe
9 fish, whatever?

10 Because right now, we have that
11 sustainable harvest standard as part of our food,
12 when kelp is a food that has to, and it's a wild
13 harvested crop, and it has to follow our wild
14 harvest standard. But that's not covered when
15 it's harvested for an input in organic production.

16 MR. WOLF: So, I mean, there are
17 numerous standards out there in marine systems.
18 I'm not an expert on fishery standards, but there
19 are a number of fishery management systems that
20 could be applied to even the harvesting of
21 products for use in fish emulsion.

22 And it's possible, once we have a fish

1 standard, that we could be, if that continuous
2 improvement principle were applied to the national
3 list when there were organic fish emulsions,
4 derivatives from certified organic fish, that
5 would be needed to be used like in the Canadian
6 standard. That would be a huge step.

7 But the Canadian standard, for example,
8 requires that inputs be from organic sources once
9 they become available. Even manure, that's how
10 that standard was written.

11 Getting to marine algae, first of all,
12 marine algae aren't plants. And yet on the
13 national list, we say, we use the word plants in
14 601. So if we were going to start correcting
15 nomenclature, I would start there.

16 But the thing about sustainability of
17 sea marine algae should be addressed, and it
18 should be carefully thought through how to do
19 that. One of them is that continuous improvement
20 principle of requiring certified organic when
21 available.

22 And that would push the envelope for

1 inspection. There are standards around the world,
2 and they're evolving fairly quickly in terms of
3 how seaweeds are harvested. And those are mainly
4 being driven by countries and states.

5 Your TR discussed some of those
6 standards.

7 CHAIR CHAPMAN: Thank you, Bill, I'm
8 going to have to stop you there.

9 MR. WOLF: Okay.

10 CHAIR CHAPMAN: Any other questions for
11 Bill? Asa.

12 MR. BRADMAN: Quick question here. In
13 your comments, you mentioned retaining humic acid,
14 briefly, and I have a question. You just raised
15 the issue of annotation versus guidance.

16 There's been some public comments that
17 are concerned about the use of coal as a
18 manufacturing source for humic acid, and a
19 preference for natural sources, or at least non-
20 fossil fuel sources. And I'm just curious if you
21 have an opinion there about guidance versus
22 annotation.

1 MR. WOLF: I'm not a humic acid expert.
2 I've seen and used the materials. I think it's a
3 tool that a lot of farmers are currently using.
4 And this comes back to the issue of the toolbox
5 and removing materials before we fully understand
6 and figure out how we can make them give that
7 farmer another alternative is premature.

8 At the same time, it's worth looking at
9 the sustainability of the incoming materials. But
10 those criteria were not intended to be absolutes.
11 It is agriculture, it does impact our ecosystem.

12 CHAIR CHAPMAN: Thank you for your
13 testimony, Bill. Up next, I have Bill again,
14 followed by Julie Weisman. Bill, if you can start
15 with your name and affiliation for the record.

16 MR. BROYDRICK: Sure, it's Bill
17 Broydrick, and I'm here on behalf of Hortifruit.
18 As I say, my name is Bill Broydrick and I'm here
19 on behalf of Hortifruit, who is a partner with
20 Munger Farms.

21 Hortifruit's mission is to be the
22 world's leader in blueberries. In our joint

1 venture with Munger, we work together under the
2 Naturipe label, offering organic berries year
3 round in the United States.

4 Hortifruit has been growing organic in
5 Chile for 20 years, to provide healthier foods for
6 our families, to grow without chemical and
7 synthetic fertilizers, to offer workers and
8 communities safer and more natural environments.
9 Hortifruit, we support the continued work of NSOB
10 and are hopeful that the issue of container growth
11 can be resolved.

12 Yesterday, there was a great deal of
13 discussion about recalcitrants within the systems
14 that exist. And I consulted with our agronomist,
15 and he tells me that the inputs that we would be
16 use in the soil are not terribly different than
17 the inputs we would be using in a container
18 medium.

19 And so we believe that there's a great
20 similarity between the two. We would like to see
21 the committee consider separating the concept of
22 hydroponics and container growing.

1 The traditional methodology of
2 hydroponics was the use of water. And we would
3 recommend to you that the definition that's used
4 be truncated from the recommendation to just
5 discuss in effect liquid mediums.

6 That mediums that are recalcitrant,
7 which is found in every soil, in every soil. We
8 believe that we have a sustainable and
9 environmentally friendly methodology for growth.
10 We use less water. We use less land. We use less
11 organic fertilizer. And most importantly, we have
12 been certified for many years.

13 We have made substantial investments.
14 We continue to make, plan to make substantial
15 investments, and we don't want to be stripped of
16 the USDA organic label. Thank you very much for
17 your time. And I'd be happy to answer any
18 questions. I lost my presentation, so that's why
19 I was speaking somewhat spontaneously.

20 CHAIR CHAPMAN: Thank you. Questions?
21 Thank you very much. Up next is Julie Weisman,
22 followed by David Hiltz on deck. Julie, if you

1 can start with your name and affiliation for the
2 record.

3 MS. WEISMAN: My name is Julie Weisman,
4 I'm an owner of Elan Vanilla and Flavorganics.
5 I'm a past member of this board. I served on the
6 NOSB from 2005 to 2010, during which time I
7 chaired the Handling Committee and served as both
8 vice-chair and secretary of the board.

9 So first of all, good morning. Welcome
10 to our five new board members. I feel you. I
11 promise that the fog is normal and it clears
12 quickly. And thank you very much for answering
13 the call to serve.

14 I also have a special shout-out that I
15 must give to five of my friends who find
16 themselves without a mic for the first time in
17 five years. I feel you too. I had to be
18 restrained at times during my first post-term NOSB
19 meeting.

20 I would like to talk about two issues,
21 flavors and 606, both near and dear to my heart.
22 I've been making certified organic vanilla extract

1 for 20 years, and many other certified flavor
2 ingredients for only slightly less time.

3 And I was glad to see the notice of the
4 final rule on Sunset 2017, which included the re-
5 listing of flavors non-synthetic on 605(a) for
6 another five years, because for certain products
7 they are still needed.

8 But now, I would like know where is the
9 annotation change that goes with it? The OTA
10 submitted a position to add commercial
11 availability language to the annotation of listing
12 on flavors on 605(a).

13 My companies were signatories, and it
14 was passed by the full board at the fall 2015
15 meeting in Stowe, Vermont at the same time as they
16 passed the renewal of flavors on the list. It was
17 a package deal.

18 I strongly urged the program to please
19 continue the rulemaking on this much needed board
20 annotation change and get it into the Federal
21 Register, please.

22 Okay, so 606. I see also that the 2017

1 Sunset includes nine items that are going to be
2 allowed to sunset and leave Section 606. And this
3 makes me happy, but not for the reason that you
4 might think.

5 In 2006, this board scrambled ahead of
6 the deadline in the Harvey lawsuit to get dozens
7 of non-organic agricultural ingredients then in
8 use onto Section 606 of the national list. There
9 was great objection then to what was perceived by
10 some as lowering or watering down the organic
11 standards by adding so many substances to the
12 national list.

13 I insisted at the time that listing
14 these substances was going to expand the organic
15 domain, not compromise it. I saw listing these
16 items as a de facto brief to the ingredient
17 companies to develop organic versions of the items
18 they already made.

19 More than two dozen items got added to
20 606 that year, 18 of them were colors, and of the
21 remaining 11 that were added, nine are now going
22 to sunset because they are now commercially

1 available as organic. 606 works, commercial
2 availability requirements work, don't be afraid to
3 use it. Thank you.

4 CHAIR CHAPMAN: Very good, thank you.
5 Any questions for Julie? All right, thank you
6 very much, Julie. Up next is David, followed by
7 Lynn Coody on deck. David, if you can, yeah,
8 David, if you can start with your name and
9 affiliation for the record.

10 MR. HILTZ: Thank you, Mr. Chairman.
11 My name is David Hiltz, I'm a research director
12 with Acadian Seaplants. We're a Canadian company
13 that produces products for marine plants for use
14 in animal, human, and agricultural applications
15 around the world.

16 Acadian appreciates the recent efforts
17 of the NOSB to clarify the use of marine materials
18 in organic agriculture, and we would like to take
19 this opportunity to comment on the proposals set
20 forward.

21 With respect to the Crops Committee
22 proposal to specify that extracts from only brown

1 algae should be allowed in organic crop
2 management, we question the scientific rationale
3 behind this suggestion.

4 While most aquatic plant extracts that
5 are currently in use are produced from brown
6 algae, we would not like to see a barrier imposed
7 to new, innovative products that are derived from
8 green or red algae, should future research show
9 their benefits in organic cropping systems.

10 With respect to the Handling Committee
11 recommendation to annotate listings for marine
12 algae with Latin binomials at the class level, we
13 support that effort, as it will further clarify
14 the exact nature of the material being used in the
15 organic system.

16 And finally, we support the efforts of
17 the NOP and the NOSB to clarify the term kelp in
18 the evaluation of the various harvesting criteria
19 around that.

20 However, we continue to notice that
21 many of the public comments on this issue continue
22 to signal the harvest of *Ascophyllum nodosum*,

1 commonly known as rockweed, as an example of a
2 practice that, in their opinion, does not meet the
3 sustainability and wild harvest criteria of OFPA.

4 As part of previous public comments,
5 Acadian Seaplants and other commercial entities
6 have provided numerous peer-reviewed scientific
7 studies that demonstrate that the use of a
8 science-based resource management and harvesting
9 plan can ensure that the commercial harvest of
10 this species can be done in a sustainable manner.
11 And it does not have negative impacts on either
12 the resource or the ecosystem that it grows in.

13 We therefore urge the NOP and the NOSB
14 to draw upon the facts from these government,
15 industry, and scientific studies, while closely
16 scrutinizing the opinions that are often presented
17 with little to no scientific evidence in their
18 support of claims that rockweed harvesting is
19 detrimental and is inconsistent with the OFPA
20 rule.

21 So, appreciate the time and effort of
22 the board to continue these issues or consider

1 these issues, and we'd be happy to answer any
2 questions if you have them.

3 CHAIR CHAPMAN: Emily.

4 MS. OAKLEY: Hi, thank you. You
5 produce products from brown algae, correct? So,
6 and you said you would like to not be restricted
7 for potential future use of red or green. Can you
8 elaborate on that?

9 MR. HILTZ: Just, you know, if there's
10 a scientific reasoning behind that, by all means,
11 put that annotation in place. But in lieu of any
12 scientific reasoning, which I'm unaware of as to
13 why a product produced from a green algae or a red
14 algae would be inconsistent with an organic crop
15 system, I don't see why you would put that barrier
16 in place right now.

17 And there are some products on the
18 marketplace, I believe one of the other commenters
19 pointed out that there are some products already
20 out there from red and green -- or green species.

21 MS. OAKLEY: I'm not the original
22 author of this document, but I believe some of the

1 original intention was to address sustainability
2 issues. And so the intent behind naming the
3 classes being used was to ensure that we didn't
4 overly broaden extraction in the future of marine
5 materials.

6 So just to provide that background.
7 And yes, I think there are going to be some people
8 coming forward from OMRI, and I will have some
9 questions for them as well. So thank you.

10 MR. HILTZ: Wonderful, thank you.

11 Thanks for your time --

12 CHAIR CHAPMAN: We have more question.

13 Dave.

14 MR. MORTENSEN: Yeah, I was curious, I,
15 a long time ago studied algae in several places.
16 And I have a hard time just understanding how you
17 can harvest to a species level from a community of
18 algae.

19 MR. HILTZ: In most cases, the area,
20 like our company focuses heavily on Ascophyllum.
21 Ascophyllum, you're right, is not 100% of the
22 actual species. There is a small amount of other

1 brown species that will grow in those beds.

2 But usually we choose the specific
3 areas that we harvest that are 95% or greater
4 Ascophyllum, and that way it allows us to focus
5 mostly on that species when we bring the material
6 in.

7 MR. MORTENSEN: Okay, thanks.

8 CHAIR CHAPMAN: Thank you. Up next, I
9 have Lynn Coody, followed by Kristen Adams on
10 deck. Lynn, if you can start with your name and
11 affiliation.

12 MS. COODY: My name is Lynn Coody, and
13 I am presenting comments for the Organic Produce
14 Wholesalers Coalition, which is comprised of seven
15 businesses that distribute fresh organic produce
16 in the United States and internationally.

17 In our comments to the NOSB, we worked
18 to express our own ideas, as well as to provide a
19 channel for the voices of the many certified
20 growers who supply our businesses.

21 In February, OPWC polled its members
22 about the Sunset materials to be considered at

1 this meeting. In turn, the wholesalers reached
2 out to the growers in their supply chains, which
3 supplied well over 100 comments explaining
4 certified growers' need for the material
5 sunseting from Section 601.

6 We support the re-listing of all 2019
7 crop Sunset materials, particularly the
8 micronutrients and soluble boron, which were the
9 materials for which we received the highest number
10 of comments. Produce growers also emphasized a
11 need for copper-based products for control of a
12 wide variety of diseases on many types of crops.

13 Of particular note was the need for
14 copper-based products and the mix of materials and
15 practices used to control fire blight on apples
16 and pears now that antibiotics are no longer
17 allowed.

18 OPWC appreciates the Crop Committee's
19 continuous works on hydroponics and containers.
20 This is of great interest to our members because
21 it affects the supply of organic fruits and
22 vegetables.

1 Our members do carry products that fall
2 within this scope of the discussion, so we are
3 aware that OPWC businesses and our supplier
4 businesses will be impacted by any decision made
5 about hydroponic and container production.

6 Depending on the direction of the decision, there
7 will be both positive and negative impacts to
8 members of the wholesale produce sector.

9 Additionally, these decisions are
10 likely to have impacts on both hydroponic and
11 field-based growers, because so many operations
12 have already been certified for production using
13 methods that will fall within any definition of
14 hydroponics.

15 Therefore, it is very important for the
16 NOSB to carefully consider both immediate effects,
17 and to anticipate the potential for unintended
18 future consequences. We urge the board to make a
19 clear distinction between hydroponic and container
20 production systems.

21 Focusing on developing standards for
22 the required and prohibited materials and

1 practices for container organic production will
2 result in more productive comments and discussion,
3 both from the board and the organic community in
4 the future.

5 Due to the unusually short period given
6 to consider the NOSB's most recent proposal, we
7 intend to continue our work on this topic by
8 arranging meetings with operations that grow crops
9 and containers.

10 Our goal will be to better understand
11 their particular approaches to providing crop
12 nutrients and to identify successful biologically
13 based systems for cycling these nutrients through
14 multiple trophic levels. Thank you.

15 CHAIR CHAPMAN: Thank you, Lynn.

16 Questions for Lynn? Ashley.

17 MS. SWAFFAR: Lynn, I'm going to ask
18 you my question that I asked --

19 MS. COODY: I don't know.

20 MS. SWAFFAR: I didn't even get to ask
21 it.

22 MS. COODY: I have no idea.

1 MS. SWAFFAR: Okay. I thought maybe
2 you would know, of all --

3 MS. COODY: No, we, OPWC members deal
4 with such a wide variety. We sell every fruit and
5 every vegetable that you can imagine ever coming
6 onto your table organically. So I don't really
7 have the data set to provide answers to that
8 particular question. But it's a good one.
9 Thanks.

10 CHAIR CHAPMAN: Thank you, Lynn. Up
11 next I have Kristen Adams. On deck is Suzanne
12 McMillan. Kristen, if you can start with your
13 name and affiliation for the record.

14 MS. ADAMS: Kristen Adams, MOSA, from
15 the Midwest.

16 So MOSA appreciates the work of the
17 Crops Subcommittee as they attempt to define
18 aeroponic, hydroponic, and aquaponic systems.
19 However, MOSA does not support the prohibition of
20 these systems in organic production by proposing
21 that they be added to 205.105 as prohibited
22 practices in organic production.

1 MOSA agrees that a standardized set of
2 definitions must be carefully considered, and
3 lacking firsthand experience of aeroponic
4 production, we offer no changes to the proposed
5 definition of aeroponics. We see the proposed
6 definition of aquaponics as a workable definition,
7 clearly separating aquaponic production and
8 aquaculture production.

9 MOSA suggests that the term biologically
10 recalcitrant be removed from the definition of
11 hydroponics. This term is a broad term and could
12 be misinterpreted as applying to container
13 production, which would then blur the lines
14 between hydroponic production and operations
15 growing crops in containers.

16 MOSA supports the development of
17 specific production standards for hydroponic
18 systems and aquaponic production, and supports the
19 continued expanse of the organic industry.

20 We believe that the inclusion of these
21 production systems within the context of organic
22 production offers innovative, creative solutions

1 to our food sovereignty challenges and may even
2 have a place in reducing the conversion of fragile
3 ecosystems to soil-based organic production.

4 For example, one of the aquaponic
5 producers that is certified with MOSA is located
6 on the edge of the largest freshwater catfish
7 marsh in the United States, which is also
8 recognized as a wetland of international
9 importance. This aquaculture facility on this
10 particular parcel contributes significantly to the
11 economic stability of this multi-generational
12 family.

13 On the other end of the ecological
14 spectrum, these aeroponic, hydroponic, and
15 aquaponic production systems could contribute to
16 local food systems in urban and per urban
17 settings.

18 We also need to acknowledge the
19 Aquaculture Working Group and remember the
20 potential for certification of aquatic animals.
21 While the suggested amendments of 205.105 by
22 definition of aquaponics refers to only plants,

1 this amendment may reduce the potential of organic
2 certification of fish.

3 Will we eventually find ourselves in
4 the position of being able to certify aquatic
5 animals, but not the plants growing underneath
6 them? Or will we allow certification of half of
7 a whole system?

8 MOSA feels a sense of urgency in the
9 development of a clear path forward. As
10 certifiers, we continue to receive enquiries from
11 hydroponic and aquaponic growers who are seeking
12 inclusion in the certified organic community.

13 We also acknowledge the concerns of
14 those who do not support the inclusion of these
15 systems. And we really encourage the further
16 consideration of these ideas and support the
17 contributed development of these production
18 systems.

19 CHAIR CHAPMAN: Thank you. Questions?
20 All right, we got Emily, Sue, Steve.

21 MS. OAKLEY: Hi, thank you. You
22 mentioned the possibility of hydroponic and the

1 ponic systems operating in urban centers. And I
2 was wondering how many of the hydroponic
3 operations that you certify are in urban centers?

4 MS. ADAMS: Zero. We've only received
5 enquiries from those folks.

6 MS. OAKLEY: Okay.

7 MS. ADAMS: So none are currently
8 certified with us.

9 CHAIR CHAPMAN: Thank you. Sue.

10 MS. BAIRD: I think that may have
11 answered -- are you currently certifying aquaponic
12 and hydroponic systems?

13 MS. ADAMS: We are currently certifying
14 aquaponic systems that are a part of larger
15 systems.

16 MS. BAIRD: Right, so --

17 MS. ADAMS: Yeah, and none in urban
18 areas.

19 MS. BAIRD: Okay. How do your clients
20 meet, through their OSP, how are they meeting the
21 soil and crop rotation and all those standards
22 that would normally be written into an organic

1 system plan?

2 MS. ADAMS: They're part of a larger
3 system. So if we look at the whole system, that
4 site and setting, that's how those requirements
5 are met. Yeah. Other questions?

6 CHAIR CHAPMAN: Steve.

7 MR. ELA: So two questions. I mean, in
8 an urban environment then, they're not going to be
9 part of a whole system, which you just said. So
10 I'm curious how you see that.

11 Then the other thing I'm curious about
12 for certification is, I mean, we've heard a lot
13 about with, you know, hydroponics or whatever
14 definition, you know, the biological activity and
15 such.

16 But what I don't hear about is the
17 other trophic levels, such as arthropods and
18 nematodes in those systems. And so could you
19 address, I mean, I look at soil as a whole, you
20 know, multiple trophic levels. Could you address
21 both those questions please?

22 MS. ADAMS: Yeah. So your second

1 question, I'll respond offline. I can submit some
2 written comments to you when I have been able to
3 pull some other thoughts together. And your first
4 question, the urban setting, correct?

5 So I think if we expand and look a
6 little bit differently at how we define
7 biodiversity, that's how I personally believe that
8 those standards can be met. If we look at site
9 and setting in a larger context. Very vague
10 answer.

11 MR. ELA: I guess, I mean, that you
12 said you were able to certify these other
13 hydroponic systems because they were part of a
14 larger system in their farm. And in an urban
15 setting, they're not going to be part of a larger,
16 I mean, so that's.

17 MS. ADAMS: Yeah, we don't currently
18 certify any hydroponic, aquaponic systems in
19 urban. And I think that that would require the
20 organic community to expand how we look at
21 biodiversity and what we consider life diversity
22 and the specific elements of those parts.

1 What we currently have as standards,
2 what is a really good start. But having spent
3 time with some of the original drafters of the
4 standards, I know that there were other ideas that
5 have not been able to be incorporated, such as
6 animal welfare, which we're now just, you know,
7 pulling into our context.

8 And also some of the food justice of
9 the people involved. So with some of the expanded
10 vision, that would answer that.

11 CHAIR CHAPMAN: Thank you. And if you
12 have additional information to submit, please do
13 it through Michelle, thank you. Or the open
14 docket. Up next is Suzanne, followed by Jennifer
15 Berkebile, apologies, on deck. Suzanne, if you
16 can start with your name and affiliation.

17 MS. McMILLAN: Hi, Suzanne McMillan,
18 content director, Farm Animal Welfare Department,
19 ASPCA, American Society for the Prevention of
20 Cruelty to Animals. Thank you for the chance to
21 present to you today on behalf of our over 2.5
22 million supporters nationwide.

1 With regard to the allowed substances
2 lists, local anesthetics, lidocaine and procaine,
3 and the analgesia reverse agent tolazoline, should
4 continue to be listed with the anesthetic subject
5 to the proposed shortened with shortened
6 withdrawal period.

7 Organic animals, just like those raised
8 conventionally, are potentially subject to a range
9 of painful procedures, such as physical
10 alterations. So pain control should clearly be a
11 priority. That said, we urge the NOSB to champion
12 prevention.

13 Many painful procedures, like tail
14 docking and debeaking, can be avoided by providing
15 comprehensive, fundamental animal welfare.
16 Stressors like overcrowding and social deprivation
17 can lead animals to injure themselves and others.

18 Rather than relying on painful physical
19 alterations which do not address underlying
20 welfare issues, organic should require outdoor
21 space, outdoor access, indoor and outdoor
22 enrichment, a healthy diet, and balanced genetics.

1 These go a long way toward preventing problems
2 before they ever develop to a level that might
3 require painful physical intervention.

4 The USDA recently finalized the organic
5 livestock and poultry practices rule, which
6 codifies much of these of preventive tools I just
7 enumerated, coupled with limits on physical
8 alterations. We thank the NOSB for crafting
9 recommendations toward this rule and urge
10 implementation as soon as possible.

11 Finally, the National Organic Program
12 declined to take up a number of outstanding animal
13 welfare issues in the final rule, opting instead
14 to wait for NOSB recommendations.

15 We urge the NOSB to develop these
16 recommendations, particularly on the following
17 topics: genetics for meat birds, stocking
18 densities for species other than chickens, swine
19 living standards, and ammonia levels for mammals.

20 These standards are essential to robust
21 animal welfare. The ASPCA looks forward to
22 working with the NOSB to formulate meaningful

1 recommendations. Thank you.

2 CHAIR CHAPMAN: Thank you. Questions?
3 Harriet.

4 MS. BEHAR: Do you have an opinion on
5 oxytocin, the re-listing of oxytocin?

6 MS. McMILLAN: No. Not at this time.

7 CHAIR CHAPMAN: Any additional
8 questions? Thank you very much.

9 MS. McMILLAN: Thank you.

10 CHAIR CHAPMAN: Up next is Jennifer,
11 followed by Jason Whitcher. Jennifer, you can
12 start with your name and affiliation.

13 MS. BERKEBILE: Good morning, my name
14 is Jennifer Berkebile. I'm the materials program
15 manager at Pennsylvania Certified Organic. PCO
16 certifies over 1200 operations in the Mid-Atlantic
17 region of the U.S.

18 I wanted to begin my comment by
19 thanking the members of the board for all of your
20 time and effort. Today I will be commenting on
21 several petitioned and Sunset materials.

22 I would like to first comment on the

1 proposed annotation change for tocopherols put
2 forth by the Handling Subcommittee, which would
3 read, Derived from plant oils, non-synthetic or
4 organic tocopherols are to be used when
5 commercially available.

6 The subcommittee has indicated that
7 this will have a companion listing at 205.605(a).
8 However, this proposed annotation change at
9 205.605(b) may necessitate an additional listing
10 for tocopherols at 205.606. A listing for
11 tocopherols at 205.605(a) will only allow for non-
12 agricultural, non-synthetic tocopherols.

13 So if a processor finds a source of
14 non-synthetic tocopherols derived from plant oil,
15 but it is determined to be agricultural, they will
16 not be able to use it unless it is certified
17 organic, since tocopherols are not listed at 606.

18 An additional listing for tocopherols
19 at 606 would allow producers to use non-organic,
20 non-synthetic agricultural tocopherols when
21 organic versions are not available.

22 If a listing for tocopherols is added

1 to 606, PCO encourages the subcommittee to
2 consider whether a listing for tocopherols at
3 205.605(a) is necessary. It may not be necessary
4 if all tocopherols derived from plant oils are
5 only either agricultural or non-ag synthetics.

6 I also wanted to briefly mention that
7 this annotation might not be straightforward for
8 operators to document, because it is unlikely that
9 an operator will be able to determine if a
10 tocopherol is synthetic or non-synthetic. This
11 puts the responsibility for determining the
12 commercial availability of non-synthetic
13 tocopherols on certifiers.

14 Okay, next I want to comment on the
15 cellulose proposal. PCO questions whether it is
16 sound and sensible to not only require certifiers
17 to obtain complete ancillary ingredients, but also
18 their specific functionality. This seems
19 unnecessary and burdensome, and will not likely
20 add any value to the review of cellulose.

21 I would like to briefly comment on
22 humic acid. The Crop Subcommittee discussed

1 whether this listing should have an annotation
2 requiring that humic acids are from sources with
3 the lowest environmental and human harm. This
4 alone would be difficult to verify, so more
5 clarification on quantifying environmental and
6 human harm would be needed.

7 Finally, I wanted to briefly discussed
8 coppers, fixed. The Crop Subcommittee has
9 requested feedback on the possibility of an
10 additional annotation, such as no visible residue
11 is allowed on harvested crops.

12 Such an annotation may be
13 inconsistently applied, as it may be difficult to
14 verify if inspections do not occur close in time
15 to harvest. PCO instead requests additional
16 guidance on the current annotation, which states,
17 copper-based materials must be used in a manner
18 that minimizes accumulation in the soil. Thank
19 you.

20 CHAIR CHAPMAN: Thank you. Any
21 additional, any questions? Asa?

22 MR BRADMAN: You mentioned humic acid.

1 And I think, you know, from what I can see,
2 everyone supports that, and it's an important
3 tool. But there is concern about using material
4 that has been derived from coal as opposed to,
5 even though it's a manufactured product, can come
6 from natural sources.

7 I wonder if you had thoughts on at
8 least encouraging or preferring one over the
9 other, and how to evaluate that.

10 MS. BERKEBILE: Sure. PCO doesn't
11 currently allow any humic acids derived from coal.
12 We don't, yeah, we don't currently have any that
13 are approved. So I would encourage the NOSB to
14 put out guidance or an annotation change, as you
15 mentioned, to really specify not derived from
16 coal, if that's, you know, what you would like to
17 require.

18 CHAIR CHAPMAN: Dan.

19 DR. SEITZ: I don't know if this is a
20 question for you or for one of my fellow board
21 members, or for Miles.

22 When you get tocopherols, there were

1 comments about if it's derived from vegetable
2 oils. Of course, a lot of vegetable oils are corn
3 and soy based. So would there be the possibility
4 that GMO oils would be a source of tocopherols
5 under that listing?

6 MS. BERKEBILE: Can you repeat the
7 second part of your question?

8 DR. SEITZ: Is there a possibility that
9 GMO oils, such as soy or corn oil, could be a
10 source for tocopherol in organic products?

11 MS. BERKEBILE: I think maybe with the
12 way the annotation is written. So maybe, again,
13 if you list it at 606 -- oh, gosh, I don't know,
14 I think --

15 DR. SEITZ: This might be a question
16 for the NOP staff. I'm not sure.

17 MR. MCEVOY: I think I'll pass this to
18 Dr. Brines.

19 DR. BRINES: Thank you. Yeah, the NOP
20 regulations do prohibit the use of excluded
21 methods or GMOs in organic products. And that
22 prohibition does extend to the of use non-organic

1 ingredients that are on 205.605 or 205.606.

2 So as part of the verification process
3 for those ingredients, certifiers do request
4 verification that those products aren't produced
5 using excluded methods which led to radiation.

6 Thanks.

7 MS. BERKEBILE: Right, yes, we do
8 request it. Sorry.

9 CHAIR CHAPMAN: Steve.

10 MR. ELA: You didn't get to finish your
11 comment on coppers, but I'm curious if you've seen
12 any issues with the soil accumulation of coppers.

13 MS. BERKEBILE: So we do have some
14 farms that use coppers that do have high levels in
15 the soil. But, you know, perhaps they are using
16 them in a manner that minimizes accumulation in
17 the soil. So that's why guidance might be
18 helpful. What would you consider a manner that
19 minimizes accumulation in the soil?

20 Is there some threshold of copper above
21 which that, no matter what manner they're using it
22 to minimize accumulation, if it's higher than

1 that, they're not doing a good enough job, for
2 example. What if copper levels are higher in that
3 soil prior to farming even? So, again, more
4 guidance would be helpful.

5 CHAIR CHAPMAN: Thank you very much.
6 And thank you for the comments on tocopherol. It
7 raised some issues we did not consider in the
8 subcommittee, so thank you.

9 MS. BERKEBILE: Thank you.

10 CHAIR CHAPMAN: Up next is Jason, and
11 on deck is Sam Welch. Jason, if you can start
12 with your name and affiliation for the record.

13 MR. WHITCHER: My name is Jason
14 Whitcher. I don't, stating any affiliation at
15 this point. More as a citizen and a concerned
16 person in the organic farming industry. Sorry, no
17 affiliation, just a concerned citizen in the
18 organic farming industry.

19 Good morning. I stand before you today
20 to speak on the subject of container production of
21 organic vegetables. I'm not going to give you
22 opinions or ideals, I'm not going to discuss what

1 tomatoes my chickens prefer.

2 I'm not going to suggest that there's
3 some unexplainable magic between the bedrock of
4 the earth and the soil, as the opposition to
5 container production did in St. Louis.

6 I am going to share with you some facts
7 and data for you to consider for your
8 recommendation, and to ensure you understand the
9 disastrous consequences removing greenhouse
10 organics would have on the marketplace if de-
11 certification were to happen.

12 Facts. Greenhouse production of
13 organics have been certified for over 15 years.
14 Container production follows the same rules, uses
15 the same inputs as their field counterparts.

16 Container production is environmentally
17 responsible, uses up to ten times less water and
18 land, has zero fertilizer runoff, zero soil
19 erosion, and a controlled environment provides a
20 better platform for food safety programs.

21 It is not possible to replace the
22 greenhouse production of organic vegetables with

1 field organics. And removing them would create a
2 giant hole in the market, restricting the
3 availability of healthy organic produce that
4 consumers are looking for.

5 Removing organic greenhouse production
6 from the market would cause a severe financial
7 strain to hundreds of organic greenhouses and
8 jeopardize thousands of jobs in the sector.
9 However, there would be a significant financial
10 windfall for the remaining producers.

11 Surveys show that people who consume
12 organics are concerned with the inputs and are
13 indifferent to the substrate that they are grown
14 in.

15 Some data to consider. Tomato category
16 growth overall was 1.5% year over year. Organic
17 tomato growth was 16%, more than ten times the
18 conventional market. Pepper category growth was
19 2.3%. Organic pepper growth, again, was
20 exponential at 17%.

21 Cucumber category growth was also 2.3%.
22 Organic growth was again exponential at 16%.

1 Fifty percent of this growth came from greenhouse
2 production. Twenty-three percent of all tomato
3 production, organic tomato production, comes from
4 greenhouses. Forty-four percent of all organic
5 pepper production comes from greenhouses. Thirty-
6 seven percent of all organic cucumber production
7 comes from greenhouses.

8 I'll end with a question. If organic
9 greenhouse production is de-certified, where will
10 the public get its healthy organics that they are
11 looking for, and what will be the explanation as
12 to why they are unavailable?

13 CHAIR CHAPMAN: Emily, Ashley, Steve.

14 MS. OAKLEY: Hi, Jason. We are asking
15 people to give people their affiliations because
16 it helps us better understand the context of their
17 comments, and you listed yours as a citizen. But
18 you seem to have perhaps an interest in this.

19 So I was wondering if you could
20 identify that. And when I Google you, I see you
21 work for a, yeah, so if you could just elaborate
22 more.

1 MR. WHITCHER: I work for a greenhouse
2 marketing company. I also sit on several boards.
3 I don't have permission from them all to affiliate
4 themselves with my comments, so I refrained from
5 that at this point in time. I am heavily invested
6 in the greenhouse industry. I have been for 24
7 years.

8 CHAIR CHAPMAN: Ashley, then Steve.

9 MS. SWAFFAR: So I kind of think you
10 answered my question, and I couldn't write it down
11 fast enough. So 23% of tomatoes --

12 MR. WHITCHER: Of organic tomatoes.

13 MS. SWAFFAR: Yup. Forty-three percent
14 peppers.

15 MR. WHITCHER: Forty-four, I believe.

16 MS. SWAFFAR: Forty-four. And
17 cucumbers?

18 MR. WHITCHER: Thirty-seven cucumbers.

19 MS. SWAFFAR: Thank you. Been waiting
20 for that all week.

21 MR. WHITCHER: And that's predicated on
22 available retail scan data. So there are

1 companies like Costco that don't share their
2 retail scan data. I think that would skew the
3 numbers the other way, as Costco goes to
4 greenhouse prior to going to the field for food
5 safety purposes.

6 MR. ELA: So I'm curious, I mean,
7 you're talking about greenhouses. You know, part
8 of our discussion document is hydroponics versus,
9 and trying to separate out hydroponics versus
10 container grown. Am I in clear understanding
11 you're probably talking about container-grown
12 versus straight hydroponic?

13 MR. WHITCHER: Both. Both would be --

14 MR. ELA: Do you have a sense that one
15 could be disallowed and not the other?

16 MR. WHITCHER: I mean, that's all up to
17 the NOP. But is there a scientific basis for it?
18 No. Has there been any presented? No.

19 CHAIR CHAPMAN: Emily.

20 MS. OAKLEY: Would some of those plants
21 in the greenhouses be grown in the ground for the
22 statistics that you provided us?

1 MR. WHITCHER: We currently, the
2 company I do work for currently has 12 organic
3 greenhouses that produce a significant amount of
4 volume, and none of them produce in the ground.
5 It's all container production.

6 CHAIR CHAPMAN: Thank you very much.
7 Up next is Sam Welsch. If you could start off
8 with your name and affiliation for the record.

9 MR. WELSCH: My name is Sam Welsch from
10 OneCert. I was a member of the Hydroponics Task
11 Force. First, I want to congratulate Miles and
12 the NOP for acting to improve traceability of
13 organic products handled by uncertified operations
14 in the supply chain.

15 This is a huge risk to organic
16 integrity, and typical verification is currently
17 much too superficial to determine the actual
18 organic status of such products.

19 Second, I want to highlight an area of
20 extreme inconsistency among certifiers. As you
21 know, land where a prohibited substance was
22 applied must undergo a three-year transition

1 before organic crops can be harvested. The
2 organic rules allow the use of non-organic
3 planting stock if organic is not available.

4 Some planting stock is bare root and
5 some comes with roots still in growing media. If
6 that growing media contains a prohibited
7 substances, the land where it's planted must
8 undergo a three-year transition before crops from
9 that plant can be certified organic.

10 However, some certifiers allow such
11 plants to grow organic crops with no transition
12 period, or a transition period as short as one
13 year. This means that an operator growing in
14 containers could transition conventional plants as
15 planting stock to organic hydroponic production in
16 one year or less.

17 As we begin, and now lastly I'll
18 discuss our work on the Hydroponic Task Force.
19 The NOP presented some background information.
20 This slide is one example of that. The
21 presentation cited the mandatory portion of the
22 law that requires soil fertility to be fostered

1 primarily through the management of the organic
2 content of the soil.

3 The NOP asked the task force, How could
4 hydroponic or aquaponic systems align with this
5 requirement. The simple answer is they can't.
6 I'll repeat that. They can't. This is in the
7 law.

8 So it begs the question, Why does the
9 NOP allow hydroponic and aquaponic systems to be
10 certified when such systems do not comply with
11 this mandatory requirement in OFPA.

12 As the NOSB works on this issue, you
13 must remind the NOP that OFPA rules. You don't
14 need to propose new regulations to prohibit
15 certification of hydroponics. OFPA already does
16 that. Certifiers know this.

17 The only way they can certify
18 hydroponics is to designate this section of OFPA
19 is not applicable when granting certification.
20 When asked what authority they have to designate
21 federal organic law as not applicable, they reply
22 that NOP says that they can certify hydroponics.

1 You've heard many comments about
2 certification of crops grown in containers. I
3 urge you to keep the organic program rooted firmly
4 in the soil. Keep it simple, as OFPA says it
5 simply. Don't let the meaning of organic get
6 watered down.

7 CHAIR CHAPMAN: So I have Ashley,
8 Francis, Steve. Ashley, go ahead.

9 MS. SWAFFAR: Okay, in this same thing
10 that you've put up here, how does a no-till system
11 comply with OFPA? How do systems that are
12 rotating soils, not doing crop rotations, comply
13 with OFPA? Would you deny certification to those
14 types of systems?

15 MR. WELSCH: Could you restate those?

16 MS. SWAFFAR: No till and the no crop
17 rotation rotating soil, how would those comply
18 with what you put on the screen, and would you
19 deny certification to those?

20 MR. WELSCH: The rules do allow for
21 perennial crops to have alternative ways of
22 meeting the crop rotation requirements. And no-

1 till operations do have crop rotations.

2 MS. SWAFFAR: But as a part of this,
3 no-till, this says it has to have proper tillage.
4 No till has no tilling.

5 MR. WELSCH: Many people would say no
6 till is proper tillage. And it more like a
7 natural system than is the cultivation systems.
8 So it is, you know, I don't see any inconsistency
9 with this.

10 MS. SWAFFAR: So you would not deny
11 certification to those types of operations?

12 MR. WELSCH: No. In those systems you
13 described, the soil fertility is coming primarily
14 through management of the organic content of the
15 soil.

16 CHAIR CHAPMAN: Francis, Steve, then
17 Harriet.

18 DR. THICKE: Sam, from your work on the
19 Hydroponic Task Force, what's your thinking about
20 containers? Do you have any suggestions -- well,
21 first of all, would you suggest we could have a
22 standard for containers, and do you have any

1 guidelines in mind that they might think about?

2 MR. WELSCH: I think the only
3 appropriate, or the only allowable under the law
4 and regulations as it exists now, you could grow
5 organic transplants, which would be transplanted
6 into the soil. So that's a temporary use of
7 containers. Things like sprouts or microgreens
8 might be grown in containers.

9 Other than that, the difficulty with
10 allowing certification of crops grown in
11 containers is what we saw is the huge increase of
12 organic hydroponic or container-grown systems
13 after the 2010 recommendation.

14 Because it seemed to allow things, and
15 people saw loopholes in that recommendation where
16 other saw it tightening things up. Others saw it
17 as an opportunity for loopholes and allowing more.

18 So if you're designing a proposal for
19 certification of containers, which right now I
20 think it should be limited to soil, but if you
21 want to design a, make recommendations for
22 containers, you have to be very, very careful and

1 very clear that you're not creating loopholes for
2 those who want to continue what is essentially,
3 you know, hydroponic systems.

4 CHAIR CHAPMAN: Thank you. We have
5 Steve, then Harriet, then Dan, then Scott, and
6 then myself. And we'll cut it off there.

7 MR. WELSCH: Good you have the last
8 word.

9 MR. ELA: Could you come back to, I
10 didn't quite follow. So the transition of
11 conventional planting stock grown with
12 conventional or prohibited methods being able to
13 transition to hydroponics and not go through the
14 three year -- could you expand on that? I didn't
15 quite track with that well.

16 MR. WELSCH: Well, I was quite amazed
17 to hear, you know, at some training just a few
18 months ago, that there were certifiers who did not
19 consider the media that's in the pot, that goes
20 with that planting stock. They didn't even
21 consider it when they determined whether or not
22 prohibited materials were being applied to land.

1 But if we're planting treated seed or
2 even a pelleted seed, any seed coating, it's very
3 clear we have to assess that. So why wouldn't we
4 assess the media that's in a pot in planting
5 stock? There's no logical, you know, no
6 consistency there when that takes places.

7 Those same certifiers who are not
8 looking at what's in the pot when they allow
9 potting, planting stock to be used in organic
10 production are also certifying hydroponic and
11 container growing systems.

12 So it leads me to the logical
13 conclusion that they're allowing conventional
14 container-grown planting stock to instantly become
15 organic that first year, with no transition
16 period.

17 MR. ELA: So if it was a bare root
18 planting stock of whatever, then we'd be okay.
19 But it's the movement of that soil it was grown in
20 or whatever media it was grown in into the
21 conventional, okay.

22 MR. WELSCH: Yeah, just like uncoated

1 seed that's conventional can be allowed, a bare
2 root conventional product, or conventional
3 planting stock could be allowed. That's allowed
4 in the rule specifically.

5 MS. BEHAR: Sam is the expert on the
6 OFPA. So we're looking, I know at least in my
7 mind, I'm looking at a possibility for container
8 productions, productions splitting out annual
9 versus perennial with different standards.

10 And I'm wondering, as a certifier,
11 could you verify if there was a specific amount of
12 the crop's nutrients coming from liquid fertility
13 inputs? Would that be something that would be too
14 much of a challenge for you to verify in the
15 container?

16 So if we said, No more than 30% of the
17 crop's nutrients can come from liquid fertility
18 inputs, meaning of course that the media could not
19 recalcitrant, it would have to be a compost or a
20 soil-based, or at least a majority of it.

21 MR. WELSCH: That is certainly
22 possible, and many certifiers are already looking

1 at auditing the amount of fertility products that
2 are being used by any operation.

3 However, it surprised us greatly, those
4 of us who do that, that were on the Hydroponics
5 Task Force, were greatly surprised to learn that
6 certifiers of these container-grown hydroponic
7 systems were not verifying the quantities that
8 their clients were using in those systems.

9 And in fact, it appeared that they were
10 not even learning exactly what substances were
11 being used. They're just being told, It's OMRI-
12 listed, or it's one of these products on this long
13 list, without getting specific information.

14 Now, I cite back to Miles's favorite
15 part of the rule, which requires records that are
16 completely auditable, you know. Their organic
17 operations must have those kind of records. So it
18 is possible to do it, if the standards clear
19 enough for us to have something that we can
20 verify.

21 CHAIR CHAPMAN: Dan, then Scott.

22 DR. SEITZ: From a number of people who

1 have testified, we're heard about the adverse
2 economic impact that would happen if container or
3 hydroponic operations were disallowed under the
4 organic standard. What is the potential impact on
5 soil-based farmers if those continue to be allowed
6 under the organic stamp?

7 MR. WELSCH: I think some of them have
8 already spoke to that. But, you know, it does set
9 up a very uneven playing field for those who are
10 growing in the soil, versus those who can come in
11 with much cheaper, much less rigorously enforced
12 hydroponic or container-grown systems.

13 I should remind you that I talk to
14 consumers who do care about things being grown in
15 the soil. Now, most of the consumers I know are
16 in the Midwest, where they also do gardening. So
17 they're aware of the difference between organic in
18 the soil and hydroponic operations.

19 And in fact, for 30 years, we used to
20 call conventional agriculture hydroponics in dirt,
21 because it was all about inputs and not about
22 building fertility in the soil. Organic has

1 always been about building soil through the
2 management of organic matter.

3 That's where organic got its name. You
4 know, we really should not be allowing things that
5 are an oxymoron, like organic hydroponics.

6 CHAIR CHAPMAN: Thank you, Sam. Dan,
7 or sorry, Scott next.

8 MR. RICE: I'm curious if OneCert
9 certifies mushrooms, and how you view that in
10 terms of OFPA, where those are typically in a, for
11 lack of a better reference, a container and with
12 not always a rotation. It doesn't fit in OFPA as
13 well, but it is commonly certified.

14 MR. WELSCH: Sure. Mushrooms are not
15 a plant. And they're more like, they fit better
16 under the livestock definition, which would
17 require that the substrates in which mushrooms are
18 grown to be all organic.

19 You know, the practice of some
20 certifiers to allow mushrooms to be grown on non-
21 organic substrates, including GMO substrates, I
22 think is not acceptable.

1 MR. RICE: And in terms of those that
2 are grown in a compost or a soil, once those
3 substrates have been used, assuming those were
4 organic?

5 MR. WELSCH: Sorry, I didn't --

6 MR. RICE: In terms of, assuming that
7 the substrate is organic, from organic sources,
8 and then that is grown out in, you know, some of
9 the white button mushrooms in a non-soil, be a
10 compost mix of some sort. How would OFPA apply to
11 that?

12 MR. WELSCH: Well, I think, so you need
13 to look at it more in terms of is it getting its
14 feed from organic substrates, not from
15 conventional ones. It's one of those areas that
16 I think we were promised regulations back in 2000
17 or 2002, and they still haven't been promulgated.

18 We need better regulations for
19 mushrooms. You know, they're not plants, they're
20 not really livestock, we don't have regulations
21 for them. People are doing the best they can. I
22 don't think it's really directly relevant to this

1 discussion of container growing. It's really a
2 separate issue because it's not plants.

3 MR. RICE: And I have one response to
4 your concern on inputs versus media. I think a
5 number of certifiers rely on the guidance 5029,
6 which makes the distinction between an application
7 or an input. And I think that's how our agency
8 views that distinction, and a number of other
9 certifiers.

10 There's perhaps room for further
11 clarification from the program. We could go down
12 that route. But I would just point folks to the
13 guidance 5029 in how that's addressed.

14 MR. WELSCH: Now, that guidance is very
15 clear that anything applied to seed must be on the
16 national list. And it says that things that are
17 applied to planting stock before harvest are not
18 considered. It does not say that you can ignore
19 what's in the pot that comes with that planting
20 stock.

21 So if it's not bare root stock, there's
22 nothing in that guidance that says we should

1 disregard what's in the planting media. And I
2 think, unfortunately, there has been some comments
3 in answering questions, because it wasn't as
4 clearly written as it should be, that some NOP
5 staff have given contradictory information about
6 whether or not that should be considered.

7 But if you consider that we care about
8 that thin layer of coating that goes on seed to be
9 planted to grow an organic crop, we should care
10 even more about what's in the pot that comes in
11 with planting stock. It's the only way to look at
12 it consistently.

13 CHAIR CHAPMAN: Thank you. And then I
14 had a question similar to Scott's. In terms of
15 6513 and in looking at, say, seaweeds or
16 watercress, how would those type of plants be able
17 to meet the requirements, or are they not able to
18 meet those requirements in your opinion?

19 MR. WELSCH: In regards to seaweed, I
20 was specific in the preamble to the rule when it
21 was published. They changed the wording in wild
22 harvest to allow it to be aquatic plants to be

1 harvested. They're covered under the wild harvest
2 not --

3 CHAIR CHAPMAN: Specifically related to
4 OFPA, non the rule, the OFPA. How does OFPA
5 authorize the production of those plants, or does
6 it not?

7 MR. WELSCH: I did not look at OFPA
8 with regard to wild harvest. But it's the
9 seaweeds are collected under the wild harvest
10 provision, which OFPA does have a section on that.

11 And I think what's in the rule is very
12 similar to the wording that's in OFPA. So it's
13 not part of the OSP for crops, it's separate and
14 coming from the wild harvest area.

15 CHAIR CHAPMAN: So it is possible to
16 have plants, even if it's in the wild harvest
17 area, that does not use soil. I mean, you had
18 mentioned earlier that organic was, you know, that
19 came from soil management. But we do have this
20 disagreement in that area.

21 MR. WELSCH: I don't see it as being
22 inconsistent. I think there are different parts

1 of OFPA and the regulations that are being applied
2 in those cases.

3 MR. McEVOY: Sam, you filed some
4 complaints with Compliance and Enforcement, and
5 maybe some of the things that you mentioned here
6 today are under review. But if you have any
7 additional allegations or complaints, evidence of
8 violations of the standard, please file them so we
9 can look into them and ensure --

10 MR. WELSCH: I'll remind my colleagues
11 that you invited me to do that.

12 MR. McEVOY: Okay.

13 CHAIR CHAPMAN: Okay, thank you very
14 much, Sam. So we are about 40 minutes behind
15 schedule, but looking at the angry eyes from the
16 board members, we will still take our break.
17 It'll only be a ten minute break, or nine minutes.
18 So we will start back up at eleven.

19 One other note, for the speakers later
20 in the afternoon, Tracy Favre, Stanley Edwards,
21 Gwendolyn Wyard, Pat Kerrigan, Ann Marie Hourigan,
22 Mike Molina, and John Ashby, we may need to move

1 you guys till after lunch. Try to find Michelle
2 or I if that's a problem, and we'll rearrange our
3 schedule. Thank you.

4 (Whereupon, the above-entitled matter
5 went off the record at 10:52 a.m. and
6 resumed at 11:07 a.m.)

7 CHAIR CHAPMAN: Okay, we'll get
8 started. Beth, come on up. On deck is Michael
9 Hasey. Beth, if you can start with your name and
10 affiliation for the record?

11 MS. STEPHENSON: Hi, I'm Beth Walker-
12 Stephenson, and I'm an organic consumer, and I'm
13 wife, mama, environmental writer, and I've come to
14 talk about bioponics. It's a difficult subject,
15 and I appreciate having an opportunity to share
16 from my experience and my wisdom.

17 I read the hydroponic task force
18 writings, and here and at the St. Louis NOSB
19 meeting, I heard many good points both for and
20 against raising food using alternative methods.
21 I see both sides, and I feel the real fears.

22 I too am fiercely pro-soil, and I'm

1 grappling with my own understanding and beliefs,
2 sometimes to a point where my husband noted that
3 I was talking out of both sides of my mouth. I
4 understand that bioponic systems can increase food
5 availability to areas where there is great need.

6 I want everyone to have the opportunity
7 to have organic food, to heal food deserts. And
8 in recent months, I have been listening to many in
9 the organic community at various organic
10 conferences and meetings. I heard a call for a
11 food revolution. I understand that this is truly
12 an organic can of worms, but I have been listening
13 to my intuition, and my heart, and my gut, and my
14 head says that there's something more to be done.

15 I ask for alternatives to be
16 considered, regulations to be developed under the
17 NOP, maybe create a temporary moratorium if we
18 have to. I'd encourage different labeling, but
19 similar to current organic labels, but please, do
20 not close the door on alternative ways of raising
21 food organically.

22 Let not those that are building the

1 added sustenance for our ever-changing demand for
2 food have to tackle reinventing regulatory
3 standards for this viable method. It is easier to
4 only consider what we have known and want for
5 ourselves, babies, and grandbabies, but I'm asking
6 us to reach deeper, seven generations and beyond,
7 to simultaneously support our soil and build a
8 sound foundation for raising organic food in
9 radically changing environments.

10 Don't let our fears immobilize us.
11 With care and good sense, the time to act is now.
12 If we even take baby steps, we will have the
13 opportunity to go forward in a safe and carefully
14 examined way towards solving our very real
15 upcoming food challenges. Thank you.

16 CHAIR CHAPMAN: Thank you. Any
17 questions? Thank you very much. Up next is
18 Michael Hasey, followed by Marco De Leonardo on
19 deck. Michael, if you can start with your name
20 and affiliation for the record?

21 MR. HASEY: Sure, I'm Michael Hasey
22 from The Farming Fish. It's a farm in southern

1 Oregon. I'm also a member of the Recirculating
2 Farms Coalition. Thank you for your time. I
3 appreciate the opportunity to bend your ear. So,
4 The Farming Fish, you can learn more on Google,
5 Facebook, our website, thefarmingfish.com.

6 We're a 40-acre certified organic farm
7 and a food processor. We've been certified for
8 six years now. Our journey was much like every
9 other family farm. We started out at the farmer's
10 market, grew, expanded, and now we sell wholesale.
11 We're distributed amongst 30 grocery stores in the
12 Pacific Northwest.

13 We are very compassionate to all
14 sustainable food production systems. We're very
15 passionate about those systems. We grow in the
16 earth as well as in our quarter-acre aquaponics
17 system. We're amongst the largest aquaponic
18 operation in the United States, perhaps the
19 largest certified organic aquaponic operation.

20 In that aquaponic system, we grow
21 basil, watercress, lettuce, leafy greens, and of
22 course, fish. In the earth, we're growing

1 potatoes, seasonal vegetables. We keep a flock of
2 laying hens, raise pork for our farm and our
3 employees' families.

4 Our farm products are all certified
5 organic, but they're also certified Salmon-Safe
6 meaning no waste leaves our farm. It keeps our
7 waterways clean and the surrounding environments
8 clean and free from agricultural runoff.

9 We have a very health work environment,
10 perfect conditions in what I call our controlled
11 organic agriculture system. That would be within
12 the greenhouse. It's a clean and comfortable
13 place for our workers.

14 We practice natural pest management
15 practices, the use of beneficial insects. We
16 plant in an organic coco coir, a byproduct of the
17 coconut industry. We transplant into our living
18 organic water, and then we move our excessive
19 organic matter like any farm to compost.

20 The aquaponics system, it does not harm
21 soil tilt in any way. In fact, it only
22 contributes to it. We could build or improve

1 topsoil. We could build it from our aquaponics
2 system alone. In fact, we produce the nicest
3 compost in our valley.

4 In addition to the organic matter
5 coming out of our aquaponics system, our fish
6 waste is an amazing organic resource as well.
7 This builds our compost or it could be added
8 directly to our row crops.

9 The native and tribal people understand
10 this, and they've been doing it for years. In
11 fact, we're helping two different tribal nations
12 get involved in aquaponics with their trout farms.

13 Organic sustainable soil production,
14 soil fertility, soil microbiology, nitrate
15 fixation, the nitrate cycle, it's all the same
16 whether it's within the water, in the soil, or in
17 the water alone.

18 CHAIR CHAPMAN: Thank you. Questions?

19 MR. HASEY: Yes, please, any questions?

20 CHAIR CHAPMAN: I don't see any
21 questions. Thank you for your testimony.

22 MR. HASEY: All right.

1 CHAIR CHAPMAN: Up next is Marco and on
2 deck is Johanna Mirenda. Marco, if you could
3 start with your name and your affiliation for the
4 record?

5 MR. DE LEONARDIS: Good morning, my
6 name is Dr. Marco De Leonardis, and I'm the
7 research and development manager for Freeman Herbs
8 in Ontario, Canada. First, I would like to
9 support the concept that organic container grown
10 plants are legitimately organic.

11 Organic agriculture is a sustainable
12 holistic production management system which
13 promotes and enhances agroecosystem health
14 including biodiversity, soil biological activity,
15 and recycling of material and resources to the
16 greatest extent possible with the intent of
17 protecting the environment, decreasing pollution,
18 and promoting a sound state of health.

19 At Freeman Herbs, we grow plants in
20 pots using a solid substrate composed of peat moss
21 and turkey litter compost rich in microbes which
22 are responsible for the release of the nutrients

1 to the plant.

2 Therefore, I can confidently assert our
3 plants are grown in a healthy biological active
4 soil, not different at all from the biological
5 activity in the soil found in the crust of the
6 earth. By recycling our irrigation water in
7 today's environment, water conservation is a
8 matter of concern.

9 We follow the principle of
10 sustainability and we need much less water to grow
11 our plants than if you were growing in the soil.
12 Furthermore, nutrients are not leached away and
13 pollute natural water systems as it often happens
14 in open fields.

15 Using several media and integrating
16 pest management program based on the release of
17 beneficial insects, we prevent pests and diseases
18 rather than react to them, creating an
19 ecologically sound environment where there is a
20 balance between predators and pests that's
21 promoting and preserving biodiversity.

22 I would like then to stress the

1 benefits of growing plants in enclosures such as
2 greenhouses, or in case of sole source,
3 warehouses. Farmlands suitable for organic
4 agriculture is becoming scarce and more expensive,
5 and is getting further and further away from urban
6 dwellings, while greenhouses are often located at
7 the outskirts of them. If you consider that
8 already more than 40 percent of the organic
9 produce is greenhouse grown, it would be
10 impossible for field grown organic produce to meet
11 the increasing market demand.

12 Operations set up to grow organic
13 plants in containers can be studied in small areas
14 like rooftops or recycled or reclaimed abandoned
15 building with very little investment creating
16 interesting opportunities for young entrepreneurs
17 during a time where unemployment is a matter of
18 concern.

19 A shorter distance from the city
20 markets means a lower carbon footprint to deliver
21 fresher product to the consumer for 12 months a
22 year, even in northern regions with prohibiting

1 climates, following the organic approach of zero
2 kilometers.

3 I would like to thank the members of
4 the National Organic Standards Board Committee for
5 the opportunity to offer my opinions on such an
6 important matter. Any questions?

7 CHAIR CHAPMAN: Thank you. Any
8 questions for Marco? Steve?

9 MR. ELA: In your system, and I'm still
10 wrestling with, you know, I hear biological
11 activity, but I'm just going to come back to what
12 I asked earlier today about multiple trophic
13 levels of you know, nematodes, earthworms,
14 arthropods. I mean, it sounds like a container
15 system, but how do you incorporate multiple
16 biological levels?

17 MR. DE LEONARDIS: We apply nematodes
18 through balloons, and there is bacillus pumilus
19 added to the soil at the producer. We have
20 mycorrhizae in the soil, and I have been doing an
21 extensive research before choosing our media,
22 which is a proprietary mix.

1 And I have been analyzing for eight
2 months every week, analyzing the soil and see how
3 the soil changed so that I could add the right
4 amount of fertilizer in the soil and the plants
5 could get most of its nutrients from the soil.

6 So I consider the pot as a
7 microenvironment that is very similar to what you
8 find in the field. It's just a microenvironment,
9 and once it's finished, it will go back to the
10 soil.

11 So we are actually improving the soil
12 by when our pots either are transplanted in our
13 herbs or our vegetables which we grow for the
14 garden centers. They go back to the soil, so this
15 enriches the soil with all the organic matter that
16 we added to it, and the microbes, and the
17 beneficial.

18 CHAIR CHAPMAN: Thank you, Dave?

19 MR. MORTENSEN: Yeah, I was wondering
20 if you could speak to the assertion that we can't
21 meet the food demand if we don't have hydroponic,
22 and I ask that because, you know, all sorts of

1 studies are out there that demonstrate that we're
2 using a lot of the land for biofuels, ethanol,
3 corn production. So where do you come up with the
4 assertion that we can't meet the vegetable demand
5 in the soil?

6 MR. DE LEONARDIS: Because there is not
7 enough available land in North American because of
8 the climate, so you can't grow year-round, so we
9 would have to import during the winter, for
10 example, in Canada, vegetables from Mexico or
11 other countries where they can grow it year-round.

12 It's impossible to meet the demand
13 because there is not enough land available with
14 the right climate to grow those vegetables, or
15 those plants, or those herbs.

16 MR. MORTENSEN: Yeah, it would seem to
17 me that that's a choice more than it is a capacity
18 to produce, I would argue strongly, but I see what
19 you mean about land near urban centers. Thanks.

20 MR. DE LEONARDIS: Yes.

21 CHAIR CHAPMAN: Francis, and then we'll
22 cut it off there.

1 DR. THICKE: So can you meet the new
2 organic, Canada's standards? Do you sell in
3 Canada? Can you meet Canada's container
4 standards?

5 MR. DE LEONARDIS: Yes, we do.

6 DR. THICKE: You have 70 liters per -

7 MR. DE LEONARDIS: Well, we grow in
8 pots, organic pots that are from rice husks which
9 are biodegradable, and there is not - it's not
10 like in containers like there is a certain amount
11 because you grow tomatoes.

12 We sell live herbs and vegetables that
13 we grow for the garden centers, so they would be
14 transplanted, so those are actually considering
15 the recommendation would not fall under the matter
16 we're discussing today, but the herbs that we sell
17 as a live plant, it goes either, most of the time,
18 either the customer transplants it and then has
19 the herb, or during the winter, they can harvest
20 fresh herbs in their house.

21 And as I said, after it's finished, we
22 can put the pot with the soil that we have in it

1 in the ground because it's biodegradable, and it's
2 actually enriching the soil. So we are following
3 all organic directions, and it is allowed in
4 Canada, yes.

5 CHAIR CHAPMAN: Thank you. Thank you
6 for your testimony. Up next is Johanna, and on
7 deck is Jackie DeMinter. You can start with your
8 name and affiliation for the record.

9 MS. MIRENDA: Okay, hi, I'm Johanna
10 Mirenda, technical director of OMRI, the Organic
11 Materials Review Institute.

12 First, some background information
13 about OMRI for the benefit of the new board
14 members, OMRI is a nonprofit organization that
15 provides expert, independent, and transparent
16 review of input materials used in certified
17 organic production and handling.

18 We have reviewed and approved over
19 4,800 products all published in OMRI's well-known
20 OMRI Products List available to the public and
21 widely used by certifiers to determine compliance
22 of the operations they certify.

1 OMRI is a contractor for technical
2 evaluation reports, and over the past five years,
3 we've completed 37 technical reports on a wide
4 range of materials. We also provide educational
5 resources and training to certifiers on technical
6 material review.

7 Since OMRI's founding in 1997 by a
8 partnership of certifiers, OMRI has been a
9 resource for material review information for NOSB
10 members and the greater organic committee.

11 To the crop subcommittee regarding the
12 proposal to change the annotation for
13 synthetically extracted aquatic plant products,
14 currently any aquatic plant is eligible for
15 synthetic extraction in accordance with 205-601J1.

16 The subcommittee's proposal to add the
17 phrase, derived from brown seaweeds, would
18 prohibit other types of aquatic plants such as red
19 and green seaweeds from being synthetically
20 extracted. The rationale for this restriction is
21 unclear, and unclear why synthetically extracted
22 brown seaweeds would be compliant, but not red or

1 green seaweeds.

2 Though OMRI does not take a position on
3 whether individual materials should or should not
4 be allowed, we do ask that board members justify
5 their recommendations with a citation from the
6 Organic Foods Production Act, the evaluation
7 criteria for exemptions for prohibited synthetic
8 substances which must be not harmful to human
9 health or the environment, necessary for
10 production because natural alternatives are not
11 available, and consistent with organic principles.

12 Citing these OFPA criteria for each
13 vote on materials is important for organizations
14 like OMRI to communicate why certain synthetic
15 materials are granted an exception to be allowed.
16 The justification that all synthetics on the
17 national list have been fully vetted to meet these
18 criteria is a key component of our messaging about
19 organic integrity of materials used in certified
20 organic production.

21 And with extra time, I'll correct the
22 public record that OMRI has heavy metal testing

1 requirements for most crop fertilizers, and OMRI
2 agrees that MROs like OMRI should be accredited by
3 the NOP.

4 CHAIR CHAPMAN: Thank you, questions?
5 I see Emily. Emily, go ahead.

6 MS. OAKLEY: Hi, thank you. So could
7 you tell me, in your written comments, you
8 mentioned that you guys have some products that
9 contain red algae, but didn't specify exactly how
10 many, and I was wondering if you have that
11 information that you might be able to share with
12 us now?

13 MS. MIRENDA: Sure, thanks, Emily. We
14 did skim through the information we had available
15 to us on the taxonomic classifications of aquatic
16 plants in products that we have listed as
17 synthetically extracted.

18 And the information available to us in
19 the short nine-day period allowed us to verify
20 that most of the products for which we do have
21 taxonomic information are from brown seaweeds, and
22 a handful, at least two, have red algae, but it

1 would take more time to comb through all of the
2 products and potentially collect that information,
3 because it's not currently required for material
4 review, to see if other or more types of seaweeds
5 are used, plus other certifiers may be approving
6 other products.

7 MS. OAKLEY: Since he's not looking,
8 I'm just going to ask a follow up question. Do
9 you know any more detail on which red algae are
10 used?

11 MS. MIRENDA: Yes, but I can't
12 pronounce it.

13 MS. OAKLEY: Is it that weird one,
14 Merell? I think it -

15 MS. MIRENDA: No, it's -

16 MS. OAKLEY: No, okay.

17 MS. MIRENDA: - gelidium?

18 CHAIR CHAPMAN: Thank you. Harriet?

19 MS. BEHAR: Would research on
20 sustainability of the harvest of inputs add a lot
21 of burden to the review that OMRI does of wild-
22 harvested materials like kelp and possibly fish?

1 And I haven't looked at the whole national list to
2 see what else might be effected.

3 MS. MIRENDA: Well, once a material is
4 considered approved under the regulations, whether
5 it's a nonsynthetic allowed because it's not on
6 602 like other aquatic plants that aren't
7 synthetically extracted, there isn't any need to
8 review the harvesting of that product because it's
9 an allowed nonsynthetic.

10 Rather I think the review process of
11 the NOSB when considering materials in accordance
12 with the OFPA criteria should consider the depth
13 and the scope of the impact of that material on
14 the environment.

15 Typically, you may just consider the
16 actual use of the material on an organic farm, but
17 looking back into the manufacturing process, and
18 in some cases, the production harvesting if it's
19 an agricultural input, would, yeah, add greater
20 integrity, and depth, and scope to your review.

21 MS. BEHAR: Just a little follow up, so
22 if we, let's say, had, you know, recommended

1 guidance or something about the sustainable, turn
2 it off on the MROs again, that's what I'm
3 wondering, how much work it would be for you to -
4 you know, because we've heard that there are other
5 sustainable certifications out there that do
6 review the harvest.

7 MS. MIRENDA: Yes.

8 MS. BEHAR: I know there is for fish
9 and there is for kelp, and I'm just kind of
10 wondering how that would affect you?

11 MS. MIRENDA: Well, if it's a
12 regulatory requirement, we'll find a way to do it,
13 but material input manufacturers are somewhat
14 outside of the scope of required compliance.

15 So OMRI has some ability to require
16 additional information from manufacturers because
17 they are choosing to apply to us and provide lots
18 of information that maybe a certifier who has a
19 farm or using a product is, you know, begging for
20 information from that manufacturer might have no
21 idea what organic is. So the feasibility and
22 practicality of getting more information about

1 input materials is a question.

2 CHAIR CHAPMAN: Thank you. Thank you
3 very much. Up next is Jackie, and then following
4 Jackie is Ed Lehrburger from Pure Hemp. Sorry if
5 I butchered your name, Ed. Jackie, if you can
6 start with your name and affiliation?

7 MS. DeMINTER: Good morning, my name is
8 Jackie DeMinter. I'm a Certification Policy
9 Manager at MOSA. We certify approximately 2,000
10 operations throughout the United States, including
11 almost 900 livestock operations and 250 handlers.
12 My comments today will address defining emergency
13 and ancillary substances in cellulose. Thank you
14 for the opportunity to comment on these topics.

15 The NOSB is positioned to encourage and
16 embrace growth of the organic industry, and to
17 strengthen the organic seal. We encourage a
18 patient process for coming to final
19 recommendations. And since the comment period was
20 quite short for this meeting, we'd encourage
21 sending most proposals back to subcommittee and to
22 continue with the discussion documents at the fall

1 meeting.

2 While we support the general direction
3 of the NOSB to further define the term emergency
4 with regard to materials used in livestock
5 production, we do not support an additional rule
6 change to section 205-238 in the standards. We
7 feel the new livestock rule addition of 238d
8 adequately addressed the needs identified with
9 regard to parasiticide use.

10 Routine use of parasiticides is
11 defined, and it's logical that the term emergency
12 would also have a definition. However, any
13 definition should also consider other references
14 in the standards, and should not specifically
15 refer to parasiticides.

16 In addition to a definition, examples
17 related to organic livestock management would be
18 helpful. What types of situations qualify as an
19 emergency? We believe the NOP intended closer
20 attention be given to parasite control and
21 prevention, and we are revising our organic system
22 plan accordingly. Our intention is to better

1 assess the plans for prevention already in place,
2 emergency measures planned in the event of an
3 outbreak, and why such a situation may arise.

4 In our experience, an emergency would
5 occur when one or more animals are going to die,
6 or be permanently damaged, or are going to spread
7 the parasites to other animals if they do not
8 receive prompt treatment.

9 We have to be sure that adequate
10 prevention measures are built into the organic
11 management system, but even with these best
12 measures in place, parasites are adaptive and they
13 can appear quickly.

14 We would not, however, consider regular
15 outbreaks as a result of inadequate pasture
16 management to be an emergency. Definition and
17 examples of emergencies would help with certifier
18 consistency.

19 Ancillary substances and cellulose,
20 only a few MOSA certified operations use
21 cellulose, but many ingredients we see have
22 ancillary ingredients, so we appreciate the

1 ongoing consideration by the NOSB. This new part
2 of the sunset review process represents due
3 diligence and will provide needed clarification
4 regarding any substances that might be of concern.

5 Assuming you have identified potential
6 concerns and found none, we'd see our review work
7 as redundant and burdensome. If there are
8 materials that are of concern, we'd appreciate
9 those concerns being called out in annotations.

10 I do have additional thoughts on
11 planting stock if you'd like to ask me questions.
12 Thank you for your work on these challenging and
13 precedent setting topics.

14 CHAIR CHAPMAN: Thank you. Any
15 additional questions? Scott and then Harriet.

16 MR. RICE: I would love to hear more
17 about planting stock, Jackie.

18 CHAIR CHAPMAN: Briefly.

19 MR. RICE: Or how MOSA looks at it.

20 MS. DeMINTER: I'll keep it brief. At
21 the last meeting, I did make a comment on planting
22 stock. We believe that soil used in an organic

1 container system must be free of prohibited
2 materials for 36 months prior to the harvest of
3 the crop, and that any other ingredients in the
4 media also be allowed.

5 We feel that this should be true as
6 well for non-organic planting stock brought onto
7 the organic operation, yet we've been advised that
8 any media, as part of the non-organic production
9 system, does not require review.

10 This presents a dilemma for certifiers
11 and it needs to be addressed and the exception
12 resolved. We should be looking at things in the
13 same manner whether it is on the organic operation
14 or being brought onto the organic operation from
15 a well-vetted process.

16 You know, we have to verify that the
17 measures that they are taking using non-organic
18 planting stock, they're doing their due diligence
19 to try to find that organic planting stock, but if
20 we don't have to review that media or look deeper
21 into what is being brought onto the organic
22 operation, then we're sort of defeating that

1 purpose, so we'd really advocate for that
2 exception to be resolved.

3 CHAIR CHAPMAN: Thank you. Harriet?

4 MS. BEHAR: So I'd like to go back to
5 emergency treatment. There's places in the rule
6 that kind of, that are a standard, and they have,
7 like in pest control, they have a hierarchy.

8 And I know we've gotten some public
9 comment that the emergency treatment definition
10 would be tied to a hierarchy that would give a
11 roadmap basically to producers and certifiers of
12 what various things should have been done before
13 the resort was the synthetic parasiticides.

14 And that's one of the reasons why we
15 didn't make emergency treatment a wider aspect
16 because, of course, when you're going to use
17 lidocaine or something, you know, that's a
18 different type of protocol that you would follow,
19 but if we ended up with something like that in the
20 rule, would you be supportive of that?

21 MS. DeMINTER: In the rule or as
22 guidance? I think that that's the

1 differentiation. In the rule, I don't know that
2 I would - I don't know that we would support a
3 rule change. I feel that guidance can give a lot
4 of added examples and guidelines for certifiers to
5 follow.

6 We follow lots of different guidance
7 and it's very helpful, and when you're looking at
8 a complex topic, you know, as emergency treatment
9 of parasiticides, guidance, in my opinion, might
10 be the better route than a rule change because of
11 the complexity of it, but we would definitely
12 support exactly what you're saying, that guidance
13 being in place.

14 We have it with regard to facility pest
15 management and other things like that. What I was
16 saying with regard to incorporating the other
17 references in the rule is with the definition of
18 emergency.

19 I totally support the idea of
20 additional guidance for parasiticide use and what
21 that step up treatment plan might be and what
22 measures need to be in place, but the definition

1 of emergency, because it's used in direct
2 reference with at least two other materials on the
3 national list, poloxalene and xylazine, it needs
4 to be a broader definition because those are
5 emergency treatments also.

6 CHAIR CHAPMAN: Thank you. Ashley, and
7 we'll cut it off there.

8 MS. SWAFFAR: Sorry, guidance, do you
9 feel that guidance is not adequately enforced over
10 all certifiers? That's my concern with guidance.
11 You probably won't see guidance coming out of
12 livestock. I'm just saying.

13 MS. DeMINTER: I'd leave that one to
14 the NOP to answer, I think. We follow guidance.
15 MOSA takes guidance very seriously, and we
16 implement it when final guidance comes out, and we
17 do our best to follow that strictly as we would
18 the rule, and whether or not certifiers are
19 consistently applying guidance I feel would be the
20 NOP's responsibility through accreditation audits
21 to verify.

22 MR. McEVOY: Yeah, so we have a lot of

1 guidance that's in the program handbook. Guidance
2 is interpretation, gives additional information on
3 how to comply with the regulations, that the
4 regulations are the things that are enforceable,
5 so guidance can be referenced in enforcement
6 actions, but the requirements are to comply with
7 the regulations.

8 Guidance supplements the regulations,
9 but can't take the place of regulations. You
10 can't do regulations through guidance. So if it's
11 just to explain what the current regulations are,
12 then we can do a lot of things through guidance,
13 but we can't change the requirements through
14 guidance.

15 CHAIR CHAPMAN: Thank you. Thank you,
16 Jackie.

17 MS. DeMINTER: Thank you.

18 CHAIR CHAPMAN: Up next is Ed, and
19 following Ed is Nicole Dehne from Vermont Organic
20 Farms. Ed, you can start with your name and
21 affiliation for the record.

22 MR. LEHRBURGER: Thank you, Ed

1 Lehrburger. I'm with Pure Vision Technology and
2 Pure Hemp Technology. We're a company that
3 processes biomass.

4 Since the legalization of hemp, we
5 converted hemp stocks into pulp and paper. We
6 make paper products from Colorado grown hemp. We
7 take the flowers and we make dietary supplements,
8 and we take the sugars and make products like
9 Xylitol.

10 So thank you for allowing public
11 comment on this extremely important topic of
12 organic certification of industrial hemp
13 production.

14 As the CEO in the renewable biomass
15 industry for 20 years, I know it would be a net
16 benefit for domestic producers and consumers for
17 the USDA organic seal to be able to be applied to
18 all domestic hemp products produced from organic
19 certified land, not just those that fall under the
20 definition of hemp as articulated in the USDA,
21 FDA, DEA statement of principles on industrial
22 hemp.

1 As a processor speaking on behalf of
2 the hemp industry in Colorado and a growing number
3 of states in our country, we'd like really clear
4 communication about certified organic hemp growing
5 in organic soils and the use of those products so
6 we can label them properly for consumers. Thank
7 you.

8 CHAIR CHAPMAN: Thank you. Any
9 questions? Thank you very much.

10 MR. LEHRBURGER: You're welcome.

11 CHAIR CHAPMAN: Sorry, we do have a
12 question, Sue?

13 MS. BAIRD: Yes, you said organic hemp
14 grown in soils. What percentage is grown in soils
15 and what percentage is grown hydroponically?

16 MR. LEHRBURGER: I don't know the
17 answer to that, but I would say that as a
18 processor, we've never dealt with anyone growing
19 hemp hydroponically. It's all grown in soil.

20 CHAIR CHAPMAN: Thank you.

21 MR. LEHRBURGER: Thank you.

22 CHAIR CHAPMAN: Up next is Nicole,

1 followed by Kyla Smith on deck. Nicole, if you
2 can start with your name and affiliation for the
3 record?

4 MS. DEHNE: Sure, that's Nicole Dehne.
5 I don't mind that you - there's a lot of
6 butchering that happens with my name all the time,
7 so don't worry. I'm the Certification Director
8 for NOFA Vermont's organic certification program,
9 and that's Vermont Organic Farmers.

10 So VOF has been certifying organic
11 producers since 1985, and we currently certify
12 close to 700 organic producers in our state. I'd
13 like to thank the NOSB members today for their
14 hard work and their dedication, and also for the
15 opportunity to address the board.

16 I am going to comment on three items.
17 The first is the discussion document clarifying
18 emergency for the use of synthetic parasiticides.
19 So the recommended annotation changes for
20 synthetic parasiticides will result in greater use
21 of these materials. So in preparation for that
22 increased use, we feel that further clarification

1 of the term emergency will assist certifiers in
2 enforcing these regulations consistently.

3 So we would support a definition of
4 emergency that clarifies the following, that the
5 procedure is not routine, that preventative
6 measures were established and have failed, that
7 identifies testing or procuring the recommendation
8 of a vet to determine infestation, whether the
9 animal's life or well-being is at risk, and that
10 requires that steps are taken to prevent a
11 reoccurrence.

12 So the second thing I'd like to comment
13 on is the sunset of biodegradable mulch. NOFA
14 Vermont and VOF frequently hear from our organic
15 producers about their desire to use biodegradable
16 bio-based mulch as an environmentally friendly or
17 alternative to plastic mulch.

18 So the current NOP policy and memo, as
19 you know, requires that biodegradable mulches be
20 100 percent bio-based despite the fact that the
21 NOP rule does not specify this, and obviously the
22 problem with this interpretation is that there are

1 no mulches available at this time or in the near
2 feature that could meet this 100 percent bio-based
3 requirement.

4 So we encourage the NOSB to find a
5 reasonable solution to this issue that allows
6 farmers to use a mulch film currently on the
7 market that's not 100 percent bio-based, while
8 creating a recommendation that could incentivize
9 production of biodegradable mulch with increased
10 bio-based content. So don't let the perfect be
11 the enemy of the good in that situation.

12 Then our third is just the discussion
13 document on aeroponics, hydroponics, and
14 aquaponics. The VOF believes that improving soil
15 health is the foundation of organic farming, and
16 therefore that those systems should not be
17 allowed.

18 We support the regulation changes and
19 definitions of these systems as described in the
20 discussion document. We strongly encourage the
21 NOSB to limit container growing to transplants and
22 plants sold in pots.

1 We feel drawing a line in the sand to
2 determine how much soil is sufficient, how much
3 compost is required, how much fertilization is
4 allowed post-planting creates amongst growers a
5 feeling that the standards are arbitrary, and we
6 prefer the EU's simple approach that reflects the
7 principles of the organic movement.

8 CHAIR CHAPMAN: Thank you. Any
9 questions, Emily, Steve?

10 MS. OAKLEY: Hi, thank you. As a
11 farmer, I've heard from farmers about the
12 biodegradable bio-based mulch as well. A lot of
13 those farmers though aren't aware that such a high
14 percentage of the product is petroleum-based and
15 are surprised when they hear that, so I'm
16 wondering if the farmers that you're hearing from
17 are also aware of that content?

18 MS. DEHNE: I do, and I think it's this
19 balance of, you know, when I am on organic
20 vegetable farms, I'm often reaching down and
21 picking up little pieces of the black plastic just
22 as a habit, and so it's this balance of we're

1 using a product that's unsustainable at the
2 moment.

3 And you know, I think the material was
4 allowed on the national list knowing that it was
5 a synthetic material and that it had synthetic
6 polymers. So, you know, I'm wondering if there's
7 a balance that we can obtain.

8 MS. OAKLEY: Have you had a chance to
9 look at the TR and do you have any concerns about
10 soil accumulation or effects on the soil?

11 MS. DEHNE: Yes, I did read that and I
12 saw that accumulation piece, and yes, that does
13 make me pause, but again, I feel that there's a
14 balance and that's where I kind of came up with
15 this idea of, you know, you can't let the perfect
16 be the enemy of the good in this situation.

17 CHAIR CHAPMAN: Steve?

18 MR. ELA: So two questions, I mean,
19 following up on, we, you know, in general, don't
20 allow the application of petroleum products, I
21 mean, you know, because it's a slippery slope of
22 what, you know, and then is it fertilizer? You

1 know, is that bio-based mulch acting as a
2 fertilizer?

3 So I'm curious how you, you know,
4 resolve that? You know, we are still putting a
5 synthetic petroleum product on the soil. Even if
6 it breaks down, it's a synthetic additive that we
7 generally wouldn't allow.

8 And then my second question is on the
9 hydroponics or the containers. You know, not to
10 be too prescriptive, but to have an easy farmer to
11 understand thing, but what is that?

12 MS. DEHNE: Well, I guess for the
13 petroleum product question, we are using a
14 petroleum product right now. We're using massive
15 amounts of black plastic to grow organic crops, so
16 if we weren't allowing the use of black plastic
17 and then we were considering the use of
18 biodegradable bio-based mulch, that would feel
19 different to me, but we've already allowed a
20 petroleum product in and we're using it. We're
21 relying on it quite frequently, so, you know, how
22 do we balance that?

1 The container question, you're
2 wondering whether VOF would support container
3 growing?

4 MR. ELA: Well, it's more you said, you
5 know, if we start talking about, you know, so much
6 soil, or so much compost, or a certain percentage
7 of nutrients, you know, you don't necessarily
8 support that, and I mean, maybe I misunderstood.
9 At the end, you said you'd support an easy to
10 understand rule or whatever, and I mean, I think
11 that's what we're struggling with.

12 MS. DEHNE: Right.

13 MR. ELA: What is that?

14 MS. DEHNE: Right, I think, you know,
15 I mean, if pushed, I think it's possible to come
16 up with this definition of what it means to have
17 enough soil, and I would say that would be how
18 much compost, you know, how much fertilization,
19 how much volume of soil, maybe addressing
20 artificial lighting.

21 It's just what worries me is this over-
22 complicates the issue. We have this really

1 elegant simple approach that is if it's grown in
2 the soil, then that's allowed with limited
3 exceptions.

4 And I think what happens, what I see
5 amongst our growers as, you know, a certifier who
6 has to regulate and convince people that these
7 standards make sense is that it starts to feel
8 arbitrary. So, Oh, you know, you need one more
9 teaspoon of soil in order to qualify with this,
10 and they look at me like, you know, like I'm
11 crazy, and that might happen enough anyway.

12 So it just seems to me we do this a
13 lot. We over-complicate, and we could - we have
14 a solution that could be really simple that
15 everyone would understand that would be easy to
16 verify, so that's our preference.

17 CHAIR CHAPMAN: Scott, and we'll stop
18 it there.

19 MR. RICE: Just to put some context,
20 there's a lot of talk in the recent commentaries
21 and discussion with the board on the petroleum
22 issue, and I just for context wanted to point out

1 the use of horticultural oils in a lot of the tree
2 fruit industry and elsewhere for the control of
3 pests. I appreciate the comments that you shared
4 of not letting the perfect be the enemy of the
5 good.

6 CHAIR CHAPMAN: Thank you.

7 MS. DEHNE: Okay, thank you.

8 CHAIR CHAPMAN: Up next is Kyla with
9 Garth Kahl on deck. I just want to quickly before
10 you start, Kyla, run through my current plan.
11 We'll go until 12:15 where we'll break for lunch
12 and start back at 1:30.

13 So what that means is in addition to
14 the names I've read before, Marty Mesh, Rodrigo
15 Ortega, Steve Rosse, Ian Justus, Ruth Watts, and
16 Jason Kamimoto will also happen after lunch. If
17 there's an issue with that, with your ability to
18 stay, please come talk to Michelle and we'll try
19 to rework the schedule.

20 Kyla, can you start with your name and
21 affiliation? Thank you.

22 MS. SMITH: Good morning, my name is

1 Kyla Smith. I'm the Certification Director at
2 Pennsylvania Certified Organic. I also serve as
3 the Chair of the Accredited Certifiers Association
4 Board of Directors. PCO certifies over 1,200
5 operations in the mid-Atlantic region of the U.S.

6 PCO submitted written comments on
7 several topics. I'd like to reiterate a few
8 points from those comments regarding the crop
9 subcommittee's proposal for strengthening the use
10 of organic seed, as well as the livestock
11 subcommittee's discussion document for clarifying
12 the term emergency.

13 First, while PCO appreciates the
14 concept of continuous improvement, we are
15 concerned with the practical application of the
16 proposed regulatory change to 205-204. Without
17 further guidance, this idea of continuous
18 improvement has the potential to be inconsistently
19 implemented and enforced.

20 PCO identified several areas that
21 require further clarification in our written
22 comments, most importantly, what happens when an

1 operator achieves full compliance with 205-204a by
2 using 100 percent organic seed as the proposed
3 language would be required, and then in a
4 subsequent year, must use non-organic seed for
5 some viable reason such as crop failure? Are they
6 now noncompliant because they didn't improve that
7 year, or would they be required to request a
8 temporary variance to stay compliant?

9 PCO also has concerns with the addition
10 to section 4.2.1 regarding record keeping and
11 recording the specific justification for each
12 variety of seed that a producer is using, and the
13 justification for each variety.

14 The additional record keeping
15 requirements this will entail are significant. If
16 the expectation is for inspectors and certifiers
17 to verify for accuracy each justification listed
18 by an operation for each variety of seed used,
19 this will increase the time of the inspection and
20 review process, which will in turn increase fees
21 passed along to the operator.

22 Second, PCO supports the inclusion of

1 a definition of emergency within the regulations.
2 While the regulations currently outline the
3 parameters for parasiticide use and define routine
4 use of parasiticides, providing a definition that
5 all certifiers and organic livestock producers
6 could use to determine what constitutes an
7 emergency would further aid in the consistent
8 application of the annotated listing of
9 parasiticides, as well as other substances that
10 also contain the term emergency in their
11 annotations.

12 The definition of emergency has the
13 potential to be precedent setting if adopted into
14 the regulations, depending on the specifics of the
15 term defined. If simply defined as emergency
16 without specific context pertaining to
17 parasiticide use, this would also apply to other
18 substances listed at 205-603, namely poloxalene
19 and xylazine, as both annotations refer to the
20 term emergency.

21 PCO would find this broader context
22 useful as most of the inquiries we receive

1 regarding what constitutes an emergency are
2 pertaining to those listings as opposed to the
3 parasiticide listing.

4 In addition, clarification through
5 guidance of examples of management practices would
6 also be helpful. Thank you.

7 CHAIR CHAPMAN: Thank you. Questions?
8 Thank you, Kyla. Up next is Garth, and on deck is
9 Cori Skolaski. Garth, you can start with your
10 name and affiliation for the record.

11 MR. KAHL: Hi, my name is Garth Kahl.
12 I'm with Common Treasury Farms, and I also run
13 Independent Organic Services. It's an inspecting
14 and consulting operation.

15 I want to thank the NOSB for taking the
16 time to also read my written comments. I know you
17 do read them. I really appreciate it. I get
18 emails sometimes from people at 4:00 in the
19 morning. I know it's an amazing amount of work
20 you do, so thanks for all that work.

21 I submitted written comments on a
22 number of topics, but I specifically want to talk

1 about personal performance evaluations because
2 it's something near and dear to my heart. So in
3 general, I think the scope of the CACS in
4 attempting to wrestle with this problem, I think
5 you've done a good job.

6 Nobody contests the fact that field
7 evaluation is beneficial to everyone involved,
8 inspectors, certifiers, and ultimately other
9 stakeholders. The NOP witness audits did reveal
10 that there is a wide discrepancy in competence and
11 skills of organic inspectors.

12 At the same time, NOP has kind of
13 complicated the situation by continually revising
14 2027, and at times there has been some
15 contradictory statements. It's not advancing.
16 There we go.

17 So I've been an organic inspector for
18 21 years, and I'm an IOIA accredited inspector in
19 all scopes. My main objection, and Scott
20 clarified this a little bit, but my main objection
21 has to do with part of the proposal that states
22 that witness audits should be conducted preferably

1 by certifier staff.

2 And I would like to propose instead the
3 language that witness audits should be conducted
4 by a senior qualified certifier staff member,
5 preferably one with experience performing organic
6 inspections, or by senior peer inspectors provided
7 that they have been properly trained in witness
8 audits.

9 Specifically, you know, this is a
10 specialized skill, and I don't like the idea that
11 someone who is not an inspector is preferable in
12 terms of doing that evaluation.

13 In talking with some of my colleagues,
14 I've heard some horror stories that people have
15 been sent out to do evaluations with very little -
16 you know, they've been evaluated by people with
17 very little experience. In short, at the same
18 time, yes, I'm hearing some really good positive
19 things.

20 I really like the idea of an ACA/IOIA
21 task force to come up with training criteria, and
22 yes, yes, yes, Harriet's assertion, inspectors do

1 make better reviewers, and I think vice versa, and
2 I think cross training in that area is a splendid
3 idea. You know, a lot of us do wear both hats,
4 and it's a good thing. So thank you very much for
5 your time, and I'll take any questions, and sorry
6 if I put anyone to sleep.

7 CHAIR CHAPMAN: Thank you very much.
8 Any questions? Thank you. Oh, Harriet?

9 MS. BEHAR: Do we have your wording?
10 Was that in a written comment too?

11 MR. KAHL: Yes, it's -

12 MS. BEHAR: Okay.

13 MR. KAHL: It's all in the written
14 comments. So I submitted two written comments,
15 one with general things, and one specifically on
16 the peer evaluation.

17 MS. BEHAR: Yes, I can't remember every
18 specific thing people wrote?

19 MR. KAHL: Really? I'm surprised.

20 CHAIR CHAPMAN: Thank you very much.
21 Up next is Cori with Stephen Walker on deck.

22 MS. SKOLASKI: Good morning, my name is

1 Cori Skolaski and I'm the Executive Director of
2 MOSA Certified Organic in Viroqua, Wisconsin.
3 Thank you members of the National Organic
4 Standards Board for your good and hard work. It
5 does not go unnoticed.

6 Originally, I was going to come up here
7 today and talk about 2017. Specifically, I was
8 going to ask that there be clarification about
9 what constitutes ongoing training or education of
10 inspectors, but in their remarks, Jenny Cruse from
11 the Accredited Certifiers Association and Margaret
12 Scoles from IOIA spoke very well on this issue,
13 and most have submitted written comments, so I
14 feel I'm covered.

15 However, I will add that contrary to
16 what we heard earlier, MOSA has, in fact, received
17 a noncompliance based on guidance documents, and
18 it was regarding on site annual evaluation of
19 inspectors.

20 We agree that guidance should be
21 consistently applied among certifiers, but instead
22 of talking more about 2027, I would like to

1 express gratitude. MOSA certifies over 2,000
2 operations in 22 states, and certifies more
3 livestock operations than any other agency. This
4 gives us a keen awareness of the challenges
5 related to organic certification of various
6 livestock species.

7 And although we haven't discussed it
8 much at this meeting, I would like to express for
9 the record MOSA's appreciation of the work that
10 the NOSB and NOP have done on the organic
11 livestock and poultry practices rule.

12 The rule provides a welcome level of
13 specificity that we believe will bring about
14 consistency in enforcement within the industry,
15 which in turn translates into a level playing
16 field for producers and greater consumer trust in
17 the organic seal.

18 We have not heard many concerns about
19 the rule from MOSA's 900 or so livestock clients.
20 In fact, the opposite is true. We've generally
21 been hearing support and appreciation that animal
22 welfare is being clarified. We sincerely hope

1 that the rule will be implemented in a few weeks.

2 As I express support for the organic
3 livestock and poultry practices rule, I would also
4 like to voice support for the work of the National
5 Organic Program in general.

6 The work done by the NOP and by the
7 members of the NOSB is of profound importance to
8 growers, to consumers, to our nation's economy, to
9 our planet, and for our grandchildren. Thank you
10 for your commitment to a program that is so
11 important to us all, and to your commitment to
12 organic integrity.

13 CHAIR CHAPMAN: Thank you. Questions?
14 Thank you very much. Up next I have Stephen
15 Walker, and on deck, David Ferman. And if we are
16 ahead of schedule, I will still continue to call
17 you, so Marty Mesh, Rodrigo, you may go before
18 lunch.

19 MR. WALKER: Good morning.

20 CHAIR CHAPMAN: Start with your name
21 and affiliation.

22 MR. WALKER: I'm Steve Walker,

1 Operations Manager at MOSA. Thank you for the
2 discussion on eliminating conversion of native
3 ecosystems to organic production. Over the years,
4 our certification work has assessed organic
5 operators' attention to conservation and
6 biodiversity protection with moderate success, but
7 now with some hindsight, we see we could have more
8 specifically addressed practices that precede
9 organic certification. We learn with continuous
10 improvement. It's time to do better.

11 Recently on many fronts, I'm giving a
12 lot of thought to deep organic values and the
13 challenges of setting boundaries. I'm inspired by
14 global organic principles as expressed by IFOAM
15 and by the NOSB.

16 As a global organic community, we agree
17 that organic agriculture must consider how we
18 interact with living landscapes and relate to one
19 another, and organic ag should emulate and help
20 sustain living ecosystems, should ensure fairness
21 with regard to the common environment, and be
22 managed in a precautionary and responsible manner

1 to protect the health and well-being of future
2 generations and the environment.

3 The NOSB's organic principles from 2001
4 stress that organic systems should be
5 ecologically, socially, and economically
6 sustainable. We are at odds with our principles
7 if we continue conversion of biologically valuable
8 lands to organic production. Our work should be
9 about improvement, about promoting new life, not
10 further agricultural destruction.

11 However, we know that by its very
12 nature, agriculture is destructive. To live,
13 we've got to eat something. Sometimes drawing
14 boundaries is hard, but as regulators, we're in
15 the business of drawing boundaries, and this
16 conversion issue is tough to regulate. Our
17 certification systems with their forms and
18 boundaries may not be the best method for
19 addressing this.

20 My friend, Dave Engel, gifted many of
21 us with his wisdom and wit. Early in my time
22 working with Dave, I remember he said, the biggest

1 barrier to organic is the space between the ears.
2 I think if people understand why organic and use
3 some discernment, then they work toward doing the
4 right thing, toward honoring deep organic
5 principles.

6 Beyond that, we certifiers can regulate
7 if we have clear expectations that are practical
8 and enforceable. NOSB and NOP documents which
9 clarify expectations help to empower certifiers in
10 our enforcement.

11 Our written comments include more
12 detail on enforcement challenges, possible
13 sanctions and review tools, incentives, and
14 definitions. Thanks.

15 CHAIR CHAPMAN: Thank you. Harriet?

16 MS. BEHAR: Has MOSA seen the
17 conversion of native ecosystems in, you know, in
18 any of the operations that you've certified, new
19 people coming in and tearing up a native prairie,
20 or draining a wetland, or some - moving into an
21 area where there's been threatened or at-risk
22 species?

1 MR. WALKER: Not to my knowledge, but
2 as we get older, we realize more and more what we
3 don't know, and we did send a village of us here
4 to help with some of these answers, but not to my
5 knowledge.

6 CHAIR CHAPMAN: Thank you very much.
7 Up next is David Ferman with Marty Mesh on deck.

8 MR. FERMAN: Good morning. My name is
9 David Ferman representing NS Brands. So we
10 produced organic tomatoes employing several
11 hundred in Arizona. I want to thank you for your
12 time. I also realize that I am standing between
13 you and lunch, so we'll try to get you a little
14 time back.

15 We've heard some voices in this room
16 yesterday and today talking about what organic
17 means to farmers, to the soil, to plant biology.
18 Thank you, but only scarcely have we really
19 discussed in-depth what it means to the consumer.

20 We shared some information at the fall
21 NOSB meeting, and then there was a little
22 discussion yesterday, but I really want to delve

1 a little deeper into the depth of that
2 conversation and, you know, communicate what the
3 consumer has said.

4 Last fall, we did a third-party survey
5 to understand consumers' thoughts on organic
6 issues. We didn't lead them. We asked for them
7 to lead us. I'd like to share their voices with
8 you now. The first question we asked them was for
9 their priorities in improving farming for organic
10 produce, and this was their answer. You know, the
11 top two items, reducing pesticides and
12 affordability.

13 The second question really gets to the
14 heart of why they buy organic produce, and you'll
15 note that far down on the list, 10th out of 12,
16 was the consideration specific to soil. The fact
17 is that consumers make their purchase decisions
18 for organic based upon nutrition and health way
19 and far above the growing method.

20 The next thing we asked for the
21 consumer was what they think about their focus on
22 our efforts for improving organic produce, and on

1 the far right, you see that 81 percent of these
2 consumers responded that they're in favor of
3 continuing to allow for container growing.

4 Now, only after we showed the consumers
5 these questions did we provide them a profile of
6 container growing. Yesterday there was some
7 discussion around what questions were led, so this
8 is where we provided the profile of container
9 growing to the consumer. Those other answers were
10 prior to this.

11 And then after we had this container
12 profile, we asked a similar question around if
13 they favor container growing. It actually moved
14 up from 81 percent to 91 percent in terms of their
15 favorability for continuing to allow containerized
16 growing methods.

17 Further, we asked the respondents how
18 their faith in the USDA would change if
19 containerized growing was banned, and you'll see
20 overwhelmingly that the faith in the USDA wouldn't
21 decrease significantly if we banned containerized
22 growing for organic producers.

1 Then just to clarify in case there's
2 any additional questions or uncertainty, we had a
3 binary question for the consumer in terms of, you
4 know, what is organics about? And what you'll see
5 is that the consumer votes that organics is not
6 chiefly about improving the conditions of the
7 soil, but is about healthier products for them and
8 their families. Thank you.

9 CHAIR CHAPMAN: Thank you. Questions?
10 Harriet?

11 MS. BEHAR: I know that surveys are
12 very much, it depends on the question that you're
13 asking, and so there was no question that asked,
14 do you support a system that does not promote -
15 does not offer pollinator health, or wildlife?

16 I mean, you know, I mean, you could ask
17 a lot of different questions and skew, so I see a
18 few things missing in these questions that I don't
19 necessarily feel that really were reaching what
20 the consumers really want, because I think organic
21 consumers feel that organic farming is a place
22 where they can vote with their dollars for the

1 improvement of the environment in an overall
2 sense.

3 MR. FERMAN: I understand, Harriet.
4 There are some additional slides where the
5 consumer does break down how much the
6 environmental improvement weighs in on their
7 decision for purchase and for overall growth and
8 continued practices, and the consumer does want
9 the environment to be improved.

10 Don't get me wrong. The consumer wants
11 improvement of the soil, overall reduction of
12 chemicals in run off. They want all of that, but
13 primarily their purchase decision is defined based
14 upon healthier products for them and their
15 families.

16 CHAIR CHAPMAN: Emily?

17 MS. OAKLEY: I just want to echo some
18 of what Harriet's saying because we've done
19 informal surveys with our CSA members about why
20 they purchase from us, and while health is a
21 concern, it's always bottom on their list, and top
22 on their list is environmental health and overall

1 well-being of the world around them. So I think
2 it just depends on who you're asking, how you're
3 asking it, and the information that you're going
4 to get.

5 MR. FERMAN: Totally agree that there
6 is always or can be a sampling bias, so we tried
7 to be very unbiased in a general representation of
8 U.S. population of consumers aged 25 to 65, half
9 of which were under age 45, half of which over.

10 This was all the screening criteria,
11 and that they had to have purchase decision for at
12 least half of the produce in their house. They
13 had to have purchased organic and planned to buy
14 organic again in the next 30 days, and that's
15 about it.

16 CHAIR CHAPMAN: Steve?

17 MR. BRADMAN: I was just going to ask -
18 oh, I'm sorry, Steve. You're next, okay. Just
19 it'd be interesting to see some narrative report
20 on this, and if you could post the questionnaire
21 and how it's organized and how the questions were
22 asked. I know you have them up there, but I'd

1 like to actually see the paper. Was it done over
2 the phone?

3 MR. FERMAN: It was over the internet.

4 MR. BRADMAN: On the internet, so the
5 sample though could have been fairly random? I
6 mean, I'm sorry, not random. It would have been
7 kind of self-selected?

8 MR. FERMAN: I don't have all of the
9 details here. I do know that we did post the full
10 report in November, and I'm happy to send it out
11 again -

12 MR. BRADMAN: Okay.

13 MR. FERMAN: - so that you can see all
14 of the questions and screening criteria, and I
15 think it was like 1,750 consumers at random were
16 given the screening criteria, 500 of which
17 answered the survey that met the screening
18 criteria that I mentioned before, but happy to
19 post the full report.

20 MR. BRADMAN: Thanks.

21 MR. ELA: So I'm going to ask when you
22 buy a car, why do you buy a car? What do you look

1 for in it? I know this sounds obtuse, but I'm
2 curious.

3 MR. FERMAN: For me, I mean, it's a
4 very personal decision, and so, and I've purchased
5 several cars. I have a family now, so that's
6 probably my primary consideration in terms of
7 space for my nine-year-old and, you know, her
8 friends and all of the gear. Prior to that, it
9 was probably horsepower.

10 MR. ELA: So, I mean, the problem I
11 have with questions like this is yes, only 20 or
12 14 percent of people say improving the soil. Your
13 answer, I mean, aren't you glad the car is
14 reliable? Aren't you glad it has a catalytic
15 converter and doesn't pollute? Aren't you glad it
16 has safety devices?

17 I think these kinds of questions, we
18 tend to answer on kind of a top tier and we forget
19 all of the important aspects of a system, and so
20 I guess I'm having a hard time seeing, you know,
21 just seeing a survey I don't think often gets at
22 the real root of what we buy products for.

1 MR. FERMAN: I mean, I understand that
2 there's obviously a long tail and it's impossible
3 to capture 100 percent of every consumer's - you
4 know, a census of every possible consideration.

5 We tried to be broad-based with a lot
6 of the questions that we did ask, and not be
7 biased to afford the consumer the opportunity to
8 weigh in on multiple avenues and areas that
9 impacted their purchase decision, and you can see
10 that with many of the other slides like this and
11 other ones that we'll post.

12 But, you know, the crux of - we wanted
13 to also not get down too much in the minutiae and
14 boil up to a 50,000 foot level so that we can
15 represent to you on a broad basis is it soil? Is
16 it health and nutrition? And between those two on
17 a binary perspective where they have to choose,
18 it's more health and nutrition, agreed that there
19 many other inputs.

20 CHAIR CHAPMAN: Thank you. Thank you
21 very much.

22 MR. FERMAN: Thank you.

1 CHAIR CHAPMAN: Up next is Marty Mesh,
2 and that will be our last commenter before lunch.

3 MR. MESH: My name is Marty Mesh with
4 Florida Organic Growers and Quality Certification
5 Services. I actually wasn't going to comment to
6 help you get back on time, but because Tom
7 mandated that I be the last person, and I wanted
8 to bank my time for Jacksonville, and so I still
9 would like that request to be there so that I can
10 have some more time in Florida.

11 CHAIR CHAPMAN: In proxies.

12 MR. MESH: And so then I thought, well,
13 maybe I should tell a joke. A hydroponic farmer,
14 a dirt farmer, and an aquaponic farmer all walk
15 into a bar, but then I thought, well, no, maybe
16 that wouldn't be appropriate.

17 So basically, I started farming in 1972
18 organically. For the new folks on the board, it's
19 a pleasure to be here. I think on behalf of the
20 community and the industry, we want to say thank
21 you for your volunteerism and agreement, and, you
22 know, they're not easy decisions.

1 You know, I don't know whether to stand
2 up here and say that as a dirt farmer, you know,
3 organic agriculture is about improving soil, but
4 then what about watercress? What about sprouts?
5 What about this and how do you deal with stuff?

6 I haven't read your recommendations,
7 but the questions aren't easy, and especially for
8 me having seen entities told by USDA that, you go
9 produce shrimp organically, and by God, put the
10 USDA logo on it and sell it, and they heard it
11 from Richard Matthews, the then-Acting Program
12 Director. They invested hundreds and hundreds of
13 thousands of dollars.

14 We, the certifiers, made them feed only
15 100 percent organic feed, and then USDA changed it
16 and pulled the rug out from under them and told
17 them to get the logo off of the shrimp because of
18 the issues with salmon that were raised, and so
19 aquiculture was back to being decided upon later.
20 Those companies went out of business.

21 You know, and so I wrestled with
22 pulling the rug out from farmers that listened,

1 that followed the regulations as they were
2 written, or that the industry had kind of gone
3 with that USDA's policies allowed, and then all of
4 a sudden saying, well, we changed our mind, or,
5 the community changed our mind.

6 And so my focus has always been trying
7 to grow the pie instead of arguing about the
8 slice. I think that there's a market available to
9 nurture all types of farming operations.

10 And we, as a certifier, we used to make
11 people, before the USDA entered into hydroponics,
12 is to say, you have to label it hydroponically
13 grown so that consumers have the knowledge and the
14 option to support dirt grown strawberries or
15 hydroponic grown.

16 But the decisions are really tough, and
17 I just want to say thanks, and why don't we go to
18 lunch and save the rest of my time to bank it for
19 Jacksonville if the Chair will so allow?

20 CHAIR CHAPMAN: Any questions for
21 Marty? You may still get questions. Okay, thank
22 you, everybody. Up after break will be Rodrigo

1 first, followed by Steve Rosse. We will be
2 starting promptly at 1:30, so please be on time,
3 and we are in recess until then. Thank you.

4 (Whereupon, the above-entitled matter
5 went off the record at 12:14 a.m. and resumed at
6 1:31 p.m.)

7 CHAIR CHAPMAN: All right, folks, we're
8 going to get started. If Board Members can take
9 their seats, and if the members of the public
10 could sit down, we'll be starting with Rodrigo
11 Ortega followed by Steve Rosse.

12 Rodrigo? It will be a moment, but I
13 just wanted to make sure you were here. So if
14 Board members could start taking their seats.
15 Michelle, are you ready? Michelle, you're good?
16 You're ready? Great.

17 All right, so we'll be starting with,
18 again, Rodrigo Ortega, on deck is Steve Rossi.
19 Rodrigo, if you could start with your name and
20 affiliation for the record.

21 MR. ORTEGA: Good afternoon, my name is
22 Rodrigo Ortega, I'm a university professor in

1 Chile. But today I'm acting as a consultant for
2 the company Green Health from Mexico.

3 A little bit of general context, we
4 have a growing work population, a reduced arable
5 land, climate change, degraded soils, loss of
6 biological diversity, contamination of soil,
7 water, and air, decrease in overall population,
8 growing market for healthy innocuous food.

9 Therefore, we need to look for new
10 sustainable site specific production alternatives
11 such as urban agriculture or hydroponics. If you
12 see the definition of organic agriculture, there
13 are many words in those definitions.

14 And I took some to highlight that in
15 order to show you some comments in favor of
16 organic hydroponics, first of all, hydroponics,
17 with or without substrate is an ecosystem itself.
18 There are cycles, ecological processes, and
19 biodiversity at the rhizosphere level.

20 There are plenty of evidence for that.
21 It is an innovative, site-specific way of
22 producing healthy food that responds to the

1 current world's agricultural context. All
2 principles of organic agriculture, health,
3 ecology, fairness and care are met in that system.

4 It is more productive than soil based
5 organic agriculture, and the control condition.

6 And there is an issue of organic matter here, but
7 many farmers are addressing that issue, applying
8 carbon in a liquid form as humic substances, for
9 example.

10 The usage of organic substrates such as
11 coconut coir or compost makes hydroponic even
12 closer to organic agriculture principles.

13 There is a little bit of information
14 there where you add organic matter, you put your
15 microbes and then you grade your biological
16 activity, the same way as if you do it in soil
17 based systems.

18 Regarding the use of liquid organic
19 fertilizer, it's not only an issue of hydroponics,
20 there are many intensive soil based organic
21 production systems in the world that rely on
22 organic sources, external, particularly liquid

1 ones.

2 The biology of the system is not
3 affected by the source of organic fertilizer. It
4 can be either solid or liquid, and the effects are
5 going to be similar. And finally, there are many
6 organic nitrogen liquid sources available in the
7 market, widely used in organic agriculture.

8 As final comments, I would like to say
9 that the Board should stimulate inclusion of new
10 ways of producing healthy and innocuous food,
11 while preserving environment. It should look for
12 the nature and sustainability of each input
13 allowed in the system. For example, there is an
14 issue regarding humic substances derived from
15 leonardite or compost for example. Besides
16 they're innocutive, and -- that will be it.

17 CHAIR CHAPMAN: Thank you very much.
18 Questions? Emily, Harriet.

19 MS. BEHAR: How is your system
20 different besides the inputs that you use from a
21 conventional hydroponic system?

22 MR. ORTEGA: Well, basically in Chile

1 we have, and in Mexico we have different systems.
2 Some of them use substrate, and they use
3 containers where you put the solution into the
4 system. And the solution may have carbon,
5 nitrogen, and some other sources, some other
6 nutrients. But all of them are organic sources.

7 And on the other side you may have pure
8 hydroponics where you don't have substrate, for
9 example, and you are using about the same
10 principles.

11 MS. OAKLEY: You mentioned substrate of
12 coco coir or compost. As we discuss the potential
13 for some sort of compromise between the continuum
14 of growing only in the ground and no containers
15 whatsoever versus misting with aeroponics and
16 trying to maybe find some kind of middle ground,
17 how difficult would it be for current substrate
18 growers who are using just coco coir to include a
19 significant, let's say 50 percent or more
20 component in their containers to include compost?

21 MR. ORTEGA: Well, there are some
22 farmers that have included compost in their

1 system, and they are doing mixtures, for example,
2 of soil and compost, and they have reached up to
3 50 percent of the total volume using compost. So
4 it's an issue that can be addressed, I think.

5 CHAIR CHAPMAN: Harriet? Sorry. A-
6 Dae.

7 MS. ROMERO-BRIONES: So you had a
8 sentence in your presentation about cycles,
9 ecological processes, and biodiversity in the
10 rhizosphere.

11 MR. ORTEGA: Yes.

12 MS. ROMERO-BRIONES: And we've heard
13 several comments prior to your presentation, and
14 it says plenty of evidence. Can you explain
15 plenty of evidence?

16 MR. ORTEGA: Yes. Actually, I have
17 worked in this area for 20 years. And I did a
18 quick literary review on this subject before
19 coming here, and I found out that there are many,
20 many papers showing that there is a lot of
21 biological activity, measured --- and somatic
22 activity in pure hydroponic systems. So that is

1 why I'm referring to that.

2 MS. ROMERO-BRIONES: So your plenty of
3 evidence refers to your literature review?

4 MR. ORTEGA: Yes.

5 MS. ROMERO-BRIONES: Okay, and where
6 can we find that?

7 MR. ORTEGA: Well, I can send you the
8 information. I just found, for example, some
9 information from Sweden where they have done some
10 work. In Chile we have done some work also with
11 some companies, you know, measuring biological
12 activity under hydroponic systems. And it shows
13 that it's very similar to what you would find in
14 soils.

15 CHAIR CHAPMAN: If you could send that
16 research through Michelle or through the Open
17 Docket, it would be much appreciated.

18 MR. ORTEGA: Okay, I will send it.

19 CHAIR CHAPMAN: Any additional
20 questions? Thank you.

21 MR. ORTEGA: Okay, thanks.

22 CHAIR CHAPMAN: Up next is Steve Rosse

1 followed by Ian Justus.

2 MR. ROSSE: Hello. My name is Steve
3 Rosse. I am the President of the Biodegradable
4 Products Institute Board of Directors. We
5 appreciate the NOSB's dedication to ensuring the
6 integrity of the organics industry.

7 You have heard from BPI many times over
8 the past few years when we have petitioned to have
9 biodegradable mulch films added to the national
10 list. The NOSB approved biodegradable mulch film
11 back in 2014 confirming that it met criteria set
12 out by the organics industry as a tool in the
13 toolkit for farmers.

14 But an amendment calling for the
15 material to also be bio-based has caused
16 significant confusion. Bio-based content has no
17 impact on biodegradability, whether that's a mulch
18 film or compostable products.

19 The NOP policy memo after the fact
20 stated that the mulch film must be 100 percent
21 bio-based which an OMRI report said does not
22 currently exist. We are asking for your help in

1 addressing this amendment.

2 Our preference would be to remove the
3 requirement to test for bio-based content
4 altogether, as it isn't necessary for
5 biodegradability, or at least to clarify the
6 amendment specifying that bio-based content be
7 tested without a minimum.

8 If a minimum needs to be set, make it
9 reasonable based on OMRI reports. Again, the bio-
10 based content in mulch film or compostable
11 products does not impact any aspect of the
12 biodegradation process or the quality of the soil.
13 Please act to change this amendment. Thank you.

14 CHAIR CHAPMAN: Thank you. Any
15 questions? Harriet?

16 MS. BEHAR: Do you think that the
17 biodegradable mulch needs any bio-based
18 ingredients?

19 MR. ROSSE: I'm not sure of the
20 specific chemistry of the mulch. I think our
21 members who will probably be up soon can have
22 probably a more detailed explanation. I'm not

1 sure of the exact percentage.

2 MS. BEHAR: It's just a question of,
3 you know, if it's biodegradable, but still from
4 petroleum, is that okay with you or do you want to
5 see a biological component in the product?

6 MR. ROSSE: Yes, since the focus is
7 really, you know, bio-degradation right at the
8 point that it's the beginning of life source I
9 don't think really is pertinent. Right? We're
10 just looking at the degradation in the soil.

11 CHAIR CHAPMAN: Joelle?

12 MS. MOSSO: Just a quick question.

13 CHAIR CHAPMAN: Over -- I'm sorry.

14 MS. MOSSO: Yes. Regarding the
15 petroleum based inputs that are the substrate for
16 making it, is that process to make it --- do you
17 create more petroleum based substances, or are you
18 recycling some already made petroleum based
19 substances to make your mulch?

20 MR. ROSSE: Again, I'm not specific on
21 that.

22 MS. MOSSO: You're not the guy.

1 MR. ROSSE: Our members will have that
2 information.

3 CHAIR CHAPMAN: Thank you very much.

4 MR. ROSSE: Thanks.

5 CHAIR CHAPMAN: Next up is Ian Justus
6 with Ruth Watts on deck. Ian, if you could start
7 with your name and affiliation for the record.

8 MR. JUSTUS: Hello. I'm Ian Justus and
9 I work with Driscoll's. Thank you for the
10 opportunity to provide public comment on the
11 container production discussion document.

12 I would like to talk about the
13 definitions in particular. This new definition of
14 the term recalcitrant is being misinterpreted.
15 Coco, peat, and wood fiber are all colonized and
16 broken down by microbial organisms.

17 The composition of lignans and
18 cellulars are the primary drivers of how much can
19 be broken down -- please don't take my photo -- in
20 the container production with solid substrate.

21 This stable organic matter is serving
22 as the structure, veracity, microbial surface

1 area, and nutrient holding capacity. With this
2 definition, you can say that a large percentage of
3 soil components are biologically calcitrant.

4 But this stable organic matter serves
5 critical functions in soil and container systems.
6 Container and soil growers are adding additional,
7 non-stable organic matter to serve as a continual
8 source of nutrition.

9 The definition of annual and perennials
10 is not adequate. This definition overlaps for all
11 of Driscoll's crops. It seems there are a lot of
12 questions that are off topic and looking for
13 alternative reasons to disallow.

14 We need to answer and focus on
15 questions about the roots of the dynamics, as this
16 is a large task. There needs to be clear,
17 separate classifications of systems that grow in
18 liquid substrates versus solid substrates.

19 Many of these solid substrates mixes
20 contain all the components to be classified as a
21 soil and can satisfy OFPA. I do not believe it is
22 the right direction to mandate additional inputs

1 to any grower that is not necessary for producing
2 healthy crops. We should all strive to reduce
3 inputs, as all inputs have environmental impact.

4 We need a definition for inputs, as
5 there seems to be confusion around this. We
6 absolutely need a better definition of compost.
7 We need to clarify the definitions for nutrient
8 solution, recalcitrant, and soil especially.

9 The NOP cannot easily regulate or rule
10 make off the current definitions or
11 recommendations. To determine and enforce this 20
12 percent rule, you have to know how much of it was
13 applied, the composition and amounts of every soil
14 input for every acre, and do the math.

15 Who will do this? Our over-audited
16 growers, our overburdened certification agencies,
17 or our poorly funded government agencies?
18 Limiting to a percentage is also likely to
19 encourage over-application of fertilizer.

20 It is clear to me that a key question
21 is missing. Does the biology, nutrient
22 availability, and plant uptake work the same way

1 in organic soil and container systems? Do we all
2 realize that no matter what starting source of
3 fertility system, soil, container, or hydroponics,
4 the vast majority of nutrition ends up taken
5 through liquid?

6 Controlling the allowed inputs is the
7 way to regulate how quickly nutrients become
8 available. Everyone wants specifics on container
9 practices. The reality is that these systems are
10 in their infancy of the understanding.

11 No one knows with certainty what is the
12 right rate of compost, how much of each type,
13 solid or liquid, nutrition is right for their
14 crop. Soil growers still struggle with these
15 questions every day, and it's different for every
16 site and situation.

17 As the leader of research and
18 development in soil and container systems, I can
19 tell you that container production is the first
20 significant advancement that's allowed us to
21 reduce inputs without harming crop quality.

22 CHAIR CHAPMAN: Thank you. Thank you,

1 Ian. So questions, I have Francis, then Emily.

2 DR. THICKE: Thank you. Can you help
3 us understand a little better how the Driscoll
4 system works? In particular, do 100 percent of
5 the nutrients come from liquid form in these
6 container systems, and does any of it come from
7 the soil media? And what is the makeup of the
8 nutrient liquid, liquid nutrient?

9 MR. JUSTUS: I would be happy to help
10 with that. So one key designation is that
11 Driscoll's is not the fruit producer. We have a
12 network of independent growers that run their own
13 businesses. And actually there's many different
14 growers. And growers kind of always choose their
15 own path.

16 DR. THICKE: Does Driscoll's grow any
17 at all themselves?

18 MR. JUSTUS: We only grow the nursery
19 plants. Driscoll's does not produce the fruit
20 production. What I do is I work directly with the
21 growers in our research and development and
22 agronomic standpoint. So I've seen actually every

1 single container operation that's certified
2 organic within our network.

3 I can tell you that they're all
4 currently in salt substrate, and that's pretty
5 much the plan. The grower practices I wish were
6 less narrow, or excuse me, more narrow because
7 it's a big variance.

8 But pretty much majority of everyone's
9 using blends of mixes rather than sole sources.
10 They're using composts, they're using top dressing
11 pelleted. They're injecting, you know, liquids
12 depending on the operation how much and what it
13 needs.

14 DR. THICKE: What are they made out of,
15 these pellets and liquids?

16 MR. JUSTUS: Feather meal, bonemeal,
17 whatever is allowed on the list. You know, the
18 growers have enough to really handle. How can
19 they possibly navigate what product is more
20 organic versus another when everything is on the
21 list and looked at in a similar way.

22 They're kind of looking at the best

1 option, the best economic option and trying to
2 figure out how to grow the best crop that they
3 can. That is their focus, not to really, like,
4 navigate the politics of this source is better
5 than that one.

6 MS. OAKLEY: So, Rodrigo Ortega who was
7 just up here was talking about a substrate of coco
8 coir and compost as well. And you also just
9 mentioned compost in the containers.

10 So can I ask you the same question, how
11 difficult would it be to require a 50 percent or
12 greater compost component within the containers if
13 we were able to find some kind of compromise,
14 like, middle ground in this continuous dialogue
15 for your producers to enact. And then I have a
16 follow up after that.

17 MR. JUSTUS: Okay, great. Yes, as I
18 mentioned in the comment, we really need a better
19 definition of what is considered compost. That
20 would be a big driver and determiner because right
21 now it's actually really vague and you could
22 compost coco coir, you could argue peat moss is

1 composted, any number of wood fibers are composted
2 products. And is that the same thing as others
3 because that all fits under the definition
4 currently as we understand it.

5 Fifty percent is a very extreme rate of
6 compost I would say if that's readily break down
7 compost because when you break down, you lose
8 structure. You lose oxygen, you lose veracity.
9 And that's not the way to make a healthy crop.

10 And I also think it's important that we
11 separate soil from fertility program because those
12 are two independent things, right? The substrate
13 blend is the soil mixture. The compost and the
14 other adjustments are the fertility program
15 associated with it.

16 And you know, it's all input driven.
17 Like, people have talked about building soils and
18 things like that, but they are building with
19 inputs.

20 MS. OAKLEY: So just to clarify, are
21 you -- I couldn't totally understand. Are you
22 saying that if we had, for example, a definition

1 that was understood and known and agreed upon
2 about compost, for example, and made the
3 requirement of 50 percent within a container,
4 would that be something that was feasible?

5 MR. JUSTUS: I can tell you that 50
6 percent is too high for what I think the Board
7 thinks is compost of, like, a fertilizer source of
8 nutrition solely rather than a structural piece
9 because then basically you're going to lose 50
10 percent of your structure within a short amount of
11 time.

12 And also it's really best, you know,
13 I've done a lot of work on nutrient uptake studies
14 on when the plants actually need fertility, and
15 it's not up front when they're young, it's more
16 towards maturity.

17 And so putting all of it up front is
18 not the best way, especially since we're all
19 perennial crops, it's better to distribute that
20 more out evenly. We prefer a much smaller
21 percentage in some sort of top dressing regime or
22 something to be more practical and better for the

1 environment and for the plants.

2 MS. OAKLEY: So then my second question
3 was I think I remember from the webinar that 14
4 percent of Driscoll's production is organic.
5 Could you tell me what percentage of that is in
6 ground versus container grown?

7 MR. JUSTUS: In container grown, it's
8 got to be less than one or less than half a
9 percent. These systems are relatively new and
10 small in our overall scheme. And it's really, the
11 majority of it is actually blueberries that's in
12 containers currently.

13 And of our total pool of fully
14 organics, that's actually a really small -- all of
15 our strawberries currently are in soil and that's
16 one of our biggest organic crops as well as
17 raspberries. And there are some container
18 raspberries, but relatively small in the scheme,
19 less than half a percent I would estimate.

20 CHAIR CHAPMAN: Harriet?

21 MS. BEHAR: So getting away from soil
22 that the plants are growing in, I've been to some

1 of the Driscoll, some eco farm tours and things
2 like that. And I've noticed that there's a lot of
3 use of landscape cloth, that the containers are
4 sitting on the landscape cloth.

5 And many times too there's hoops where
6 there's plastic over the blueberries as well. And
7 so is that landscape cloth ever picked up? I mean
8 it's obviously probably not picked up at the end
9 of the growing season.

10 And is there any way to prevent it
11 from, you know, UV degradation and kind of having
12 pieces of that all over the field, as well as the
13 plastic that is used for the hoops, how is that
14 managed because I've seen some things that are a
15 little concerning there as well.

16 MR. JUSTUS: Yes, and these two things
17 I think are actually independent of the container
18 issue specifically because if you're growing,
19 let's say, organic blueberries in the soil you
20 will have landscape fabric and you will probably
21 have tunnels.

22 It really depends on the area you're

1 growing in. But in a lot of California areas you
2 will have tunnels. It's kind of a standard
3 production system that has just kind of come to
4 fruition.

5 For example, we're, like, the biggest
6 fresh raspberry producer and they're 100 percent
7 under hoops. It's just how the production system
8 has evolved, no matter how you're growing it.
9 Otherwise you're pretty much out of business.

10 So the landscape mat in particular is,
11 depending on the product, a five to ten year
12 lifespan in full sun. And actually, that plastic
13 blocks UV light. So the lifespan is significant,
14 and the grower always removes it from site if he's
15 going to move.

16 And of course, blueberries is a
17 perennial crop, so that container is there for
18 many, many years. And that landscape fabric is
19 significant, you know, because blueberries are
20 shallow rooted so you would have it for soil just
21 for weed protection or you damage your roots just
22 doing hoeing and things like that.

1 Or, it's also to block the weeds coming
2 up from around the containers. And that also
3 allows for actually interaction with the soil
4 biology below because there's water coming out of
5 the pots, there's organic matter coming out of the
6 pots.

7 That's actually, there's microbe
8 populations present below that. Tons of different
9 organisms living under that mat. And then it
10 also, in many cases we have an open soil area
11 there where we can put our pruning, because all
12 perennial plants are pruned annually at least, and
13 you need to incorporate that. So then they'll
14 incorporate it into the soil.

15 CHAIR CHAPMAN: Any other questions?
16 Asa?

17 MR. BRADMAN: Yes, you mentioned that
18 container systems was one of the first methods,
19 I'm not quite sure how you put it, at the table
20 that allowed you to reduce inputs for production.
21 And so my question, I have two questions related
22 to that.

1 One, are you using different inputs for
2 in-ground production. And then two, again if you
3 could clarify what you meant by the container
4 growing allowed you to reduce inputs. Was that
5 compared to soil or what?

6 MR. JUSTUS: Yes, thank you for that
7 kind of got cut off. You know, I've been doing
8 research for both soil and then we also started
9 doing containers. It's kind of the natural
10 progression of research, it's just, it made sense
11 as a question to ask and it was allowed.

12 And so when we made big breakthroughs
13 in soil, that actually made a significant
14 difference across many operations. It usually
15 involves increasing inputs over the total system.

16 Anaerobic soil disinfestation for
17 example is a method that a lot of growers uptook.
18 But you're talking about a significant amount of
19 additional carbon added, a significant amount more
20 water added, things like that. That's what it
21 took to make the difference.

22 In this case, many of our growers

1 actually pretty much have soil and container
2 production organics. That's actually very, very
3 common. And many of them actually choose to use
4 similar products they're comfortable with.

5 The big, big in particular decrease is
6 water, and then in many cases overall tons of
7 input applied, however you want to look at that,
8 compost, fertility, everything is decreased in the
9 systems as well, container.

10 CHAIR CHAPMAN: Steve?

11 MR. ELA: Would you be willing to
12 submit to us, I mean, Emily was kind of, you know,
13 you said 50 percent compost was probably too much.
14 I mean, could Driscoll's submit in public comment
15 or the open docket what you would feel comfortable
16 with for a soil/compost mix?

17 I mean, you're talking about some kind
18 of structural component. Just so that we would
19 have something. I mean, we're obviously struggling
20 with what works for the industry. And I think
21 unless -- instead of us shooting a dart at the
22 board, have the industry actually tell us yes,

1 this would be a livable mix, would be very useful.

2 MR. JUSTUS: Yes, so this is something
3 we've actually talked about with our growers.
4 We're very engaged with our growers on all these
5 issues. We're making a lot of efforts to be
6 aggressive and look at these different blends. So
7 we're already testing different rates of compost
8 and things like that, different types of compost.

9 As I asked before, really I think the
10 most important thing is a real solid definition of
11 what can be considered compost because there's
12 always a stable and unstable fraction of this.
13 And the more unstable fraction, the lower
14 percentage we're going to need to impart.

15 And so, and the number keeps going up.
16 There's another thing that's kind of perplexing to
17 us because ten percent was kind of the first
18 number thrown out. Then I heard 20, but now I'm
19 hearing 50. And so those are kind of like, the
20 numbers just, as I understand it, keep kind of
21 going up.

22 We're kind of working on assumptions of

1 a ten to twenty percent of an unstable type
2 compost that are going to break down fairly
3 rapidly. And I can tell you that in these
4 container systems, I mean, it's a warm
5 environment.

6 It's high oxygen, there's water
7 availability, there's actually really good
8 temperature. So these processes actually happen
9 really fast. And we can actually already see in
10 the tests, like, basically just the decrease of
11 the volume which tells us we're getting compaction
12 and things like that.

13 So we would have to top dress and do
14 things like that over time because you can have
15 composts that have a lot of structural integrity
16 or don't, but I really don't think that's what you
17 guys mean by compost, because you could just
18 compost coco coir, you could compost peat moss.
19 But I don't think you would find that acceptable
20 either.

21 So we kind of need clarity on what you
22 mean on compost specifically.

1 MR. ELA: I mean, I guess if you could
2 submit to us so we're not -- we're trying to
3 understand. So anything you could submit to us in
4 that topic I think could be useful.

5 MR. JUSTUS: Yes, we would be happy to
6 do that because the definition I read is, you
7 know, you have to apply nitrogen to a plant based,
8 and you have to turn it, you have to maintain a
9 turning temperature for a certain amount of time.
10 And, like, that plant based matter is really
11 broad. So I think we can try to work on that
12 together. I would be happy to do that.

13 CHAIR CHAPMAN: Thank you very much.

14 MR. JUSTUS: And I sent my comment to
15 Michelle and ask her to email it to all of you.
16 And it includes my contact information. So if you
17 want to reach out.

18 CHAIR CHAPMAN: Thank you, thank you
19 again. Yes. We have that in the docket as well,
20 so thank you. Up next is Ruth Watts and on deck
21 is Jason Kamimoto.

22 MS. WATTS: Good afternoon. My name is

1 Ruth Watts and I work for BASF Biopolymers
2 Business. I would like to thank the Board for
3 this opportunity to comment on the biodegradable
4 mulch films.

5 BASF Biopolymers makes polymers which
6 are fully compostable by microbes. We therefore
7 serve markets such as composting and agriculture
8 where this end of life makes sense. We thank you
9 for your questions today. In our minds, you are
10 asking the most important questions regarding soil
11 health and stewardship.

12 Today I would like to address the use
13 of the word petroleum. Over the years we've used
14 this word incorrectly in informal uses of language
15 because in the past it was often indeed the case
16 that commercial materials made from fossil sources
17 were not fully biodegradable.

18 We understand that there are
19 restrictions on the use of certain materials in
20 organic farming because it is not always clear
21 what impact some materials might have on the
22 environment.

1 However, the case of biodegradable
2 mulch film is different. In this case, there are
3 clear standards which demonstrate full
4 biodegradation. These are the first two testing
5 requirements which are readily included in the
6 regulation under 2205.2.

7 We thank the Board for considering this
8 important science as the foundation for approval
9 of mulch films, as it ensures the integrity of
10 biodegradable farm inputs. As an example, Dr.
11 Schlegel this morning mentioned bio-based
12 polyethylene. It is not biodegradable. It would
13 therefore not pass these test requirements.

14 Secondly, I would like to address the
15 topic of accumulation cited in the OMRV technical
16 evaluation report. This topic was misunderstood
17 in the TER, and we have addressed this fully in
18 our public comment 1760.

19 We request that you please revisit this
20 document and review sections beginning at Line 29,
21 86, 124, and 152. As with other production aid,
22 we encourage farmers to test these products to see

1 if it adds value to their crops, taking into
2 account their existing production tools and soil
3 conditions.

4 This is already required in the
5 regulation under 205.203, and organic farmers are
6 already managing soil fertility and crop
7 nutritions under this practice standard.

8 Regarding residents' time in the soil,
9 one of our references from an external
10 organization called OWS which is the Organic Waste
11 System, they're out of Belgium, shows that
12 biodegradable mulch films can degrade more rapidly
13 than straw.

14 In fact, in many cases, the film is
15 already highly fragmented and visibly
16 disintegrating, which is the picture, I don't know
17 if you can see it, by the end of the growing
18 season.

19 Once it is tilled into the soil, the
20 biodegradation proceeds much more quickly. Proper
21 use of this film includes optimizing film
22 thickness to ensure field performance and timely

1 biodegradation.

2 Ultimately, we are stewards of the
3 soil. We are stewards of our technology, ensuring
4 it finds applications such as mulch film where
5 technology adds value to the farmer. What cannot
6 be separated from this performance in the field is
7 the ability of the polymer to biodegrade in field.
8 We cannot compromise on performance, nor end of
9 life. Thank you.

10 CHAIR CHAPMAN: Thank you. Questions?
11 Asa?

12 MR. BRADMAN: I have two questions.
13 One, is it possible to manufacture a bio-based
14 film -- one thing that wasn't clear to me from an
15 earlier presenter was why do we need, you know,
16 why is there such a large proportion of petroleum
17 based material.

18 MS. WATTS: Petroleum? That's a very
19 good question.

20 MR. BRADMAN: Is it a texture thing or
21 flexing?

22 MS. WATTS: Yes, very good question.

1 So ultimately when you talk about mulch film, it's
2 got to be able to hug the soil, they've got to be
3 able to apply it, certain of the bio-based
4 polymers that are added to it can add structure to
5 it and it can add also some mechanical properties.

6 So it's a combination of how the
7 farmers apply it, that it stays in place. And so
8 the petroleum base material, which by the way, the
9 answer to your question, Harriet, you can use 100
10 percent petroleum based material that will meet
11 those requirements, 100 percent biodegradable in
12 the soil.

13 In fact, the first biodegradable
14 polymer in 1997 was 100 percent petroleum based.
15 So you need different additives to provide certain
16 functionalities to the film so that it will, one,
17 it can be applied, it can last long enough to
18 provide the weed barrier technology, and then at
19 the end, ultimately biodegrade into the field.

20 So it's a combination of different
21 things, and that's really what differentiates the
22 different competitors as to what they add, and in

1 the aspect of the performance, the functionality.
2 But all of them will biodegrade.

3 CHAIR CHAPMAN: Dave?

4 MR. BRADMAN: I have one more question
5 if that's okay?

6 CHAIR CHAPMAN: Briefly.

7 MR. BRADMAN: Second question is so
8 right now in this stage, and earlier, you had the
9 material that was intact.

10 MS. WATTS: That was what? I'm sorry.

11 MR. BRADMAN: The material was intact.

12 MS. WATTS: Yes.

13 MR. BRADMAN: I mean, in that picture
14 it's breaking down. In terms of rain or runoff,
15 are there any water soluble components that could
16 be washed off the field, particles, or anything
17 that's water soluble and carried into surface
18 water and things like that?

19 MS. WATTS: No. Good question. It is
20 not water soluble. However, it is through
21 hydrolysis that helps enact the beginning of the
22 biodegradation. Just like us, we need water, we

1 need temperature, we need enzymes, we need things
2 to help start that biodegradation. So water is
3 important, but there's no runoff. It helps the
4 microorganism to begin to basally eat that and
5 then start digesting it.

6 MR. BRADMAN: Okay, so there's no water
7 soluble components?

8 MS. WATTS: No there is not. No there
9 is not.

10 MR. BRADMAN: Do you know what the KOW
11 is of any of the --

12 MS. WATTS: The what?

13 MR. BRADMAN: The KOW, the optimal
14 water coefficient.

15 MS. WATTS: I would defer that to Dr.
16 Schlegel at some point afterwards.

17 MR. BRADMAN: Thank you.

18 CHAIR CHAPMAN: Thank you, Asa. Dave?

19 MR. MORTENSEN: Ruth, I was curious,
20 what's known about impurities in the synthesis of
21 the film, impurities, that would be not carbon or
22 oxygen?

1 MS. WATTS: Again, if I can defer that
2 maybe to Dr. Schlegel, she's the microbiologist.
3 But we do not have any impurities in the process,
4 even in the master batch of the carbon black for
5 instance with our particular material.

6 You know, carbon black may have some
7 hydrocarbon leftover. But we do not do that, we
8 actually filter that out to make sure it's in the
9 purest form. In fact, the material that we use is
10 FDA approved.

11 CHAIR CHAPMAN: Thank you very much.
12 And if you can either use Michelle or the Open
13 Docket to get us those answers, that would be
14 greatly appreciated. We do need to move on at
15 this time, so thank you very much.

16 MS. WATTS: Okay, thank you very much.
17 And please, we'll be available and look forward to
18 your questions.

19 CHAIR CHAPMAN: Next up is Jason with
20 Tracy Favre on deck.

21 MR. KAMIMOTO: Good afternoon, Board.
22 My name is Jason Kamimoto, I'm the Vice President

1 of Sales and Marketing at Rocket Farms, and I
2 thank you for this opportunity to share my
3 comments.

4 At Rocket Farms we grow organic potted
5 living herbs, and have a long history of growing
6 on the northern California coast with a strong
7 commitment to sustainable growing practices,
8 resource conservation, and our local community.

9 Today, I'm here to voice our belief
10 that our potted organic living herbs are in fact
11 legitimately organic, and ask you to consider our
12 product separately and independently from the
13 aeroponic, hydroponic, and aquaponic product
14 discussion.

15 Firstly, what is an organic potted
16 living herb? I brought a sample, an example today
17 of what we grow and ship. This living basil plant
18 is one of many organic living herb products we
19 produce and ship year round.

20 We start this plant from organic, non
21 GMO seeds, plant, germinate it in plug trays, and
22 then finally transplant it into its final

1 container, or pot.

2 We grow this plant in an organic peat
3 moss based media, medium, and irrigate with
4 organic fertilizer. Environmental controls,
5 release of biological insects, and scouting are
6 all part of our integrated pest management
7 program.

8 When needed, organically certified
9 fertilizers are used to control disease and pests.
10 Therefore, we've fulfilled the original intent of
11 the organic movement, and meet all requirements of
12 organic certification.

13 This organic potted living herb is
14 grown and packed at our facility and shipped to
15 our customers. Over the years we have developed
16 a very large following of consumers who are very
17 passionate about our products.

18 From seed to table, we are providing
19 them living, organic, edible plants they can
20 display on their kitchen counter and enjoy over
21 the course of time, and even plant outside in
22 their gardens.

1 Our product is unique and special.
2 Organic living potted herbs are better for the
3 environment, consumers, and employees, due the
4 absence of synthetic chemicals. We're growing a
5 living herb in a pot that cannot be grown in the
6 Earth's crust, and therefore should not be
7 confused with field, aeroponic, hydroponic, or
8 aquaponic grown products.

9 Our potted living plant gives consumers
10 access to an organically grown living plant they
11 can enjoy over time. Thank you for your
12 consideration.

13 CHAIR CHAPMAN: Thank you. Questions?
14 Asa and then Steve.

15 MR. BRADMAN: I have kind of two
16 questions, one with respect to -- I should
17 disclose that I buy those.

18 MR. KAMIMOTO: Oh, thank you.

19 MR. BRADMAN: We use them at our house.
20 We make salads from them. You consider that
21 organic. If you were to cut the basil off at the
22 base and put it into a plastic or paper, other

1 packaging and sold it separated from the soil,
2 would you also consider it organic?

3 MR. KAMIMOTO: We do have a sister
4 company, a fresh cut herb company, Rocket Farms
5 Herbs that does follow that protocol. It's an
6 organically grown plant and then cut and packaged
7 in a clamshell or a bag.

8 MR. BRADMAN: Okay, thank you.

9 CHAIR CHAPMAN: Steve?

10 MR. ELA: Just to be clear, so I mean,
11 you're separating yourself from pure hydroponic
12 system, I mean, into some sort of container?

13 MR. KAMIMOTO: Yes, because it's a soil
14 based medium.

15 MR. ELA: Do you have any sense, I
16 mean, you've heard the previous discussion of what
17 -- where would we draw a line as a board between
18 hydroponic and container?

19 MR. KAMIMOTO: It's a good question,
20 and I don't -- it's a good question. You know,
21 really all I'm prepared to discuss here today is
22 just really to call out the protocols and

1 practices we're using to grow in a soil based
2 medium and not necessarily get into a conversation
3 about how it stands up next to hydroponics or
4 aeroponics.

5 CHAIR CHAPMAN: Thank you very much.
6 We have one more question. Harriet?

7 MS. BEHAR: How do you think your
8 customers would react if the label on your product
9 would be hydroponic, grown with organic inputs?

10 MR. KAMIMOTO: I'm sorry, could you
11 repeat that?

12 MS. BEHAR: So instead of the label
13 saying organic basil, it would say basil, or
14 hydroponic basil grown with organic inputs?

15 MR. KAMIMOTO: That's another great
16 question. I would almost point to maybe some of
17 the survey that was reviewed earlier before lunch
18 by Mr. Ferman. At least his consumer survey noted
19 that consumers are interested in organics, and I
20 don't know if they had yet a clear distinction
21 between hydroponic or soil based. So I don't know
22 how they would react.

1 CHAIR CHAPMAN: Thank you. Thank you
2 very much for your comments.

3 MR. KAMIMOTO: Thank you.

4 CHAIR CHAPMAN: Up next is Tracy
5 followed by Stanley Edwards. Tracy, I don't know
6 if we've met you before, but if you could state
7 your name and affiliation for the record.

8 MS. FAVRE: Hello everyone. I'm Tracy
9 Favre, I'm the Director of Certification Services
10 for Quality Assurance International. I just want
11 to say what an absolute pleasure it is today to
12 speak to you from this side of the rope.

13 I'm here speaking today on the
14 discussion document for clarifying the term of
15 emergency use in parasiticides. Specifically I
16 want to answer the four questions posed in the
17 livestock subcommittee's discussion document.

18 On the screen here you're going to see
19 a dung beetle that's in my pasture, busy doing its
20 work. So first of all, the first question was
21 does the term emergency need to be defined.

22 QAI does agree that the definition of

1 the term emergency would help certifiers more
2 uniformly assess when conditions exist that
3 warrant emergency measures. I think you're pretty
4 much consistently hearing that from certifiers
5 across the board.

6 Second question was if so, how should
7 the term emergency be defined. So I thought it
8 would be useful for us to look at how other
9 organizations define the term emergency, including
10 the AAFCO, the American Feed Control Officials
11 association. And this is a voluntary membership
12 of local, state, and federal agencies that are
13 charged by law to regulate food and drugs for
14 animals.

15 And this actually was some of the
16 information that we used largely to help set some
17 of the withholding periods when we did make the
18 modifications for the parasiticides originally.

19 So the AAFCO definitely for emergency,
20 and this actually specifically applies to feed but
21 I think we could take some lessons for it here for
22 parasiticides, is to provide a coordinated and

1 consistent approach, I'm paraphrasing, and using
2 emergency as defined as unforeseen or sudden
3 occurrence requiring immediate action to protect
4 against substantial risk to animal or public
5 health.

6 And it goes on to speak about for food
7 and public safety and things like that. But
8 there's two key points here that I think warrant
9 discussion here for emergencies for parasiticides,
10 and maybe even more broadly in organic, and that
11 is unforeseen or sudden.

12 So one of the challenges, now that I
13 have to wear a certifier hat, is there's all these
14 circumstances across the country in a variety of
15 different operations, and it's almost impossible
16 for you as a Board or for the Organic Program to
17 try to assess and codify, in guidance or
18 annotations, how we might address those.

19 So as long as we have some parameters
20 around what emergency is, being unforeseen and
21 sudden, meaning it could be something that could
22 be preventable doesn't qualify. I think that

1 gives us some framework to talk about.

2 So first of all, as we all would agree
3 I think, prevention is best. And I agree with the
4 earlier comments made by some of the other
5 certifiers that prevention is the first place that
6 we start as certifiers to look at preventing
7 emergencies.

8 So everything from grazing planting,
9 breed selection, et cetera, would be what we want
10 to look at. And I'm happy to answer any
11 questions.

12 CHAIR CHAPMAN: Thank you, Tracy.
13 Those three minutes sneak up on you, don't they?

14 MS. FAVRE: They did.

15 CHAIR CHAPMAN: Harriet, Ashley, A-Dae.

16 MS. BEHAR: So beyond the definition
17 that's with AAFCO, wouldn't that, for organic
18 since we're so systems based, wouldn't something,
19 an addition to that there was a, that the system
20 in place failed or something like that, besides it
21 just being unforeseen or sudden.

22 We really want people to be building

1 those systems in place and relying on the systems
2 for parasite control. And that the emergency is
3 when that would have failed due to whatever, you
4 know, climate condition, you know, whatever.

5 MS. FAVRE: I don't think the emergency
6 definition should be considered in a vacuum.
7 You're already going to have an organic systems
8 plan that's agreed to between the operator and the
9 certifier that would address, for instance, an
10 escalation of application of different measures.

11 And so I think this is just an extra
12 layer of clarification on top of that. I think
13 those things that you're talking about, having the
14 system plan already in place, there's already
15 measures for that to allow within the organic
16 systems plan. But yes, I would agree that you
17 have to have both.

18 CHAIR CHAPMAN: Ashley?

19 MS. SWAFFAR: So I would just like to
20 say bless your heart, those three minutes go
21 really fast ---

22 MS. FAVRE: They do.

1 MS. SWAFFAR: -- when you're limited.
2 But so on that definition, that AFCO definition,
3 do you feel like that's the best definition for
4 emergency, or do you think it needs more finessing
5 than what you've showed on the screen?

6 MS. FAVRE: Well, as I mentioned and I
7 think as many of the other certifiers have said,
8 you know, there are a variety of production
9 systems out there. And to try to give examples,
10 what's going to immediately happen is you're going
11 to have exceptions to those examples, you're going
12 to have exceptions or extreme circumstances that
13 don't fit into that.

14 And then you're forcing the certifiers
15 to once again make judgement calls based on their
16 own experience, and that sort of introduces
17 inconsistency when your intent was to put
18 consistency into it anyway.

19 So certainly, you know, this Board is
20 famous for wordsmithing, and I'm quite certain
21 that you can take a broad framework and make it
22 better. But my suggestion is to keep it broad

1 enough but with some parameters around it so that
2 it's as any logical, reasonable certifier would
3 look at it could make a determination whether or
4 not that would constitute emergency.

5 And I would also like to say it's
6 important from an operator's standpoint that they
7 have the ability to respond rapidly. So, you
8 know, there were comments earlier about under a
9 veterinary's recommendation and things like that.
10 There's some operators that either don't have
11 access to or don't have access to timely
12 veterinary care that could put their operation in
13 jeopardy.

14 CHAIR CHAPMAN: Thank you. A-Dae?

15 MS. ROMERO-BRIONES: So you gave us a
16 definition and you called out unforeseen and
17 sudden. But I was more interested in how we would
18 measure substantial risk, and if you have any
19 suggestions I would love to hear that.

20 And my second question is your point on
21 prevention is well taken, and how do you suggest
22 we incorporate this in the definition?

1 MS. FAVRE: Well, for livestock,
2 substantial risk is probably going to surround
3 either the animal's health being permanently
4 impacted or the animal dying, or production being
5 significantly impacted to the point where the
6 operation is no longer sustainable. That's how I
7 would define it.

8 MS. ROMERO-BRIONES: Great, thank you.
9 And for the second, can you answer the second one?
10 Prevention is well taken, and how do you suggest
11 we incorporate that into the definition?

12 MS. FAVRE: Well, the organic system
13 plan actually would encompass that in large part.
14 I mean, an operator with a livestock operation
15 already has to have a pasture plan if it's a
16 grazing animal, or access to the outdoors if it's
17 poultry.

18 The issues around breed selection and
19 things like that, that is going to be more a
20 negotiated discussion between the operator and the
21 certifier.

22 CHAIR CHAPMAN: Thank you very much,

1 Tracy.

2 MS. FAVRE: Thanks.

3 CHAIR CHAPMAN: Up next is Stanley and
4 on deck is Gwendolyn Wyard. Stanley, if you could
5 start with your name and affiliation.

6 MR. EDWARDS: My name is Stanley
7 Edwards, I'm a senior reviewer with QAI. I come
8 from 20 years of living out of a suitcase as an
9 independent contract inspector. I was an IOA
10 trainer and consultant.

11 At QAI we're pleased with the outcome
12 of instruction 2027 and look forward to this
13 year's peer reviews to continue improving our
14 certification program.

15 We agree with the five recommendations
16 outlined in the CACS proposal. The committee work
17 is an opportunity for us to further the discussion
18 on continuing education requirements. These are
19 outlined in the 2011 NOSB recommendation but not
20 yet implemented in the NOP program handbook.

21 As the recommendation describes, QAI
22 provides three hour annual guidance sessions that

1 include technical topics. Also, we've opened
2 communication channels with inspectors and offer
3 in-the-field support when needed.

4 Our inspector pool is diverse. We have
5 independent inspectors with various academic and
6 industry backgrounds, auditors coming from the
7 food safety industry as well as rabbis with
8 extensive industry and audit experience.

9 The 2011 recommendation recognizes that
10 inspectors have to be general practitioners. I
11 agree with that. To be successful, inspectors
12 must be curious, passionate, be pragmatic,
13 excellent communicators.

14 Inspectors must accommodate the
15 unfamiliar and react to the unexpected. But
16 that's not enough. We expect our inspectors to be
17 proficient in the certification scope, and we
18 recognize that continuing education is essential
19 to bolster auditor competency.

20 However, we do not need to reinvent the
21 wheel in order to come up with practical,
22 continuing education requirements. For obvious

1 reasons, continuing education is also an important
2 topic for the food safety and quality auditors.

3 The Safe Quality Food Institute's,
4 quote, criteria for SQF auditors, auditor
5 competency, and registration is a good reference
6 for our industry. For example, they require 15
7 hours annually from short course participation,
8 in-house course and workshop participation,
9 conference and seminar attendance, professional
10 body or association meeting attendance, relevant
11 committee and working group meeting attendance,
12 preparation and public presentation of papers,
13 preparation and publication of articles.

14 Aside from the 15 hours, these
15 requirements really are not that much different
16 from what I experienced when I was an independent
17 contractor. The minimum hourly requirement may
18 have to be scope specific, and for an inspector
19 working in all scopes, this might be challenging.

20 The specific areas where we see ongoing
21 continuing education needs -- you're not going to
22 get the list now.

1 CHAIR CHAPMAN: Thank you, Stanley.
2 Any questions for Stanley? Scott and then Sue.

3 MR. RICE: I'm curious to hear your
4 list, if you would please. Thanks.

5 MR. EDWARDS: So the list I have, and
6 I didn't put it in order, but the first thing I
7 have is the art of in and out balances, so I can
8 see a lot of training opportunities there; doing
9 risk assessment in an operation; natural resources
10 and biodiversity I think is going to be an ongoing
11 area where we need to train inspectors; the
12 livestock animal welfare rule; international
13 issues; and then managing electronic files and
14 improving efficiency, so this is more of the
15 mechanics of doing inspection with paperless
16 systems.

17 CHAIR CHAPMAN: Thank you, Sue? Oh,
18 same question. Thank you very much, Stanley.

19 MR. EDWARDS: You're welcome.

20 CHAIR CHAPMAN: Up next is Gwen and on
21 deck is Pat Kerrigan. Gwen, if you can start with
22 your name and affiliation.

1 MS. WYARD: Gwendolyn Wyard with the
2 Organic Trade Association. Good afternoon, NOSB
3 members and NOP staff. I work as the Vice
4 President of Regulatory and Technical Affairs for
5 the Organic Trade Association. I want to extend
6 a warm welcome to the new NOSB members and take a
7 moment to first share a little bit about my
8 background.

9 My hands-on education is in organic
10 farming, but my formal education is in food
11 science and chemistry. I've been working as a
12 technical expert in organic processing
13 certification and policy for just over 20 years.

14 I've been an NOSB groupie since 2003,
15 and I've never missed a single show. And I co-
16 chaired the industry working group that helped
17 inform the recommendation on the classification of
18 materials, so synthetic versus non-synthetic,
19 agricultural versus non-agricultural, and as well
20 as the 2013 recommendation on ancillary substances
21 formerly known as the other ingredients.

22 In other words, I'm a fun date. And

1 I'm available to help fit the puzzle pieces
2 together on some of the more hairy topics that you
3 face.

4 All right, so you have our written
5 comments and I'm going to do my best to offer up
6 the money line on a few select topics, and then
7 hopefully answer your questions.

8 Tocopherols, yes. Pass the proposal at
9 this meeting to revise the annotation to require
10 natural and organic forms of tocopherols when
11 they're commercially available. This decision
12 will move the needle in the continuous improvement
13 direction and support the development of organic
14 alternatives.

15 Organic seed usage, almost, not quite.
16 We support most but not all. So we're
17 respectfully asking that the subcommittee take
18 this proposal back for further work.

19 We do support the proposed regulatory
20 change as written because it inserts a greatly and
21 long time needed requirement for measured
22 continuous improvement in the regulation while

1 still retaining commercial availability.

2 On the proposal for improved guidance,
3 there's a few revisions that we've suggested in
4 our written comments. But primarily, we would
5 like to see the guidance reiterate the regulatory
6 requirement that non-organic seed must be non-GMO.
7 Currently the guidance is silent on that front.

8 Further guidance on non-GMO
9 contamination prevention and seed purity we
10 believe should be developed and maintained in
11 separate comprehensive guidance and referenced so
12 that bits and pieces are not taken out of context.

13 BPA in packaging, I'm just going to say
14 it, this is a can of worms and honestly from a
15 regulatory perspective it's daunting to think
16 about. Let me be perfectly clear, OTA is not
17 opposed to the prohibition of BPA in organic
18 packaging, used in organic foods, but we believe
19 that it will require a regulatory change, and the
20 implications this may have on the review of
21 literally thousands of food contact substances in
22 general should not be taken lightly.

1 Given the short comment period, we were
2 not able to convene a task force and carry out our
3 usual member feedback process, so we're requesting
4 that the discussion document be released for the
5 fall 2017 meeting when the technical review is
6 available and stakeholders have more time to weigh
7 in. Thank you.

8 CHAIR CHAPMAN: Thank you. Any
9 questions for Gwen? Thank you very much. Up next
10 is Pat, and on deck is Ann Marie Hourigan. Pat,
11 if you can start with your name and affiliation.

12 MR. KERRIGAN: Sure. Hi, I'm Pat
13 Kerrigan with Organic Consumers Association. Dear
14 NOSB members and NOP staff, the Organic Food
15 Production Act states that organic agriculture is
16 an ecological production management system that
17 promotes and enhances biodiversity of the
18 agricultural system and the surrounding
19 environment, biological cycles, and soil and
20 biological activity.

21 What an awesome goal that hopefully we
22 all can agree on. Organic consumers expect that

1 with the premium price they choose to pay for
2 organic foods, that the farmers they are
3 supporting are actively enhancing biodiversity on
4 their farm as well as helping preserve
5 biodiversity of the surrounding environment.

6 This includes honoring the intrinsic
7 value and multiple ecosystem services such as soil
8 carbon sequestration, drought and flood
9 resilience, water filtration, and wildlife habitat
10 of the ever dwindling pristine/fragile lands of
11 the US.

12 Native ecosystems are much more than
13 wild spaces. Allowing and incentivizing the
14 conversation of native ecosystems to organic
15 production with no waiting period and no
16 ecological restrictions is certainly not within
17 the letter, nor the spirit, of the organic law.

18 An OP regulation state organic
19 production is a system that fosters cycling of
20 resources, promotes ecological bounds, and
21 conserves biodiversity.

22 How is agriculturally transforming

1 these lands, these critically important lands
2 restoring, maintaining, and enhancing the
3 ecological harmony and balance?

4 As the discussion document noted, 1.6
5 million acres of grassland were converted
6 primarily for crop production between 2008 and
7 2012. As the carbon sequestration value and other
8 soil help benefits of native grasslands becomes
9 more clear and more critically important over
10 time, it is essential that we protect the
11 grasslands and other fragile/native habitats that
12 are still intact.

13 These lands should be designated as
14 high conservation value areas. Organic Consumer's
15 Association strongly supports wild farm alliance's
16 proposal that the NOSB recommend to the NOP a new
17 inclusive and comprehensive biodiversity standards
18 rule defining HCVAs based on WFA's four point
19 criteria.

20 OCA also strongly supports the wild
21 farm alliances recommendation that a rule change
22 be made in which HCVAs would not be eligible for

1 transition to organic production for five years.
2 As the NOSB discussion document states,
3 agriculture by its very nature reduces
4 biodiversity and fragments ecosystems.

5 Shouldn't converting the 99 percent of
6 chemically based industrial agriculture to organic
7 production acreage be our focus rather than
8 converting HCVA lands into production?

9 Finally, 13 organic labels and 11 eco
10 labels internationally do not allow the
11 conversation of HCVA or native ecosystems for
12 agricultural production. So why shouldn't our
13 country be one of the global leaders in protecting
14 and promoting biodiversity of our natural
15 ecosystems. Thank you for your time and your
16 service.

17 CHAIR CHAPMAN: Thank you, Pat.
18 Questions for Pat? Thank you. Up next is Ann
19 Marie followed by Mike Molina on deck. Ann, if
20 you can start with your name and affiliation.

21 MS. HOURIGAN: Good afternoon. My name
22 is Ann Marie Hourigan with Danone Wave. I'd like

1 to take a moment to thank both the National
2 Organic Standards Board and the National Organic
3 Program for the important work that you do. I'd
4 also like to welcome new members to the Board.

5 Today I'm commenting on behalf of our
6 new sister company, Nurture Inc., dba Happy Family
7 or Happy Family Brands. Happy Family was founded
8 in 2003, launching its first organic baby food
9 products in 2006. Since this time, the company
10 has grown into a leader in the US organic baby
11 food sector. In 2013, Happy Family was purchased
12 by Groupe Danone, a global leader in infant
13 nutrition.

14 Happy Family is pleased to have the
15 opportunity to comment at the spring 2017 NOSB
16 meeting and supports the NOP's efforts to
17 continuously review and amend the National List of
18 Allowed and Prohibited Substances and to remove
19 substances as they become no longer essential for
20 organic handling and processing.

21 We understand that the NOSB has already
22 made a recommendation on inulin-oligofructose

1 enriched at the October 2015 meeting. But Happy
2 Family would like to go on record that we do not
3 want the item removed the National List. We
4 believe that this ingredient is essential in
5 organic infant formula.

6 Our parent company has done a lot of
7 research over the past four years, so we have
8 worked to deeply understand the current organic
9 infant formula market with the hope of offering
10 the very best possible to the very smallest of
11 organic consumers.

12 Because human milk differs from the
13 base materials for infant formula, such as cow's
14 milk, extensive efforts to understand the
15 composition of human milk has been made,
16 especially through analysis to identify relevant
17 bioactive molecules.

18 Prebiotics are important nutrients that
19 are present in breast milk at approximately eight
20 to nine percent of the composition and currently
21 not prominent in organic infant formula.

22 Due to this ingredient's prebiotic

1 function, which has been extensively studied, we
2 believe it benefits the organic consumer by
3 creating products that are inspired by human milk.

4 We understand the decision to remove
5 this substance was partially based on the lack of
6 public comment coupled with the misunderstanding
7 that inulin-oligofructose enriched could be
8 produced from multiple sources, including
9 Jerusalem artichokes, agave, and other plants.

10 Additionally, there is misinformation
11 that the separate listing for
12 fructooligosaccharides, FOS on the National List,
13 is interchangeable with inulin-oligofructose
14 enriched and that ample supply of organic inulin
15 is available.

16 But due to the unique properties of
17 inulin-oligofructose enriched, this substance must
18 be made from chicory root which provides the
19 functionality and differentiates it significantly
20 from FOS. Because inulin-oligofructose enriched
21 -- thank you.

22 MR. CHAPMAN: Thank you. Questions

1 for Ann?

2 MS. HOURIGAN: Thank you for your time.

3 CHAIR CHAPMAN: I actually have
4 questions for you. I was just looking at the
5 other people. So inulin, you know, has a broad
6 set of chains, encompasses oligofructose and FOS.
7 It's generally -- oligofructose and FOS are
8 generally interchangeable terms, smaller set of
9 carbohydrate chains. So FOS remained on the list.
10 Inulin itself is widely available and organic.

11 MS. HOURIGAN: Yes.

12 CHAIR CHAPMAN: Why is using a
13 combination of the two substances insufficient?

14 MS. HOURIGAN: I would have to --
15 thanks for your question, Tom. I would have to
16 get back to our team at Happy Family to get you an
17 accurate and thorough response. Would you like me
18 to email that directly to you or through Michelle?

19 CHAIR CHAPMAN: Through Michelle.

20 MS. HOURIGAN: Okay, great. Thank you.

21 CHAIR CHAPMAN: Thank you. So up next
22 we have Michael Molina. And then on deck is John

1 Ashby. Michael, if you could start, Mike, if you
2 could start with your name and affiliation?

3 MR. MOLINA: Michael Molina, Applied
4 DNA Sciences. So it is our position that the use
5 of Short DNA Tracers does not interfere with the
6 growth, development, or production of organic
7 products. Additionally, it does not accurately
8 fit the description of the excluded method as
9 defined in section 205.2.

10 To quote from the excluded methods, "A
11 variety of methods used to genetically modify
12 organisms or influence their growth and
13 development by means that are not possible under
14 natural conditions or processes.

15 "Short DNA Tracers do not fit this
16 description as they are not modifying organisms or
17 influencing their growth and development at any
18 stage of the life cycle.

19 "As stated in the safe trace petition,
20 fragments smaller than 150 base pairs lack the
21 regulatory elements to code for biological
22 functions and code for proteins.

1 "Methods that are not included under
2 the excluded methods are tradition breeding,
3 fermentation, and in vitro fertilization."

4 I'd like to point out that in vitro
5 fertilization is reproducing a biological function
6 in the same way that in vitro polymerase chain
7 reaction does. It is simply mimicking the
8 biological process using the same fundamental
9 elements required by nature while not affecting
10 the growth, development, or the product.

11 We feel that the statement on modern
12 biotechnology involving in vitro nucleic acid
13 techniques is simply referring to the use of
14 nucleic acid techniques for the implementation of
15 genes into a product.

16 Additionally, there are a few examples
17 included in the methods that have synonymous
18 processes with the excluded methods. As an
19 example, in vitro fertilization involves cell
20 fusion of gametes to produce embryos that would
21 not occur otherwise in nature.

22 Likewise, cell fusion has been a part

1 of the traditional breeding process for years
2 without being considered genetic engineering.
3 Cell fusion is listed as an excluded method unless
4 the cells fall within the same taxonomic family.

5 Despite this in vitro cell fusion, the
6 in vitro cell fusion process is accepted. Because
7 it does not affect the development or compromise
8 the plant's true genetic makeup.

9 Similarly to the in vitro PCR
10 techniques utilized by this DNA technology, the
11 DNA tracers that are used will not affect the
12 growth, development, or genetic makeup of the
13 product and therefore should be accepted as a
14 viable method of protecting the organic integrity.

15 The counterfeiting industry has become
16 a \$650 billion problem. The US Government has
17 been using Applied DNA's technology, because as
18 the tech world advances so does the counterfeiting
19 industry.

20 We would argue for the essentiality of
21 DNA Tracers, because the sophistication of
22 counterfeiters is beyond the paper trail. And the

1 US Government, along with other industries
2 including cotton and pharmaceuticals, have
3 realized that.

4 As part of the millennial generation,
5 we as a society are becoming increasingly aware of
6 the need for sustainability and the importance of
7 organic products. With the organic industry
8 growing over 13 percent in the last year, it is
9 only a matter of time before we start seeing more
10 and more adulteration of these products. It is
11 not a matter of if, it's when. And quite frankly,
12 it's happening every day.

13 The problem experienced in Turkey and
14 Ukraine are minimal in comparison to problems that
15 will be encountered in the future. The Board is
16 already struggling to investigate half the claims
17 that are made every year.

18 Not only will DNA technology provide a
19 deterrent factor that will minimize these claims,
20 but utilizing a third party for testing will help
21 lighten the load that is becoming increasingly
22 heavy.

1 MR. CHAPMAN: Thank you.

2 MR. MOLINA: Thank you.

3 MR. CHAPMAN: Questions for Mike?

4 Thank you. Dan?

5 DR. SEITZ: Thanks. It's the same
6 question I asked someone earlier. In order for
7 this system to be in place, it seems to me that we
8 would have to require producers, or handlers, or
9 someone along the line to actually use your
10 technology as opposed to using a paper-based
11 system.

12 So I'm just kind of curious. Are you
13 advocating that we would move from this record-
14 based system to one where producers or handlers
15 are required to use this technology?

16 MR. MOLINA: Well, I think the paper-
17 based can be used in parallel with this DNA
18 technology. I think it's just up to the, you
19 know, manufacturer whether they want to utilize
20 this technology. I mean, they can certainly be
21 used in parallel. What I'm saying is that we
22 don't believe the paper trail's enough anymore.

1 Does that answer your question?

2 DR. SEITZ: Yes.

3 CHAIR CHAPMAN: Thank you very much.

4 I'm batting last, John Ashby. John, if you could
5 start with your name and affiliation.

6 MR. ASHBY: I'm John Ashby, citizen of
7 the not yet enough organic universe. I want to
8 give an appropriate thank you to the NOSB, given
9 this very auspicious date --

10 (Laughter)

11 MR. ASHBY: Wow, I love you, man. I
12 love you. Organic friend, to wit, oh, what a
13 wicked web we weave when first we practice to
14 conceive of how to make a national list without
15 which organics would be missed.

16 In the list, organics would disappear,
17 evaporate, no longer here. It gives us tools to
18 make our food, it's fun, it's great, it's really
19 good. To talk this way can make me pay, but I
20 don't care, I will anyway.

21 It probably won't bring me luck, in
22 fact I probably will be criticized very heavily.

1 To speak warmly of the National List, can get a
2 bunch of people pissed. Some want to make it
3 teeny tiny, which makes me really mad and whiny.

4 We need this stuff, we need these
5 tools. We need them to grow our organic fuel. To
6 lose them would make Monsanto's day, because
7 organic's threat would float away.

8 The biggest threat to my sweet, cute
9 list, I want you to know, don't want it missed.
10 Come closer now and listen intently of the
11 devilish trap that threatens us gravely. And what
12 can this threat possibly be? It's essentiality.

13 It gets misused, used as a weapon, by
14 those who mistakenly choose to weaken. It's not
15 essential, or so they opined, and infant formula
16 was fatally maligned. It will be gone when the
17 time runs out. They killed it dead, they sent it
18 out.

19 The items were needed by infants, yes,
20 without them the children will not be blessed by
21 the nutrition they need to grow their best. The
22 option to eat their meals organic is gone, kaput.

1 It makes me mad to have this happen again, to lose
2 sight of the better, the good, the essentials.

3 So don't be fooled when you hear non-
4 essential. Ask those who are doing it, who make
5 it, they know what it takes to make organic grow.
6 The infants can be lost, it can happen again,
7 don't let your guard down. Be organics' friend.

8 My example was completely coincidental,
9 because that was a classic case where there are
10 three different and contradictory definitions of
11 what essential is with respect to organic infant
12 formula.

13 And actually, the leading scientist in
14 the world doing the work on carbohydrates in
15 breast milk is a friend of mine. And she's
16 absolutely right. There is life and death
17 difference between one carbohydrate use and
18 another. They're actually not interchangeable.

19 I had nothing to do with her. I had no
20 idea -- that's my barking dog to keep me on time
21 -- I had no idea she was going to be going on
22 before me. But they are not interchangeable.

1 CHAIR CHAPMAN: Thank you. Questions
2 for John, and just a note --

3 (Applause)

4 CHAIR CHAPMAN: Thank you. Questions
5 for John, and just a note, answers to the
6 questions will need to be in rhyme.

7 (Laughter)

8 CHAIR CHAPMAN: Yes, go for it.

9 MS. SWAFFAR: I'd just like to know how
10 long it takes you to put your comments together.

11 MR. ASHBY: I never start them until
12 after the first day of comments and see what I
13 want to get across.

14 MS. SWAFFAR: That's really important.

15 CHAIR CHAPMAN: Thank you, John.

16 MR. ASHBY: Thank you.

17 CHAIR CHAPMAN: Thank you, everybody.
18 All right. That concludes public comments. And
19 we are just a mere hour and a half behind
20 schedule. However, I do believe we can make that
21 up. I am optimistic.

22 So this now starts our subcommittee and

1 Board deliberation portion of the meeting. In a
2 moment, I will be handing the meeting over to Lisa
3 De Lima, Chairperson of the Handling Subcommittee,
4 and we'll begin through that agenda.

5 Just to note, we went through conflicts
6 of interest earlier yesterday. And there were
7 none noted, so we will not be going through
8 conflicts of interest at the beginning of every
9 subcommittee. Lisa, if you're ready, the seat is
10 yours.

11 MS. DE LIMA: All right. So we're
12 going to start with the 2019 Sunset Materials.
13 And just a reminder to everybody on the Board,
14 this is the first listing. So this is just a
15 discussion of the materials. And we'll be voting
16 on whether to retain them on the list or not in
17 the fall meeting. So we're just going to jump
18 right into it. The first up is attapulgate. Dr.
19 Brines?

20 DR. BRINES: Thank you. I'll just be
21 introducing each Sunsetter Petition material
22 before turning it over to the full Board for

1 discussion. So we'll start with Section 205.605
2 of the National List. That's the non-
3 agricultural, non-organic substances allowed as
4 ingredients in or on processed products labeled as
5 organic or made with organic specified ingredients
6 or food groups.

7 We're under Paragraph A, non-synthetics
8 allowed. And the first listing is attapulgite,
9 listed at 205.605a as attapulgite, sorry, as a
10 processing aid in the handling of plant and animal
11 oils. Thank you.

12 MS. DE LIMA: Thank you. Joelle?

13 MS. MOSSO: All right. So attapulgite
14 is a natural clay with highly absorptive
15 properties due to the open channel structure
16 created from a complex of magnesium aluminum
17 silicates.

18 This structure creates a large surface
19 area that can adsorb, absorb, and filter
20 substances to remove colors and other impurities.
21 And that's primarily in oils, as it's listed on
22 the National List. It is labeled as grass and

1 created from open pit mining activities followed
2 by drying and milling.

3 It was added in 2011 and was voted to
4 remain on the list in 2015 with three votes to
5 remove and 11 to maintain.

6 In this round of Sunset, we received
7 seven comments, five directly to this material,
8 three votes of support for re-listing with two
9 certified clients noted for using it for oil
10 filtration, two comments to remove due to lack of
11 support and not meeting essentiality requirements,
12 and two certifiers who reported no one used within
13 their client base.

14 MS. DE LIMA: Are there any questions
15 or discussion? All right, seeing none, we'll move
16 on to the next material, bentonite. Dr. Brines?

17 DR. BRINES: Thank you. We're in the
18 same section, same paragraph, and the listing is
19 bentonite. Thanks.

20 MS. DE LIMA: Joelle?

21 MS. MOSSO: All right, second play. So
22 bentonite is a natural clay composed of alumina,

1 silica, and water derived from tuff or volcanic
2 ash. It is a clay that has functional properties
3 of adsorption, absorption and filtering
4 properties.

5 Bentonite is used to remove proteins
6 and impurities in wine and the oil industry. It
7 is manufactured by open pit mining followed by
8 drying and milling.

9 It was reviewed in 2015 with no
10 opposition to re-listing, and it also labeled as
11 grass. During the 2017 review process, so far
12 we've received 14 comments, 11 supporting re-
13 listing and that bentonite is critical to their
14 products. This is especially noted in the wine
15 industry.

16 Two comments requested further review
17 to examine the mining activities and alternatives.
18 However, no new information on those concerns was
19 given. And one certifier reported no one used
20 while two others certifiers listed 36 clients that
21 use it.

22 MS. DE LIMA: Thank you. Any questions

1 or discussion? All right, seeing none, we'll move
2 on to nitrogen. Dr. Brines?

3 MR. CHAPMAN: DE, diatomaceous earth.

4 MS. DE LIMA: Oh, I missed one. Sorry.
5 Yes, diatomaceous earth.

6 DR. BRINES: I wasn't going to let you
7 skip it. All right. The next item on the list,
8 I'm continuing in the same section, is
9 diatomaceous earth. And the listing reads,
10 "Diatomaceous earth, food filtering aid only."
11 Thanks.

12 MS. MOSSO: All right. Diatomaceous is
13 comprised of accumulated shells of silica secreted
14 by diatoms that are used as a filter aid for
15 syrups, juices, beer, and other beverages and food
16 products. It is not present in finished products
17 and is classified as a processing aid. The
18 material is produced through mining.

19 Diatomaceous earth was most recently
20 reviewed in 2015. And so far this year, we've
21 received 16 total comments, 14 with comments to
22 re-list and two comments to review the mining

1 practices and environmental concerns, and
2 alternatives with no new information presented.

3 Again, strong support from the wine
4 industry as well as the oil and flavor processing
5 industry.

6 MS. DE LIMA: Thank you. Any questions
7 from the Board? Seeing none, we'll move on to
8 nitrogen. Dr. Brines?

9 DR. BRINES: Continuing in the same
10 section, the listing is nitrogen, oil-free grades.
11 Thanks.

12 MS. DE LIMA: All right, this one is
13 mine. So nitrogen is used to displace oxygen and
14 reduce oxidation of product during processing,
15 storage, and packaging. It can be used in the
16 flash freezing of foods. It also functions as a
17 propellant when it's used under pressure and
18 doesn't have ozone-depleting properties.

19 There were a large number of public
20 comments submitted in support of nitrogen
21 remaining on the list, none in opposition. The
22 material was reviewed by the Board in 2015, and

1 the Board voted unanimously to continue its
2 listing. Any questions, discussion?

3 All right. Seeing none, we'll move on
4 to sodium carbonate. Dr. Brines?

5 DR. BRINES: All right. Continuing in
6 the same section, the listing is sodium carbonate.
7 Thanks.

8 MS. DE LIMA: All right, that's mine
9 too. So sodium carbonate, used as a leavening
10 agent, anti-caking agent, acidity regulator,
11 stabilizer, also a neutralizer for dairy products
12 like butter, cream, milk, and ice cream.

13 Public comment also pointed out that
14 it's used as a pH adjuster for organic laundry
15 detergents, used in soy base extraction, and to
16 clean fruit and remove mold.

17 It's produced in North America from
18 natural deposits of trona ore which is heated and
19 mixed with water to dissolve the soda ash and
20 separate out any impurities. And the solution's
21 then concentrated by evaporation to
22 crystallization. And it could also be produced

1 using a similar method originating from natural
2 brine.

3 Public comment mostly supported the
4 continued listing of this material. One commenter
5 requested a TR to evaluate possible impacts from
6 its production. And another organization
7 requested clarification regarding which
8 manufacturing processes are permitted under the
9 listing at 605a.

10 This material was also reviewed by the
11 NOSB in 2015. And the Board voted unanimously to
12 continue its listing. Questions, discussion?

13 Seeing none, next up, acidified sodium
14 chlorite. Dr. Brines?

15 DR. BRINES: Thank you. Continuing
16 under Section 205.605, moving to Paragraph B,
17 synthetics allowed, the listing is acidified
18 sodium chlorite, secondary direct microbial food
19 treatment and indirect food contact surface
20 sanitizing. Acidified with citric acid only.
21 Thanks.

22 MS. DE LIMA: Ashley?

1 MS. SWAFFAR: So acidified sodium
2 chlorite is used as a processing aid in wash and
3 rinse water. There were several comments in
4 support of re-listing stating that it is a
5 critical, essential tool in the fight against
6 foodborne pathogens.

7 And there were comments that requested
8 we do a comprehensive review of sanitizers. But
9 as we stated in the document, the subcommittee
10 felt that a review of all sanitizers is beyond the
11 scope of the Sunset process.

12 MS. DE LIMA: Any questions or
13 discussion from the Board?

14 All right. Seeing none, we'll move on
15 to carbon dioxide, no, is that it? Yes, carbon
16 dioxide. Dr. Brines?

17 DR. BRINES: Thank you. Continuing
18 under the same section, the listing reads as,
19 "Carbon dioxide." Thanks.

20 MS. DE LIMA: So carbon dioxide is used
21 in modified atmospheric packaging and storage,
22 the freezing of foods, beverage carbonation. It's

1 used as an extracting agent, a processing aid, and
2 also for pest control in grain and produce
3 storage.

4 All public comment received was in
5 favor of retaining it on the National List. And
6 this material too was reviewed by the NOSB in 2015
7 and voted unanimously to continue its listing.
8 Questions, discussion?

9 Seeing none, chlorine materials. Dr.
10 Brines?

11 DR. BRINES: Thank you. So continuing
12 under 205.605b, the listing reads as, "Chlorine
13 materials, disinfecting and sanitizing food
14 contact surfaces, except that residual chlorine
15 levels in the water shall not exceed the maximum
16 residual disinfectant limit under the Safe
17 Drinking Water Act." Then in parentheses,
18 ("Calcium hypochlorite, chlorine dioxide, and
19 sodium hypochlorite.") Thanks.

20 MS. DE LIMA: Ashley?

21 MS. SWAFFAR: So chlorine materials are
22 used for disinfecting and sanitizing facilities

1 and equipment. It has a wide variety of use. We
2 had broad support from handlers requesting to re-
3 list chlorine material, stating -- one stating
4 that it used as their primary sanitizer, kills a
5 wide range of pathogenic organisms and is vital
6 for food safety. We heard that various different
7 ways at several times.

8 And once again, there were comments
9 saying that they requested we do a comprehensive
10 review of sanitizers. And as we wrote, the
11 subcommittee felt that this was beyond the scope
12 of the Sunset process.

13 MS. DE LIMA: Questions, Emily?

14 MS. OAKLEY: Do you think it might be
15 appropriate for the Material Subcommittee to do a
16 review of the sanitizers outside of the Sunset
17 process if there's a need for that?

18 MS. SWAFFAR: Yes. I think, because we
19 heard that in Handling, Livestock everywhere. So
20 I think that's not just individual committees.
21 It's a broad look.

22 MS. DE LIMA: Any other questions,

1 discussion? All right. Seeing none, we'll move
2 on to magnesium chloride. Dr. Brines?

3 DR. BRINES: Thank you. Continuing on,
4 this listing reads as, "Magnesium chloride,
5 derived from seawater." And of note, the
6 committee did request an updated technical report
7 in support of the review of this material. And
8 that report was published in 2016. Thanks.

9 MS. DE LIMA: Thank you. So magnesium
10 chloride is used as a coagulant in tofu production
11 as well as in certified organic dietary
12 supplements and infant formula.

13 Following the 2015 Sunset review, we
14 did recommend the continued listing. But issues
15 to classification were raised, and so we requested
16 a technical report which we received and was
17 utilized in this Sunset review.

18 So during the initial 2015 review, we
19 requested public comment on whether or not the
20 material should be reclassified as non-synthetic,
21 because it's derived from seawater by brine drying
22 and had no ancillary substances. The public

1 comment supported that the material should be
2 reclassified as non-synthetic and moved from
3 205.605b to 605a.

4 However, once we got the TR, we learned
5 that the material can be produced both
6 synthetically and non-synthetically. And the
7 annotation derived from seawater can apply to both
8 versions.

9 So we did pose three questions to the
10 public, and we got answers on other uses of
11 magnesium chloride in processing and handling, in
12 addition to just a coagulant for tofu. And it
13 looks like we still need to have some discussion
14 at the subcommittee level to figure out what the
15 impact would be if the material was reclassified
16 at 605a. Tom?

17 MR. CHAPMAN: Were there any comments
18 about the impact of reclassifying to 605a?

19 MS. DE LIMA: No. There's more
20 comments saying we should clarify what would be
21 allowed, and what wouldn't be allowed, and put it
22 out there so that we could get more public comment

1 back. Any other questions?

2 All right, moving on to potassium acid
3 tartrate. Dr. Brines?

4 DR. BRINES: Thank you. In the same
5 section, this listing reads, "Potassium acid
6 tartrate."

7 And in support of the review, the
8 subcommittee did request the development of an
9 updated technical report. And that report was
10 posted on the NOP website in January earlier this
11 year. Thanks.

12 MS. DE LIMA: Steve?

13 MR. ELA: Potassium acid tartrate is a
14 byproduct of wine making. It's commonly known as
15 Cream of Tartar. It is used in baked goods, a
16 component of baking powder, and can be used to
17 stabilize egg whites and other food uses.

18 In the review of 2015, no public
19 comment opposing the continued listing was
20 received. The current public comments were all in
21 favor of continuing this listing. Although a
22 couple of people made the comments that we should

1 encourage that the potassium acid tartrate is made
2 only from organic grades. It's derived as a
3 byproduct of the wine making process.

4 The real question came up through all
5 this of whether the material should be
6 reclassified as an agricultural or non-synthetic
7 since it is a byproduct of winemaking which is
8 agricultural, and then there are no synthetic
9 processes used to make it.

10 Right now, it's classified as non-ag,
11 synthetic. So basically, the public comment is to
12 re-list it. And then separately, most public
13 comments were in favor of re-listing it into an
14 ag, non-organic, agriculturally produced
15 substance.

16 MS. DE LIMA: Thank you, Steve. Any
17 questions? Tom?

18 MR. CHAPMAN: Did the 2017 TR point to
19 synthetic manufacturing processes?

20 MR. ELA: It's basically taken out by
21 hot water extraction. So it really becomes a
22 question of whether it's coming from non-organic

1 grapes or organic grapes.

2 MS. DE LIMA: Any other discussion?

3 All right. Seeing none, moving on to sodium
4 phosphates. Dr. Brines?

5 DR. BRINES: Thank you. In the same
6 section, this listing reads as, "Sodium Phosphates
7 for use only in dairy foods."

8 There was an updated technical report
9 completed in 2016 as a follow-up to the last
10 Sunset cycle. The scope of that report was for
11 phosphates, so that included calcium phosphate,
12 potassium phosphate, sodium acid pyrophosphate,
13 and also this listing, sodium phosphate. Thanks.

14 MS. DE LIMA: All right. So sodium
15 phosphates, while they do have a variety of uses,
16 it is currently annotated to dairy use only. The
17 material is derived from phosphoric acid.

18 Public comment was pretty split on this
19 listing. On one end, you've got commenters
20 supporting the listing of this material,
21 especially as an emulsifier in cheese production
22 where it's considered essential, also considered

1 essential in making beverages like high protein
2 smoothies, for stabilizing the texture of the
3 product.

4 Other commenters would like to see the
5 material removed based on the lack of essentiality
6 and human health impacts. And there are five
7 phosphates on the National List, and there's no
8 single phosphate food additive or ingredient that
9 can be implicated as an isolated risk factor.
10 Concerns arise from the increase in cumulative use
11 of phosphates and possible health effects on the
12 general population.

13 Since the last Sunset review, which was
14 in 2015, we did -- given the new information and
15 research since the last Sunset review, the
16 Handling Subcommittee did request a technical
17 report which we received last year.

18 The TR indicated that small amounts of
19 sodium phosphate may not cause human health
20 problems, but the long term cumulative impacts are
21 not fully understood.

22 Questions, discussion? Emily and then

1 Harriet.

2 MS. OAKLEY: Given the disagreement
3 within the stakeholder community about what to do
4 with this substance, does the Handling
5 Subcommittee have a sense of where it might be
6 going with this material?

7 MS. DE LIMA: Tom, you have any
8 thoughts as the co-lead?

9 MR. CHAPMAN: No, not yet, I don't
10 think. I don't think there was a definitive
11 opinion to put out there. I have a personal
12 opinion, but I don't know. It doesn't speak for
13 the subcommittee.

14 MS. DE LIMA: Harriet and then -- or is
15 it a follow-up, Emily? Emily?

16 MS. OAKLEY: So I'm not an expert,
17 obviously, in handling issues. So what
18 information or discussion amongst the committee
19 will occur that will help decide this issue? And
20 should I listen in on those calls if I have
21 questions about where I might be headed in my vote
22 with this?

1 MR. CHAPMAN: Yes. I mean, I think we
2 received a significant amount of public comment
3 this time, especially in response to the technical
4 review. There was also a supply shortfall, and
5 so I think reviewing that and having those
6 discussions will enlighten.

7 You know, I anticipate a robust Sunset
8 review document for the second round. But you're
9 always welcome to join in. I mean, joining the --
10 or listening in to the conversation gives you the
11 most, you know, context for how people decided
12 what they did.

13 MS. DE LIMA: Harriet?

14 MS. BEHAR: So I might have actually
15 been somewhat responsible for getting this on the
16 list. Because I worked for Organic Valley back in
17 the day when the first organic dry cheese powder
18 was made.

19 And there was a discussion I had with
20 a scientist at the Center for Dairy Research in
21 Wisconsin. And he brought up that sodium
22 phosphate would bind the calcium and make it less

1 available to the people consuming the cheese
2 powder. And we then went and used sodium citrate
3 instead.

4 But since then, since that was in the
5 last century, it seems like there's been some
6 other science that's come forward. And just doing
7 a little bit of Googling last night, it didn't
8 seem that there was clarity. You know, and this
9 was just me just looking, Googling.

10 You know, some of it was the issue
11 could be that it's the sodium that actually causes
12 the problem, not so much the phosphorus. And so
13 I think we need to look at this a little bit
14 closer.

15 But I know that Organic Valley did make
16 dry cheese powder with sodium citrate successfully
17 for many years. But then they're no longer doing
18 it. They now kind of have -- someone else does
19 it, and they're not sure what additive they're
20 using. But there needs to be some kind of
21 emulsifier used in order for the cheese powder to,
22 you know, keep its integrity.

1 So I think we should, you know, be
2 looking at this product and especially make sure
3 that the information that we have is current.
4 Because it seems to be somewhat changing.

5 MS. DE LIMA: Joelle?

6 MS. MOSSO: You know, in just thinking
7 about kind of the comments that are made about a
8 material that -- and cumulative can have effect,
9 it makes me think about other things that have the
10 same sort of effect.

11 We know that caffeine is calcium-
12 binding. We know that butter is not good in
13 excess. So I do get a little bit concerned when
14 we fixate on some health implications that are not
15 at a realistic consumption rate. It obviously
16 does have functional properties in food.

17 MS. DE LIMA: Tom?

18 MR. CHAPMAN: Yes, that is a concern
19 of mine too. One of the studies that has been
20 cited to support the accumulated impact, the
21 recommendation by the study partner was that a
22 warning system is used similar to sodium contents.

1 It wasn't a prohibition on the content but rather
2 just raising awareness of it.

3 But the other item I think we should
4 keep in mind is that we did receive public comment
5 this time about the glut of organic milk that's
6 currently on the market and the depressed dairy
7 prices in the organic market. So is now also the
8 right time to be considering limiting organic
9 dairy process products?

10 MS. DE LIMA: Francis?

11 DR. THICKE: Well, I'm not a food
12 nutritionist, but on our small dairy on-farm
13 processing plant we make cheese. And I kind of
14 devised the recipes, and they usually have a lot
15 of ingredients that we don't use. Our yogurt is
16 just milk and culture. Our cheeses, we threw out
17 the phosphorous. And people love our cheese.

18 But it's just one little example to
19 point out that sometimes these things are just put
20 in the recipes, and they may not be quite as
21 essential as we thought. But again, this is my
22 own little cheese. And there are a lot of cheeses

1 out there.

2 MR. CHAPMAN: Can I ask a clarifying
3 question?

4 MS. DE LIMA: Sure.

5 MR. CHAPMAN: But not cheese powders,
6 or shelf-stable cheese sauces, or anything like
7 that.

8 MS. DE LIMA: Any other discussion?
9 All right, seeing none, moving on to casings. Dr.
10 Brines?

11 DR. BRINES: All right. Thank you. We
12 are in a new section of the National List. And
13 that section is 205.606, "Non-organically produced
14 agricultural products allowed as ingredients in or
15 on processed products labeled as organic."

16 And as a reminder, items in this
17 section of the National List are subject to a
18 requirement that they are only allowed when the
19 product is not commercially available in organic
20 form.

21 And the first listing under
22 consideration on this section is casings from

1 processed intestines. Thanks.

2 MS. DE LIMA: Thank you. Asa?

3 CHAIR CHAPMAN: Microphone.

4 MR. BRADMAN: So casings, as we know,
5 are intestines of beef, lamb, and pork and used to
6 make natural casings for sausages. The
7 alternative material for casing is synthetic
8 cellulose or synthetic collagen.

9 We've heard a little bit about this
10 this morning. Intestines are washed in pure water
11 with no chemicals. They're salted with sodium
12 chloride. No other ingredients or processing aids
13 are used. Animal intestines may come from organic
14 or non-organic animals.

15 In terms of the public comments, there
16 were really very few this time around. I have
17 maybe five or six comments. Pretty much all of
18 them were supportive and were similar to the
19 comment earlier today that there really is no
20 source of organic casings for sausage production.

21 There was one comment though that
22 expressed frustration that there had been no

1 technical report or TAP. And that there really
2 was not any careful evaluation of the fact that if
3 we're using non-organic animals they may be eating
4 GMO or other foods that -- They could be GMO or
5 eating foods that had been treated with pesticides
6 or other excluded materials and that there should
7 be an evaluation of the implications of that on
8 the casing product and the implications of using
9 that for organic sausage production.

10 So I don't know if any discussion or
11 comment is related to that. But that's really the
12 thrust of the comments.

13 MS. DE LIMA: Thank you, Asa. Dan?

14 MR. MORTENSEN: I have the impression
15 that there's really no good solution here in that
16 potentially there are lots of, as Asa was saying,
17 factory-farmed animals or animals that have been
18 fed GMOs. Their intestines are in this mix.

19 With cellulose you have the question of
20 some suspect ancillary ingredients. So I was
21 wondering, and I don't know anything about the
22 collagen, synthetic collagen as an option, but did

1 the subcommittee feel there was any good approach
2 here for casings for sausage, or we have a
3 situation where we have to just pick among several
4 things that are perhaps not ideal from our
5 standpoint?

6 MR. BRADMAN: There wasn't that much
7 discussion in the subcommittee. I think the
8 feeling was that this is -- there were comments in
9 2015, and this is a material that's kind of needed
10 by the, you know, the organic community, the
11 stakeholder community, and that we didn't see, you
12 know, many alternatives.

13 MS. DE LIMA: Tom?

14 CHAIR CHAPMAN: And I think one of the
15 best solutions is growing the organic meat market
16 so that there's a greater amount of meat processed
17 and an economically viable method to segregate
18 organic intestines. But that's a long term fix.
19 It's not short term.

20 MR. BRADMAN: I think this is an
21 opportunity where we can somehow perhaps
22 incentivize, you know, production of organic

1 casings. Then there'll be a market for it.

2 MR. CHAPMAN: Well, yes. As a 606
3 item though, if it is available, they must use it.
4 That is a requirement.

5 MS. DE LIMA: Dave?

6 MR. MORTENSEN: Yes. As a newcomer to
7 this process, we're looking at a number of cases
8 where there's a difficulty in having critical mass
9 of a non-organically produced substrate that's
10 then going to be processed, whether it's citrus
11 peels, or casings, or in just the previous example
12 of the wine processing.

13 I was just curious. How do we
14 determine when critical mass is reached and we're
15 not just using the excuse that, you know, it's
16 convenient to use something that, from a
17 processing point of view, just as a point of order
18 and --

19 MS. DE LIMA: Tom?

20 MR. MORTENSEN: It seems to me, for
21 example, it would be easier. I have friends that
22 are in the organic meat business in the northeast.

1 Casings seem more challenging to me than grapes
2 from a vineyard that's organically certified, for
3 example.

4 MR. CHAPMAN: Yes. I mean, there's --
5 in looking at how items have been removed or
6 recommended to be removed from 606 in particular,
7 there's been a variety of means.

8 Some companies who have a vested
9 economic interest in promoting the organic version
10 of it have petitioned. And that's generally, I
11 think, in my personal opinion, the most effective
12 way of removing items.

13 However, at Sunset review there's been,
14 you know, we have the Organic Integrity Database
15 now that gives some sense of at least operations
16 handling these products and comments from those
17 companies as well as the public about its
18 continued usage in the last -- in the 2017 Sunset
19 review.

20 I don't have the numbers off the top of
21 my head. But I feel like we made recommendations
22 to remove about a dozen items from 606. So it

1 does happen. But it's generally through comments
2 from handlers, comments from the public, and
3 generally the most effective way is that discreet
4 economic interest who, you know, comes up with the
5 first organic casing and then makes everyone buy
6 it.

7 MR. MORTENSEN: Okay, good.

8 MS. DE LIMA: Harriet?

9 MS. BEHAR: Well, this just brings up
10 a little bit of a bigger issue, just in 606, in
11 having maybe some different questions and maybe
12 even considering doing TRs on some items in 606 so
13 we have a better idea of what the barriers are to
14 the production of these items.

15 As we learned from hops, which was
16 awhile ago, that there were no organic hops,
17 because all hops are pre-contracted. So until we
18 could actually start encouraging people to pre-
19 contract for organic hops, you were not going to
20 just go out and find organic hops.

21 And so I don't know, like, you know,
22 your question about what is the critical mass, we

1 don't know how many tons of these intestines, or
2 what meat, or what facilities.

3 It could also be how perishable the
4 product is. So if you're trying to consolidate it
5 from a variety of different smaller houses, is
6 that the issue? Where are the issues? But it's
7 not something that we, as a Board, could do.

8 But I don't think we've ever actually
9 done a TR on 606. But that could be a project to
10 kind of think of what kind of questions would need
11 to be asked. And then we could try to see -- have
12 a little better understanding of why they're on
13 606, and what are the barriers, and possibly how
14 quickly they could come off.

15 MS. DE LIMA: Tom?

16 MR. CHAPMAN: Yes. So on the hops
17 example, the way that came off the list was the
18 group of hops producers got together, formed an
19 organic hop consortium, and again, an industry-
20 interested group got it off the list through the
21 Sunset process.

22 In terms of a key owner for 606 items,

1 a commercial availability, my day job, when I'm
2 not up here telling you guys about how much time
3 we have left on the agenda, is a sourcing manager
4 for organic ingredients for a large company, large
5 organic company anyway. And so in a sense, that's
6 what I do in my day job.

7 It's not something that can easily be
8 doled out to a technical resource to try to assess
9 what all those barriers are, what's available, as
10 well as assess the true demand in the marketplace.
11 That's an extremely hard thing to assess.

12 And I can tell from my own personal
13 experience, when we launch new products with a
14 team of experts, I would say, that we have made
15 mistakes in mis-assessing the market and
16 availability of products. It happens quite
17 frequently, oddly enough, and, you know, being
18 unable to support purchasing an organic item
19 because of quick or rapid changes in the
20 marketplace.

21 So I just -- I would like more
22 resources on it. I don't know if the technical --

1 technical reports can't solve all of our problems.
2 And I don't know if that's going to be a viable
3 place to find those solutions. And lastly, I
4 don't think our current pool of contracted TR
5 organizations are qualified to answer these
6 questions.

7 MS. DE LIMA: Harriet?

8 MS. BEHAR: Perhaps though, when 606
9 items are first put on the list and being
10 petitioned, we could maybe look at better
11 questions there, at that time, to find out what
12 are the manufacturing constraints and, you know,
13 especially when a petitioner comes, why, you know,
14 why can't you find it organically?

15 We had the same issue with okra, for
16 those of us in the audience that remember that,
17 which never got on the list. Because it was just
18 like, well, I can't find it. But it's like, you
19 know, well, there's lots of growers growing okra
20 within range of the facility that you're currently
21 using for your IQF production.

22 So I think that the 606 could be,

1 somewhat, and would also be good for petitioners
2 when they petition, you know, to get some of that
3 information up front so we're not just kind of
4 blind about how this has happened. We have a
5 better idea of, yes, this is really a problem, and
6 we're still waiting for that critical mass to get
7 it as organic.

8 MS. DE LIMA: Any other discussion?

9 All right, seeing none, moving on to konjac flour.
10 Dr. Brines?

11 DR. BRINES: Thank you. In the same
12 section, this listing reads as, "Konjac flour, CAS
13 Number 37220-17-0." Thanks.

14 MS. DE LIMA: Scott?

15 MR. RICE: Thank you. Konjac flour is
16 derived from tubers of the elephant yam,
17 Amorphophallus konjac. And it's primarily grown
18 in tropical and subtropical regions of Asia. It's
19 also called glucomannan. It's a soluble fiber, a
20 dietary fiber that's been used in traditional
21 foods in Asia such as the shirataki noodles and
22 konjac curd, also known as konnyaku.

1 Shirataki noodles are marketed in the
2 West as a zero calorie, zero carbohydrate
3 alternative to pasta and rice. It's also used as
4 a binder, gelling agent, thickener, and
5 stabilizer. It is unique in its ability to absorb
6 up to 50 times its weight in water. Don't eat too
7 much at one time.

8 (Laughter)

9 MR. RICE: And for that reason, a quick
10 side note, there is some concern regarding its
11 potential in capsule supplements or noodles to
12 block the esophagus. However, it appears this is
13 largely avoided by consuming those capsules with
14 plenty of water and the sufficient chewing of the
15 noodles.

16 An Internet search found several
17 commercially available organic konjac products,
18 including alternatives to rice and several forms
19 of pasta, such as spaghetti and fettuccine, made
20 from organic konjac flour.

21 This was last reviewed at the fall 2015
22 meeting when nine voted to re-list and five to

1 remove. At that time, no public comment was
2 received, no new information regarding the
3 criteria and sources of organic konjac flour were
4 identified in public comment.

5 There appears to be increased
6 availability of konjac sources, particularly for
7 gluten free alternatives to pasta and rice
8 products. During this first round, we asked if
9 there were sources of konjac sufficient to provide
10 manufacturers with the form and function required
11 for other organic products noted as using konjac,
12 such as sausages, fruit gels, and supplement
13 powders.

14 So in the comments this time around, we
15 heard from three certifiers indicating none of
16 their certified operations used this in its Sunset
17 surveys. The Organic Trade Association did not
18 receive any indications of its use.

19 We had, in support of its re-listing,
20 we had a food additives trade organization support
21 the re-listing citing uncertainty of quality,
22 consistency, and abundance of supply and also

1 questioning the ability of organic claims on
2 international sources.

3 One public commenter supported the re-
4 listing. And, as I said, other than the trade
5 organization, no organic processor submitted
6 comments in support of this.

7 In terms of comments against re-
8 listing, we heard concerns that there could be GE
9 sources of konjac in the market and that these not
10 be used in organic production.

11 Other commenters cited concerns around
12 the hazards of pesticides used in its culture in
13 conventional production and citing availability of
14 organic konjac flour.

15 One comment further noted pesticides
16 associated with the conventional konjac production
17 and notes that any consideration should
18 acknowledge the negative factors of this use when
19 choosing to re-list.

20 MS. DE LIMA: Thank you, Scott. Tom,
21 and then Emily.

22 MR. CHAPMAN: So in terms of reaching

1 that, like, consensus or ability to say there is
2 supply or not, this is one where I do have
3 questions around, and I would like more input from
4 the community where possible.

5 You know, the Organic Integrity
6 Database lists several konjac suppliers. So it is
7 available in some form in some quantity. And I
8 have also seen konjac products on the shelf that
9 were certified organic. And so again, that's
10 showing that there's an availability and a
11 quantity of it.

12 So, you know, I'd really like to get
13 more information as to what's constraining the use
14 of that. And there's others, some concerns around
15 origin. And I'd, you know, like to get some more
16 concrete detail about that as well.

17 MS. DE LIMA: Emily?

18 MS. OAKLEY: And so based on that and
19 on what Scott summarized, I know this is probably
20 premature as well, but is there any indication
21 from the Handling Subcommittee about where they
22 might head with this or you might head with this?

1 MR. RICE: I would echo Tom's comments
2 that we're looking for more support for this or
3 more indication that it's still needed. Judging
4 from the last review, there were similar concerns
5 that -- or questions whether the supply has become
6 prevalent enough to support at Sunset.

7 MS. DE LIMA: Steve?

8 MR. ELA: To me, this is one that --
9 the public comment in the fall, if there's nobody
10 that steps forward and says we absolutely need
11 this, it's going to be pretty hard to support re-
12 listing, given that there're alternatives
13 available.

14 I mean, I guess if there are companies
15 out there, not just trade organizations, that say
16 we need this, then I think they should step up and
17 note that. Otherwise, it's pretty hard to
18 support.

19 MS. DE LIMA: And I will say I haven't
20 seen it. We sell organic konjac noodles, and I
21 see other products with non-organic konjac in it.
22 But they're not certified organic products. So to

1 echo the sentiment, yes, we need to see some
2 manufacturers step forward and explain why they
3 need it, non-organically. Harriet?

4 MS. BEHAR: So this is another area
5 where we perhaps don't know. And I'm not even
6 sure. I don't know what kind of pesticides are
7 being used on konjac.

8 And there's sometimes, especially in
9 Third World countries where it's not so much the
10 pesticides, not that they can't use them, but this
11 organic certification is not necessarily always
12 something that's being done if it's the small
13 farmers and whatever.

14 So I don't know. It would be nice to
15 know how conventional konjac flour is grown and
16 perhaps even how close those producers might be to
17 just getting certified. I mean, it may not just
18 -- it might not be that it's conventionally
19 produced but that it's just not certified.

20 MS. DE LIMA: All right, any other
21 discussion? Seeing none, we will move on to
22 pectin. Dr. Brines?

1 DR. BRINES: Thank you. And this is
2 the last substance on the handling list of Sunset
3 materials. And continuing under 205.606, the
4 listing reads as, pectin non-amidated forms only.
5 Thank you.

6 MS. DE LIMA: Tom?

7 MR. CHAPMAN: Pectin is used as a
8 gelling agent in jams, preserves, fillings and
9 other products. The most common production of
10 non-amidated pectin is through the treatment of
11 pectin-containing byproducts like palm fruit cores
12 or citrus peels with acidified water. The
13 insoluble materials are filtered and removed, and
14 pectin is participated out with alcohol.

15 International standards generally all
16 allow pectin with various restrictions. Public
17 comments received by organic manufacturers, trade
18 associations, material suppliers and certifiers
19 spoke extensively to the use of pectin and its
20 essentiality in organic products.

21 A comment received about organic
22 pectins listed on the Organic Integrity Database

1 were in part or all for use as a dietary
2 supplement but not as a gelling agent.

3 Comments from the trade association
4 representing the pectin industry spoke to
5 constraints in commercializing organic pectins due
6 to commingled raw materials. And additionally,
7 they spoke to its unavailability of organic
8 pectin.

9 One comment received from an interest
10 group stated that pectin should be limited to high
11 methoxyl pectin extracted from citrus peel and
12 apple pomace. And I also wanted to note an
13 evaluation of the pesticides used on those
14 conventional non-organic raw materials.

15 MS. DE LIMA: Thank you, Tom. Any
16 questions or discussion from the Board? Steve?

17 MR. ELA: I just noticed any -- it used
18 to be we, NOSB, characterized high methoxy and low
19 methoxy pectins. And since we've switched to
20 amidated and non-amidated, I noticed a couple of
21 the comments still were referring to high methoxy,
22 low methoxy which now don't have a correlation

1 within the rules.

2 So I would encourage people making
3 comments to try and address to what the current
4 listing is. Because, at least as a non-chemist
5 member who uses pectin, I don't always know those
6 associations.

7 MS. DE LIMA: Asa and then Harriet.

8 MR. BRADMAN: Tom, I just wanted to ask
9 for a clarification in your last statement. You
10 said that there's concern about pesticide residues
11 in the pomace or peels?

12 MR. CHAPMAN: No. I think the concern
13 was around, similar to other comments on 606
14 items, just there should be evaluation of the
15 impact of conventional agricultural production
16 inputs in apples and citrus in general as part of
17 the review of a conventional item.

18 MR. BRADMAN: So not as a residue in
19 the material that's being processed?

20 MR. CHAPMAN: That's not how I took
21 it, no.

22 MR. BRADMAN: Okay. I mean, certainly

1 there are a lot of, you know, synthetic excluded
2 materials that are used on citrus and apples. You
3 know, we've seen, for example, relationships
4 between intake of non-organic apple juice and, you
5 know, higher metabolite and pesticide metabolite
6 levels in urine. And it's clear that there's a
7 lot of materials used on those products.

8 MS. DE LIMA: Harriet?

9 MS. BEHAR: Again, I wish I knew more
10 about the constraints other than it's difficult to
11 separate, as we did ask one of the public
12 commenters. And as someone who has extracted
13 pectin in my own kitchen and made jelly, it
14 doesn't seem like that difficult of a process.

15 But again, I don't know how large the
16 facilities are that are making pectin and what the
17 critical mass is to obtain enough organic. But
18 I'm sure there's a lot. I've been to processing
19 facilities where there's a lot of peels and cores.

20 So again, I feel a little bit like we
21 don't have the information of what the constraints
22 are. And we're just kind of hoping that the

1 industry will come in, and see this need, and fill
2 it. But, you know, it's a little bit hard for me
3 to just, like, vote for something without knowing
4 why it's not there.

5 MS. DE LIMA: Steve?

6 MR. ELA: And in part, an answer to
7 that, I mean, I think it is -- still there's a lot
8 of pectin used in this nation. And so I think it
9 still comes back to supply. And I think that's
10 where the comments went.

11 I know, in our own situation with our
12 jams, you know, we've talked to our supplier, and
13 they're very aware that people want an organic
14 pectin. Because we asked the question. And
15 they're, like, oh, yes, that's not the first time
16 we've been asked.

17 So I think there is some awareness in
18 the pectin industry that there should be or wants
19 to be an organic alternative. And my sense is the
20 supply just still isn't there.

21 MS. DE LIMA: Tom?

22 MR. CHAPMAN: Yes. And there was

1 actually, I believe a global shortage of
2 conventional pectin in 2015. So, yes, there's a
3 lot of pectin in use.

4 And then, you know, the opposite side
5 of that need is that sounds like an excellent
6 economic opportunity for someone to start an
7 organic pectin operation and charge whatever they
8 want.

9 MS. BEHAR: In my kitchen.

10 MR. CHAPMAN: In your kitchen.

11 (Laughter.)

12 MR. CHAPMAN: Just remember FSMA.

13 MS. DE LIMA: All right, any other
14 discussion on pectin?

15 All right, seeing none, that concludes
16 the Sunset. So we're going to move on to
17 proposals, starting with L-Methionine. Ashley?

18 DR. BRINES: All right. So I'll go
19 ahead and introduce it and then turn it over to
20 Ashley --

21 MS. DE LIMA: Oh, sorry, Dr. Brines.

22 DR. BRINES: -- as the lead. Thank

1 you. So this material, L-Methionine, was
2 petitioned by Nature's One, Incorporated, and the
3 petition was received on August 3rd, 2016. The
4 petition requests the addition of L-Methionine to
5 Section 205.605(b) of the National List as an
6 ingredient for organic products.

7 There was a technical report developed
8 in support of the review of this substance from
9 the last time the Board reviewed it. The
10 technical report is dated 2012 and is available on
11 the NOP website. And this is the first meeting at
12 which this particular petition is being reviewed
13 by the Board. Thanks.

14 MS. DE LIMA: Ashley?

15 MS. SWAFFAR: Okay. So, L-Methionine
16 has been petitioned to be added to 605.205(b),
17 allowed in or on nutritionally complete enteral
18 pediatric formulas labeled organic or made with
19 organic, with the annotation, for use in
20 nutritionally complete pediatric enteral formulas
21 based on soy protein.

22 Methionine is an amino acid essential

1 for humans and poultry alike.

2 L-Methionine exists in a category where
3 there has been much controversy. In 1995, the
4 NOSB made the following recommendation.

5 The use of nutritional supplementation
6 in organic foods, upon implementation of the
7 National Organic Program, the use of synthetic
8 vitamins, minerals and/or accessory nutrients in
9 products labeled as organic, must be limited to
10 that which is required by regulation or a
11 recommendation for enrichment and fortification by
12 the Independent Professional Association.

13 Since that recommendation, the NOP
14 published a proposed rule that clarifies a
15 previous reference to FDA's 21 CFR 104.20, for
16 nutrient vitamins and minerals, which indicates
17 that L-Methionine would not be allowed under that
18 provision. Hence the separate petition for its
19 inclusion on the national list.

20 Like I said, L-Methionine is petitioned
21 with a very narrow annotation. This would be
22 added to organic soy-based enteral products, so

1 that they would meet the nutritional requirements
2 for a protein.

3 We did get several comments on this.
4 Several on the pro side say that they support this
5 specific listing and soy protein diets are
6 inadequate without L-Methionine.

7 The comment against it said that they
8 believe that infant and pediatric enteral formulas
9 do not meet the compatibility criteria for listing
10 materials on the national list for products
11 labeled organic or 100 percent organic.

12 For those cases in which such a formula
13 is necessary, they do support high quality formula
14 labeled made with organic.

15 And I do want to clarify, this is just
16 for pediatric enteral formulas, not for all infant
17 formulas. So that's a quick summary.

18 MS. DE LIMA: Tom.

19 CHAIR CHAPMAN: I'd like to add a
20 couple more points on that. So in 2012 -- it
21 could be 2011, I could be a year off -- the Board
22 passed a different proposal related to vitamins

1 and minerals that were waiting for the program to
2 rule make against, and in addition to that,
3 reviewed several proposals related, or petitions
4 related, to various ancillary nutrients and
5 minerals and other items.

6 One of those was L-Methionine for an
7 infant formula. And the NOSB, at that time,
8 approved and passed that. So there is a sitting
9 recommendation already from the NOSB to list L-
10 Methionine for an infant formula. So this
11 expansion is just to take that and apply it to
12 pediatric enteral formulas.

13 Another one of the comments that spoke
14 to supporting it only in a listing for made with
15 organic, I want to dig into that one a little bit.
16 Their concerns seem to be focused around soy
17 protein isolate.

18 Which soy protein isolate, as an
19 industry term, is generally a soy protein that's
20 been purified to 80 percent or greater. Soy
21 protein isolate is generally produced today using
22 hexane extraction.

1 The use of hexane is not allowed in
2 organic products, and soy protein isolate is not
3 listed on 606. So in theory, soy protein isolate
4 is not available in organic product and could not
5 be used in an organic product. Ninety-five
6 percent or higher.

7 However, the hexane acts on the oil
8 portion of the soy, and so the protein is just
9 naturally there. It gets purified out. It would
10 be considered agricultural under our decision tree
11 and so could be used in a made with organic
12 products.

13 So if you're opposed to the use of soy
14 protein isolate listing L-Methionine, for made
15 with organic products only, it would actually open
16 the door for the use of soy protein isolates in
17 these products. Or allowing its usage in organic
18 products would not allow that in an organic
19 product and restrict substances like soy protein
20 concentrate, which is generally a lower fraction
21 of protein, and produced through organic and
22 physical means.

1 So if your concern is with soy protein
2 isolate, I don't see that as a relevant concern to
3 the listing of L-Methionine.

4 MS. DE LIMA: Is there any other
5 questions from the Board? Just a reminder for
6 folks, this is a proposal so we are going to be
7 voting, once on a classification and then whether
8 to list or not list. Emily and then A-Dae.

9 MS. OAKLEY: Yes, I just wanted to say
10 that that clarification is very helpful for me.
11 Thank you.

12 MS. DE LIMA: A-Dae.

13 MS. ROMERO-BRIONES: I just have a
14 question. So enteral formulas, can you define
15 that for me just so I am clear about what that is?

16 MS. SWAFFAR: Enteral formulas are
17 feeding tubes. The commenter yesterday, I
18 believe, you go through the nose, down in the
19 throat, some in the stomach. Yes, Tom, you got --

20 MS. ROMERO-BRIONES: And then my second
21 question is, so, these formulas are not typically
22 sold on the market? Or are they sold on the

1 market or primarily used in hospitals?

2 CHAIR CHAPMAN: So, a couple things.
3 One thing I should, it's a personal item, like I
4 said, we'll disclose it for the record. My
5 daughter has an enteral feeding tube and we use it
6 from time to time to provide her with complete
7 nutrition.

8 So enteral feeding products are
9 classified and coded under the Medicare
10 classifications. However, not everyone has
11 medical insurance, so they are available for both
12 personal purchasing as well as through insurance
13 potentially.

14 However, they are, enteral formulas
15 will be marketed as enteral formulas and they'll
16 have that Medicare designation on them.

17 MS. ROMERO-BRIONES: So you can buy
18 those -- so where do you buy these products?

19 CHAIR CHAPMAN: I don't know,
20 everywhere. You can buy it on Amazon, I'm sure
21 you can but it from the company itself directly.

22 MS. ROMERO-BRIONES: Okay. That was my

1 question.

2 CHAIR CHAPMAN: Potentially.

3 MS. DE LIMA: Harriet.

4 MS. BEHAR: Well, if we vote for the L-
5 Methionine, it would open the door to people who
6 use these products to have an organic version,
7 which would mean they wouldn't have to use a
8 conventional version, which would have had soy
9 protein isolate that could have been extracted by
10 hexane.

11 I'm seeing people shaking their head
12 yes.

13 MS. DE LIMA: Tom.

14 CHAIR CHAPMAN: Yes, I mean these
15 products are marketed towards the most fragile
16 populations out there. Kids with very advanced
17 medical issues. So people you'd want to have
18 access to organic products.

19 MS. DE LIMA: Any other discussion from
20 the Board? Okay, so seeing none, we're going to
21 move to a vote.

22 So first it's going to be the

1 classification vote. So this comes from the
2 subcommittee as a classification motion to
3 classify L-Methionine as non-agricultural
4 synthetic. Tom.

5 CHAIR CHAPMAN: Oh yes, I am running
6 the votes.

7 MS. DE LIMA: Yes.

8 CHAIR CHAPMAN: That's correct. So we
9 will start the voting with A-Dae.

10 This is a motion that comes seconded.
11 A motion to classify L-Methionine as petitioned as
12 non-agricultural synthetic.

13 It came motioned by Tracy Favre, when
14 she was on the board and seconded by Harold
15 Austin, while he was on the board. Now, the vote
16 threshold for this is two-thirds and we'll start
17 with A-Dae.

18 MS. ROMERO-BRIONES: Just to clarify,
19 we're voting on the classification --

20 CHAIR CHAPMAN: Classification.

21 MS. DE LIMA: Correct.

22 CHAIR CHAPMAN: A yes vote is to

1 classify as the synthetic.

2 MS. ROMERO-BRIONES: Yes.

3 MS. DE LIMA: Yes.

4 MR. BRADMAN: Yes.

5 MS. MOSSO: Yes.

6 MR. ELA: Yes.

7 MR. MORTENSEN: Yes.

8 MS. DE LIMA: Jesse?

9 MR. BUIE: Yes.

10 MS. SWAFFAR: Yes.

11 DR. SEITZ: Yes.

12 MR. RICE: Yes.

13 MS. BAIRD: Yes.

14 MS. BEHAR: Yes.

15 MS. OAKLEY: Yes.

16 DR. THICKE: Yes.

17 CHAIR CHAPMAN: Chair votes Yes.

18 MS. DE LIMA: We should probably go a
19 little slower when we're doing the next votes for
20 Michelle, right? That was a little fast. She
21 warned us to go slow.

22 CHAIR CHAPMAN: Yes. 15 yes, zero no.

1 The motion passes.

2 The next motion is a motion to add L-
3 Methionine, as petitioned, to 205.605(b). It
4 comes as a seconded motion from the subcommittee.

5 It was made by Tracy Favre and seconded
6 by Jean Richardson, both while on the board. This
7 also requires a two-thirds vote.

8 And we'll start the vote with Lisa and
9 a yes vote is to list this material. This will
10 recommend listing of this material. Lisa?

11 MS. DE LIMA: Yes.

12 MR. BRADMAN: Yes.

13 MS. MOSSO: Yes.

14 MR. ELA: Yes.

15 MR. MORTENSEN: Yes.

16 MR. BUIE: Yes.

17 MS. SWAFFAR: Yes.

18 DR. SEITZ: Yes.

19 MR. RICE: Yes.

20 MS. BAIRD: Yes.

21 MS. BEHAR: Yes.

22 MS. OAKLEY: Yes.

1 DR. THICKE: Yes.

2 MS. ROMERO-BRIONES: Yes.

3 CHAIR CHAPMAN: Chair votes yes. 15
4 yes, zero no. The motion passes.

5 MS. DE LIMA: All right. Moving on to
6 the next petition, which is Short DNA Tracers, Dr.
7 Brines.

8 DR. BRINES: Thank you. This petition
9 was received on October 14th, 2016. Was submitted
10 by Safe Traces, Inc.

11 The petition requests the addition of
12 short DNA tracers to Section 205.605 of the
13 national list. There was an addendum to the
14 petition that was submitted, and is also posted
15 alongside the petition on the NOP website. And
16 that addendum was submitted on February 10th,
17 2017.

18 And there is no technical report
19 requested or developed in support of the
20 subcommittee's review of this material. And this
21 is the first meeting at which this petition
22 material has been discussed. Thanks.

1 MS. DE LIMA: Thank you. So short DNA
2 tracers, the petitioner states that the inclusion
3 of short DNA tracers in organics would be an
4 improved method for traceability. And that
5 current record keeping practices could be
6 simplified and/or supplemented by using short DNA
7 tracers.

8 An advantage pointed out by the
9 petition is that since short DNA tracers are added
10 directly to the food and not to the packaging, it
11 cannot be separated from the food, either
12 accidentally or intentionally. And additionally,
13 short DNA tracers do not affect appearance,
14 flavor, aroma or nutritional values, of these
15 foods.

16 The short DNA tracers could be added by
17 processors to wax or other coatings used in fresh
18 fruits and vegetables. They can also be added to
19 dried products in powder form, encapsulated in
20 various materials that are certified organic or
21 currently included on 205.605 or 606. Such as
22 maltodextrin, agar-agar, et cetera.

1 They also can be added directly in
2 liquid form to liquid products, such as wine,
3 olive oil or honey.

4 To obtain maximum sensitivity
5 producers, it's recommended that producers include
6 short DNA tracers and food at levels around 1
7 milligram per ton.

8 The addition of a distinct short DNA
9 tracer would be distinguishable through testing at
10 different points in the supply chain. So it would
11 be basically tracing the movement and the
12 authenticity of the food or the ingredient, which
13 contained the short DNA tracer.

14 Basically, the Handling Subcommittee
15 talked about this and voted not to list. We just
16 didn't think that the use of short DNA tracers
17 could be considered essential for the handling of
18 organic products.

19 You know, production and sale of
20 organic products is established and continues to
21 grow without the use of something similar to a
22 short DNA tracer.

1 And public comment also pointed out
2 that the production method of short DNA tracers
3 falls within the excluded methods terminology.
4 Where the term modern biotechnology is defined in
5 part as the application of in vitro nucleic acid
6 technologies.

7 And the petitioner's use of PCR
8 technology to create the large number of copies of
9 a specific short DNA sequence, would qualify under
10 that definition as an excluded method.

11 Public comment was largely against
12 adding this material to the national list.

13 There were two comments in favor. One
14 from the petitioner and one from a cotton textile
15 manufacturer, who did not state whether they are
16 currently engaged in organic cotton production or
17 trade.

18 So with that, I'm going to open it up
19 to the Board. Discussion, questions? Harriet.

20 MS. BEHAR: So, are you saying this
21 material falls under our excluded method
22 definition? Just clarifying or --

1 MS. DE LIMA: Yes.

2 MS. BEHAR: Okay. And the other thing
3 that I was wondering too, just about the
4 technology and it seems to be tied to one company,
5 and kind of needing, you know, that people would
6 need to be then purchasing the technology from
7 them to do the tracing and it was somewhat of a
8 marketing, you know, kind of a monopoly marketing
9 also. It seemed like, really that much like a
10 generic material to me. It was like a proprietary
11 material.

12 MS. DE LIMA: Any other discussion
13 before we vote? Steve.

14 MR. ELA: I'll just say, I think the
15 other thing in traceability is that it can be used
16 to trace a product back to its name for food
17 safety, but it wouldn't refer to if an organic
18 product was added to by a conventional product.
19 So it only does one side of the traceability
20 thing.

21 I mean, if you're going to dilute
22 organic product with a conventional, then the

1 tracer is still in there, from the organic
2 product, and it doesn't really address that. So
3 I'm not even sure if fully addresses the
4 traceability issue.

5 MS. DE LIMA: All right. Steve.

6 MR. MORTENSEN: And during the course
7 of the public comment on, last week, on Thursday
8 and yesterday and today, there were a number of
9 times it was alluded to the fact that we are going
10 to be tracing grain movement from Turkey and the
11 Ukraine more effectively. And there may be some
12 truth in that.

13 But it seems to me that that's a boots
14 on the ground problem. The actual documentation
15 of what's going on at the source.

16 I've been in some of those places and
17 visited some of the farms where we would be
18 discussing methods of production, and I think that
19 is an integral part of solving the problem where
20 we heard about grain coming. Where there was
21 concern about sufficient documentation of the
22 production methods.

1 MS. DE LIMA: Francis.

2 DR. THICKE: It seems to me that this
3 is a solution looking for a problem.

4 MS. DE LIMA: All right, I don't see
5 any more discussion, so we're going to move ahead,
6 first with the classification vote. Tom.

7 CHAIR CHAPMAN: Thank you. So, the
8 motion is to classify short DNA tracers as non-
9 agricultural synthetic.

10 The motion was made by Lisa De Lima and
11 seconded by Scott Rice. This comes as a seconded
12 motion from the Subcommittee.

13 The voting will start with Asa. A yes
14 vote on this is to classify it as synthetic. Asa?

15 MR. BRADMAN: Yes.

16 MS. MOSSO: Yes.

17 MR. ELA: Yes.

18 MR. MORTENSEN: Yes.

19 MR. BUIE: Yes.

20 MS. SWAFFAR: Yes.

21 DR. SEITZ: Yes.

22 MR. RICE: Yes.

1 MS. BAIRD: Yes.

2 MS. BEHAR: Yes.

3 MS. OAKLEY: Yes

4 DR. THICKE: Yes.

5 MS. ROMERO-BRIONES: Yes.

6 MS. DE LIMA: Yes.

7 CHAIR CHAPMAN: Chair votes yes. 15

8 yes, zero no, the motion passes.

9 Scroll down, Michelle.

10 All right, the next motion is a motion
11 to list, or a motion to add, short DNA tracers as
12 petitioned, at 205.605(b).

13 This is a motion made by Lisa De Lima
14 and seconded by Asa Bradman. It was not
15 recommended by the Subcommittee, as you can by the
16 vote there, zero yes and 6 no.

17 But a yes vote on this motion is to
18 list the item, a no vote is to not list the item.
19 Voting will start with Joelle. And it takes a
20 two-thirds threshold.

21 MS. MOSSO: No.

22 MR. ELA: No.

1 MR. MORTENSEN: No.

2 MR. BUIE: No.

3 MS. SWAFFAR: No.

4 DR. SEITZ: No.

5 MR. RICE: No.

6 MS. BAIRD: No.

7 MS. BEHAR: Nope.

8 MS. OAKLEY: No.

9 DR. THICKE: No.

10 MS. ROMERO-BRIONES: No.

11 MS. DE LIMA: No.

12 MR. BRADMAN: No.

13 CHAIR CHAPMAN: Jesse, I'm just going
14 to ask you to say your vote again, because I don't
15 think your mic was on. So was it recorded? Can
16 you just say your vote again?

17 MR. BUIE: No.

18 CHAIR CHAPMAN: Thank you. And the
19 chair votes no.

20 The vote is zero yes, 15 no. The
21 motion fails.

22 MS. DE LIMA: All right, moving on to

1 tocopherols. Dr. Brines.

2 DR. BRINES: Thank you. For the rest
3 of the items on the handling agenda for today,
4 since they weren't a result of the petitioner,
5 Sunset, I'll defer to the Board to take those
6 away.

7 MS. DE LIMA: Okay.

8 DR. BRINES: Thanks.

9 MS. DE LIMA: Tom.

10 CHAIR CHAPMAN: Okay. Tocopherols, let
11 me pull it up. I will make this brief.

12 The point of this proposal was to
13 encourage the use of nonsynthetic agricultural
14 organic forms of tocopherols. And this was in
15 related to public comment that we had received.

16 The 2017 Sunset Review, so that was in
17 2015, about availability to some degree of
18 nonsynthetic versions of tocopherols and that we
19 should be encouraging the use of nonsynthetics.

20 I'm going to make a general industry
21 point and then get into the public comment. I do
22 want to point out that in the industry,

1 tocopherols synthetic versus nonsynthetic are used
2 differently than in the organic industry, where we
3 have a different synthetic versus nonsynthetic
4 definition.

5 In the industry, a synthetic version is
6 derived from a petrochemical or something like
7 that. A nonsynthetic is derived from an animal or
8 a vegetable source.

9 The annotation, as it lists now, limits
10 is to a vegetable source or vegetable oil. And so
11 that may be a source of some confusion and why we
12 get such a mix message on availability on the
13 substance.

14 All right, moving on to the public
15 comment about our proposal. Sorry, I just need to
16 pull up my notes.

17 The tocopherol proposal received mixed
18 comments from the community, from comments stating
19 they did not have enough time to review the
20 proposal to some recommending holding off on this
21 proposal until it was listed on 205.605(a).

22 Some commented on the confusion and/or

1 if it was sensible to have certifiers digging into
2 synthetic versus nonsynthetic inputs, if it was
3 listed on the synthetic list.

4 Other commenters pointed out this
5 proposal, without listing on 606, would prohibit
6 agricultural, conventional agricultural forms of
7 this substance. So it would allow nonsynthetic
8 and organic, but not conventional agricultural
9 forms.

10 And some also recommended changes to
11 the annotation wording.

12 Finally, others just supported the
13 proposal as is.

14 Most commenters supported prioritizing
15 organic forms first, then agricultural forms, then
16 nonagricultural natural forms and finally,
17 synthetic forms.

18 Concerns around GMOs in the raw
19 materials was also raised. However, the program
20 also stated, for the record, that excluded methods
21 prohibition applied to both 605 and 606 materials.

22 Given the comments received and the

1 variety of input, I do think, as the lead on this
2 item, that it is prudent for us to take this back
3 to the subcommittee at this time, for further
4 consideration. But I would now open it up for
5 questions and dialogue from the Board.

6 MS. DE LIMA: Dan and then Harriet.

7 DR. SEITZ: I'm still a little confused
8 about whether you could use synthetic solvents
9 with the vegetable oil.

10 So I understand you couldn't use
11 genetically modified vegetable oils, but I was
12 reading what our regs say about the use of, say
13 hexane or whatever, a volatile solvent. Would
14 that be allowed, potentially, if you, with the
15 wording as is, or not?

16 CHAIR CHAPMAN: With the wording as is,
17 I believe hexane extraction of the vegetable oil
18 would be an allowable process. Yes.

19 DR. SEITZ: And did the subcommittee
20 see that as an issue, based on the public comments
21 on that?

22 CHAIR CHAPMAN: Assessed out of the

1 scope of what we were reviewing. We were
2 reviewing the listing of how it was, that would
3 have been reviewed at Sunset Review. So I don't
4 think we've taken that into deep consideration.

5 MS. DE LIMA: Harriet.

6 MS. BEHAR: Would material review
7 organizations be asking for a non-GMO affidavit on
8 this product?

9 CHAIR CHAPMAN: I can refer to the
10 certifier on the Board. That's a good question,
11 but I don't know if I can answer it at this time.

12 However, I do want to note that our
13 listing of this was to review the annotation and
14 whether it should be on A or B, not its actual
15 presence on the list.

16 MS. DE LIMA: Scott.

17 CHAIR CHAPMAN: Scott's got something.

18 MR. RICE: The question was whether you
19 look for a GMO affidavit on any material for
20 consideration.

21 MS. BEHAR: When this is being proposed
22 to be put in an organic product, would they

1 request a non-GMO affidavit for it? Like they do
2 for yeast or they do for a variety of other
3 products.

4 MR. RICE: I'd have to double check on
5 that.

6 CHAIR CHAPMAN: I can speak as a
7 purchaser of tocopherol as non-GMO tocopherols are
8 available on the market and marketed as such.
9 Through from like IP, IP oil materials.

10 MS. BEHAR: But as listed, it doesn't
11 say non-GMO.

12 CHAIR CHAPMAN: Yes. It didn't fully
13 answer your question, but I guess was getting at
14 it.

15 MS. BEHAR: Right.

16 CHAIR CHAPMAN: But I know there is an
17 availability and supply of the non-GMO products.

18 MS. BEHAR: Right. But I know there
19 are numerous products that non-GMO affidavits,
20 having been a reviewer, are asked for, for a
21 variety of different products, just to make sure
22 that the source wasn't. And I don't remember if

1 tocopherols was one of those products.

2 I don't know if we want to ask someone.

3 If OMRI does that or --

4 CHAIR CHAPMAN: I mean, at this point,
5 it's beyond the scope of what this listing is on
6 our work agenda.

7 MR. RICE: I would clarify, yes, we
8 would look for that, but just to echo Tom, that's
9 beyond the scope here.

10 MS. DE LIMA: So right now we're just
11 discussing whether we want to reclassify, from B
12 to A.

13 Asa, did you have a question? No.
14 Harriet.

15 MS. BEHAR: Just would be more
16 comfortable knowing whether or not this was one of
17 the items as reviewed for non-GMO, that's all.

18 I'm not saying that it should change
19 the annotation. I don't know what the typical
20 activity is in the certification world. For
21 what's currently being used in the market.

22 Because, couldn't tocopherols be made

1 from soy?

2 CHAIR CHAPMAN: Yes. Yes, they can be.
3 And I think that's a question that we should take
4 back. We can have that discussion on the
5 Subcommittee and we can utilize the open docket to
6 get comments from the community.

7 And Miles wants to say something.

8 MR. MCEVOY: Yes. Well, it's a very
9 interesting question about, what do the MROs do,
10 what's an affidavit, because there's different
11 types of affidavits.

12 So, it seems like it's a very good
13 question that maybe should go back to a
14 subcommittee and should be discussed about what is
15 the verification method for determining that
16 excluded methods aren't used in 605 materials or,
17 605 materials I guess is where you're at right
18 now.

19 So, it seems like that would be a good
20 question to ask the community, what are they
21 doing, what are certifiers doing, what are MROs
22 doing, what does the affidavit mean, right?

1 Because you could have an affidavit
2 that says, no presence of GMO material is in the
3 final product versus no GMO substrate was used in
4 the production.

5 So how you write that affidavit, is it
6 an affidavit that's provided and they sign or is
7 it an affidavit that you're asking them to provide
8 and they put it in their own words? So that's a
9 good question, but it's a complicated subject.

10 MS. DE LIMA: Thank you, Miles. Tom.

11 CHAIR CHAPMAN: And larger than just
12 the tocopherol issue. It applies to probably
13 several substances on the list.

14 MS. DE LIMA: Ashley.

15 MS. SWAFFAR: So, I would like to move
16 to refer the proposal on tocopherols back to the
17 Handling Subcommittee.

18 CHAIR CHAPMAN: So there's a motion, is
19 there a second?

20 MS. ROMERO-BRIONES: I second.

21 CHAIR CHAPMAN: Okay.

22 MS. DE LIMA: So A-Dae --

1 CHAIR CHAPMAN: That was --

2 MS. DE LIMA: Oh.

3 CHAIR CHAPMAN: -- A-Dae. Okay. It
4 was A-Dae, was it?

5 MS. DE LIMA: A-Dae.

6 CHAIR CHAPMAN: Yes. Okay. So we have
7 a motion to refer back to subcommittee, by Ashley,
8 and a second by A-Dae.

9 This only requires a majority to
10 approve this motion. And the voting will start
11 with Steve. A yes vote is to send this back to
12 subcommittee.

13 MR. ELA: Yes.

14 MR. MORTENSEN: Yes.

15 MR. BUIE: Yes.

16 MS. SWAFFAR: Yes.

17 DR. SEITZ: Yes.

18 MR. RICE: Yes.

19 MS. BAIRD: Yes.

20 MS. BEHAR: Yes.

21 MS. OAKLEY: Yes.

22 DR. THICKE: Yes.

1 MS. ROMERO-BRIONES: Yes.

2 MS. DE LIMA: Yes.

3 MR. BRADMAN: Yes.

4 MS. MOSSO: Yes.

5 CHAIR CHAPMAN: Chair votes yes. 15

6 yes, zero no. The item is refereed back to
7 subcommittee.

8 MS. DE LIMA: All right, moving on to
9 marine algae listings. Scott.

10 MR. RICE: Thank you. During its five-
11 year Sunset Review, excuse me one second. We're
12 having technical issues over here.

13 During its five-year Sunset Review of
14 almost 200 materials, the NOSB and public comment
15 noted that the listings of the nine marine
16 materials on the national list includes overlap in
17 species and a lack of scientific clarity.

18 A discussion document was posted and
19 substantive public comment received in the fall of
20 2016. Based on public comment from a broad cross
21 section of stakeholders, this proposal recommends
22 that the marine algae materials be annotated with

1 Latin binomials where possible, or by class. And
2 that the NOP review the word kelp as used in
3 organic production and clarify if marine materials
4 on the list should be classified as agricultural
5 or non-agricultural.

6 There are nine separate listings for
7 marine materials on the national list, which are
8 the subject of the documents. And important to
9 point out that there is an identical proposal also
10 brought forward by the Crop Subcommittee.

11 There's a number of public comments on
12 this. Commenters cautioned against too narrowly
13 defining or identifying species used, noting that
14 narrow definitions may exclude what is currently
15 being used in products or inputs.

16 Commenters also pointed to the illogic
17 of allowing the synthetic extraction of a brown
18 seaweed but not a red or a green one.

19 Commenters also noted the importance of
20 including genus, particularly for the agar-agar,
21 as a lack of genus may lead to the use of inputs,
22 such as carrageenan, which the Board recently

1 voted to allow to Sunset.

2 One comment noted Latin binomials are
3 not static and many species have traditional and
4 modern Latin names, noting both should be listed.
5 Other commenters were unclear on how the
6 Subcommittee determined the class and species
7 proposed, asking if this was because those noted
8 were from a sustainable source or simply commonly
9 used by industry.

10 Commenters noted that the goal of our
11 subcommittee's investigation should be to amend
12 the national list to identify with those Latin
13 binomials either specific species that are allowed
14 in organic or those that are prohibited due to
15 ecological impact concerns.

16 In terms of sustainability, one
17 commenter noted further guidance is needed to
18 restrict wild crop harvests to those that meet the
19 regulations.

20 To address the sustainability,
21 commenters said the focus and first step should be
22 on sourcing a certified organic source first.

1 Another commenter pointed to marine
2 algae harvest should be added to eliminating the
3 incentive to convert native ecosystems as, with
4 the point that, to that discussion document,
5 citing conversion is also happening at intertidal
6 lands.

7 A number of commenters, as we've heard,
8 noted they did not have adequate time for review
9 and requested that the Subcommittee refer this
10 back for further consideration, until fall 2017 to
11 allow for full public engagement.

12 I wanted to be really clear that the
13 issue of sustainability was considered to a great
14 degree. Our recent Board Member, Jean Richardson,
15 who is the lead on this, invested a great deal of
16 time and energy into investigating harvest
17 practices of these materials and their sustainable
18 -- the sustainability of that harvest.

19 As you can imagine, she found an
20 immense amount of information on that. And in the
21 absence of clear and consistent definitions of
22 sustainable, as well as a numerous patchwork of

1 standards around the globe addressing sustainable
2 harvest, the Subcommittee did not feel it could
3 address sustainability in a real hand-able way in
4 this proposal. However, we did want to move
5 forward with an effort to clarify and make
6 consistent listings of the marine algae on the
7 national list.

8 I guess I would, Emily was the lead on
9 the crop side of this, so I would just invite her
10 to comment on anything that I didn't touch on here
11 or elaborate.

12 MS. OAKLEY: I'll just elaborate in
13 detail on the crops document and our discussion.
14 But I do just want to add that, I want to echo
15 about the sustainability issue.

16 And that Dr. Richardson, when she wrote
17 this document in its first iteration through the
18 Subcommittees, did try to address the
19 sustainability issue. And the challenge right now
20 is defining that and measuring it.

21 So I would just ask, and put a plea out
22 there, for assistance from the stakeholders in

1 helping us identify how we can measure and define
2 sustainable harvest in these materials.

3 MR. RICE: I'll open it up to further
4 discussion.

5 MS. DE LIMA: Thanks, Scott.

6 Questions? Steve.

7 MR. MORTENSEN: I --

8 MS. DE LIMA: Oh, sorry, Dave.

9 MR. MORTENSEN: That's fine. So not
10 anything like critical, but I would just say,
11 reading this draft, I was really impressed with
12 like the detail in this draft and the specificity
13 in the draft.

14 It was clear that a great deal of time
15 went into figuring out what species were aligning
16 with what methods, et cetera. And I was just
17 really struck by that when I read through it.

18 MS. DE LIMA: Emily.

19 MS. OAKLEY: Yes, I want to echo that.
20 And that's all Dr. Richardson's work. So, we are
21 grateful to her, for that.

22 And I know that there was some public

1 comment over concern over how these listings got
2 made. And I think, I just want to refer people
3 back to the discussion document last fall and the
4 TR, to note that this is where Dr. Richardson came
5 up with these materials and classification of
6 Latin binomials.

7 And I think some of that is identified
8 in the background. And that was sort of the
9 expectation for identifying where these things
10 came from.

11 MR. MORTENSEN: I would also, the
12 fellow, David Hiltz, spoke to this briefly,
13 earlier, when I asked a question about it.

14 But I would find it really helpful, and
15 I'm happy to spend some time on it, but just to
16 understand better how this actually works in
17 practice, because a long time ago, I did graduate
18 work in this area where we would actually go out
19 and do the sampling and surveying and monitoring
20 of these populations and I'm still struggling to
21 see how the harvest works, where you're getting
22 mostly one species at a time or that you're

1 sorting the species if you're getting five or ten
2 species in a cut. So any help on that, from the
3 commercial side, would be appreciated.

4 MS. DE LIMA: Ashley.

5 MS. SWAFFAR: So I move to refer the
6 handling proposal on marine algae back to the
7 Handling Subcommittee.

8 CHAIR CHAPMAN: I have a motion, is
9 there a second?

10 MS. OAKLEY: I'll second.

11 CHAIR CHAPMAN: Okay. So, I have a
12 motion from Ashley and a second from Emily. The
13 motion is to refer the handling proposal on marine
14 algae listings back to the Handling Subcommittee.

15 A yes vote will send this back to
16 Subcommittee. It's a majority vote threshold.
17 And the voting starts with Dave.

18 MR. MORTENSEN: Yes.

19 MR. BUIE: Yes.

20 MS. SWAFFAR: Yes.

21 DR. SEITZ: Yes.

22 MR. RICE: Yes.

1 MS. BAIRD: Yes.

2 MS. BEHAR: Yes.

3 MS. OAKLEY: Yes.

4 DR. THICKE: Yes.

5 MS. ROMERO-BRIONES: Yes.

6 MS. DE LIMA: Yes.

7 MR. BRADMAN: Yes.

8 MS. MOSSO: Yes.

9 MR. ELA: Yes.

10 CHAIR CHAPMAN: Chair votes yes.

11 MS. DE LIMA: All right, moving on to

12 --

13 CHAIR CHAPMAN: I have to read the
14 results.

15 MS. DE LIMA: Oh sorry.

16 CHAIR CHAPMAN: I'm sorry.

17 MS. DE LIMA: I'm just trying to get us
18 some time.

19 CHAIR CHAPMAN: 15 yes, zero no. The
20 motion passes and the item is referred back to the
21 Handling Subcommittee.

22 MS. DE LIMA: All right, moving on to

1 the next proposal, for ancillary substances
2 permitted in cellulose.

3 So currently, cellulose is listed at
4 205.605(b), for the use in regenerative casings,
5 as an anti-caking agent and filtering aid.

6 The Sunset Review for cellulose was
7 voted on at the last meeting and a chart of
8 ancillary substances for use in cellulose, was
9 included. However, during the second round of
10 public comment, additional ancillary substances
11 were identified.

12 And this happened after the final
13 proposal had already been posted, so this proposal
14 was created to add those ancillaries to the chart.

15 There were three ancillaries which we
16 received concern over in public comment. Vinyl
17 chloride, kymene and resin.

18 The vinyl chloride was definitely not
19 supposed to be on the chart. It should have just
20 read, polyvinylidene. Which corresponds with the
21 cast number that is on the chart. This was just
22 an honest mistake that was made. It wasn't caught

1 in the transfer between the two leads on this
2 proposal.

3 So I'd like to see this sent back to
4 Subcommittee so we can clean that up, and also
5 continue a conversation and address the two other
6 ancillaries that were called into question in
7 public comment.

8 Opening it up for questions, comments,
9 discussion? Ashley. Oh, Asa.

10 MR. BRADMAN: I just want to say, I
11 think that's a good idea. I know I was thrown for
12 a loop when I saw the vinyl chloride there and
13 started looking things up, about 65, and stuff
14 like that.

15 MS. DE LIMA: It definitely was not
16 supposed to be on there.

17 MR. BRADMAN: Okay.

18 MS. DE LIMA: Ashley.

19 MS. SWAFFAR: I move to refer the
20 proposal on ancillary substances using cellulose
21 back to the Handling Subcommittee.

22 CHAIR CHAPMAN: All right, so we have

1 a motion, is there a second?

2 MR. BRADMAN: I'll second.

3 CHAIR CHAPMAN: All right, Asa. It's
4 a race to the second.

5 So the motion is to refer the proposal
6 on ancillary substances using cellulose, back to
7 the Handling Subcommittee. The motion was made
8 Ashley, seconded by Asa.

9 It requires only a majority vote. And
10 the voting will start with Jesse. A yes vote is
11 to refer it back to the Subcommittee. Jesse?

12 MR. BUIE: Yes.

13 MS. SWAFFAR: Yes.

14 DR. SEITZ: Yes.

15 MR. RICE: Yes.

16 MS. BAIRD: Yes.

17 MS. BEHAR: Yes, sir.

18 MS. OAKLEY: Yes.

19 DR. THICKE: Yes.

20 MS. ROMERO-BRIONES: Yes.

21 MS. DE LIMA: Yes.

22 MR. BRADMAN: Yes.

1 MS. MOSSO: Yes.

2 MR. ELA: Yes.

3 MR. MORTENSEN: Yes.

4 CHAIR CHAPMAN: 15 yes, zero no. The
5 motion passes and the item is referred back to the
6 Handling Subcommittee.

7 MS. SWAFFAR: The Chair did not --

8 MS. DE LIMA: You didn't vote.

9 CHAIR CHAPMAN: The Chair votes yes.
10 Fourteen plus one.

11 MS. DE LIMA: All right, so we are on
12 our last agenda item for handling. That's the BPA
13 proposal. And Asa is going to take us through
14 that.

15 MR. BRADMAN: Thank you.

16 MS. DE LIMA: Oh, I'm sorry, it's a
17 discussion document, not a proposal.

18 MR. BRADMAN: Okay. Thank you. I just
19 want to say, I'm hoping for a lot of robust
20 discussion on this issue. I think this, as was
21 mentioned earlier, opens up a big can of worms,
22 but perhaps a very important one.

1 So just, I think most people here are
2 probably familiar with the history. There was
3 some early interest in issues around BPA and
4 plastics in packaging materials.

5 There was also a letter from, it's the
6 senator from California, which one? One of the
7 senators sent a note to the NOP about BPA.

8 And that lead to a number of
9 discussions, a request for a technical report that
10 was previously reviewed by the Committee. And it
11 was deemed actually inadequate. But we decided to
12 go ahead with the discussion document to collect
13 more information.

14 So just a quick review, BPA is a
15 material. It's used in cans and other packaging
16 materials, including products containing organic
17 food.

18 It's a known endocrine disruptor. And
19 it's been associated, within a number of studies,
20 with a number of adverse health outcomes.
21 Potentially at environmentally relevant levels.

22 I should mention too, as disclosure,

1 that I've had funding from the National Institutes
2 of Health, to work on studies related to BPA.

3 We developed this discussion document
4 to get input from the organic community. And also
5 to learn more about what manufacturers and
6 processors are using and what their experience is
7 with packaging materials and the use of BPA, and
8 alternatives.

9 I'm not going to review the health
10 issues here, other than what I just said. But one
11 thing that is very clear is that packaging
12 materials are really a definite source of exposure
13 to BPA. There's very well done studies showing
14 that if you, for example, have soup or tomato
15 sauce from cans, for example, that are lined with
16 BPA, you have higher levels in your body.

17 If you relate those levels to the
18 current FDA standard, the FDA position on that is
19 that the exposure levels are below a threshold
20 that would cause an adverse health affect.
21 However, that is contradicted a little bit by
22 recent studies.

1 And I should also mention, finally,
2 related to that and why I am particularly
3 concerned about this material, it's also listed by
4 the State of California as a, under Proposition
5 65, as a known reproductive toxicant.

6 In terms of the comments that we got
7 back, I was hoping for a little bit more. And one
8 of the concerns among commenters was that there
9 really wasn't enough time to properly review the
10 issue, answer your questions and get back.

11 There were a total of six comments.
12 And they were kind of, not divided, there was some
13 emphatic agreement that this material is
14 inappropriate in packaging materials for organic
15 food and it should be banned and prohibited from
16 being in packaging material that contacts organic
17 food.

18 And the rationale for that was under
19 the Section 205.272. Where the following are
20 prohibited, well commingling and contact with
21 prohibited substances, prevention practice
22 standard on the following are prohibited.

1 There's a reference to packing
2 materials that may contain pesticide-related
3 materials or preservatives. And then the use of
4 any bag or container that has been in contact with
5 any substance in such a manner, as to comprise the
6 organic integrity of any organically produced
7 product or ingredient placed in those vessels.

8 So I guess really the question for us
9 is whether we feel that contamination by BPA
10 compromises the organic integrity of the food,
11 because of these concerns about health. And
12 again, there were about four or five comments
13 agreeing with that.

14 There were some other comments that
15 raised concerns about what are the larger
16 implications if we take this on and we're to
17 actually recommend banning this.

18 Basically the concern being there that
19 there is potentially thousands of materials that
20 are used in packaging materials that could be
21 showing up in food, that the material in the
22 packaging material is not intended to alter in any

1 way or interact with the food. So it's kind of a,
2 it's not a direct use related to the actual food
3 itself, and in that sense it may be beyond the,
4 really scope of our authority to address.

5 And then again, it could open up just
6 a huge area that could place a lot of burden and
7 work on the Board and on the NOP, without really
8 enough time to really discuss and evaluate this
9 issue. Particularly with the timing for this
10 discussion document.

11 So one of the requests is that
12 essentially we keep this on the docket, reissue
13 the discussion document for the fall, and continue
14 the discussion. But I think there's really enough
15 important issues raised here that we can have
16 some, at least useful discussion now, and decide
17 whether we want to consider going ahead with some
18 sort of proposal or at least keeping it on deck as
19 an issue to address.

20 MS. DE LIMA: I'm going to call on
21 myself first and then Emily and then Joelle.

22 Yes, while I see what folks are talking

1 about when they say look at what this might mean
2 for other substances down the road, the larger
3 broader impact, personally, I also see consumers
4 asking us, on the retail side, about BPA. And
5 that I can't tell them it's certified organic and
6 therefore you don't have to worry about BPA in
7 here.

8 So I definitely want to see the
9 discussion go further, because while there might
10 be other additives that are called into question,
11 this is the only one I'm really hearing about from
12 consumers.

13 MR. BRADMAN: Right. I think that's
14 actually a good point too.

15 And just to reiterate, in our
16 discussion document we did list a number of
17 questions. One was to ask about what alternatives
18 are being used, within the phenol family.

19 There is BPS, BPF. There's other
20 related compounds that have been used in plastic
21 materials.

22 And then there's been a number of other

1 compounds that were mentioned in the draft
2 technical report and in other reviews. For
3 example, by Environmental Working Group, about oil
4 resin related materials that also have been
5 affective as can liners.

6 And to date, there were no comments or
7 submissions related to those questions, to obtain
8 more information about what's actually been used
9 in the organic industry.

10 MS. DE LIMA: Emily.

11 MS. OAKLEY: Do you think you'll have
12 your revised TR back in time to have a proposal
13 for the fall that might then generate more public
14 discussion or would you want to stick with the
15 discussion document, again, for the fall?

16 MS. DE LIMA: I don't think we know, we
17 don't know yet when we're going to get the TR.
18 Joelle.

19 MS. MOSSO: First, a couple
20 disclaimers. One, I am not a fan of BPA, and two,
21 is that my company is a major co-manufacturer for
22 tomato products in cans. We do not use any cans

1 that have BPA. So we don't participate in that.

2 The customers that we have would have
3 to comment on what the alternatives are. However,
4 we do have a BPA-free facility.

5 The comments I have, mostly in regard
6 to BPA, are, what is the limits of our regulatory
7 authority to get into packaging materials that are
8 not active packaging materials? Because I do
9 think that that is going to be a much larger
10 conversation as we look and expand, not even in
11 packaging materials, but also into crop production
12 materials or things that may move inputs, that may
13 also have contamination.

14 And to the point on BPA being the topic
15 that everyone talked about, I think that's today.
16 Today we talk about BPA, what's tomorrow?

17 So I guess that's a question, somewhat
18 to the NOP, and how we might more effectively get
19 our concerns out to maybe the regulatory
20 authorities that have the jurisdiction to make
21 packaging discussions. Because I'm just not sure
22 we have the regulatory authority to do that.

1 MR. MCEVOY: Yes, that's a really good
2 question. We're not sure. I think we can go back
3 and look at the statute and the authorities that
4 we have and provide information during the time
5 period between now and the next meeting.

6 So that is a very good question, what
7 is the regulatory authority under OFPA to look at
8 packaging materials, BPA, but other materials as
9 well.

10 And then the other, I guess
11 possibility, is bringing in those regulatory
12 authorities that are responsible for packaging,
13 clarifying what the regulatory framework is for
14 packaging materials with food. I would imagine
15 it's the FDA, but finding specifically what
16 offices they are and how they review these types
17 of materials.

18 MR. BRADMAN: It is FDA. My sense,
19 from a lot of the comments we received and my
20 experience with this issue, I think that some of
21 the kind of public health and organic
22 environmental community might have a different

1 standard than the FDA.

2 In part because it's a known endocrine
3 disruptor; it's listed as a reproduction toxicant.
4 And kind of, if you want to take a precautionary
5 approach, let's try to just avoid exposure.
6 Particularly if alternatives are possible.

7 But again, within the information we
8 asked for within the discussion document, we
9 didn't get much information about what
10 alternatives are being used and what the
11 implications are of those materials.

12 DR. SEITZ: You mentioned that you
13 didn't get any input on alternative materials.
14 Did the Committee have a chance to do any
15 preliminary research on whether there were good
16 alternatives? And is there is a possibility that
17 if this were taken out, we might find equally
18 noxious replacements for those materials?

19 MR. BRADMAN: There was some discussion
20 of that. In the Draft TR there is a mentioned of
21 it.

22 And I certainly also looked at some of

1 those materials. And as I mentioned before, there
2 is BPS and BPF. And these are very similar
3 compounds that have the same role in terms of the
4 structure of the plastics.

5 But there are some other materials. I
6 mentioned the oil related resins. But I think
7 that there is a lot more information that needs to
8 be reviewed.

9 And I definitely agree with you. In
10 the last five years, I've become familiar with the
11 term regrettable substitute in environmental
12 health. And I think this is an arena where we
13 want to be careful.

14 MS. DE LIMA: Harriet.

15 MS. BEHAR: So looking in the
16 discussion document at the relevant areas of the
17 rule, 205.272, commingling and contact with
18 prohibited substance prevention practice standard,
19 the handler of an organic handling operation must
20 implement measures necessary to prevent the
21 commingling or organic and non-organic products
22 and protect organic products from contact with

1 prohibited substances.

2 And then if you go to B1, it does say
3 packaging materials and storage containers or
4 bins, that contain synthetic fungicide
5 preservative or fumigants are prohibited.

6 So I'm wondering if something couldn't
7 be inserted in there. Either by category or by --

8 So do I have to repeat all that? I'm
9 just wondering if in, when we're thinking.
10 Because we don't list prohibited substances in
11 handling. So how do we work on this?

12 And either we could do a category once
13 we have, if we have a better idea, or we could add
14 BPA in that sentence, I would think, as a place to
15 do it.

16 But I think that we do have authority
17 because right here we are managing, packaging,
18 that it doesn't contain synthetic fumigants,
19 preservatives or fungicides.

20 MS. DE LIMA: Tom.

21 CHAIR CHAPMAN: So, I think the
22 authorization for that sentence comes from the

1 areas commingling in OFPA, but you do raise an
2 interesting point. If we create an area of a list
3 that references prohibited products for handling,
4 maybe.

5 Maybe that's a way, I don't know. But
6 that would be, I'd be interested in hearing the
7 NOPs feedback on that.

8 MR. BRADMAN: What about on Number 2,
9 below that? The notion that reuse of any bag or
10 container that's been in contact with any
11 substance, that essentially compromises the
12 organic integrity. A reproductive toxicant, known
13 carcinogen.

14 I mean, it seems to me those could be
15 logical definitions, for example, of a substance
16 that compromises the organic integrity, synthetic
17 substance.

18 MS. DE LIMA: Dave.

19 MR. MORTENSEN: Yes, I guess I was
20 struck reading the draft, as you say, to the
21 tenfold increase in detection in the body after
22 eating tomato soup. That's very high compared to

1 like herbicide exposure that I know more about.

2 And the idea that we think about this
3 as a risk cup and not individual compounds, as we
4 know. So we're being exposed to endocrine
5 disruptors through BPA, but we're also being
6 exposed to endocrine disruptors through pesticide
7 residues and other sources.

8 So it is a can of worms, it looks like,
9 but it certain looks like one we should be
10 opening, I think, and taking a very critical look
11 at.

12 MS. DE LIMA: Tom.

13 CHAIR CHAPMAN: So I should say that I
14 also, like other members of the Board, would like
15 to see BPA disallowed from organic products. And
16 somehow, is just how do we do it and how do we do
17 it without opening up a can of worms.

18 These two sections, my biggest concern
19 is, I don't, you know, is that opening up the door
20 to reviewing all food contact surfaces and
21 substances, and if so, then would all those need
22 to become listed, if they're of synthetic origin

1 and are we going down a road, or a rabbit hole,
2 similar to ancillary substances, inerts and things
3 like that.

4 MR. BRADMAN: One thought I -- sorry,
5 Emily.

6 MS. DE LIMA: Emily.

7 MS. OAKLEY: Well, I think that, I want
8 to kind of answer yours and I wanted to discuss
9 something that Joelle said.

10 I think that, in order for that to be
11 something that NOSB addressed, we would have to
12 ask to have it on our work agenda. So I think the
13 can of worms can be contained to some extent, that
14 we choose to look or not look at a substance.

15 And I agree that contaminated inputs in
16 agricultural production are definitely a concern,
17 but I also think that, as A-Dae was pointing out,
18 this is a different level of contact, because
19 you're having to finish consumed product, touching
20 something of grave concern. So I don't think it's
21 quite the same issue, but I agree that
22 contaminated inputs are of concern.

1 MS. DE LIMA: Asa.

2 MR. BRADMAN: Just, there could also be
3 a threshold for concern. Like a known carcinogen,
4 a known reproductive toxicant. Or there's been
5 demonstrated research that shows increased
6 exposure related to a certain use of a material.

7 It could open a can of worms, but then
8 another way to look at it too is it's kind of part
9 of the process of continuous improvement. You
10 know, we have a movement in this country at all
11 levels for manufacturers, to big chemical
12 companies to smaller, towards green chemistry. So
13 maybe this is part of that trend of continuous
14 improvement.

15 We don't have to look at it as an
16 overwhelming process. That there can be a way to
17 narrow it down and deal with it piece-by-piece.

18 MS. DE LIMA: Harriet.

19 MS. BEHAR: So food contact substances,
20 like sanitizers, are already regulated. If it's
21 not on the list, it can't be in contact with an
22 organic product.

1 But under packaging, we only have these
2 categories: fumigants, fungicides and
3 preservatives. So I think that's really more
4 where we're wondering what, as more things kind of
5 come up, what is it in packaging.

6 But in a processing facility, if
7 someone has just used quaternary ammonia on a food
8 contact surface, you cannot have contact with the
9 organic product. That must be washed off with
10 potable water or, I mean, there are sanitizers
11 that are allowed to have direct food contact.
12 Alcohol and hydrogen peroxide and phosphoric acid
13 and those things.

14 MS. DE LIMA: Tom and then Joelle and
15 then I think we need to wrap it up.

16 CHAIR CHAPMAN: Yes, just want to, food
17 contact substances go far beyond just the items
18 you mentioned. All packaging needs to be listed,
19 the materials that foods are handled on top of
20 need to be listed. It's a fairly extensive list
21 that are maintained by, I believe, the FDA.

22 MS. MOSSO: This is more of a question

1 for Miles for the NOPs. I seem to recall that at
2 some point of time there was guidance on food
3 contact, direct food contact.

4 MR. MCEVOY: Yes, I think you're right.
5 Help me out here, Dr. Brines.

6 DR. BRINES: Yes, there was at some
7 point. I don't believe that there is any current
8 policy on the use of food contact substances in
9 our program handbook, which is the current
10 compilation of all NOP policies, instructions and
11 guidance documents.

12 MS. MOSSO: So, just a follow-up
13 question, where did it go?

14 DR. BRINES: Well, when we implemented
15 the program handbook, the intent was to take -- to
16 make one consolidated source of official NOP
17 policy that would be accessible to the public in
18 a transparent way. So certainly there was
19 something circulated before the program handbook
20 that might have had informal policies or email
21 decisions.

22 I don't know where the origin of that

1 food contact policy was. I'm sure I've seen it a
2 couple of times, but I don't think it was formally
3 retired. It's just not part of the program
4 handbook. Miles may want to weigh in.

5 MR. MCEVOY: Yes, the program handbook
6 contains the current interpretations and policy
7 for the natural organic program. So the
8 regulations statute and program handbook.

9 So anything that's not in there is not
10 part of our current policy or interpretation.

11 MS. DE LIMA: Asa, you have any closing
12 thoughts?

13 MR. BRADMAN: Well, I was going to say,
14 if we want to move this towards any decision-
15 making, I guess maybe, you know, one alternative
16 would be to try to come up with a proposal for the
17 next meeting. The other would be to really extend
18 the discussion. And I think that is important,
19 given how big this issue is.

20 And also the, you know, we didn't
21 really get many answers to our questions about
22 alternatives being used and what people are using.

1 And to be responsive to get that information
2 responsive to the requests for more time, maybe it
3 makes sense to reissue this.

4 But I wouldn't want there to be too
5 much delay in the long run. You know, we don't
6 want, I think there is an important issue here.
7 But I do respect that this hasn't been out there
8 that long and we don't have that much information
9 on alternatives and how effective they are.

10 MS. DE LIMA: Yes, I'd agree with that.
11 And I just want to say thanks to Asa, as a new
12 member coming onto the Subcommittee and taking the
13 lead on this. I was personally very relieved.
14 And he's done an excellent job, so thank you, Asa.

15 So that concludes Handling
16 Subcommittee's agenda.

17 CHAIR CHAPMAN: Thank you, Lisa. And
18 we have gone from an hour and a half behind
19 schedule to a mere 35 minutes behind schedule.

20 I had really wanted to be able to break
21 at 4:20 for you folks, but I guess we will be
22 fashionably late. It's 4:35 right now, we'll take

1 a ten-minute break and start back up at 4:45 with
2 the Livestock Subcommittee.

3 (Whereupon, the above-entitled matter
4 went off the record at 4:35 p.m. and resumed at
5 4:47 p.m.)

6 CHAIR CHAPMAN: If Board Members could
7 get back to their seats and the public could sit
8 down, we're going to get started again. If Board
9 Members could return to their seats and the public
10 could sit down, that would be much appreciated.

11 Okay, we're going to get back underway.
12 And next up is the Livestock Subcommittee.
13 Ashley.

14 MS. SWAFFAR: Okay, welcome to the
15 livestock, all 20 of you in the audience. First
16 up we'll talk about 2019 Sunset substances, Dr.
17 Brines, start with chlorine materials.

18 DR. BRINES: All right, we're at
19 Section 205.603 of the national list. That is the
20 synthetic substances allowed for use in organic
21 livestock production.

22 And the first Sunset material to be

1 discussed by the Board, and you said chlorine
2 materials, but I've got chlorhexidine as the first
3 one.

4 MS. SWAFFAR: I have chlorine materials
5 listed.

6 DR. BRINES: Okay, we'll start with
7 chlorine. All right, it's under Paragraph A as a
8 disinfectant, sanitizer and medical treatments as
9 applicable.

10 Under 7, chlorine materials,
11 disinfecting and sanitizing facilities and
12 equipment, residual chlorine levels in the water
13 shall not exceed the maximum residual disinfectant
14 limit, under the Safe Drinking Water Act, i
15 calcium hypochlorite, ii chlorine dioxide and iii
16 sodium hypochlorite. Thanks.

17 MS. SWAFFAR: Okay, I am the lead on
18 chlorine materials. Same as handling, chlorine
19 materials are used for disinfecting and sanitizing
20 livestock facilities and equipment.

21 We had broad support from several
22 livestock farmers and certifiers stating,

1 generally, chlorine is used to sanitize many
2 surfaces to kill pathogenic microorganisms.

3 One commenter said chlorine dioxide is
4 routinely used to kill pathogenic microorganisms
5 in waterlines because sodium hypochlorite is
6 corrosive to the pipes. No alternatives are
7 currently allowed.

8 And then we did have the same commenter
9 that requested we do a comprehensive review of
10 sanitizers, but the Subcommittee felt that this is
11 beyond the scope of this Sunset process.

12 Any comments or questions on chlorine
13 materials? All right. Seeing none,
14 chlorhexidine, Dr. Brines.

15 DR. BRINES: All right, thank you.
16 Continuing under the same Paragraph A, we have
17 chlorhexidine or chlorhexidine.

18 The listing reads, as allowed for
19 surgical procedures conducted by a veterinarian,
20 allowed for use as a teat dip when alternative
21 germicidal agents and/or physical barriers have
22 lost their effectiveness. Thank you.

1 MS. SWAFFAR: Harriet.

2 MS. BEHAR: So chlorhexidine is used as
3 an antimicrobial during surgery for cleansing
4 wounds, skin and equipment. It's also used as a
5 pre and post teat dip to aid in the controlling
6 bacteria that causes mastitis.

7 There is numerous synthetic
8 disinfectants on the national list of approved
9 synthetics for organic livestock production,
10 including iodine, ethanol, isopropanol, sodium
11 hypochlorite and hydrogen peroxide, but not all
12 are useful in a surgical environment or as a teat
13 dip, as allowed under this chlorhexidine.

14 It also reportedly kills mastitis
15 causing pathogens faster than iodine and is more
16 persistent in its disinfection activity. It's
17 gentler on the skin than iodine, which is
18 especially useful in northern climates, where I am
19 from, where an irritated udder and teats can be
20 especially problematic for the animals in cold
21 winter months.

22 And I have seen it used that way on

1 numerous farms. Especially in Northern Minnesota.

2 It's used in agriculture during
3 livestock surgery, on teats, pre and post milking,
4 and on milking equipment. It's also used in food
5 processing facilities as a hard surface
6 disinfectant.

7 And in human dentistry as a mouth wash.
8 I don't know, I always wonder when my dentist
9 gives me this cup of chlorhexidine and I say, did
10 you know you can clean utters with that?

11 (Laughter)

12 MS. BEHAR: So that's the story on
13 chlorhexidine.

14 MS. SWAFFAR: Any discussion? Thank
15 you. Glucose, Dr. Brines.

16 DR. BRINES: Thank you. Continuing
17 under Paragraph 205.603, we have glucose. Thanks.

18 MS. SWAFFAR: Harriet.

19 MS. BEHAR: Okay. This material has
20 been on the national list since 1995, with minimal
21 public comment. Both pro and con at each Sunset
22 Review.

1 It's been used most frequently in
2 organic dairy operations to manage ketosis or
3 other situations when an infusion of glucose is
4 needed to restore the blood sugar balance in an
5 ill cow.

6 On non-organic dairy operations,
7 propylene glycol, glycerin or corticosteroids
8 might also be used.

9 Careful management of feed rations
10 before and immediately after birthing is typically
11 used to avoid the occurrence of ketosis, but that
12 cannot always be avoided. And there might be some
13 excipient ingredients in glucose that's used in
14 livestock production.

15 MS. SWAFFAR: Any discussion? Great.
16 Oxytocin, Dr. Brines.

17 DR. BRINES: Thank you. Continuing
18 under the same paragraph, we have oxytocin use and
19 post parturition therapeutic applications.
20 Thanks.

21 MS. SWAFFAR: Harriet.

22 MS. BEHAR: I'm just scrolling on my

1 computer. I have more than that. Okay, Oxytocin.

2 Oxytocin is a hormone. It's naturally
3 produced in the pituitary glands of humans, cattle
4 and other mammals.

5 In non-organic production, it is used
6 regularly to help dairy cows relax and let down
7 their milk. There is some concerns with overuse
8 of oxytocin in non-organic production systems, as
9 well as the abuse of this hormone in the human
10 population.

11 In the NOP regulations, it's only
12 allowed post-birthing in a therapeutic way to ease
13 various dam issues that are associated with the
14 birthing of the calf. Including displaced
15 abomasum and retained placenta.

16 It's been on the national list of
17 approved synthetics since 1995, with minimal
18 public comment on this material, pro or con. Some
19 organic milk marketers require their milk
20 suppliers not use this material.

21 This is very little public comment over
22 the years, except there was some this time around.

1 It seems to be rarely used in organic production,
2 although some certifiers did mention it, that as
3 it being used.

4 It could be considered as essential for
5 animal health and welfare. Especially in
6 emergency situations.

7 Is this what I'm supposed to talk
8 about, the public comment? Should I talk about
9 the public comment now? Okay.

10 So most said that it wasn't commonly
11 used. The Organic Valley CROPP Cooperative
12 prohibits its use.

13 NOC talked about some abuse and that
14 the annotation should possibly be clarified,
15 because of post parturition. It doesn't say how
16 long, it could be eight months later. So there's
17 some issue there.

18 Vermont Organic farmers said it was
19 used for retained placenta. Both WhiteWave and
20 Horizon said it was no longer necessary and should
21 be removed.

22 Garth Kahl saying that it should be

1 kept as a, for an emergency in any kind of
2 veterinary tool kit that organic producers use.
3 PCO mentioned nine producers were currently using
4 it, CCOF mentioned 38.

5 And Beyond Pesticides supported re-
6 listing, but wanted clearer annotation.

7 And then I also spoke with a few
8 veterinarians that work a lot of with organic
9 producers, in Wisconsin, and the two of them both
10 felt that it was unnecessary and that it was, that
11 if you were careful about your feeding, before
12 feeding your dry cows before they gave birth, you
13 could deal with it.

14 And another way to have the animal
15 naturally release oxytocin is to put on a sleeve
16 and get your hand in there and massage the udder.
17 Which I have done. Not only can I make pectin in
18 my kitchen, but I can stick my hand inside a cow.

19 (Laughter)

20 MS. BEHAR: So that's it for oxytocin.

21 MS. SWAFFAR: Appreciate that, Harriet.

22 (Laughter)

1 MS. SWAFFAR: Any discussion? Okay.
2 Seeing none, moving on to tolazoline, Dr. Brines.

3 DR. BRINES: Thank you. Continuing in
4 the same section, we have tolazoline, cast number
5 59983.

6 Federal law restricts this drug to use
7 by or on the lawful written or oral order of a
8 licensed veterinarian, in full compliance with the
9 AMDUCA and 21 CFR Part 530 of the Food and Drug
10 Administration Regulations.

11 Also for use under 7 CFR Part 205, the
12 NOP requires, one, use by or on the lawful written
13 order of a licensed veterinarian, two, use only to
14 reverse the effects of sedation and an analgesia
15 caused by Xylazine, and three, a meat withdrawal
16 period of at least eight days after administering
17 to livestock intended for slaughter and a milk
18 discard period of at least four days after
19 administering to dairy animals. Thank you.

20 MS. SWAFFAR: Thank you, Dr. Brines.
21 Dan.

22 DR. SEITZ: So, tolazoline is used to

1 reverse the effects of Xylazine. And Xylazine is
2 used a sedative, analgesic and muscle relaxant in
3 veterinary medicine.

4 Under the NOP requires that its use be
5 by the lawful written order for a licensed
6 veterinarian, used only to reverse the effects of
7 sedation and analgesia caused by Xylazine. And it
8 also requires a meat withdrawal period of at least
9 eight days, after administering to livestock
10 intended for slaughter, and a milk discard period
11 of at least four days, after administering to
12 dairy animals.

13 It was first listed in 1995. It was
14 recently up for re-listing during the 2015 comment
15 period for the 2017 Sunset.

16 Several comments were received
17 indicating Xylazine, tolazoline, to be important
18 tools for farmers and veterinarians and that
19 should stay on the list.

20 There were only a few comments this
21 time around. None that mentioned that it should
22 be removed.

1 There was one comment that Xylazine,
2 however, should maybe be taken, that we should
3 maybe take another look at whether Xylazine should
4 be continued to be listed. And that's it. Yes.

5 MS. SWAFFAR: Any discussion? Seeing
6 none, moving on. Copper sulfate, Dr. Brines.

7 DR. BRINES: Thank you. We're in a new
8 paragraph, Paragraph B of 205.603. That's as
9 topical treatment, external parasiticide or local
10 anesthetic as applicable. And this listing is
11 copper sulfate. Thanks.

12 MS. SWAFFAR: Jesse.

13 MR. BUIE: Copper sulfate in livestock
14 management is used specifically as a walkthrough
15 footbath to help control and prevent hoof related
16 disease in dairy cattle and sheep.

17 According to the technical review
18 commission by the Livestock Committee, there are
19 no natural non-synthetic products available that
20 can be used as a management strategy, to treat
21 hoof related diseases and lameness in dairy cattle
22 and sheep operations.

1 A summary with the public comments
2 received reiterated minimizing the accumulation in
3 soil and that there was no effective alternative
4 on the national list.

5 MS. SWAFFAR: Any discussion? Harriet.

6 MS. BEHAR: Just for the future, zinc
7 sulfate was voted to be put on the national list,
8 and that's one alternative that does then have the
9 same issue as copper sulfate. Although I'm not
10 sure which, there's a species that it's not good
11 for, but I can't remember which one.

12 And also, we have another product
13 that's been petitioned, tymol. Also for a hoof
14 treatment.

15 And the petition does discuss it at
16 length, that tymol is an excellent replacement for
17 copper sulfate, because it doesn't have the copper
18 issues. So, there could be some opportunities in
19 the future to think about removing copper sulfate.
20 But obviously not until we have the alternatives
21 on the list.

22 MR. BUIE: Right. But, Harriet, in

1 case of the zinc sulfate, it also took five times
2 the quantity to have the same effect as copper.

3 MS. SWAFFAR: Any further discussion?
4 Steve.

5 MR. ELA: I guess I just have the, you
6 know, given the other side of copper sulfate on
7 crops, that the disposal of it, it seems like
8 that's still, the statements are it's not being
9 disposed in a way that elevates soil levels. But
10 I'd like a little more, given how much the growers
11 have to regulate that when they use copper sulfate
12 or fixed coppers, it seems like the livestock
13 people should have to document where they dispose
14 of it and that it's not actually raising the soil
15 levels.

16 MS. SWAFFAR: Francis.

17 DR. THICKE: Well, I would just point
18 out that foot baths are not absolutely necessary.
19 In most grazing operations, organic, that I know
20 of, don't really use them. If they get a lame
21 foot they will treat it individually. So I think
22 we just need to keep that in mind, it's not

1 something that everybody uses or everybody needs
2 to use.

3 MS. SWAFFAR: And I will say I did find
4 that pretty interesting, Steve, about how there
5 was a commenter that said we should limit how they
6 dispose of it. So that might be something we want
7 to look at in the future, as a Committee, to
8 address that.

9 Any further discussion? Okay, great.
10 Lidocaine, Dr. Brines.

11 DR. BRINES: All right, thank you. So
12 lidocaine, continuing under Paragraph 205.603(b),
13 we have lidocaine as a local anesthetic.

14 Use requires a withdrawal period of 90
15 days after administering to livestock intended for
16 slaughter and seven days after administering to
17 dairy animals. Thanks.

18 MS. SWAFFAR: Okay, so I'm doing
19 lidocaine. Lidocaine is a local anesthetic, which
20 has a rapid onset of action in a short-term in
21 duration. And it only numbs the area to be worked
22 on.

1 We did receive quite a bit of public
2 comment that we should continue the use of local
3 anesthetics, lidocaine and procaine.

4 And commenters said that given the
5 ranges and procedures that livestock receive, they
6 encourage us to retain these items on the national
7 list. Pretty much broad support on re-listing
8 those.

9 Any discussion? Great, moving on to
10 procaine, Dr. Brines.

11 DR. BRINES: Thank you. And this is
12 the last one on the livestock part of the agenda
13 for Sunset 2019.

14 And we have procaine as a local
15 anesthetic. Use requires a withdrawal period of
16 90 days after administering to livestock intended
17 for slaughter and seven days after administering
18 to dairy animals. Thanks.

19 MS. SWAFFAR: Okay, I got procaine
20 again. Procaine, once again, is another local
21 anesthetic. Short-term duration, only numbs the
22 area to be worked on.

1 Quite a bit of support, as with
2 lidocaine, for re-listing as the, they said it was
3 critical for animal welfare for the procedures
4 that are done to cattle.

5 Any questions, comments? Yes, Francis.

6 DR. THICKE: Well, I question if we
7 really need to have procaine on the list. The
8 comments we had over the last review, it seemed
9 like nobody was using it. Lidocaine seems to be
10 preferred. And procaine seems to be formulated
11 with antibiotics.

12 The veterinarians who told us about it
13 said that they haven't seen it by itself, only
14 with antibiotics. Which of course we cannot use.

15 And so it's a little confusing to have
16 it on there. Somebody grabs procaine and it's got
17 antibiotics in it.

18 So it's something that we should just
19 think about and maybe look a little deeper into if
20 people are really using it and if we should keep
21 it on the list.

22 MS. SWAFFAR: Emily.

1 MS. OAKLEY: Yes, I was going to echo
2 that. It seemed like it's not really widely used
3 in the public comments. And I know that support
4 for it was, as another tool in animal welfare.

5 But if it's not being used or if it's
6 only available in combination with an antibiotic,
7 then it seems like we should sunset it.

8 MS. SWAFFAR: Dave.

9 MR. MORTENSEN: Ashley, I was just
10 curious, what is the sort of physiological basis
11 of the huge differences in the withdrawal periods?
12 Ninety to 70 to seven days in dairy cattle versus
13 slaughter beef, 90 in slaughtered animals, seven
14 in dairy.

15 Is there evidence that the levels of
16 those compounds are low enough in the dairy
17 products, in a week's time, I guess is the
18 question?

19 MS. SWAFFAR: This is not really my
20 area. Dan, do you want to --

21 DR. SEITZ: You mean, why was there the
22 reduction? I think that, if I remember that

1 conversation correctly, there was the worry that
2 if the wait time was too long, either needed
3 medications would not be administered or that, I
4 think that was the main one. That needed
5 medications would not be administered to the
6 animal. And I'm not sure if there was another
7 rationale as well.

8 MR. MORTENSEN: I --

9 DR. SEITZ: And actually, if I remember
10 back again, there was some sense that that wasn't,
11 the very high level was an arbitrary number and
12 there wasn't a clear reason why that had been set
13 that high in the first place.

14 MS. SWAFFAR: Sorry --

15 DR. SEITZ: But I can't say for sure.

16 MS. SWAFFAR: Yes. Sorry, I drew a
17 complete blank. So last year we did a proposal
18 that we shortened that withholding time down to
19 eight days for slaughter and six days to dairy
20 animals.

21 MR. MORTENSEN: Ah.

22 MS. SWAFFAR: So we passed that last

1 fall. I had a little bit of lapse in judgment and
2 had to think about that.

3 MR. MORTENSEN: Okay, thanks. Thank
4 you, that's helpful.

5 MS. SWAFFAR: Yes. So I will say, on
6 my comment on this, is I would like to see, from
7 stakeholders, if you are using this, because I
8 keep hearing that same thing every time we talk
9 about these is, lidocaine is more common,
10 procaine, some people say they use it, some people
11 say they don't. If people use it, you need to
12 write in and tell us that you use it. It's
13 critically important. Emily.

14 MS. OAKLEY: Yes, and I would just add
15 to that, that it's used without antibiotics. We
16 need to hear both of those things.

17 MS. SWAFFAR: Tom.

18 CHAIR CHAPMAN: Can I ask something?
19 If it's used with antibiotics and antibiotics is
20 prohibited, wouldn't that be a prohibited
21 practice? So then that would lead to de-
22 certification of that cattle.

1 MS. SWAFFAR: Well, that isn't wasn't
2 one of the questions that the Subcommittee put
3 out, as their second question.

4 CHAIR CHAPMAN: Okay.

5 MS. SWAFFAR: But yes, you're right.
6 I'm sure someone wouldn't copped to that. Just
7 kidding.

8 Any further discussion? Great, that
9 concludes our Sunset items. Now on our discussion
10 document, clarifying emergency for the use of
11 synthetic parasiticides in organic livestock
12 production. Harriet.

13 MS. BEHAR: Okay, so this was put in
14 place as a discussion document apt to kind of
15 address the, after the Moxidectin and
16 Fenbenzadole, the withdrawal times were greatly
17 reduced from three months down to a few days. For
18 each of those.

19 And then of course now Ivermectin was
20 recently voted to come off the list. So there was
21 a concern from some, and I was one of them, who
22 felt that since they were so much more readily

1 available, to livestock producers to use, because
2 there was much less of a waiting time, 90 days was
3 a pretty long time to wait, to be able to sell an
4 organic product.

5 Now, this is not for slaughter stock,
6 this is just for fiber or milk. That we should
7 define emergency treatment.

8 And we did get, I think one or two
9 producers, who gave input, and the rest were
10 mostly certifiers. Most did agree that they could
11 benefit from a definition of emergency treatment,
12 but it was a little bit, nobody agreed on one
13 certain way.

14 Some were pretty broad, similar to the
15 comment that Tracy gave us, and some were a little
16 bit more prescriptive, that it should follow a
17 similar type of practice standard, like we have
18 for pest management. Where we have first you do
19 kind of a cultural activities for parasiticides.
20 Maybe it would include fecal monitoring and that
21 sort of thing. Grazing protocols.

22 And then if you have not, if your

1 organic system plan has failed and you can then
2 show that you have an infestation, then you can
3 use the parasiticides. And that would be the
4 definition of an emergency.

5 That it's not used, obviously not routinely,
6 but that not only is it not routine, but it's also
7 based in a holistic system. That you're doing all
8 these other things first, before you would then
9 resort to a parasiticide.

10 So that's, so again, most certifiers
11 responded and felt that it would be useful to
12 them, to have this definition.

13 But I'm a little disappointed that we
14 didn't get more producers. Because, for me, I
15 would think that they would want to know what
16 emergency treatment meant and what was the
17 protocol that they needed to go through to kind of
18 help them through that type of practice standard,
19 to mean that they would not need parasiticides.
20 And prevent the use of them.

21 MS. SWAFFAR: Thank you, Harriet. Open
22 the floor up for discussion. Anybody have

1 anything? Okay, I'll call on myself.

2 I would like to see us move forward
3 with this as an actual proposal, not as a
4 guidance. I'm sorry, but I do not like guidance.

5 I think guidance is just guidance and
6 it is not a rule. We are doing this to define
7 something and I do not feel like guidance is the
8 correct thing for that.

9 And sorry, but you probably won't see
10 guidance out of livestock for two and a half more
11 years. So that's my opinion.

12 Thanks to Harriet, and Jean did a lot
13 of work in this document. And we got our work cut
14 off for us, this summer, getting this crafted. We
15 would love to bring this back in the fall, I
16 believe.

17 And I will say, since the docket wasn't
18 open that long, if any producers or other
19 certifiers do have definitions or answers to the
20 four questions that we posed, when the open docket
21 opens, please feel free to comment there. Because
22 we'll be starting work on this. And all the input

1 we can get is needed. Lisa.

2 MS. DE LIMA: Was there any discussion,
3 I saw a comment, I guess they were in the minority
4 that they thought that if the OLPP was implemented
5 then this wasn't necessary. I don't know, I'm
6 asking for your all's take on that.

7 MS. SWAFFAR: You want to answer that,
8 Harriet, or you want me to?

9 MS. BEHAR: Could you say that again?
10 Sometimes over here I get a little feedback.

11 MS. DE LIMA: There was a public
12 comment and they thought that if the OLPP was
13 implemented there wasn't a need for an additional
14 definition.

15 MS. BEHAR: And yes, that is true.
16 There is some discussion in the animal welfare
17 standard, so of course, when we start working on
18 this, I mean, I think we can still define
19 emergency and put that into the regulation, but we
20 might not need to put in a practice standard
21 because the animal welfare, hopefully, it's going
22 to go through. And then I think that will inform

1 our work. But we'll know that in May.

2 So by the time we're writing a
3 proposal, we'll have some idea of what we need to
4 be doing.

5 MS. SWAFFAR: And I would just say,
6 we're just further clarifying, further defining
7 this. And this came out of a product from last
8 year's Sunset.

9 We heard from the stakeholders that
10 this needed to be defined, so that's kind of where
11 we're moving forward with this, is we heard that
12 from the community.

13 So any further discussion? Miles.

14 MR. MCEVOY: Yes. So the animal
15 welfare, Organic Livestock and Poultry Practices,
16 the effective date is delayed until May 19th.
17 It's under review by the department.

18 There is discussion of emergency, what
19 the emergency means, in that final rule that's
20 been published. And it's just not effective yet.

21 And then the comment about guidance,
22 whether or not the Board is making a

1 recommendation for guidance or for a rule change.
2 In some ways to us it's not, it doesn't have to be
3 that clear, we just need to know, in your
4 recommendations, what you want, what you're
5 recommending. And then based on that
6 recommendation, we can determine whether or not
7 that was going to require a rule change or we can
8 do it through instruction or guidance.

9 So it all depends on whether or not
10 it's just a clarification of existing regulations
11 or it's something that requires a rule change.

12 So I would encourage you to continue to
13 work on this topic. And then with that, we can
14 then determine whether or not the final
15 recommendation is something that requires either
16 clarification through guidance or fact sheets or
17 instruction or training, or it needs a rule
18 change.

19 MS. SWAFFAR: Thank you, Miles. And
20 with that, the Livestock Committee is done. And
21 I would like to point out that we got you back on
22 schedule.

1 (Laughter)

2 CHAIR CHAPMAN: We are back on
3 schedule. Thank you, Ashley.

4 (Applause)

5 CHAIR CHAPMAN: Next up is the
6 Compliance Accreditation Certification
7 Subcommittee with Scott Rice as Chairperson.
8 Scott.

9 MR. RICE: Thank you, Tom. First up on
10 our agenda today is the proposal we put forward on
11 the personnel performance evaluations of
12 inspectors, looking at NOP 2027.

13 There was a lot of good discussion with
14 public comment, both in person and in writing from
15 certifiers and other stakeholders on this.

16 Between the time that we finalized this
17 document in December of 2016 and our meeting this
18 week, we saw an updated version of 2027 published
19 by the program. Which addressed the primary issue
20 that we saw as a problem.

21 And that is the absolute requirement
22 that inspectors receive and audit every, for every

1 inspector, every year. We've since gotten the
2 allowance to, as certifiers that is, the allowance
3 to have a system in place that is based more on
4 risk and can be more flexible, when such a
5 alternative is approved by the program.

6 So given that this is somewhat outdated
7 at this point, we're looking to bring this back to
8 kind of refocus the document more on inspector
9 training and qualification, as was pointed out in
10 much of the public comment, and work on it from
11 there.

12 Is there any discussion? Miles.

13 MR. MCEVOY: Yes. This is an
14 instruction that we issued to certifiers a number
15 of years ago, under the authority of the
16 regulations under 205.501(a)(21). Where it states
17 that the certifiers have to comply with implement
18 and carry out any other terms and conditions
19 determined by the administrator to be necessary.

20 So we felt that this was a necessary
21 addition to ensure the quality of the inspection
22 process. And it relates back to another

1 requirement for accreditation, which is also under
2 205.501(a).

3 Where it states that, in a couple of
4 different places, in under one, have a sufficient,
5 that a certifying agent has sufficient expertise
6 in organic production and handling techniques to
7 implement the conditions for the organic
8 certification program.

9 And then under five, ensure that its
10 responsibly connect persons, employees and
11 contractors, with inspection analysis and decision
12 making responsibilities, have sufficient expertise
13 in organic production or handling techniques to
14 successful perform the duties assigned. So it
15 relates to those requirements as well.

16 And then under 205.501(a), it's one of
17 these here, six, conduct an annual performance
18 evaluation of all persons who review applications
19 for certification, perform on-sight inspections,
20 review certification documents, evaluation
21 qualifications for certification, make
22 recommendations. Anyone involved in the

1 certification process has to have an annual
2 evaluation.

3 What we were finding during our audits
4 was that, though the majority of organic
5 inspectors are doing excellent work and are highly
6 qualified, we did find some inspectors that needed
7 a lot of improvement in terms of the thoroughness
8 of the inspections that they were conducting.

9 And we found that some certifiers had
10 never evaluated inspectors in the field. So they
11 were doing the performance evaluations, but they
12 were never actually looking at how the inspector
13 was doing their work.

14 And so we issued 2027 to make it clear
15 that a performance evaluation that doesn't include
16 an evaluation of the person actually doing the
17 job, is not adequate. And it relates back to the
18 regulations, but it clarifies what our
19 expectations are, in terms of ensuring that the
20 certifier is ensuring that that inspector is
21 qualified in doing a thorough inspection.

22 We did get a lot of feedback on that,

1 that a lot of certifiers really appreciated that,
2 learned a lot and improved the inspection process
3 because of that. In the field review and
4 observing of how an inspector does their work.

5 And they requested that they move their
6 resources to those inspectors that needed more
7 oversight. And that moved to a more of an ISA
8 model of those that are highly qualified and that
9 you've seen that they have demonstrated that they
10 have met the qualifications to be an experienced
11 inspector. You go to the ISA model where they
12 field evaluated every two to three years, rather
13 than every year.

14 So we agreed with that feedback and
15 then have provided that flexibility in the
16 revision to 2027, but we still hold certifiers
17 accountable to make sure that all of their
18 inspectors are highly qualified and thoroughly do
19 the inspections, when they're doing certification
20 work.

21 MR. RICE: Thanks, Miles. Any further
22 discussion on this proposal? Tom.

1 CHAIR CHAPMAN: Yes, and I agree with
2 the need to have a qualified and evaluated
3 inspectors, and I look forward to working on this
4 from a wider lens of qualifications. I think
5 that's going to add some real value.

6 MR. RICE: Harriet.

7 MS. BEHAR: So based on that, I would
8 like to make a motion to send the proposal,
9 personnel performance evaluations of inspectors
10 dated December 13th, 2016, back to Subcommittee.

11 CHAIR CHAPMAN: I have a motion, is
12 there a second?

13 MS. SWAFFAR: Second.

14 CHAIR CHAPMAN: Ashley seconded it.
15 The motion is to refer the proposal on personnel
16 performance evaluations of inspectors back to the
17 CACS.

18 It's a majority motion, a yes vote on
19 this is to send it back to Subcommittee. And the
20 voting starts with Ashley.

21 MS. SWAFFAR: Yes.

22 DR. SEITZ: Yes.

1 MR. RICE: Yes.

2 MS. BAIRD: Yes.

3 MS. BEHAR: Yes.

4 MS. OAKLEY: Yes

5 DR. THICKE: Yes.

6 MS. ROMERO-BRIONES: Yes.

7 MS. DE LIMA: Yes.

8 MR. BRADMAN: Yes.

9 MS. MOSSO: Yes.

10 MR. ELA: Yes.

11 MR. MORTENSEN: Yes.

12 MR. BUIE: Yes.

13 CHAIR CHAPMAN: Chair votes yes. 15

14 yes, zero no, the motions passes and this item is
15 referred back to the CACS.

16 MR. RICE: Next on our agenda we have
17 a discussion document on Eliminating the Incentive
18 to Convert Native Ecosystems into Organic Crop
19 Production. And I turn this over to the lead on
20 that, who is Harriet.

21 MS. BEHAR: Here I am again. Okay, so
22 this topic has actually been part of the

1 discussion of the NOSB and the public, for quite
2 a few years. Since Barry Flamm was on the board.

3 And it was kind of set aside when the
4 natural resources and biodiversity discussion
5 document then became guidance. Because it was
6 seen as somewhat of a tricky subject, although
7 still important.

8 So here it is again, as a standalone
9 discussion document. We did receive quite a few
10 public comments. Obviously struck a chord with
11 many people.

12 I did not see one single public comment
13 that said we should go in and destroy high value
14 conservation areas in order to have organic
15 production, so I think we pretty much have, which
16 is something to celebrate, that we can all agree
17 on something.

18 But this is a tough area, because
19 defining what we're trying to protect, without
20 taking away land that could actually benefit from
21 organic production.

22 You know, certain lands that are

1 somewhat maybe degraded or even highly erodible
2 lands that could be farmed. If they're farmed
3 organically then they're going to be protected
4 from erosion because that's what we do, is we, you
5 know, they strip crop it or it could be pasture or
6 whatever.

7 So there is, there's a difficulty in
8 figuring out, what is it we're trying to protect
9 and then how do we disincentivize the conversion
10 to organic production.

11 And so part of that is, where do we put
12 that in the rule. I think we can define it, but
13 then how do we get that into the regulation,
14 because the Organic Food Production Act has a
15 three year, how are we setting a regulation or a
16 rule that actually goes before we are even
17 tracking producers for under the regulation, in
18 the Organic Food Production Act, as well as the
19 final rule.

20 I also think that there is an issue
21 that we wouldn't want to have an unintended
22 consequence where we would then encourage people,

1 if they can't take certain lands and put them in
2 organic, that they just go to conventional.
3 Especially if it's somewhat of a medium
4 conservation value.

5 So I think there's a lot of tricky
6 issues, although this is an important one.

7 I know that the public comments did
8 give us some good ideas on how to define these
9 areas. Various, with Wild Farm Alliance and World
10 Wildlife Fund and Nature Conservancy and others,
11 all providing really good comments on not only how
12 we can define them and track them here in the
13 United States, but around the world.

14 So, I think some of those tools will
15 become useful. And also, some ideas on the
16 disincentive.

17 A lot of the public, consumers,
18 producers, certifiers. I mean, we had just about
19 every stakeholder make a comment, a stakeholder
20 segment, make a comment on this proposal. Which
21 again, is somewhat unusual to have a kind of
22 across the board type of interaction. Because it

1 actually does affect everyone.

2 And there was a lot of heartfelt
3 discussion, by people, of how they really feel
4 very in-tune with the native environments and
5 really feel like we need to protect these.
6 Because they are so precious and they are
7 disappearing rapidly.

8 And those of us who know that
9 biodiversity is important to organic agriculture,
10 that we rely on health ecosystems, that we don't
11 want to start destroying the things that we are
12 relying on. I guess that's it.

13 MR. RICE: Thank you, Harriet. Emily.

14 MS. OAKLEY: This is a question for
15 Miles. Miles, can you help us identify how we
16 might work within the regulations in OFPA to,
17 assuming we can agree on a definition of high
18 value conversation area or fragile ecosystems,
19 create a disincentive within the regulations?

20 MR. MCEVOY: Yes, I'm not sure. I
21 remember when I worked for the Washington State
22 Department of Agriculture, before the NOP was in

1 effect, that we were, we had an IFOAM program that
2 part of that was that you could not convert native
3 land into organic production.

4 And it was, I think what we did with
5 our standard was that it hadn't been in
6 cultivation within like 50 years or so.

7 It was really challenging. There is,
8 in Washington State at least, there was a lot of
9 land that was converted from sage into ag
10 production within the last 50 years. Some of that
11 even more recent than that.

12 So there are areas where there are,
13 where there is land currently being converted from
14 native habitat to farm production.

15 There's also areas where, around the
16 world, where there is food production or
17 harvesting that's happening in a polyculture type
18 of environment that might be a very high value and
19 very biodiverse perspective. So then you have to
20 think about that.

21 Are you going to exclude those types of
22 communities from participating in organic because

1 it's, you know, maybe it's just a little bit of
2 cultivation or what level? So it's going to be
3 challenging, but it's worth the challenge to try
4 to figure it out.

5 The statute talks about three years and
6 no prohibited substances. So that three-year time
7 frame is probably an easier thing to work with
8 than the five year time frame.

9 But to put in some, maybe there is some
10 way of putting in some other conditions, during
11 that three-year period of time. But that's
12 looking at the statute and trying to figure out
13 whether that authority is actually there.

14 So that's a rambling non-answer to your
15 question.

16 MR. RICE: A follow-up there.

17 MS. OAKLEY: So yes. No, it's a very
18 challenging issue. It's not rambling, it's trying
19 to figure it out.

20 So my question is, what about 205.105.
21 What if we were to create some, as a method, not
22 a substance, but as a method, would it fit under

1 there potentially?

2 And in this case, I guess what I would
3 be referring to would be, no conversion of any
4 land that isn't currently farmed, cultivated,
5 grazed, managed in some way. Which I think we
6 would need to work on defining, very specifically
7 and carefully.

8 But that would make it a little bit
9 simpler than trying to come through a level of
10 scales of what we mean by high value or fragile.
11 And just define it basically as a native wild
12 ecosystem.

13 MR. MCEVOY: Sure, we can take a look
14 at that. That seems like maybe an area to
15 explore.

16 MR. RICE: Thanks, Miles. Okay, Tom.

17 CHAIR CHAPMAN: Yes, we did receive
18 public comment about that through your transition
19 period, that Miles referenced, and whether or not
20 we could expand it. And that's an area of concern
21 that I have because I want to make sure our
22 recommendation on this can be brought forward and

1 made into a rule. Because I think it's very
2 important to prevent these practices.

3 I've had two thoughts that I'm just
4 going to throw out there for people to digest, on
5 ways of maybe getting around that.

6 I'll preface it with saying I have not
7 thought of all the consequences of these two
8 thoughts, so, you know, cut me some slack, don't
9 kill me later.

10 One idea is, there's two sides to this
11 issue. One is the incentive, the perverse
12 incentive that's created through the good thought
13 of forcing a transition. The opposite issue is
14 the actual conversion of that land.

15 One way to take away that incentive,
16 potentially, would be to force certification of
17 all land, in transition. At least to be monitored
18 by a certifier so that they would have to go
19 through that practice of looking at that.

20 That's one way of looking at it because
21 then you couldn't, if you wanted to transition
22 that land, you would still have to wait three

1 years because you'd have to start the monitoring
2 through a certification agency.

3 Don't know, had some issues here.
4 That's one way of maybe getting at it. It doesn't
5 fully resolve the issue and I'm sure it wouldn't
6 make everyone happy.

7 The other area I think we could
8 potentially look at is 6512 of the production
9 handling practices, which states, if a production
10 handling practice is not prohibited or otherwise
11 restricted under this chapter, such practice will
12 be permitted. Unless it is determined that such
13 practice would be inconsistent with the applicable
14 Organic Certification Program.

15 I don't know if there is something
16 under that that we could say it's not applicable
17 with organic certification. So that's another
18 maybe we could look at.

19 And I know some other folks raised,
20 promoting soil fertility and whether or not moving
21 out of a native ecosystem could truly increase
22 that in any sort of a farming capacity.

1 So anyway, those are some options. And
2 I really encourage members of the community to use
3 the open docket and to continue to search for
4 justifications we can use under OFPA to throw at
5 Miles.

6 MR. RICE: We have Harriet and then
7 Dave.

8 MS. BEHAR: So another thing that I was
9 thinking about that might be useful, not everyone
10 agrees with this, is that we've set the bar really
11 high. That it's land that's never been cropped
12 and then it also has, perhaps, an endangered
13 species or it's a rare and fragile ecosystem. I
14 think we can get definitions for that. And that
15 we just prohibit any future organic production,
16 forever.

17 And then that is kind of IFOAM and
18 numerous, not all, but numerous other
19 certification bodies around the world. That's
20 what they do. Is they just say, never.

21 But I think we would have to set the
22 bar pretty high for, really. And for me I

1 thought, well, would we ever want something that
2 had the last living thing, to ever gain that
3 organic label on it.

4 So that might be another place. And
5 that would fit, probably, in 105.

6 MR. RICE: Sue.

7 MS. BAIRD: My grandmother was Cherokee
8 and so I was raised to honor our earth and all
9 living creatures. Perhaps more than others.

10 And I say that to preface that I do
11 reverence that. I've done inspections in the
12 western high deserts where sagebrush and native
13 juniper and everything is being torn up and put
14 into crop land.

15 I've done inspections in western Kansas
16 and Nebraska, Colorado, where native prairie grass
17 that has never been torn up is being torn up for
18 crop lands.

19 And it does break your heart. But, and
20 here's the but, the but is that we're not making
21 any more land and land goes for a premium. I'm so
22 sorry, I'm --

1 If our organic farmers don't buy this
2 land and use organic practices, you will see
3 conventional farmers buy this land and turn it
4 into conventional practices.

5 I'm not sure where we draw the line.
6 I like what Harriet said is that we have to set
7 the bar pretty high.

8 I've seen those sagebrush, previous
9 sagebrush fields, where the bald eagles are
10 sitting on the pivots and the impalas are grazing
11 that new alfalfa fields, that they had no food
12 for. I see the jackrabbits and the coyotes and
13 whatever running in those fields and they're
14 pretty happy, because they have a new source of
15 food.

16 So, just to comment, this is a tough,
17 tough situation. It's something that we do need
18 to address because those pristine areas are
19 disappearing from our earth. I have no comment on
20 how to make it happen, but we do need to address
21 it.

22 MR. RICE: Thanks, Sue. Dave.

1 MR. MORTENSEN: Yes. Yes, I agree too
2 that we need to do something.

3 In surveys in the northeast, 80 to 90
4 percent of the biodiversity occurs in ten to 19,
5 20 percent of the slivers of the agroecological
6 matrix. In other words, the farmsteads. The
7 wooded sections, the riparian buffers, the
8 grasslands, the unimproved pastures. That's where
9 most of the biodiversity is.

10 And a fair chunk of that is actually
11 surveying our pest management in our agricultural
12 fields. There is a fascinating literature that's
13 been coming over the last ten years or so that
14 demonstrates that the matrix, the landscape matrix
15 that your farm is in, has a bigger influence on
16 the pests on your farm than the pest management
17 practices that you're performing.

18 In other words, these slivers of the
19 landscape are mediating pest dynamics in the ag
20 fields.

21 It's late and we need to get finished
22 here, but I guess I would just say that I think

1 that those slivers are critical. There's a couple
2 of thoughts that I have about how this might be
3 something that we look at.

4 One is that, when I've been involved
5 with workshops on this subject, with farmers at
6 sustainable ag conferences, the room is packed
7 because of the interests that exists in farm level
8 planning, to assess how these slivers are
9 servicing their farmsteads and therefore the
10 stewardship that they deserve.

11 So I think there's a huge education
12 role here that could be an education role
13 targeting the inspection community, around the
14 ecosystem services that arise, that results in
15 farmer initiatives to want to preserve the land
16 and not transform it to have pivots, and whatever,
17 that would exist.

18 The other thing that perhaps we could
19 be looking at is the NRCS is doing a lot of farm
20 level planning, assessing where the most benefit
21 comes from federal program incentives, like EQIP,
22 like incentivizing planting back biodiversity in

1 biodiversity-impoverished farmsteads, or where we
2 invest in improving riparian buffers, et cetera,
3 et cetera. That we may look at a model of
4 partnering with an agency like that, that's doing
5 this farm level planning.

6 And then there's been some fascinating
7 discussion going on at lunch and breakfast, and
8 all through the course of the last several days,
9 about folks that are here and very interested in
10 working on this planning.

11 There are cool examples of how this is
12 being done in the Netherlands, that I got to see
13 this September. Like bee bed and breakfast on
14 your farm. Doesn't that sound fascinating?

15 So you actually design your farmstead
16 as a bee bed and breakfast. So you're growing
17 food for humans, but you're also creating a
18 habitat for bees.

19 Imagine where we have species diversity
20 on the order of, we think about commercial bees,
21 one species in our orchards, 150, 180 species of
22 bees that are pollinating our organic crops. If

1 we preserve these slivers of biodiversity.

2 So I think there is some really cool
3 things on the education front in maybe partnering
4 with other organizations that are doing farm level
5 planning.

6 MR. RICE: Okay, we've got Emily, A-Dae
7 and Sue, and then we really need to think about
8 wrapping up. And then I see Harriet now. And
9 Asa.

10 MS. OAKLEY: I just want to advocate
11 for the fact that the environmental movement was
12 really the genesis of the organic movement. And
13 as we have a population of near 7 billion people,
14 I think that any native ecosystem is a fragile
15 ecosystem, is a high value ecosystem.

16 I don't think that we can create these
17 levels of worth and value. I think that every
18 single one of them is an explicit value to us and
19 that we need to do whatever we can to protect them
20 and keep them out of cultivation.

21 I hear what Sue is saying, but I think
22 that we don't have control over the conventional

1 ag world. We do have control over what we do and
2 the values that we project.

3 And I want to just strongly try to
4 suggest that we think about how to create language
5 that will not allow any native lands, under any
6 circumstances, to be grown in organic farming.

7 MR. RICE: A-Dae.

8 MS. ROMERO-BRIONES: I find it very
9 ironic that we're having this conversation. Where
10 were you 500 years ago?

11 You know, this is one of the main
12 arguments that were used to dispossess tribal
13 people of their lands, that we weren't
14 agricultural producers and they didn't see any
15 value in having lands being undisturbed. And that
16 was one of the main tenets of removing tribal
17 peoples from their lands.

18 So on one end I feel like this
19 conversation is 500 years too late, but it does
20 open up, I think, a great partnership for tribal
21 communities and indigenous farmers who do have
22 legal mechanisms for keeping their lands pristine,

1 in a sense.

2 I think there is a lot of public
3 concern about having tribal ownership of lands
4 based on casino development. But not all tribes
5 want to put lands into casino development.

6 But they do have these legal mechanisms
7 that could possibly be used to create partnerships
8 between organic farmers and surrounding tribal
9 communities, so that some of these lands do remain
10 undisturbed. And I think that's a partnership
11 that has been long in the making. And it hasn't
12 made that conversion yet.

13 So there are still tribal communities
14 and indigenous farmers that are outside of the
15 organic world, and are probably beyond organic.
16 Most of the substances that we review in this
17 meeting aren't have been known to a lot of
18 indigenous farmers. So they're not even at this
19 level of using some of these substances.

20 So I think at some point, during the
21 Subcommittee, we can have conversations about what
22 those partnerships may look like. And actually

1 kind of nail down maybe some possible paths to
2 creating those partnerships.

3 MR. RICE: Thanks for that. Sue, then
4 Harriet, then Asa.

5 MS. BAIRD: Just was thinking, and I've
6 got a friend that feels so strongly about human
7 population, that if they have a child, they adopt
8 a child. Which they've ended up with 12 kids so
9 I'm not sure they're helping the population.

10 What if, if you turn one into
11 production you have to retain one. One for one.
12 That would at least retain some of the land in its
13 pristine. Just a thought.

14 MR. RICE: Harriet.

15 MS. BEHAR: Okay, so I have a couple of
16 things. When Dave was talking about like the
17 NRCS, and in my state, the Department of Natural
18 Resources, do have conversation easements.

19 So I am thinking about the owners of
20 this land. They are going to need to make a
21 living and so there might be some programs out
22 there where if they are retaining this land, that

1 there are opportunities for them to keep it
2 pristine and wonderful.

3 The other thing too is I had thought
4 about possibly still allowing wild harvest on
5 lands that are of high conservation value,
6 especially if they're doing things like collecting
7 native seeds. Some of those rare species. As
8 long as they are not diminishing the resource.

9 The third thing is, in Wisconsin, when
10 someone puts in a wetland, if they take out a
11 wetland for development, they have to build a
12 wetland somewhere else.

13 However, I think it's been about 25
14 years since this tradeoff on the wetlands is. And
15 they found that they only have about ten percent
16 of the biodiversity after 25 years. In those
17 recreated wetlands.

18 I just do not, I mean, maybe if we
19 waited a thousand years we would get that. And
20 this is after them coming in and re-colonizing
21 with the native plants. But they just don't have
22 the same biodiversity.

1 These precious areas that have never
2 been touched by humans. Never been under the
3 plow, have the multistory climax ecosystems are
4 really, really special. And we, as humans, cannot
5 recreate them.

6 MR. RICE: Asa, then I think we'll need
7 to wrap up.

8 MR. BRADMAN: Okay. And Harriet said
9 a number of things that I was thinking about, but
10 one, I think restoration is important, but
11 restoration is not an alternative to, in my mind,
12 to developing pristine landscapes.

13 The other issue though, as we think
14 about this, which you also alluded to, is that
15 there is going to be private property issues and
16 private property rights. And if land starts
17 getting classified outside of any existing
18 framework, we know like issues around wetlands and
19 stuff like that is already very controversial,
20 that we might want to think about those obstacles,
21 as the ideas get developed. So they don't torpedo
22 any proposals.

1 And then the other point I think is,
2 again to think about, there's requirements for
3 restoration and things like that, but then there's
4 also at least how to avoid incentivizing native
5 land conversion. And maybe they can be a little
6 bit separated. And there might be a way to change
7 the incentives to, at least, as one step.

8 MR. RICE: That's a lot of good
9 discussion, ideas that we can take back to our
10 discussions in the CACS. And with that, we'll
11 wrap up this portion of the agenda, and I give it
12 back to the Chair with nine minutes ahead of
13 schedule.

14 CHAIR CHAPMAN: Thank you. Thank you.
15 I appreciate the great discussion everybody. You
16 all think you're getting out of here early but I
17 have a surprise.

18 Unless there is an objection, we will
19 be moving to the presentations of certificates and
20 appointments of new members, to recognize the new
21 members on our board. And with that, I will turn
22 it over to Miles.

1 MR. MCEVOY: Okay, thanks, Tom. So we
2 have five new members, and there's been a lot of
3 great conversation and discussion by the five new
4 members.

5 I hope that you're comfortable with
6 moving on with another four and a half years of
7 your public service. You now have a little bit of
8 a better sense of what you've gotten yourself
9 into, but really, really appreciate everyone on
10 the Board for their service. But really want to
11 recognize the five new members for agreeing to
12 serve on this Board.

13 There were many applicants for the
14 National Organic Standards Board at this last
15 round. In terms of the evaluation of those, those
16 applicants, we used the NOSB criteria that were
17 developed many years ago, as part of the federal
18 register notice, part of the system that we go
19 through, to evaluate those things, evaluate the
20 applicants.

21 There's also a look at balance in terms
22 of geographical and production systems and

1 diversity, which is very important to former
2 Secretary Vilsack.

3 So with that, I want to present a
4 plaque signed by former Secretary Vilsack to the
5 new members of the National Organic Standards
6 Board, and thank you very much for your public
7 service. With that, I think we should at least
8 give them a round of applause for their service.

9 (Applause)

10 CHAIR CHAPMAN: So we'll recess the
11 meeting before we take the photo. Anything else,
12 Miles, or that's it? Okay.

13 Thank you very much for that and
14 congratulations to the new members. I just want
15 to say, I remember being a new member and I'm
16 really impressed with the amount of questions and
17 engagement you folks all had. That's a really
18 good class of folks that we got appointed here.

19 So thank you to the program, thank you
20 to the former Secretary, and thank you to the new
21 members. Without objection, we will be moving
22 into recess and starting back up tomorrow at 8:30

1 in the morning.

2 And just as a quick reminder, there is
3 a reception that starts in five minutes at the
4 Whole Foods Rocky Mountain Regional Office,
5 somewhere a little bit north of the ballpark. I
6 hope to see you guys there. Have a great evening.
7 We are in recess.

8 (Whereupon, the above-entitled matter
9 went off the record at 5:55 p.m.)

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C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Board Meeting

Before: USDA National Organic Standards Board

Date: 04-20-2017

Place: Denver, Colorado

was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate record of the proceedings.



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U.S. DEPARTMENT OF AGRICULTURE

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NATIONAL ORGANIC STANDARDS BOARD

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MEETING

+ + + + +

FRIDAY
APRIL 21, 2017

The Board met in the Majestic Ballroom of the Sheraton Denver Downtown Hotel, 1550 Court Place, Denver, Colorado, at 8:30 a.m., Tom Chapman, Chairperson, presiding.

PRESENT:

TOM CHAPMAN, Chair
SUE BAIRD
HARRIET BEHAR
ASA BRADMAN
JESSE BUIE, Secretary
LISA DE LIMA
STEVE ELA
DAVE MORTENSEN
JOELLE MOSSO
EMILY OAKLEY
SCOTT RICE
A-DAE ROMERO-BRIONES
DAN SEITZ

ASHLEY SWAFFAR, Vice Chair

FRANCIS THICKE

STAFF PRESENT:

MICHELLE ARSENAULT, NOSB Advisory Board

Specialist, National Organic Program

LISA BRINES, Ph.D., National List Manager,

National Organic Program

PAUL LEWIS, Ph.D., Director, Standards

Division, National Organic Program

MILES McEVOY, AMS Deputy Administrator

JESSICA WALDEN, Materials Specialist,

National Organic Program

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1 P-R-O-C-E-E-D-I-N-G-S

2 8:33 a.m.

3 CHAIR CHAPMAN: Okay. Good morning,
4 everyone. Welcome back to the NOSB meeting. We
5 will come back into session now.

6 First up in the morning is the Crops
7 Subcommittee and, Francis, if you are ready, it's
8 yours.

9 DR. THICKE: Thank you, Tom. So
10 first, we are going to look at the Sunset
11 materials. And I believe all of these Sunset
12 materials were reviewed in 2015, so these are on
13 the accelerated schedule.

14 And the first three are chlorine
15 materials and we will have -- we are going to
16 combine these in our review. And, Dr. Brines,
17 would you read into the record the information?

18 DR. BRINES: Yes. Thank you. So we
19 are starting under Section 205.601 of the
20 National List, Synthetic substances allowed for
21 use in organic crop production.

22 (a) As algicide, disinfectants and

1 sanitizer including irrigation system cleaning
2 systems.

3 (ii) Chlorine materials for pre-
4 harvest used, residual chlorine levels in the
5 water in direct crop contact or as water from
6 cleaning irrigation systems applied to soil must
7 not exceed the maximum residual disinfectant
8 limit under the Safe Drinking Water Act, except
9 that chlorine products may be used in edible
10 sprout production according to EPA level of
11 directions.

12 We have one:

13 (1) Calcium hypochlorite.

14 (2) Chlorine dioxide.

15 And (3) Sodium hypochlorite.

16 Thanks.

17 DR. THICKE: Thank you. And I guess
18 I'm the assigned lead for all three. These are
19 materials that are registered with EPA as
20 pesticides or disinfectants, sanitizers. They
21 tend to be highly caustic and a concern for
22 occupational exposure. Acute exposure to high

1 concentrations can cause eye injury and skin
2 problems. Ingestion can cause gastrointestinal
3 irritation.

4 So they are not really benign
5 materials, but they -- the comments indicated
6 that they are widely used and they are necessary
7 that they are used as -- for a wide range of
8 uses, including sanitation of equipment and work
9 surfaces, maintaining functioning irrigation
10 systems and preventing the spread of disease.

11 There was -- there are also some
12 comments that these materials are hazardous and
13 that we should look at alternatives and
14 suggestions that we should look at a
15 comprehensive review of sanitizers to see when
16 these are needed and when they may not be needed.

17 And there has been some discussion
18 here with the NOSB on that.

19 The next material is herbicides, soap-
20 based. Well, first of all, I should ask, anybody
21 have any comments or questions about the chlorine
22 materials? Okay.

1 MR. BRADMAN: One comment. Well, two
2 actually. One is just anecdotally in the work
3 that we have done with farm workers and packing
4 house workers in the Salinas Valley, we often
5 hear complaints from workers about exposure to
6 bleach-related products.

7 In fact, sometimes they will complain
8 more about that than experiences with pesticide
9 residues in fields and things like that. So at
10 least in the worker population, there is
11 definitely concern about that.

12 Another piece is that EPA is going
13 through a fairly comprehensive process reviewing
14 disinfectants and sanitizers. A lot of that is
15 related to childcare, schools and things like
16 that, but there might be a base of information
17 that is now residing in the Safer Chemicals
18 Program at EPA that will be relevant also to food
19 safety.

20 DR. THICKE: Oh, thank you. That's
21 interesting information.

22 MR. BRADMAN: Thank you.

1 DR. THICKE: Any other comments? Yes,
2 Ashley?

3 MS. SWAFFAR: So I also know quite a
4 little bit about chlorine materials. You and I
5 are always the chlorine folks. And I just want
6 to say how I feel about chlorine materials. Yes,
7 there are alternatives like with hypochlorous
8 acid and things like that, but when I look at
9 chlorine materials, I think of very small farmers
10 and their availability of some of those
11 alternatives.

12 And we want to produce safe food for
13 our customers and I just think, you know, these
14 chlorine materials are pretty readily available.
15 I know on my farm I can go to any dollar store,
16 Walmart, anything and get bleach products, so I
17 look at these chlorine materials as availability
18 for small-scale farmers. So just wanted to say
19 that.

20 DR. THICKE: Good point. And in dairy
21 situations, there are -- some alternatives are
22 not as effective as chlorine. Thank you. Yes,

1 Joelle?

2 MS. MOSSO: I just want to echo that
3 from a food safety perspective, right now, there
4 is not any sanitizers that are, you know,
5 replaceable for chlorine in all situations at
6 all. And it would be considered critical to food
7 safety as well as compliance with other
8 regulatory bodies for food safety, FSMA, being
9 the --

10 DR. THICKE: Right. And I think if we
11 were to do an over -- a comprehensive review, we
12 would want to look at where it is required by law
13 and where it is needed and where it may not be
14 needed. Any other comments on chlorine?

15 Okay. So we will move on to the herbicide
16 soap-based. And, Sue, I believe you are the lead
17 for that.

18 MS. BAIRD: Yes.

19 DR. BRINES: I'll stop you while I
20 read it into the record.

21 DR. THICKE: Oh, sorry.

22 MS. BAIRD: Oh, yes.

1 DR. BRINES: It's all right, Francis,
2 you can't see my hand here.

3 DR. THICKE: You're behind me.

4 DR. BRINES: We'll get it. All right.
5 So we are moving to paragraph (b):

6 "As herbicides, weed barriers, as
7 applicable (1) herbicides, soap-based - for use
8 in farmstead maintenance (roadways, ditches,
9 right of ways, building perimeters) and
10 ornamental crops."

11 Thank you.

12 MS. BAIRD: Now me?

13 DR. THICKE: Yes.

14 MS. BAIRD: Hi. Okay. My topic is
15 Sunset for herbicides, soap-based. Soap-based
16 herbicides generally are comprised of a fatty
17 acid component with carbon, hydrogen and oxygen
18 atoms that have been bonded with either potassium
19 or ammonium counterions.

20 The potassium salts include individual
21 soap salts, such as potassium laurate, potassium
22 myristate, potassium oleate and potassium

1 ricinoleate. And they are produced by a process
2 known as saponification and that's probably one
3 that most of us, even lay people, know that term.

4 The ammonium nonanoate on the other
5 hand is produced through room temperature
6 reaction of aqueous ammonia or ammonium hydroxide
7 with those fatty acids.

8 There were, for me at least,
9 surprisingly quite a few comments on this. We
10 had 25 total comments comprised from farmers,
11 farmer groups, certifiers and actually industry
12 people. And we heard overwhelmingly 22 of those
13 25 comments were in support of retaining the
14 herbicide soap-based on the National List.

15 Three of those that were against it
16 were concerned about a study that had been a
17 technical review study that had been done that
18 showed that it could impact earthworms and some
19 of the other soil-based systems. It was shown
20 that there could be runoff in water and if it is,
21 it might particularly harm some of the water-
22 based systems.

1 We heard yesterday public comment that
2 someone said that that technical review was based
3 on an old data and that there has been new data
4 released by EPA that shows that their new
5 technology no longer impacts those organisms. So
6 that's it.

7 DR. THICKE: Thank you, Sue. Any
8 questions or comments on soap-based herbicides?
9 Emily?

10 MS. OAKLEY: So in reading the public
11 comments, I think I mentioned this to one of the
12 stakeholders, it seemed that some people, some
13 farmers might be using them in off-target ways.
14 Do you have any thoughts on that?

15 MS. BAIRD: Yes. And I would verify
16 that. As an organic inspector, I have seen that,
17 especially, out in the grain fields perhaps
18 Nebraska, Kansas that they -- because it was
19 already listed, they thought that that meant for
20 all types of production and we did -- I have run
21 across two or three large grain farmers that were
22 using it as a complete burn down of those fields

1 prior to replanting.

2 They have real issues in that part of
3 the world with water. In fact last year, this
4 year they have lots of rain, but last year they
5 were at a level of rainfall that was less than in
6 the Dust Bowl Age.

7 So they are looking for ways to not
8 turn that soil. And so they were using it. In
9 fact, I think there is -- some of the commenters
10 actually asked that we take the annotation off of
11 it because of that reason. Yes?

12 MS. OAKLEY: I also thought one of the
13 farmer commenters in the public comments
14 referenced that they might be using it within
15 orchards as well. So I think, you know, this is
16 something that might need a little more
17 conversation when we go back and review it
18 further in our Crop Subcommittee.

19 MS. BAIRD: Yes. Thank you.

20 DR. THICKE: Thank you. Any other
21 comments? Okay. Thank you, Sue.

22 MS. BAIRD: Thank you.

1 DR. THICKE: Then we will go on to
2 boric acid. Lisa? Oh, I'm sorry, biodegradable
3 biobased mulch film is next.

4 DR. BRINES: Okay. Thank you. So we
5 are still under paragraph (b) moving to (2)
6 Mulches. The listing is biodegradable biobased
7 mulch film as defined in Section 205.2, must be
8 produced without organisms or feedstock derived
9 from excluded methods. Thank you.

10 DR. THICKE: Harriet, are you the lead
11 on that?

12 MS. BEHAR: Okay. So biodegradable
13 biobased mulch films were approved for placement
14 on the National List without detailing how much
15 of the non-biobased content was allowed. So we--
16 and there was an NOP guidance document, I'm sorry
17 I don't have the number right here, that then
18 said that it had to be 100 percent biobased.

19 So we thought we would get a TR, since
20 we knew that the Sunset was coming up, to see if
21 we could address the issue because currently
22 there are no biodegradable mulch films that are

1 biobased. There is a paper mulch that is fully
2 biobased and biodegradable. And it is already
3 listed.

4 So to say that there is no
5 biodegradable mulches out there, when it's mulch
6 films really that we are looking at.

7 DR. THICKE: No 100 percent, right?
8 No 100 percent biobased?

9 MS. BEHAR: Yes. No. I'm not sure
10 about the paper. The paper might be 100 percent
11 biobased.

12 DR. THICKE: That's what I mean, there
13 are some that are partially biobased, correct?

14 MS. BEHAR: Yes.

15 DR. THICKE: Yes.

16 MS. BEHAR: But this -- the one that
17 we are talking about here, the mulch films --

18 DR. THICKE: Oh, okay.

19 MS. BEHAR: -- are -- do contain
20 petroleum polymers.

21 DR. THICKE: Yes.

22 MS. BEHAR: And that other one is a

1 paper product that is all biobased.

2 So we did get a lot of comments about
3 this. The policy is Memorandum 15-1. I just
4 found it here. That the NOP said it had to be
5 100 percent.

6 So since there is nothing on the
7 market, there is somewhat of an issue at the
8 Sunset for us to review. Are we putting a
9 product on the list that doesn't actually exist?

10 You can see it as a way to encourage
11 someone to try to manufacture something that
12 meets the standard that we have or others would
13 say we need to either change the annotation or
14 work with the NOP on having them rescind that
15 memorandum and do something else.

16 So I think as you know, we did have a
17 lot of verbal public comments. We also had quite
18 a few written public comments with many of them--
19 some saying just retain it and hope that we can
20 eventually get someone who can meet this fully
21 biobased biodegradable standard. Others saying
22 that we should find a way to be able to provide

1 this product for use to organic producers.

2 We have also heard from organic
3 producers that really want to use it and from --
4 when this was first put on the National List, it
5 was a lot of farmer comment of how they would
6 really like it and there were many very well-
7 respected organic farmers that said they have
8 dropped their organic certification strictly
9 because they cannot use this product currently in
10 organic production.

11 So I think we are trying to find
12 something, but one of our issues with trying to
13 convince the NOP to change their policy menu --
14 memo is that we need to have a reason for that
15 change. They have a reason for putting that memo
16 out and so we would need to come up with reasons.

17 And that's why we asked for a
18 technical review and we asked a variety of
19 questions in that technical review to help us
20 possibly put forward a recommendation to the NOP
21 about changing.

22 And so if we were going to say oh, we

1 think that 20 percent biobased is good enough and
2 this is because there is this research, there is
3 no damage to the soil or, you know, there is no
4 residue of heavy metals, you know, all the
5 questions that we ask that it is fully
6 biodegradable, but the TR was inconclusive
7 because this is a fairly new product and right
8 now we are two years into a 5 year research at a
9 university to be able to tell -- maybe answer
10 some of these long-term effects on the soil.

11 So we are kind of a little bit in a
12 quandary. However, here we did have quite a bit
13 of public comment, especially from the
14 manufacturer, where we -- I feel like I learned a
15 lot more, I hope other people did, too, about
16 this product that it is -- that the polymers are
17 fully biodegradable. I don't think there is
18 actually-- I think the research even found that
19 as well.

20 But the question is how we feel about
21 a petroleum-based product even if it fully does
22 biodegrade into the soil. So our question would

1 be at Sunset are we just going to relist as is?
2 Are we going to relist and then come forward with
3 a change and annotation or are we going to relist
4 and try to work with the NOP on changing that
5 policy memo?

6 So that's where I see kind of our
7 three choices and I would say that we have not --
8 the Crop Subcommittee will be discussing that
9 further.

10 DR. THICKE: Thank you, Harriet. Any
11 other comments or questions from the Board?
12 Okay. So we will move on next to boric acid.

13 DR. BRINES: Thank you. So we are
14 moving to paragraph (e) As insecticides
15 (including acaricides or mite control). And the
16 listing is boric acid - structural pest control,
17 no direct contact with organic food or crops.
18 Thank you.

19 DR. THICKE: Okay. Harriet, I believe
20 that's you again, is it?

21 MS. BEHAR: Yeah. I like things that
22 begin with Bs.

1 Okay. So boric acid is used to
2 control ants and roaches mostly in pack houses
3 and fields, since this is crops, listed in the
4 crops, so we are really talking about handling.
5 And we did get a few comments. Some certifiers
6 said that it really wasn't used in crops. Some
7 industry commenters really wanted to be relisted
8 and that it is used quite a bit, especially in
9 the pack houses.

10 And we did get a few comments about
11 changing the annotation that it would be used
12 only as a bait in traps or in gel formulations,
13 because there is an issue with it when it is in a
14 powder that it can be a respiratory irritant.

15 So that's it.

16 DR. THICKE: Any other comments?

17 MR. BRADMAN: Just a quick comment.

18 I do a lot of training around structural pest
19 control and for the California DPR Structural
20 Pest Control Board and we encourage the use of
21 boric acid as an alternative, just because it has
22 a much lower acute toxicity and we also encourage

1 use in bait and gels in non-dispersive methods if
2 it's in a powder only in a void, an inaccessible
3 void or a thing like that. Similar to like
4 diatomaceous earth.

5 So this is something that we encourage
6 for, again, structural pest control, including
7 childcare if it's in a bait and gel form.

8 DR. THICKE: Thank you, Asa. Any
9 other comments? Harriet?

10 MS. BEHAR: So I'm just wondering if
11 we should in the Crop Subcommittee be looking at
12 a change in annotation perhaps? Would you
13 recommend that?

14 MR. BRADMAN: I think I need to learn
15 a little bit more about that.

16 MS. BEHAR: Okay. So we will just
17 discuss that further. But this might be another
18 item that we are looking to improve the
19 annotation.

20 DR. THICKE: Something we can discuss
21 in committee. Thank you. Any other comments on
22 boric acid? Oh, Steve?

1 MR. ELA: I would just say following
2 Asa, I think it is an effective material and I
3 was -- in terms of the annotation, I think the
4 gel or form makes a lot of sense. I just heard
5 Asa say, you know, there are places and traps and
6 things that you can't get a gel or -- thing into,
7 so powder could be -- I don't know how we can
8 address that per se, but it sounds like that
9 could be something we might not want to restrict.
10 Especially for ant control, it gets -- you know,
11 being able to put it in powders or in a powder
12 form in a crack can be very useful.

13 DR. THICKE: Thank you. Sue?

14 MS. BAIRD: Yes. I do a lot of
15 inspections of the large vegetable pack houses
16 and I see it used in the cracks a lot. They are
17 doing it like a crack and crevice type thing. So
18 I do see it being used in vegetable pack houses.

19 DR. THICKE: Okay. Thank you.
20 Anybody else? All right. We will move on to the
21 next material is sticky traps/barriers. And that
22 is Emily.

1 DR. BRINES: Okay. All right. So we
2 are continuing on to -- in paragraph (e), the
3 next listing is Sticky Traps/Barriers. Thanks.

4 MS. OAKLEY: Thank you. These are
5 typically used for pest control and monitoring in
6 limited quantities and in confined areas, such as
7 tree trunks. These products are of low toxicity
8 and while persistent, they are unlikely to
9 contaminate the surrounding environment.

10 And in this most recent review that
11 happened a year ago or so, there was widespread
12 support for the continued listing of sticky traps
13 and barriers. And as a permitted synthetic given
14 both their availability and their effective
15 control, they have been in use for a long time
16 proceeding the NOP standards as well in organic
17 production.

18 And we received widespread comment in
19 support of these from farmers, from certifiers,
20 from handlers. They are used in the fields, in
21 greenhouses, storage and in other areas.

22 There was a comment by a citizen that

1 they are inhumane and they can sometimes trap
2 non-target insects, which is certainly
3 unfortunate. I think hopefully they can be used
4 in a way that avoids that.

5 One commenter asked if we would
6 explore the possibility of an annotation that
7 might say must be used in a way that prevents the
8 capture of non-target animals. So that's
9 something that we could explore. Hopefully
10 people are already doing that, but an annotation
11 might encourage that further.

12 Are there any questions or comments
13 about it? Yes?

14 MR. BRADMAN: I just had a question.
15 Besides it's out there also, I would assume, used
16 as monitors, but I know they are used, you know,
17 for example, cockroach monitoring in food
18 facilities. So is that used separate from
19 insecticides? You know, in insect control use or
20 was it all bundled up in here?

21 MS. OAKLEY: Yeah, that's a good
22 question that I actually had while reading the

1 comments, so I'll either defer that to Francis or
2 someone else who has the answer for that. Scott
3 looks like he is nodding his head.

4 MR. RICE: Yeah, sticky traps are used
5 for monitoring in orchards and other production
6 areas and greenhouses to see when a certain pest
7 pressure level has been hit.

8 CHAIR CHAPMAN: Utilizing this
9 listing? Like this listing is what is
10 authorizing that use. Is that correct?

11 MR. RICE: For crops, yes.

12 CHAIR CHAPMAN: Yeah.

13 DR. THICKE: Steve?

14 MR. ELA: Yeah, I would echo that this
15 is what we would use, traps, were -- and they
16 would be imperative to our whole Insect and
17 Disease Control Program, because we put traps out
18 and then only spray follow-up sprays if we need
19 to, based on these traps. So they are a pretty
20 critical part of the orchard system for sure.

21 MR. MORTENSEN: They are also critical
22 in glasshouse biocontrol deployment for

1 monitoring pest/insect dynamics.

2 MS. OAKLEY: Yeah, and they are
3 definitely used in a way to help minimize
4 pesticide applications.

5 DR. THICKE: Okay. Any other
6 comments? Okay. Thank you. Next we have two
7 coppers and we are going to combine them, because
8 the comments pretty much overlapped. And, Lisa?

9 DR. BRINES: All right. I'll read
10 them both into the record. We are under
11 paragraph (i) now As plant disease control. The
12 first listing is coppers, fixed. Copper
13 hydroxide, copper oxide, copper oxychloride,
14 includes products exempted from EPA tolerance,
15 provided that copper-based materials must be used
16 in a manner that minimizes accumulation in the
17 soil and shall not be used as herbicides.

18 And then the second listing also under
19 paragraph (i) is copper sulfate. Substance must
20 be used in a manner that minimizes accumulation
21 of copper in the soil. Thank you.

22 DR. THICKE: Thank you. Steve?

1 MR. ELA: So copper fixed and copper
2 sulfate were reviewed and approved for continued
3 use during the October 2015 NOSB meeting.

4 Coppers continue to be an important tool for
5 organic producers as part of the comprehensive
6 approach to disease management in many crops.

7 For example, copper products became an
8 integrated part of fire blight control in pome
9 fruits after antibiotics were removed from the
10 National List. And I can vouch for that as a
11 tree fruit grower.

12 Copper is on the list of exemptions
13 for synthetic materials in OFPA. The biggest
14 concern with coppers is that they can -- that
15 maybe growers are over-using copper sprays and
16 that copper can reach high levels possibly in the
17 soils. There is -- were some comments that
18 copper residues were visible on the harvested
19 portions of crops and that was a concern.

20 So there was in public comment a
21 discussion of whether an annotation could be
22 considered that would read no visible residues

1 are allowed on harvested crops. The public
2 comments support copper use in general, but
3 several say that we should ask for alternatives,
4 encourage research, map out current use on the
5 varied crops and how it is applied.

6 One -- a couple of comments noted that
7 we should have the farmers document in their
8 organic plan the Worker Protection Standards used
9 when -- were noted when they apply coppers.

10 Certifiers have commented that
11 enforcing the no visible residue on harvested
12 crops could be very difficult, because that would
13 mean the certifier would have to be there at
14 harvest and that functionally could be very
15 difficult. So generally, I would say that while
16 those public comments were concerned about the
17 over-use of copper, that addition to an
18 annotation was pretty loudly rejected by the
19 certifiers as being impractical.

20 DR. THICKE: Okay. Thank you. Any
21 questions or comments? Harriet?

22 MS. BEHAR: Do you know if there is

1 any research being done to find an alternative to
2 this product?

3 MR. ELA: I mean, I think there is
4 always research being done to find alternatives
5 to anything. I can't speak specifically to
6 copper. I mean, you know, there are a number of
7 bioproducts on the market like for fire blight
8 control that, you know, are aimed at that same
9 functionality.

10 But, you know, at this point, if you
11 look at like Washington State recommendations out
12 of fire blight, copper is the mainstay of that
13 program starting off and then you add the
14 biocontrols on top of that afterwards.

15 I know, you know, personally I can say
16 for tree fruits, there are no alternatives, at
17 this point, for -- if you look at Cytospora and
18 Coryneum blight and some of these other, you
19 know, fungal bacterial diseases, it's the go-to
20 product.

21 Not to say that something isn't being
22 researched, but, at this point, those are the

1 functional -- it is the functional thing.

2 And I should note that, you know, EPA
3 has noted that -- you know, it's -- we are really
4 looking at a soils issue, not a human toxicity
5 issue. It's a safe material to use as far as
6 humans go, when we are looking at soil build-up.

7 A number of the certifiers noted that,
8 you know, they are really not seeing that soil
9 build-up from copper use.

10 DR. THICKE: Okay. Any other
11 questions or comments? Okay. Moving on to humic
12 acids. Dr. Brines?

13 DR. BRINES: All right. So we are now
14 moving to paragraph (j) As plant or soil
15 amendments. And the listing is humic acids
16 naturally occurring deposits, water and alkali
17 extracts only. Thank you.

18 DR. THICKE: Steve, I have you down
19 for lead. Is that right?

20 MR. ELA: No.

21 MR. BRADMAN: No, I think I'm the
22 lead.

1 DR. THICKE: Oh, Asa. I'm sorry.

2 MR. BRADMAN: Yeah.

3 DR. THICKE: Thank you.

4 MR. BRADMAN: At least I'm prepared.

5 So this is actually my first topic here. So
6 humic acids. I'll go through this and actually
7 there is a lot of interesting comments related to
8 this.

9 But so humic acids are usually
10 manufactured from oxidized lignite. Lignite is
11 kind of a -- I heard it described as brown coal
12 or somewhere between peat moss and bituminous
13 coal. It is used as a component of traditional
14 fertilizers.

15 It doesn't provide additional
16 nutrients to plants, but it affects soil
17 fertility by and proving access to micronutrients
18 and increases cation exchange capacity and
19 therefore relates to mineral availability. And
20 it also improves soil structures and stimulates
21 soil microorganisms and may provide some trace
22 elements.

1 In reviewing some of the literature on
2 crop production, there are some studies that show
3 increased production in potatoes, grains, things
4 like that when it is used.

5 Commercially available humic acids are
6 derived again from coal-related materials,
7 extracts from non-synthetic humates by hydrolysis
8 using synthetic or non-synthetic alkaline
9 materials are permitted, including the use of
10 potassium hydroxide and ammonium hydroxide.

11 Humic acids are derivatives -- humic
12 acid derivatives are on the National List with
13 the following annotation. And I want to -- we
14 should all note this: Naturally occurring
15 deposits, water and alkali extracts only.

16 It was looked at in 215. There were
17 not any public comments at that time that really
18 raised any serious questions about it. And the
19 comments from that period are -- show a lot of
20 support for this material.

21 In terms of the comments that came out
22 for this time around, there was kind of some

1 interesting discussion about it. There were 13
2 comments. 3 were opposed to this material, 1
3 emphatically. And then there were again 10 in
4 support.

5 Of the people who were supporting
6 continued use of this material and listing this
7 material, really all related to people who were
8 involved in production, so were farmers or
9 involved in soil maintenance and, you know,
10 productivity.

11 The -- to give you some idea of some
12 of the comments that were not supportive,
13 basically, the idea that humic acids present an
14 environment hazard in extraction. They are using
15 potential fossil fuels as a source and are not
16 compatible with organic productions.

17 They can play a role in transition,
18 but are incompatible with organic practices. And
19 a lot of this referred to the use of coal-related
20 sourcing as the material.

21 Those who are supportive felt like it
22 was an important piece of the toolbox to manage

1 soil fertility. One former NOSB Member was
2 concerned about a suggestion in this review
3 document that we consider an annotation or other
4 constraint to try to use sources of humic acid to
5 manufacture the product better, have the least
6 harm on the environment.

7 I should also take a step back that
8 you can also manufacture this material from
9 plant-based organic sources, that it may be
10 derivable from, for example, compost or things
11 like that. And this is a material, of course,
12 that is often the "recalcitrant" portion of the
13 soil, so it's naturally occurring in some forms
14 as well.

15 And this former NOSB Member was just
16 concerned about, in general, the overuse of
17 annotations and that this should, you know, not
18 be lost from the toolbox.

19 Again, I mentioned people who are
20 opposed to it and there are some very strong
21 statements that it's not essential for organic
22 production, again, because of this coal source.

1 And I guess back in 2012 I'm trying to dig up the
2 history here that the NOSB denied a petition for
3 oxidized lignite saying that humic acids derived
4 from coal by oxidation with hydrogen peroxide
5 should not be listed and that this reasoning also
6 extends to water-based alkali processes to
7 produce it from lignite.

8 So I guess maybe there is some
9 interesting discussion following from that. I
10 thought this was going to be easy, but I'm
11 surprised that there is some polarity on it.

12 DR. THICKE: Thank you for that
13 comprehensive review there. Any comments or
14 questions? Steve?

15 MR. ELA: We're going to point at each
16 other here. You know, my only concern with it
17 and I agree, you know, the sourcing is, I think--
18 and I'm not, you know, in objection to the use by
19 growers. I mean, it seems to be fairly essential
20 to many growers, but I question whether it is one
21 of those things that becomes a crutch, that if
22 you are doing a good soil building program and

1 having good soil ecology, that it's really a
2 redundant addition that you already have it.

3 And so I guess I would like to see
4 growers here using it. And you know, really the
5 question is do they actually need it in those
6 soils or can they by, you know, some other
7 program actually do something that negates its
8 use, rather than just using it routinely and
9 saying well, we need it?

10 I mean, you know, as a fruit grower,
11 you know, I can say we don't add compost because
12 we do a lot of cover cropping and we mulch that
13 cover crop in. And so to me, the addition of the
14 biology of the compost is it's already there.
15 And this, to me, strikes me as one of those
16 possible things.

17 So not to say I'm in favor of removing
18 it, but, you know, I think we should question its
19 over-use.

20 DR. THICKE: Emily?

21 MS. OAKLEY: Yes, I was basically
22 going to say the exact same thing. So, Sue, if

1 you want to?

2 DR. THICKE: Sue?

3 MS. BAIRD: I think we have to
4 remember there are a lot of growing systems in
5 the United States and we can't be so site-
6 specific. And I understand what you are saying,
7 Steve, and I agree with it. But again, I go back
8 to my mid-America where we are talking about a
9 lot of errant conditions.

10 And if they turned up that soil to do
11 cover cropping, they are losing every little bit
12 of moisture they have got. It's really not so
13 easy for them. And they do rely on humic acids.
14 I have seen a real upsurge of people as you
15 intimated, Asa, that are doing innovative things
16 such as taking miscanthus and doing a
17 biodigestion to get biochar and humic acids from
18 those types of systems.

19 And they would tell you that without
20 that humic acid, they do not have the microbial
21 actions in the soils. So let's just be cognizant
22 that there are a lot of different growing

1 conditions in the United States.

2 DR. THICKE: Harriet?

3 MS. BEHAR: I see this used mostly by
4 farmers who are either in transition or in the
5 first few years of transition until they really
6 get their functioning organic system on their
7 farm.

8 So I think it is useful to kind of
9 help them over that hump, because three years is
10 -- of transition is really not quite enough to
11 really bring everything back and really --
12 especially if you are challenged by soil type or
13 climate to really build a functioning organic
14 system.

15 DR. THICKE: Anybody else want to
16 comment on this?

17 MR. BRADMAN: I just --

18 DR. THICKE: Asa, yes?

19 MR. BRADMAN: Just maybe more
20 discussion. I'm interesting in hearing about,
21 you know, whether -- if we considered any -- not
22 -- constraints isn't the word I'm looking at,

1 annotation, you know, whether it should be done
2 by annotation. If we were to put some
3 suggestion, for example, that we want to use a
4 natural source for less environmental harm and
5 note there was a comment yesterday about how do
6 you actually quantify environmental harm of
7 different course of humic acid?

8 But would that be something done by
9 annotation or just guidance? And there was a
10 concern about over-prescribing the approval
11 material.

12 DR. THICKE: Tom?

13 CHAIR CHAPMAN: If that's something we
14 would want to do, I think you could pass -- you
15 know, we would add it to our work agenda and pass
16 something related to it. And then the program
17 can make a determination whether guidance or
18 annotation was the best way to handle it.

19 DR. THICKE: So we could bring it up
20 in our Crops Committee discussions?

21 CHAIR CHAPMAN: Yeah.

22 DR. THICKE: To start off.

1 CHAIR CHAPMAN: Yeah. And I do know
2 there was -- you know, there is a piece of
3 guidance out there already on the alkali used to
4 extract humic acid and they wanted to restrict it
5 via guidance in the programs that you couldn't do
6 that. You would need rule change.

7 DR. THICKE: Okay. Thank you. Maybe
8 we should move on to the next one. The next one
9 up is micronutrients, soluble boron products.
10 Lisa?

11 DR. BRINES: Okay. Thank you. So we
12 are continuing on under 205.601(j). We are at
13 subparagraph (6) Micronutrients not to be used as
14 a defoliant, herbicide, or desiccant. Those made
15 from nitrates or chlorides are not allowed. Soil
16 deficiency must be documented by testing. The
17 listing is soluble boron products. Thanks.

18 DR. THICKE: Thank you. Harriet?

19 MS. BEHAR: It's another product that
20 begins with a B.

21 So in -- at the October 29, 2015 NOSB
22 meeting, the vote at -- the Board voted to change

1 the micronutrient annotation by changing the last
2 sentence "Soil deficiency must be documented by
3 testing" to "Deficiency must be documented." So
4 that would allow producers to document, you know,
5 visual signs of deficiency, tissue testing.

6 I mean, because it was -- or whatever.
7 But there is more than one way than just testing
8 to document the deficiency. At this point, that
9 has still not been put in the Federal Register,
10 but just so people know that that was voted on at
11 the 2015 fall meeting of the NOSB.

12 So this product is essential to plant
13 health. It is typically applied in very small
14 quantities. And while producers can choose to
15 rely on the natural presence of micronutrients in
16 their soil, many find deficiencies of some
17 micronutrients including boron.

18 So -- and the lack of this can be very
19 much a limiting factor in water and micronutrient
20 uptake resulting in limited growth and vitality
21 of the crops.

22 We did get public comments. The vast

1 majority were very supportive. Both producers
2 and certifiers felt that it is very commonly used
3 and they wanted to keep it. Many labeling this
4 product as essential. Some did talk, the
5 Northeast Organic Farming Association of Vermont
6 mentioned that they wanted us to look at the
7 accumulation perhaps of micronutrients, but they
8 don't want to really make growers wait until
9 deficiency is found in a crop before they can be
10 allowed to apply it, because many of these are
11 slow release and take a while to be taken up by
12 the plant, so that might be something the Crop
13 Committee can discuss how we can be more
14 practical in this.

15 Because if we wait until deficiency,
16 then it could be two or three years until they
17 could get that -- especially if it's a perennial
18 up to speed. So anyway, that was one comment.

19 They also -- OFA mentioned that
20 providing documentation of deficiency is a
21 difficult item for growers, so they like that
22 change in annotation when it could possibly be

1 put in the Federal Register.

2 There was a comment from the Center
3 for Food Safety about addressing the nano issue
4 on micronutrients, that there is like nano cobalt
5 and I don't remember the other nano, but that's
6 in the other area. But that we should be
7 addressing nanotechnology in these
8 micronutrients.

9 Let's see, relist, relist. CCOF, that
10 was very helpful. There were 905 growers that
11 used micronutrients as a class in their OSP, so
12 that really does show some widespread use in the
13 state that produces the largest amount of organic
14 produce, the United States.

15 And that's -- and then PCO mentioned
16 170.

17 Beyond pesticides mentioned, that soil
18 deficiency must be demonstrated by a verifiable
19 site-specific documentation that is accompanied
20 by a plan for building soil that provides
21 adequate nutrition through soil building, so they
22 were hoping that the micronutrient issue could be

1 dealt with from a systems approach. That's it.

2 DR. THICKE: Okay. Thank you. Any
3 questions or comments? Yes, Steve?

4 MR. ELA: I would tend to agree with
5 some of the comments of -- I mean in perennial
6 crops the deficiency is then, you know, five
7 steps too late. And so it is a challenge to --
8 on some of these micronutrients like boron and
9 the following subset we are going to discuss that
10 no, you don't want things to fall too low because
11 the response time to build it back up is years.

12 So it does put growers in a bit of a
13 quandary of how to document a declining amount or
14 a low level that is not really a deficiency. So
15 I would be in favor of some kind of allowance to,
16 you know, based on industry standards or PCAs, I
17 think there is some public comments that -- on
18 the recommendation of a PCA or, you know,
19 industry extension, something, you know, credible
20 to be able to apply these.

21 DR. THICKE: And could documentation
22 be part of -- could part of the documentation be

1 history where you've seen it in the past and that
2 you documented in the past history and so on?

3 MR. ELA: It could be, although you --
4 like with boron, you know, it's used at so low
5 levels. I mean, you are putting on a pound --

6 DR. THICKE: Right.

7 MR. ELA: -- an acre for years. I
8 mean, the Washington State recommendation is a
9 pound an acre a year for years. I mean, the
10 Washington State recommendation is a pound an
11 acre a year.

12 DR. THICKE: Um-hum.

13 MR. ELA: So very low levels, but just
14 as a routine thing, especially in soils that tend
15 to be -- you know, environments that tend to be
16 low boron.

17 DR. THICKE: And boron disappears
18 fast. It can bleach out, yes.

19 MR. ELA: Yeah. And it is a nutrient
20 that over-use can also be very problematic. So I
21 think growers -- there is not much incentive to
22 create a boron excess, because then you have some

1 real severe food issues.

2 DR. THICKE: Um-hum, okay. Scott?

3 MR. RICE: Yeah, I would just echo
4 that, you know, with the intent of that
5 deficiency must be documented versus testing
6 allows that -- you know, still deals with the
7 site-specific or area/region-specific deficiency,
8 but that was intended to not leave the farmer
9 watching things go downhill before one was able
10 to correct it.

11 DR. THICKE: Any other comments on
12 boron? Harriet?

13 MS. BEHAR: So just to ask the
14 program, any thoughts on when that change to the
15 annotation, is that in any process down the pike?
16 And is it, you know, at the end of the pipeline,
17 at the middle of the pipeline? You know, not
18 being --

19 DR. LEWIS: Right. We are still
20 working through the process of the review in this
21 case, based on recommendations. So it's really
22 hard to say in terms of, again, what you have

1 heard during the course of the past few days, the
2 new Administration is coming on board. We need
3 to socialize this with that.

4 MS. BEHAR: It would seem to me to be
5 a fairly simple one. We are just taking out by
6 testing from that and we are really not
7 necessarily really weakening the annotation. We
8 are just actually broadening the way that the
9 requirement can be met.

10 DR. THICKE: Okay. Let's move on to
11 the next one. It's the rest of the
12 micronutrients: Sulfates, carbonates, oxides or
13 silicates of zinc, copper, iron, manganese,
14 molybdenum, selenium and cobalt.

15 DR. BRINES: Thank you. So this
16 listing we are continuing under Section
17 205.601(j)(6) under the micronutrients listing
18 and the listing is sulfates, carbonates, oxides
19 and silicates of zinc, copper, iron, manganese,
20 molybdenum, selenium and cobalt. Thanks.

21 DR. THICKE: That's Harriet also.

22 MS. BEHAR: So pretty much the same as

1 the boron. But so the two things I see are
2 making sure that, again, we are not requiring
3 that things be totally deficient before we will
4 allow someone to use the product as well as I
5 think the issue of nanotechnology, especially
6 with some of these, might be something we might
7 want to talk about with the program.

8 DR. THICKE: Okay. Any comments on --
9 Tom?

10 CHAIR CHAPMAN: Can you clarify that
11 nanotechnology concern?

12 MS. BEHAR: I believe when they gave
13 public comments, I would have to look back, but I
14 know this was nano cobalt and there was an NOSB
15 recommendation to not allow nanotechnology in
16 organic production, but it never really -- they
17 are actually suggesting that it be added to the
18 excluded method section of the rule so it's very
19 clear.

20 But just to make it clear that --
21 well, I suppose we have to talk about whether we
22 want to prohibit nano micronutrients or not. But

1 they felt that over time more and more of these
2 micronutrients will be available in a nano form.
3 And are we then, because we don't specifically
4 prohibit them, allowing those?

5 CHAIR CHAPMAN: So is my
6 understanding, there is guidance out from the
7 program or policy out from the program that
8 states that nanotechnology is a synthetic method
9 and would need to be specifically listed.

10 Can someone from the program comment
11 on that?

12 DR. LEWIS: I'm going to try Dr.
13 Brines, in this case, since you worked on this
14 issue previously. Thank you.

15 DR. BRINES: Yes. Thank you. Yes, we
16 did publish Policy Memo 15-2 on nanotechnology,
17 which implemented the NOSB recommendation. So
18 yes, farm materials on the National List, none of
19 which are currently on the list, would be allowed
20 in nanotechnology derived form. Any new product
21 derived from nanotechnology would need to be
22 petitioned for use in organic production and

1 handling would have to go through that petition
2 process.

3 The Policy Memo doesn't prohibit the
4 use or I'm sorry doesn't prohibit the petition of
5 those types of technologies and that is
6 consistent with the NOSB recommendation on
7 nanotechnology. Thank you.

8 CHAIR CHAPMAN: So to clarify, nano
9 cobalt not allowed under this listing today?

10 DR. BRINES: Correct, yes, um-hum.

11 MS. BEHAR: Thank you.

12 DR. LEWIS: A question for Harriet.

13 So I'm assuming that the Excluded Methods Group
14 will be looking at this issue and nanotechnology
15 is part of your ongoing activity?

16 MS. BEHAR: It wasn't on our list, but
17 I suppose we could add it.

18 DR. LEWIS: Okay.

19 MS. BEHAR: But --

20 DR. THICKE: For crops or for
21 materials?

22 MS. BEHAR: No, in the Excluded

1 Methods in the Materials Subcommittee. But it's
2 not -- it doesn't really fit under genetic
3 engineering. Well, maybe it does. I don't know.

4 DR. THICKE: Okay.

5 MS. BEHAR: I don't think so, because
6 it's kind of a migrated -- it's a micro -- you
7 know, they take the small particles and grind it
8 up into little, little, little, little pieces.
9 That's my science.

10 DR. THICKE: Okay. Any other comments
11 on the micronutrients?

12 MR. BRADMAN: Yeah, definitely not
13 genetic.

14 MS. BEHAR: Yes.

15 DR. THICKE: Not genetic, yes. Thank
16 you, Asa. I have to identify everybody because
17 for the transcriptor/transcriber. So, Harriet?

18 MS. BEHAR: The commenter asked us to
19 add it to the section of the rule that would
20 specifically -- rather than in guidance and
21 allow, I suppose, four things to be petitioned,
22 they were asking us to put nanotechnology under

1 205 -- 105 as a separate item. Excluded methods
2 are radiation, sewage, sludge, nanotechnology.

3 DR. THICKE: All right. Okay. Let's
4 move on to vitamins. Vitamins B1, C and E. Dr.
5 Brines?

6 DR. BRINES: Yes, thank you. We are
7 still continuing on under Section 205.601(j) as
8 plant or soil amendments and the listing is
9 Vitamins B1, C and E. Thank you.

10 DR. THICKE: Thank you. Emily?

11 MS. OAKLEY: Vitamins including
12 synthetically derived vitamins are generally
13 considered non-toxic essential nutrients for
14 terrestrial and aquatic organisms. Non-synthetic
15 sources of all vitamins and synthetic sources of
16 Vitamins B1, C and E may be used in certified
17 organic operations.

18 The 2015 Technical Report noted that
19 the available literature does not support the
20 premise that foliar and soil applications of
21 Vitamin B1 are responsible for root stimulation
22 in transplanted crops.

1 And commenters both this time and in
2 its most recent review indicated that Vitamins
3 B1, C and E are rarely used individually, but are
4 included as ingredients in some of the products
5 reviewed for crop fertility.

6 The TR indicated that the root growth
7 claims associated with B1 are largely
8 unsubstantiated. And we asked a specific
9 question related to that in this current review.
10 We didn't get a tremendous amount of feedback
11 regarding that and we got some public comment on
12 these vitamins, but not a great deal.

13 The majority of the comments was as
14 before that they are typically used as a blended
15 or in blended fertilizers. Only a couple of
16 people commented on the specific Vitamin B1
17 saying that it might be used in -- for root
18 stock, but, as the TR indicated, it is not
19 typically effective for that.

20 There was one commenter that noted
21 that the TR indicated that these vitamins can be
22 produced using genetic engineering, but that

1 would not be allowed in organic production. So
2 if we were to try to remove B1 because it's not
3 typically used, it would mean trying to change
4 this listing, which might be a lot of work. So
5 we could discuss that in Subcommittee if it's
6 sort of worth our effort to change the National
7 Listing to remove B1.

8 But it definitely isn't widely used
9 and it's not effective for the use that it is
10 listed for. So it's kind of one of those things
11 where we kind of need to weigh out what is the
12 most effective use of our time, but we can
13 discuss it on the crops call.

14 Are there any questions about it?

15 Okay.

16 DR. THICKE: Okay. Thank you, Emily.
17 Next up is lead salts. Dr. Brines?

18 DR. BRINES: Thank you. So we are
19 moving to a new section of the National List now,
20 that section is 205.602, the Non-Synthetic
21 Substances prohibited for use in organic crop
22 production. And this listing is lead salts.

1 Thanks.

2 DR. THICKE: Thank you. And this is
3 my material here.

4 Basically, we know lead is not good
5 for human health and it accumulates in soils.
6 And so there really was no support for taking it
7 off the prohibited list. There were a number of
8 comments that mentioned yes, let's leave it on
9 the list.

10 Basically, that's it. Anybody have
11 any comments on that? Okay. Thank you. So we
12 will move on then to tobacco dust.

13 DR. BRINES: All right. So this is
14 the last substance on the crops part of the
15 agenda for Sunset 2019. So continuing under
16 205.602, this listing is tobacco dust, nicotine
17 sulfate. Thanks.

18 DR. THICKE: Harriet?

19 MS. BEHAR: Okay. So this -- to
20 tobacco dust or nicotine sulfate has been on the
21 National List since its first printing in 1995 as
22 a prohibited non-synthetic.

1 It can be used as a pesticide or as a
2 fertility input, but due to the negative human
3 health caused by this material, it has been
4 relisted as a prohibited at every Sunset with no
5 objections from the public or the NOSB.

6 It is present on the Hazardous
7 Substance List and regulated by OSHA and EPA as
8 well as other agencies. So it is listed.

9 There is some concern that it is being
10 -- could be used as an ag product that can be
11 incorporated into the soil as a tea -- no, I'm
12 sorry. Dust, tea and smoke are prohibited
13 according to OMRI and MOSA. But -- and it's no
14 longer available commercially. It used to be
15 more available, but people could still make it
16 themselves and use it.

17 But there -- I think there was one
18 comment about trying to be a little bit more
19 clear that it's not allowed in any use. And also
20 I personally know that because it's not listed on
21 the livestock section, there has been discussion
22 about it being used for some topical pest control

1 on livestock. So that is not really a crops
2 issue, but I always found that interesting, since
3 our list is broken up into sections, that because
4 it's not prohibited under livestock, it could be
5 used there. That's it.

6 DR. THICKE: Thank you, Harriet. Any
7 comments or questions for Harriet? Okay. Well,
8 that concludes the Sunsets. And now the next
9 item up is the discussion document on
10 strengthening the organic proposal.
11 Strengthening the Organic Seed Guidance. And,
12 Harriet, you are the lead on that.

13 MS. BEHAR: Yeah, I don't know why I
14 took on all this work. Okay.

15 So it was a fairly long document. It
16 was very wide-ranging, because we were really
17 trying to cover a lot of comments and kind and
18 kind of fill-in places where we felt that the NOP
19 Policy Manual Memorandum could be improved on
20 this issue of seeking out organic seeds in
21 commercial availability.

22 And there really are a lot of issues

1 there. So I hope everyone read it and I know
2 there were some comments.

3 There was -- one of them, the comment
4 that I saw most often was that we are trying to
5 get producers to total compliance and many
6 certifiers, especially as well as people in the
7 trade, mentioned how difficult that is,
8 especially for vegetable producers, at this time,
9 because we want people to use regionally adapted
10 seeds.

11 There are market constraints that
12 people might want a certain heirloom or a certain
13 hybrid or whatever and this is what either their
14 processor is requiring of them or their market,
15 their retail, their restaurant or whatever. And
16 to push producers to total compliance when it's
17 an impossibility is really impractical and
18 unfair.

19 Let's see, oh, also there was this
20 concern again, which we are going to deal with in
21 another discussion document, on the GMO side,
22 making sure that the non-organic seeds that are

1 being used also are free of genetic modification.
2 That's another challenge.

3 And they felt, some of the commenters
4 felt that that's somewhat of a difficult issue to
5 deal with, because it tends to be that organic
6 seed producers will do that GMO testing. But to
7 get, you know, that type of assurance from non-
8 organic seeds, especially things like vegetables
9 or whatever, it's a little bit more difficult.

10 DR. THICKE: Okay. Any discussion?
11 Do you recommend that, Harriet? Do you recommend
12 sending it back based upon the comments?

13 MS. BEHAR: Yes. The Crops
14 Subcommittee to discuss that, especially since it
15 is such an in depth and wide-ranging document
16 that we felt that we would like to get more
17 comments. And so I think there was somebody who
18 was supposed to make a motion. I don't know if
19 it is me.

20 DR. THICKE: Go ahead.

21 MS. BEHAR: Oh, I will make a motion
22 to send it back to Subcommittee.

1 DR. THICKE: Second. Anybody?

2 CHAIR CHAPMAN: I have a motion and a
3 second.

4 DR. THICKE: I would second the --

5 CHAIR CHAPMAN: Francis seconded it.

6 All right. Hold on. I'm going to get my list.

7 All right. So the motion is to refer the
8 proposal on Strengthening the Organic Seed back
9 to the Crops Subcommittee. Is there any further
10 discussion on this measure?

11 Hearing none, we will move to a vote.
12 The voting will start with Dan and a yes vote is
13 to send this back to Subcommittee.

14 DR. SEITZ: Yes.

15 MR. RICE: Yes.

16 MS. BAIRD: Yes.

17 MS. BEHAR: Yes.

18 MS. OAKLEY: Yes.

19 DR. THICKE: Yes.

20 MS. ROMERO-BRIONES: Yes.

21 MS. De LIMA: Yes.

22 MR. BRADMAN: Yes.

1 MS. MOSSO: Yes.

2 MR. ELA: Yes.

3 MR. MORTENSEN: Yes.

4 MR. BUIE: Yes.

5 MS. SWAFFAR: Yes.

6 CHAIR CHAPMAN: The Chair votes yes.

7 The motion passes 15 yes, 0 no. The proposal is
8 referred back to the Crop Subcommittee.

9 DR. THICKE: Thank you. Moving on,
10 next up is the --

11 MR. MORTENSEN: I just had a quick
12 question --

13 DR. THICKE: Oh, yes, Dave?

14 MR. MORTENSEN: -- about the general
15 subject of this --

16 DR. THICKE: Yes.

17 MR. MORTENSEN: -- proposal. And it
18 doesn't bear at all on the vote. But and maybe
19 this is to Harriet. There is -- during the
20 course of this meeting, several folks have, both
21 in public comment and then in just discussions in
22 the hall, have raised a concern about challenges

1 that organic and non-GM seed breeders are facing
2 with contamination from nearby fields.

3 That is largely driven by the
4 prevailing agriculture, maize breeding and a
5 maize landscape, etcetera, alfalfa breeding in a
6 landscape where bees are flying several miles
7 around.

8 And I'm just wondering how do we
9 address that? You know, in the section that
10 reads "Crops at risk GMO contamination might need
11 to be acknowledged," blah, blah, blah. It seems
12 that acknowledging that contamination might be
13 happening is not a very satisfying endpoint.

14 So what -- how do we get into that in
15 a more rigorous way?

16 MS. BEHAR: We are actually working on
17 another discussion document with Dan and I that
18 will look at what are our options. Is it
19 testing? Is it a risk-based decision-type tree?
20 It's a very complicated issue because, to me, it
21 comes down to who in the end is going to be
22 punished?

1 DR. THICKE: Um-hum.

2 MS. BEHAR: Somebody is going to get
3 punished. And is it going to be the seed breeder
4 who has to throw away three-quarters of the seed
5 that they have produced? Is it going to be the
6 farmer who has got, the organic farmer, a higher
7 price because that type of production loss will
8 have to be covered at some point in the market.

9 You know, there is just a lot of
10 issues. Is it going to be the consumer who is
11 going to have less availability of organic crops?
12 And we are not sure other places of the threshold
13 of an allowance of some genetic modification
14 contamination is considered somewhat of a
15 solution. We are not sure if that's the solution
16 or not, but we will be looking at that in a
17 separate document.

18 DR. THICKE: Um-hum. Also, about a
19 year ago or maybe a little longer, we put
20 together a guidance document listing all the
21 things that organic producers and handlers can do
22 to protect ourselves and then acknowledging that

1 we can only do so much. But being public about
2 what we are doing and suggesting that our
3 neighbors need to do more. Okay.

4 CHAIR CHAPMAN: All right. I just
5 have --

6 DR. THICKE: Tom?

7 CHAIR CHAPMAN: -- just to clarify,
8 Harriet, so that is a work agenda item for the
9 Material Subcommittee?

10 DR. THICKE: Yes, yes.

11 MS. BEHAR: So there has also been a
12 lot of discussion about the patent holders also
13 being liable or putting some sort of, I don't
14 know if you would say, blame or responsibility on
15 that because the technology -- I mean, it's not
16 so much the farmers that are the neighbors that
17 have the fall, but that they have purchased a
18 technology that is -- has not dealt with the
19 promiscuity of what they are selling.

20 That it does go out in the air and
21 well, you know, so I think there is not a lot of
22 will among the organic farmer community to feel

1 like they have to go after their neighbors.

2 DR. THICKE: Right.

3 MS. BEHAR: For an effective product
4 that their neighbors have bought, basically.

5 DR. THICKE: My neighbor, yes. Right,
6 exactly. Of course, we don't have much leverage
7 over those people. Any other comments? Probably
8 we should move on here to the next proposal is
9 the Marine Algae Listings. Emily?

10 MS. OAKLEY: So as Scott noted
11 yesterday, this is the identical proposal that
12 was brought forth in handling. Thank you to Dr.
13 Richardson for all of her hard work on this
14 issue. The only difference in the CS proposal
15 was the motion.

16 And there was some concern from the
17 public that there wasn't sufficient explanation
18 as to why the brown class was identified and so I
19 just want to note, as I noted with the handling,
20 that there has been an ongoing discussion with
21 this and perhaps we could have elaborated a
22 little bit more about why we were identifying the

1 brown class. But as is noted in the background
2 of this document, the TR gave the indication that
3 the majority of the products used under this
4 listing do come from the brown class of seaweed.

5 Although as everyone knows from our
6 conversation during public comment, OMRI has
7 identified a handful of products that also
8 include seaweed from the red class.

9 Our intent with this was to identify
10 what is being used, to just clarify that for the
11 public comment and question on that. And now
12 that we know that there are some products with
13 some red algae in it, I think we will be working
14 with OMRI to identify what those might be and to
15 see if we might be able to come back with a
16 document that has a little bit more background in
17 support for why we are naming what we are naming.

18 But we also don't want to be so broad
19 as to include things that aren't being used and
20 aren't necessary. And as Scott discussed, there
21 is definitely a sustainability component of this
22 document, so we want to try and work on that.

1 Although, it is extremely challenging to
2 identify, you know, how we can measure
3 sustainability and how we can then evaluate it.

4 The problem with this listing is that
5 it is a crop input. So the irony is that some of
6 these materials might be harvested under the Wild
7 Craft Standard and be subject to environmental
8 standards when they are used for human
9 consumption. But that exact same product might
10 be harvested for a crop input and not be subject
11 to an environmental standard.

12 So we have a conundrum within the
13 situation and I don't want to let this issue drop
14 and will continue to work on it and try to see if
15 we can find some ways to address the
16 sustainability piece.

17 In terms of public comment for this,
18 there -- it was very mixed. There were marine
19 scientists. Oh, did you want to interrupt? I'm
20 sorry. When you are done. Okay.

21 There were marine scientists who
22 expressed like very obvious widespread support

1 for this proposal as it is written now. And also
2 the second motion on the handling proposal that
3 we will, I'm sure, be exploring in future
4 meetings.

5 There were those who didn't feel they
6 had time to adequately look into this and so
7 asked us to take it back to the Subcommittee to
8 give them a little more time to explore this
9 issue. And then there were those who felt we
10 needed to address the fact that red algae is also
11 being used in some instances.

12 So I think -- yes, Tom, do you want to
13 go ahead and ask? You can go ahead and ask me
14 your question before I continue.

15 CHAIR CHAPMAN: Yes, I just wanted to
16 point out. So on the wild craft statement that
17 you made, so an organic product is certified
18 under wild craft would have those protections.

19 MS. OAKLEY: Correct.

20 CHAIR CHAPMAN: All the items that
21 were part of the handling proposal that are
22 already listed on 605 or 606, would have the same

1 issues that this --

2 MS. OAKLEY: Yes.

3 CHAIR CHAPMAN: -- extract does. I
4 just wanted to make sure people are clear that
5 that wild craft protection or requirements does
6 not translate over to the 605, 606 items.

7 MS. OAKLEY: Right. Only if they are
8 certifying them organic, yes. But it is this
9 strange little like --

10 CHAIR CHAPMAN: Definitely.

11 MS. OAKLEY: -- not loophole, but
12 situation that we have.

13 CHAIR CHAPMAN: Yes.

14 MS. OAKLEY: And there are definitely
15 marine scientists who are very concerned. And
16 there are landowners along the coast of Maine who
17 have been dealing with rockweed issues and there
18 is some current legislative rulings that have
19 actually indicated that harvesting rockweed in
20 the Intertidal Zone is not permitted, that that
21 does belong to the landowner.

22 But that is a very recent ruling that

1 was made available to us also in the public
2 comment.

3 Are there any other questions that
4 people have about this proposal or these
5 materials? Harriet?

6 MS. BEHAR: I would make a motion to
7 send it back to Subcommittee.

8 MS. OAKLEY: I'll second that.

9 CHAIR CHAPMAN: I have a motion and a
10 second. Any further discussion on this item?
11 Yes, it was a motion by Harriet, seconded by
12 Emily. The motion is to refer the crops proposal
13 on marine algae back to the Crops Subcommittee.
14 This is a majority vote. Voting will start with
15 Scott and a yes vote sends this back to
16 Subcommittee.

17 MR. RICE: Yes.

18 MS. BAIRD: Yes.

19 MS. BEHAR: Yes.

20 MS. OAKLEY: Yes.

21 DR. THICKE: Yes.

22 MS. ROMERO-BRIONES: Yes.

1 MS. De LIMA: Yes.

2 MR. BRADMAN: Yes.

3 MS. MOSSO: Yes.

4 MR. ELA: Yes.

5 MR. MORTENSEN: Yes.

6 MR. BUIE: Yes.

7 MS. SWAFFAR: Yes.

8 DR. SEITZ: Yes.

9 CHAIR CHAPMAN: The Chair votes yes.

10 15 yes, 0 no. The motion passes and this
11 proposal is referred back to the Crops
12 Subcommittee. I think it's a good time to break.

13 MS. OAKLEY: Before we break, can I
14 just --

15 CHAIR CHAPMAN: Yes.

16 MS. OAKLEY: -- I just want to say
17 that for those who are concerned about this
18 issue, sending it back is not going to table it.
19 We will continue to work on it.

20 CHAIR CHAPMAN: Thank you. Francis,
21 do you agree good time to break?

22 DR. THICKE: Good.

1 CHAIR CHAPMAN: Yep, okay. So we are
2 going to take a recess now until -- a 15 minute
3 break until 10:00. And we will get started back
4 then with continuing on the Crops Subcommittee
5 agenda. We are in recess.

6 (Whereupon, the above-entitled matter
7 went off the record at 9:44 a.m. and resumed at
8 10:07 a.m.)

9 CHAIR CHAPMAN: Okay. We will come
10 back into order and back to you, Francis.

11 DR. THICKE: Thank you, Tom. So the
12 last item on our Crops agenda is the discussion
13 document on Aeroponics/Hydroponics/Aquaponics.
14 And there were four leads on that document and so
15 each of the leads are going to take a little
16 chance to summarize what we have heard and where
17 we think we want to go.

18 And then we want to try to get input
19 from everybody on the whole Board to get your
20 feedback and to see where you think we should go
21 in the future.

22 So Harriet is going to lead off with

1 just a summary of the document.

2 MS. BEHAR: Okay. So at the last
3 meeting, we also had a discussion -- actually,
4 two discussion documents and we also had a
5 resolution at the end of the meeting stating that
6 the Board was looking at the hydroponic,
7 aeroponic and aquaponic issue with the Board
8 leaning towards figuring out a way to make more
9 clear where the line is between soilless and
10 soiled production. And then what we would do.

11 So this discussion -- I mean, also the
12 program clarified for us that the previous
13 discussion document even if we would have voted
14 for it, which would have been a ban on
15 hydroponics, aeroponics and aquaponics, would not
16 have given them the tools that they needed to
17 actually do any kind of regulatory action.

18 So this document was a response to
19 that. It includes both the containers and the
20 ponics in it, because we felt that the items were
21 related. I know it's -- there is reasons to
22 break them up and there is reasons to keep them

1 together. And we decided to come out in one
2 document to ask questions.

3 And so the -- you can see we did refer
4 back to public comments and some of the history
5 in this document, but also there are proposals
6 for definitions for each of the ponics,
7 aeroponic, hydroponic and aquaponic, as well as
8 proposed regulatory prohibitions on those things.
9 So there would be a definition put into the
10 definition section and then a prohibition put
11 into a 5.105 for each of those items.

12 Now again, this is a discussion
13 document, but it's pretty close to what a
14 proposal would look like that we could vote on.
15 And it was meant to be three different -- well,
16 it would be six different votes whenever we do
17 vote and things will probably be modified some
18 based on public comment.

19 So we would vote on each definition.
20 We would vote on each prohibition, if that's what
21 ended up happening. We would vote one way or
22 another. Then the -- so everyone has read that,

1 I am sure.

2 Then we do go into possibilities,
3 questions about the container growing, because
4 the Committee really felt like we needed to know
5 more about what was being done and what is
6 feasible, because we don't want to set up a type
7 of production, a requirement for type of
8 production that is not practical or not doable.

9 So we are looking at still separating
10 out the various ponics and eventually voting on
11 them separately with clear definitions and a
12 place to put that prohibition or not in the rule
13 and we are also looking at having a production
14 standard that will be for container production.
15 So it wouldn't be nebulous about what is allowed
16 and what is not allowed.

17 We are trying to give both the growers
18 and the certifiers something very clear that they
19 can follow and is doable and will set a line
20 between this is okay and this is not okay. So an
21 actual production standard. And that is really
22 one of the main issues that we have with the

1 hydroponics being put -- allowed by the program
2 is that it was being -- it was allowed without an
3 actual standard.

4 And so we have lots of different types
5 of hydroponic operations, all of them really seen
6 as equal whereas those of us on the NOSB don't
7 see them all as equal as we can see by separating
8 out the containers and container production.

9 So we are hoping that we will be able
10 to do that and I'm not sure, it may be that it is
11 a proposal on some items and a further discussion
12 document on others. We will see how far we get,
13 but our Committee is very committed to have --
14 getting this done.

15 We are also planning on making sure
16 that all Members of the NOSB are kept informed,
17 even those not on the Crop Subcommittee, as we go
18 through various drafts. And of course, everyone
19 is always welcome to listen in and give some
20 input on our calls as we go through it.

21 So we don't want there to be any
22 surprises of anyone. And of course, once we have

1 something finished, it will be up for the public
2 to make comment as well.

3 So with that, I think I'm passing it
4 on to Francis.

5 DR. THICKE: Thank you, Harriet. I'm
6 just going to spend a few minutes summarizing
7 some of the comments. We heard comments for days
8 here and also we don't want to go too much in
9 detail.

10 I wanted to look at the perspective
11 that we are really divided and emphasize that you
12 have all seen that wide range of opinion here
13 amongst the organic community.

14 For example, with OFPA and the organic
15 rule, some will claim that it prohibits
16 hydroponics. Some will say that the language
17 allows hydroponics. Some of the comments we
18 heard said that we should allow everything that
19 is hydroponic as long as it's not sterile. We
20 should allow 100 percent liquid feed.

21 Some are arguing that we should only
22 allow plants to be growing in the soil, in

1 contact with the subsoil. Tremendous difference
2 in opinion here. So that's what we have to
3 navigate here and try to find some common ground
4 at some point.

5 And as was pointed out several times
6 that I think we need to keep this in mind, too,
7 that the European Union requires plants to be
8 grown in the ground. No container growing,
9 except in three countries which was reported that
10 only 30 hectares in the whole European Union is
11 allowed -- allows container growing. And there
12 are 5,000 hectares otherwise that do not allow
13 that.

14 And farmers are both sides, as I said.
15 Some farmers say we need to feed the soil and let
16 the soil feed the plant. Some will argue it
17 doesn't matter if you feed it through water, the
18 soil has water on it and the water is an
19 interface between the plant and the soil anyhow.
20 So we have every argument you can have.

21 And the certifiers are also -- and the
22 organic organizations are also split. Some

1 certifiers are certifying and some will not
2 certify and are against it.

3 CCOF apparently certifies now. They
4 reported the 130 hydroponic and container growing
5 operations. And they recommended that the label
6 be allowed -- to add the label hydroponically-
7 grown along with organic. So that's one thing
8 that people have suggested.

9 Others support container growing. We
10 heard yesterday MOSA supports some container
11 growing. Some certifiers are adamantly against
12 it. The Montana Organic Association is against
13 it. NOFA-NY also in their comments they oppose--
14 also they oppose an organic hydroponic label.

15 In some of the farmer comments, on
16 both sides, they see economic damage possible.
17 Those who are now growing hydroponically see that
18 if it's disallowed that they will either have to
19 change, it might cost them a lot or they may have
20 to quit selling organic.

21 And on the other hand, soil-based
22 farmers say that their market is being damaged by

1 hydroponic growing, which is not equivalent to
2 their growing. And so we have a huge divergence
3 here.

4 We didn't get a lot of suggestions on
5 what we should -- how we should structure our
6 future proposals. We didn't get as much
7 information as I would like to have seen on
8 container growing and what it constitutes and so
9 on. So we will have to keep working on that.

10 We got an interesting comment from the
11 Netherlands, from Marian Blom, I guess, who heads
12 up the Netherlands organic organization and she
13 is one of the leaders in Europe actually and they
14 are very strong on soil growing. But they say
15 they are proposing new European, EU, legislation
16 that would require 50 percent of a plants
17 fertility needs to be added in the soil before
18 the crop is planted.

19 So 50 percent has to be in the soil
20 before the crop is planted. And then only 25
21 percent of the total plant's needs can be added
22 as a liquid feed. So that's what they are

1 pushing. And they are concerned -- they are
2 watching us very closely, because they see that
3 they have -- they are holding the ground strong
4 on this idea of growing in the ground only.

5 And if we come completely different
6 from them, not only is it a trade issue, but it's
7 -- they are getting a lot of pressure from
8 hydroponic growers to change. And if we are
9 completely different from them, they are going to
10 get a lot more pressure. So they are looking
11 closely at what we are doing.

12 They said currently that in the
13 Netherlands 65 percent of the nitrogen added in
14 the year must come from complex organic materials
15 like compost and manure.

16 And then we come to the word
17 recalcitrant. And I take full responsibility for
18 that. Soil scientists use that term regularly
19 and I didn't think it would be that -- there
20 would be that much recalcitrance to it, but the
21 reason that we use that term is that the 2010
22 recommendations had a definition of hydroponics

1 that it said it was grown in an inert matrix,
2 bathed in nutrient rich solution.

3 And so as we heard yesterday from a
4 certifier, that person claimed that that was
5 really what kind of was the impetus for,
6 hydroponic or container growing taking off
7 hydroponics, because inert was rockwool
8 assumption. Some inert material chemically not
9 reactive. And people now are using coconut coir
10 and other organic materials which are not
11 technically inert.

12 And so they don't feel they fall under
13 that definition of hydroponics, because they are
14 not using an inert material. So that's why we
15 use that word recalcitrant, inert or recalcitrant
16 to include those materials that are used as a
17 rooting medium, but do not contribute substantial
18 nutrition to the system.

19 Now, whether or not we want to go
20 ahead with that in the future, I don't know, but
21 that was the reason for it. And we actually got
22 a comment -- we got some comments from farmers

1 saying that they thought that needed to be in
2 there, but also from the Netherlands because the
3 same person, they said that the European Union
4 also defines hydroponics as an inert medium.

5 And they have the same thing going on
6 is that people are going from an inert medium,
7 fully inert to this resistant biological material
8 and calling that as not being outlawed.

9 So that's -- I kind of wanted to end
10 there. And Jesse was going to be next, tag-team
11 to Jesse here.

12 MR. BUIE: As we move forward in this,
13 I think the most important thing that we need to
14 look at is that we uphold the integrity of the
15 organic seal. And we do that by complying with
16 the regulations that we already got out there.

17 I think people -- many people are
18 operating under wrong assumptions. And that is
19 that all of these aeroponic and hydroponic
20 operations, all of them want to be certified
21 organic. Then the other assumption is that if
22 they are not organic, that they may

1 disenfranchise inner city, minorities, veterans,
2 and I'm a minority and a veteran, and those kind
3 of arguments are just not true.

4 So what we need to do -- what I
5 realized is that people who go into farming, they
6 go into farming because they love farming. They
7 love producing a product that is nutritious, safe
8 and a product that they can, you know, get a good
9 price for.

10 So having said all of that, I think as
11 a Board, it's our mission to determine, document,
12 whatever we want to call it, that these entities
13 meet organic standards and not their own
14 standards. You know, for the last couple of
15 days, I have heard many claims about microbial
16 activity and nutrients. None of which I think
17 have been documented.

18 In the system that we deal in right
19 now, all of those activities should be verified,
20 quantified and documented. And so the kind of
21 thing that I'm talking about, for these plants
22 that are -- whatever root system they are in, we

1 need to be able to quantify, verify total
2 phosphate, pot ash, nitrate, nitrogen, humic --
3 humeric, pH, you know, all of these things.

4 And I can show you right now from
5 operations that I held that as a Board we need to
6 set the standard. Well, we don't have to set the
7 standards, they are already there. We just need
8 to determine if these entities comply with the
9 standards that are already there.

10 And like I said, we need to be able to
11 quantify microbial activity in these systems
12 where we know that microbes they reproduce, they
13 take in nutrients, they give off carbon dioxide
14 as a byproduct. Therefore, they got the carbon
15 nitrogen ratio. Do these systems have a ratio
16 that is 8:1 to 15:1, which is what is required?

17 So basically what I'm saying is if
18 systems are going to be certified organic, they
19 all need to meet the same -- you know, we need to
20 determine if they meet the same standard.

21 As a Board, how do we get there is the
22 big question. And I would hope that we can talk

1 among ourselves to come up with a consensus that
2 we all can believe in, a consensus in which the
3 entities that we are dealing with, we can prove
4 to them that either they are compliant or not
5 compliant with organic standards.

6 I have some suggestions how that may
7 be done. Maybe setup some beta sites to
8 determine that. But in the final analysis that
9 we have a plan that in the end, if we determine
10 that these entities are not compliant, then we
11 can vote -- we just vote it down or if they are
12 compliant, we vote it forward.

13 And I think that's -- you know, that
14 is the way -- that is the approach we ought to
15 take going forward.

16 DR. THICKE: Go ahead, Emily.

17 MS. OAKLEY: So the last thing that I
18 wanted to say is that we, as the 15 Members of
19 the NOSB all represent various different
20 stakeholders and we all come to this conversation
21 with different viewpoints and we are not all
22 going to believe the same thing or think the same

1 thing and that is totally fine, that is
2 understood.

3 And I think that we all represent
4 various ends of the spectrum from soil to
5 hydroponics and I think that in our conversations
6 I'm hoping we can maintain a friendly atmosphere.
7 We all work together and are going to be working
8 together for the next many years. And I don't
9 want this to be something that causes stress and
10 anxiety and personal feelings for people, because
11 it's not a personal interaction between us. It's
12 something that is a broader conversation.

13 And I also just want the stakeholder
14 community to be aware of that, too. And we are
15 all working together on issues beyond this. So
16 maintaining an atmosphere that is collegial and
17 that we understand that we can probably come to
18 some degree of consensus and I think that the
19 most important thing to realize is that there are
20 not 15 people on this Board that are going to
21 vote for only in the soil production.

22 There are not 15 people on this Board

1 that are going to vote for aeroponics. And given
2 that reality, we have to be pragmatic about how
3 we can come to some kind of middle ground, which
4 is going to mean everybody giving a little bit of
5 something.

6 And I think if we can do that, that
7 the 15 of us can ideally find some form of a
8 document that we can all support and agree on.
9 And I also think that that will increase the
10 likelihood that this will make it through the
11 rulemaking process and also not drag this
12 discussion out to the point that we never come up
13 with any kind of solution, because we are all
14 staking our claims and not kind of finding some
15 place where we can agree.

16 I know that is not going to be easy,
17 but I think that that's our goal. And as Harriet
18 said, everybody is on the hydroponics document,
19 at this point, so all of our future iterations of
20 this proposal will be sent to everyone, so that
21 everyone can have feedback. We don't, you know,
22 get other Members who are not on the CS not

1 contributing throughout the process of what we
2 come up with.

3 So yeah, I think we are going to have
4 a good conversation and I appreciate hearing
5 everyone's perspectives.

6 So the four of us who worked on the
7 draft discussion document that is in front of you
8 now, I wanted to open it up to others to comment
9 first before we might, you know, put forward our
10 points of view.

11 We could do it in a roundtable fashion
12 or we could just let it be a free flow of whoever
13 wants to speak kind of starting that dialogue.
14 So whatever people are most comfortable with.
15 The most important thing is we want people to
16 feel comfortable in their conversations and not,
17 you know, feel that they can't be honest about
18 their perspectives.

19 DR. THICKE: Why don't we just see if
20 people want to speak and we will take your names
21 and we will go in order as you raise your hands.

22 MS. OAKLEY: I know it's hard to be

1 the first person.

2 DR. THICKE: Okay. Dan?

3 DR. SEITZ: So I would like to say a
4 few things. First, as Francis mentioned, there
5 was a lot of talk about the economic impact. And
6 I think, first of all, the -- our regs don't
7 really address economic impact as a factor, but I
8 think it's important to remember that anyone will
9 be impacted by this decision, whichever way it
10 goes.

11 If we allow for a hydroponic in
12 container, I think it's inevitable that soil-
13 based farmers will be impacted and vice versa.

14 There was a lot of talk about the
15 adverse impact potentially on consumers if they
16 don't have access to certain products year-round
17 or whatever. But there is also in -- let me --
18 there is also an impact on consumers if more
19 agriculture is transitioned to hydroponic, which
20 may mean that fewer conventional farms are
21 transitioned to organic farms.

22 So I feel that we can't make a

1 decision based on the economic impact. We really
2 do have to go to, I think, the core and as Emily
3 was saying, we won't -- none of us probably fully
4 agree on that. But what the core of the law says
5 and the regulations and what is really going to
6 benefit this movement in the long run.

7 I just want to say as a consumer
8 Member on the Board, that consumers are
9 schizophrenic. They want cheap food. They want
10 sustainable food. They want healthy food. So I
11 don't think it's possible to generalize.

12 I think there is a big philosophic
13 question here which is the -- you might say two
14 competing paradigms, philosophic paradigms. One,
15 I call the mechanistic paradigm that the human
16 intellect has the capacity to improve nature in
17 definitely through scientific means that we can
18 replicate natural systems through various
19 mechanistic, mechanical or scientific means.

20 And I would call the other viewpoint
21 the align with nature. And these are two very
22 different approaches. The align with nature, you

1 have to learn from nature, work with nature,
2 figure out what it is that allows you to bring
3 out the best.

4 And I think a lot of the conflict
5 potentially here is that these are such different
6 world views that it's hard to bridge that. And
7 then the final point I want to make is that in
8 this field as well as in the field I'm most
9 involved with natural medicine, there is
10 constantly these dueling science reports out
11 there. And the former editor and chief of the
12 New England Journal of Medicine said "Of science
13 around clinical research that it is simply no
14 longer possible to believe much of the clinical
15 research that is published."

16 And I think that that's a really
17 interesting point. We have reached a place in
18 the development of our societal support for
19 science belief that there is that we can always
20 arrive at the truth that we are inviting a fair
21 amount of a vested interest into the scientific
22 conversation.

1 So I think it's just incumbent upon us
2 to be very careful in terms of giving credence to
3 any one study or set of studies, but we
4 constantly have to look at what are some of the
5 interests that may be involved. And that's not
6 to say you couldn't get good industry science. I
7 wouldn't want to make such a generalization.

8 But the use of science again in a
9 decision like this is going to require a lot of
10 careful digging on our part as Board Members to
11 get beyond what may be compromised findings.

12 DR. THICKE: Thank you, Dan. Steve?

13 MR. ELA: As a new Board Member, I
14 recognize the complexity of this topic and it's--
15 I can say it's fascinating and scary at the same
16 time to come on the Board at this point, because
17 there are obviously many, many arguments on all
18 sides of this.

19 And you know, I have read many of the
20 documents and I have appreciated the public
21 testimony, because, you know, it is a learning
22 curve. And so even though some of my questions

1 probably have been pointed, I also am very open
2 to hearing, you know, what people are saying and
3 what the situation is.

4 And I appreciate Dan's comments. I
5 think that it is a philosophical divide. And we
6 all do come at it from different philosophies.
7 And that being said, I think most -- I mean, I
8 tend to believe the best in people, that, you
9 know, we know some people do occasionally try and
10 game the organic system, but by and large, I
11 think organic growers are really trying to do
12 their best and within, you know, the rules we
13 set. So I believe in that.

14 I take literally, I guess, the must
15 maintain or improve the natural resources of the
16 operation, including soil and water quality. And
17 that word soil is in the law and I take that
18 seriously. I have listened to the, you know,
19 arguments of biological activity and I hear those
20 and I don't discount those at all.

21 And I -- it's -- you know, I woke up
22 this morning thinking about that. How do we, you

1 know, find what is right and what is real in
2 this?

3 You know, I guess I -- my thinking, at
4 this point, is that, you know, I think we need to
5 move beyond just raw biological activity. You
6 know, is -- because biology happens anywhere.
7 It's whether it's -- and it could be good
8 biology. It could be bad biology. It's probably
9 somewhere in between. And that's where I have
10 several of my questions that come back to, you
11 know, in these systems do we have multiple
12 trophic levels?

13 Is it not just bacteria or fungi, but
14 do we have nematodes? Do we have arthropods? Do
15 we have mammals? And other, you know, things
16 that are part of this ecosystem. And that's part
17 of my criteria. And I'm -- not to say that
18 everything has to be included, but I think we
19 need to pay attention not just to a single subset
20 of biology.

21 I also tend to look at -- we talked,
22 you know, the over-use of the word

1 sustainability, but I'm going to truncate it to
2 sustaining. And that is in a system if we -- and
3 we are talking about plant systems, you know, or
4 I'm going to talk about plant systems, if you
5 were to remove adding any other inputs but water,
6 because we recognize a plant needs water to
7 survive, how long will that system sustain
8 itself? Given that, you know, maybe the plants
9 will have lower productivity or whatever, but
10 will that system continue to operate on its own
11 as its own ecosystem for how long?

12 And I don't have a specific time of
13 what -- you know, where that breaks. You know,
14 is it three days? Is it a year? Is it 10 years?
15 But I tend to think of an organic system as being
16 -- that's something we are trying to grow and
17 develop as something that will sustain itself
18 with less human input, not more human input.

19 And finally just I think we are
20 dealing with incredibly complex ecosystems and
21 Dan just said, you know, it's the philosophical
22 thing of human hubris. It would -- our system is

1 so complicated that we will never understand or
2 do we think we can design them.

3 As an organic grower, I was a
4 conventional grower originally, I became an
5 organic grower. I have grown organically for 15
6 years now. The older I get, the less I know.
7 And the more I look at our system in our farm and
8 I can, you know, look at through my eyes, that
9 the system becomes more and more complex the more
10 we understand.

11 And you know, I have learned that
12 maybe the best thing to do as a grower is to let
13 the system do most of the work and keep my hands
14 off of it. And only enter into that system when
15 we really have something that needs to be -- that
16 is catastrophic like for us that would be
17 probably moth and worms.

18 So in this incredibly complex system,
19 I believe that, and I think Harriet mentioned it
20 yesterday when we were talking about the
21 wildlands conversion and mentioned wetlands, and
22 where -- and it really struck me because as-- you

1 know, developers destroy wetlands and they have
2 to add wetlands in.

3 You know, 10, 15 years later those
4 wetlands only have 10 or 15 percent of the -- or
5 whatever, I'm not going to quote a specific
6 number. But a fraction of the biodiversity that
7 those original wetlands had.

8 And I believe, I guess, in that human
9 hubris that soil systems, organic systems,
10 organic agriculture are incredibly complex. And
11 that we are going to have a very difficult time
12 recreating them. And that we may be able to
13 recreate something, but it's not going to have
14 the same complexity and the same resilience that
15 our natural systems do.

16 I recognize sandy soils. I recognize
17 all the extremes and that's where the debate
18 happens. You know, is a sandy soil a hydroponic
19 operation even though it's a soil? I get that.
20 And I get these complexities, but I just think we
21 need to be -- I tend to fall on the side of human
22 hubris, that I don't believe that we can engineer

1 reliably some of these systems.

2 That being said, I hear what people
3 are doing and I have talked to fellow Board
4 Members that visited operations and I get that
5 some of these operations in containers are, you
6 know, complex and are diverse. And I take that
7 into account and I'm listening. So don't take my
8 comments by being closed-minded, but I just feel
9 as a grower and somebody representing organics
10 that I feel like I need to represent the
11 sustaining ability of a system, the resilience
12 and the complexity.

13 DR. THICKE: Thank you, Steve. Lisa?

14 MS. DE LIMA: So I liked how Dan
15 defined the two different world views. And what
16 struck me was the problem I'm having with this
17 whole issue is that I feel like I have both world
18 views. It's not -- I'm not easily at one end of
19 the spectrum or the other. I mean, I definitely
20 agree with a lot of what Steve said. And like we
21 don't know everything and the human hubris and
22 all of that.

1 And then I look at organics, I mean,
2 personally, as a way to, you know, restore the
3 environment. I think that's why we are here.
4 But then I think about how small the fraction
5 organics is of the whole food sector and, yeah, I
6 do want to grow organics because the end goal is
7 to have more organic production, so that there is
8 less pollution, contamination, all of that
9 happening. And that's where I get stuck, where
10 it's not -- I see both ends of those, the
11 mechanistic, as you said, or the in-line with
12 nature. And that's where I really struggle.

13 And then also to Dan's point about
14 consumers being a little, you know, all over the
15 place. Currently it's not a question that I get
16 a lot from our consumers, which is interesting.
17 I mean, we have a lot of them and we have a
18 fairly educated consumer base. And there is
19 definitely a subset of customers that really
20 understand organics and believe in organics from
21 a soil-based system.

22 But the market has grown so much and

1 there is so many people that, you know, at times
2 I wish they were buying organics simply be -- I
3 mean, for the reason that I got into it, which is
4 the environment. But the truth is, a really
5 large chunk of them are buying -- there was a
6 public comment that, you know, listed what are
7 the reasons people buy organic?

8 And more and more, it's for health.
9 You know, what are you feeding your family? They
10 want to know the food is free of X, Y and Z. So
11 we are also at that weird space where we, and
12 this whole community, understand why we got into
13 organics. And for many of us, it's from an
14 environmental standpoint.

15 You know, so I struggle. I know we
16 have talked about labels. And I kind of go back
17 and forth on whether that would be a good thing
18 or just not necessarily a bad thing, but just a
19 confusing thing to the customer, as we have like
20 more and more and more labels come into the
21 marketplace, what that would really do.

22 So I still haven't really got to a

1 place in my mind where I think the label would be
2 helpful or just confusing. So that doesn't --
3 I'm just putting out there that I'm confused.

4 MS. OAKLEY: I just also want to say
5 that's fine. In any of your -- like don't --
6 nobody has to have a definitive -- like this is
7 just a discussion. And that is so helpful just
8 to hear your thoughts. They don't have to be --
9 none of us, I think, are fully formed.

10 DR. THICKE: Ashley, I think you had
11 your hand up. And then Dave was it?

12 MS. SWAFFAR: Okay. So first, I just
13 want to say Emily and Francis, thank you for your
14 leadership on this. This is not an easy task.
15 This is the hardest thing that we will face on
16 this Board. I really -- oh, and Harriet and
17 Jesse. I'm sorry, yeah. I don't want to forget
18 you guys.

19 And I really appreciate what Emily
20 said about cooperation and I think that's the way
21 forward with this. I might know a thing or two
22 about a proposed rule that is currently in -- you

1 know, going through the system where there was a
2 lot of decisiveness. And it had some struggles.

3 So I think that's really our best way
4 forward is to come together to hash things out
5 and see where we can find middle ground and move
6 forward with that.

7 So some of the things that I would
8 like to see moving forward is -- I know this
9 might not be the best thing, but I really would
10 like to see one more discussion document with
11 some of the changes that were suggested by
12 commenters, maybe doing a little bit more in
13 depth on definitions.

14 And then, you know, earliest would
15 vote spring of '18. Just because I think, you
16 know, this showed the definitions that you
17 proposed and you tweaked -- some commenter said,
18 you know, maybe not this, but we should do this.
19 I think one more round of that would be critical
20 because I feel like we need to get this right.

21 The language needs to be right. We
22 don't need to have language coming out that is

1 not really what is happening out there, because
2 then it doesn't prohibit or allow the right
3 thing. So I would really like to see one more
4 discussion document.

5 And then critical for me is I want to
6 see containers at the same time, because I feel
7 like that line is so blurred in the community, on
8 the Board, what is hydroponic, what is container?
9 I really would like to see those moving forward
10 together, voting together, preferably containers
11 voting first over, then hydroponics just because
12 I think that's critical to explicitly separate
13 those documents.

14 And then you know, we have heard so
15 much stuff about well, if you say a percent of
16 nutrients coming from it, then we might be okay.
17 But I just want to say if any restrictions are
18 put on like only 20 percent nutrients or
19 something like that, I want to see that applied
20 to soil farmers, too.

21 We can't just say it's got to be this
22 one sector of the industry. If you put

1 stipulations on them, I want to see it across the
2 board. That's not probably a popular thing with
3 some soil folks, because there is areas of this
4 country where people are growing in soil that
5 probably shouldn't be growing in soil. You know,
6 so I just want a fair playing field if you go
7 down that rabbit hole.

8 And then one other -- another thing
9 for me is I want to see these operations. I
10 haven't seen these operations. I would like to
11 ask the program if it's possible for us to see
12 these operations, to see what is going on in that
13 system? I think that would be very, very helpful
14 for me.

15 I am all over -- I get on a plane
16 every Monday, so you know, maybe I could just go
17 on my own, but I think it would be very important
18 for us as a Board to look at some of these
19 operations, because I think there are some --
20 probably some pretty cool ones out there that
21 would meet a lot of our definition of organic.

22 And you know, seeing those up close

1 and personal, it's just my thought, I really
2 would like to see that before we move forward on
3 voting.

4 And then my like core of where I come
5 down to on this issue is access to organic
6 produce. So I'm not fortunate enough to live in
7 some really great areas of the country like
8 Viroqua or Portland or somewhere like that. You
9 know, it has just been within the past like
10 couple of years that I have had access,
11 consistent access to organic produce.

12 I actually was in a big box retailer
13 the other day in my small town of like 5,000
14 people and I hear on the loudspeaker come check
15 out our new expanded organic produce section.
16 And I'm just like yes, that's so awesome, you
17 know. In Arkansas, I mean, we are not an organic
18 hotbed, you know, so it's really important to me
19 to see that on the marketplace.

20 And you know, I think Phil LaRocca
21 nailed it on the head for me of where I'm at with
22 this issue. If I've got tomatoes, and I've got

1 soil-based hydroponic, yes, that soil one is
2 going to be better. But if I've got conventional
3 tomatoes and hydroponic organic, I'll choose the
4 hydroponic organic.

5 And so that's where I'm at on
6 availability of this is there's a lot of places
7 in the country that, hey, we are super excited to
8 even get anything organic. And if anybody is
9 wondering where I'm going with all my questions I
10 asked this week, is what percentage of the market
11 is going to be taken away if we prohibit
12 hydroponics or whatever form we do. Data's not
13 really out there, but I hear there is maybe some
14 -- Lynn might be working on getting some good
15 data.

16 You know, we heard some of that 23
17 percent of tomatoes, greenhouse. We're not sure
18 what that data means. It could be in-ground or
19 not. But you know, I want to see those numbers
20 because if we take away 44 percent of all
21 peppers, you are talking about the Midwest, the
22 South, forget it. You are not getting tomatoes

1 or peppers or cucumbers anymore.

2 And it's really important to me to buy
3 organic because it's -- well, it's non-GMO
4 pesticide-free, things like that. And I think a
5 lot of consumers feel that way.

6 And I have a small farm. I grow in
7 the soil, but it's really small, and I don't feed
8 that many people in my community, and there is
9 not that much access. So that's where I'm at. I
10 don't know where to draw the line. I feel like
11 there is probably some systems that I would say
12 don't meet organic, but I feel like there is
13 probably some that I would be okay with, but
14 that's just where I'm at right now.

15 I'm undecided on where that line is.

16 MEMBER THICKE: Thank you, Ashley.

17 And I think A-Dae is next.

18 MEMBER ROMERO-BRIONES: So --

19 MEMBER THICKE: And then Tom and then
20 Sue.

21 MEMBER ROMERO-BRIONES: Okay. So I
22 want to start by saying I'm sorry if I offend any

1 of my fellow Board Members or anybody in the
2 audience. (Foreign language spoken.) Which is,
3 in my language, means I am Cochiti, and that
4 informs almost everything I do.

5 And when we talk about Cochiti, there
6 are Pueblo people who are some of the most --
7 some of the oldest agriculturalists in this
8 country. They go all the way back to the Anasazi
9 and Chaco Canyon. So that informs. And in the
10 Cochiti way, food is the culmination of all our
11 societal institutions, from politics, from legal
12 to religious, and these things culminate in our
13 food systems.

14 And so when we are looking at this
15 issue, I think, for me, I have to look at the
16 economic impacts. I have to look at the legal
17 language, because encoded in these systems are
18 the biases or the ways that society protects
19 certain classes of people.

20 So when we look at economic impacts,
21 we can say we are just going to look at a legal
22 perspective of things, but in this legal system,

1 we are protecting certain classes of people, and
2 we have to kind of take those considerations into
3 view when we view anything when it comes to legal
4 analysis.

5 And that's the whole reason that I
6 became a food and agricultural attorney is
7 because there are biases in the way we word, they
8 lead -- the way we word our legal provisions in
9 this country.

10 And unfortunately, there is a whole
11 class and group of people in this country who
12 don't have access to land. This goes back to our
13 conversation yesterday where we have an entire --
14 entire nations of people who were disenfranchised
15 from their original or ancestral land bases.

16 When you look at Hawaii, for example,
17 the cost of land is astronomical. And the ones
18 who cannot afford it are the indigenous peoples
19 of that land. They can't even afford to buy
20 homes, because the land is so costly.

21 And so when I start from that point,
22 this issue is incredibly personal, and from legal

1 training, I try to divorce myself from that
2 personal view. But again, in the Cochiti world
3 view, we are in a relationship with our
4 environment, which includes the soil, which
5 includes the plants we grow, and our success as a
6 people is extremely -- is tied to intimately to
7 those elements that we interact with on a daily
8 basis.

9 But on the contrary, when you go to a
10 place like Hawaii where they believe they are
11 evolving in the same kind of system but with
12 water, I'm sometimes afraid those systems like
13 you find in Hawaii are going to be thrown out
14 with the bath -- the baby -- throw the baby out
15 with the bath water, that same system.

16 So I think there are systems that are
17 highly -- are old, innovative, and can meet these
18 same philosophical principles that Cochiti have
19 in Hawaii. So I mean, you can go to the middle
20 of a lava field, and you will find an indigenous
21 native Hawaiian farmer who probably has what
22 could be defined as a hydroponic system, but has

1 been in existence for a long time.

2 So I think those kinds of systems, I
3 know they are on the periphery of most of our
4 discussions, but the periphery or those
5 boundaries are just as important to this
6 conversation.

7 And I also think that this is such an
8 important issue that we have to consider the way
9 we do our process within the Board. So our
10 typical process is subcommittee. We have
11 conversations on the phone. But I think this
12 issue warrants a different view of how we process
13 this. Perhaps it is having a facilitated
14 conversation or more than one conversation when
15 we are all together in the same room.

16 I don't know if the processes that we
17 have right now lend itself to a thorough
18 discussion that will lead to a discussion
19 document that would reflect the varying
20 perspectives on our Board. So I say all of this
21 to say I am confused, but I know where my
22 starting point is, and I definitely appreciate

1 all the comments from the public. It lends to
2 the confusion, but it offers some insight to how
3 other people view this issue, and I definitely
4 take those to heart. Thank you.

5 MEMBER THICKE: Thank you. So next is
6 Tom and then Sue and then Scott and Dave.

7 CHAIR CHAPMAN: So I'm just going to
8 say a note to self, don't follow A-Dae in
9 comments, because I feel like mine are going to
10 be slightly superficial compared to that
11 passionate statement. So I want to echo what
12 Ashley said and then thank Francis, Emily,
13 Harriet and Jesse for taking this on. Weighty
14 issues like this are always difficult, and you
15 guys showed great leadership in taking it, so I
16 appreciate that.

17 I'm going to make I guess two points
18 and then have a suggestion for maybe where we can
19 go from here.

20 But I do share in the confusion that
21 people have around resolving this issue. And I
22 do share a lot of the thoughts that have already

1 been shared by Dan, by Steve, by Lisa, and by
2 Ashley.

3 So one point that does constantly
4 weigh on my mind is I do fear a competing label.
5 And I don't think a bioponic label outside of the
6 organic family benefits organic. I have seen the
7 damage done by the non-GMO project and consumer
8 confusion on that.

9 And I have -- I think that is in part
10 driving pricing issues for farmers. I have seen
11 them for organic almonds in California. I think
12 it is also part of the issue with organic grains,
13 in addition to complex other issues like imports.

14 But you also have to weigh that
15 against, any compromise on these solutions can't
16 compromise consumer trust on a label. I mean,
17 that is paramount. And so, is there a way to
18 maintain consumer trust as well as prevent
19 competing and confusing labels?

20 I also -- I think that, I mean, this
21 is going to kind of build a little bit on what
22 Emily said about maintaining friendliness and

1 collegiality in this discussion. I think we also
2 need to get beyond reductionist arguments. And I
3 see this on both sides.

4 You know, one side is saying organics
5 is about the soil. And they cite OFPA Section
6 6513 and that is true. It is about the soil.

7 And the other side talks about
8 organics being about the inputs. And no one has
9 cited this, but Section 605.04 about National
10 Standards in Organic Production, the very
11 beginning of OFPA, outlines what an organic
12 agricultural product is, and it doesn't mention
13 soil, but it mentions inputs. So it's about
14 inputs. It's about soil. It's about inputs.
15 It's about a lot of things.

16 The system is greater than just one
17 item, and we need to look at all of these. But
18 the reductionist arguments are not helping us
19 move this forward.

20 So how do we move this forward? I
21 don't have a great solution for that. I've got a
22 starting point, I think, which is part of the

1 confusion I have is around confusing terms. You
2 know, I think we have good starting points with
3 terms, both from the 2010 document and this
4 proposal.

5 But I noticed folks talking past each
6 other in terms of container production,
7 hydroponic production, bioponic productions that,
8 you know, there is an operation that might fit
9 all three of those definitions for one person.
10 There is an operation that might fit one of those
11 definitions for a person.

12 There is an operation that might fit
13 none of those definitions. So I think we really
14 need to start with a common set of terms, so we
15 can ensure that we are all talking about the same
16 production systems, and then we can start looking
17 at the systems and determining from there what is
18 the important criteria to evaluate these against.

19 The objective of this would be not to
20 define systems for inclusion or exclusion at this
21 point, but really just to define discrete,
22 separate, accurate descriptions of various

1 production systems and use that as a foundation
2 then to move the conversation forward around what
3 meets the criteria and what doesn't.

4 So that would be my roadmap to
5 starting to get towards a proposal. I don't have
6 a timeline. I do like a lot of the discussion
7 that has been around explaining this to the wider
8 Board as best we can to get a full set of input.

9 And that's all I've got for now. But
10 again, I thank everyone for their leadership and
11 time and thought on this subject.

12 MEMBER THICKE: Thank you, Tom. Next
13 we have Sue.

14 MEMBER BAIRD: I too am humbled by the
15 knowledge on this Board and by the willingness to
16 come back for further discussion. And I thank
17 Francis and Emily and Jesse, and what's your
18 name, Harriet, for their willingness to do this.

19 I am -- when I first was asked by the
20 Missouri Department of Agriculture to develop an
21 organic program, I said I don't even know what
22 this is. That was back in '98-'99. I don't know

1 what organic means. I don't -- how can I develop
2 a program? And they said well, just read the
3 proposed rule. You can -- I said oh, this is
4 just a HASSUP. I can do this, because I came
5 from a poultry processing facility, and we were
6 the first ones that had to implement HASSUP. And
7 I said I can do this.

8 But then I started into the organic
9 world, and I said, whoa, this is the right thing
10 to do. This is what my grandmother taught me
11 back to the Cherokee Indian and reverence of our
12 earth and reverence in our environment.

13 So there is that side of me, and then
14 there is the other side of me which is my
15 grandfather's side, which were German farmers
16 traced back to 1600. We have always been
17 farmers, and I'm proud of that. And we have
18 always been small family farmers.

19 My father passed at 52 because he was
20 so committed to working that small family farm,
21 so he worked full-time to support that farm, so
22 that he could do his love, which was farming.

1 So the second criteria for me is that
2 we don't leave small family farms out. I see
3 increasingly, at least in Missouri and in
4 Arkansas, land being gobbled up by people from
5 California or somewhere that has a lot of money
6 that comes in, for us a lot of money for our land
7 values, and they are gobbling up the land.

8 And family children who would love to
9 stay on that farm can't afford the land anymore,
10 because their parents, they put every dime into
11 it, so that is their inheritance. So they can't
12 afford to just turn the land -- the farms to
13 their children. They have to be able to sell
14 them to be able to continue through their elderly
15 life.

16 And I'm telling those stories because
17 I want you to understand where I'm coming from.
18 I totally -- I said when I introduced myself, I
19 have no skin in the game. I don't grow
20 commercially. I'm not hired by any one
21 certifier. I am independent. And I think that
22 gives me a unique perspective.

1 I too am confused. You know, some of
2 the Boards say well, where to you stand on this?
3 And one day I was out there, whoa, I'm all about
4 the soil. And the next day, oh, man, I'm all
5 about the -- at least the aquaponics and the
6 container growing and those things. And it's now
7 even more. It's not a daily flop. Now, I'm an
8 hourly flop back and forth.

9 I'm confused. And I applaud this
10 subcommittee for saying we need to come back and
11 to give some clear definitions and more thought
12 into this. Just my thoughts. I love this
13 industry. Thank you.

14 MEMBER THICKE: Thank you, Sue. Next,
15 Scott is in line.

16 MEMBER RICE: Thanks. There is a lot
17 of us on this Board. We have a pretty diverse
18 stakeholder group, and mine is no different
19 thinking about my certifier colleagues, some very
20 interested in these innovative systems, finding
21 systems that in their view meet the regulations.

22 Others that we have heard from are

1 feeling quite the opposite that, as many of the
2 producers have expressed, are very committed to
3 that soil concept.

4 And personally, my thoughts have
5 evolved on this over the years where I came from
6 gardening and learning how to farm and
7 apprenticing on farms, really learning to
8 appreciate, growing to appreciate that soil
9 aspect. And then as I have progressed in this
10 field and seen so many different kinds of
11 operations, I have seen a lot of innovation that
12 really meets the spirit and the systems approach
13 that organic is all about.

14 And so share a lot of the comments, of
15 course, that many of you have already shared. I
16 think through all of this, I am more of a kind of
17 visual person, so I keep getting this sort of
18 spectrum floating above me of, is it based on
19 substrate? Is it the input? Is it the
20 percentage of this? Is it the percentage of
21 that? And what does that -- how does that all
22 combine to meet the spirit and intent and letter

1 of the regulation that we all deal with?

2 And from a certifier perspective, I
3 immediately get heartburn trying to think of how
4 we would actually evaluate that on a consistent
5 basis in a fair way. And I really feel like
6 those strong definitions are going to be needed
7 to find that common language, as many of you have
8 already expressed.

9 And I think we need to kind of, on
10 that same front, have some caution in how we
11 define those because we don't want to exclude the
12 operations that A-Dae mentioned. Some that we
13 heard from some other folks that are
14 incorporating aquaponics and gaining fertility in
15 a closed loop system, that is, in my mind,
16 precisely what organic is all about.

17 In the certifier world, we get a lot
18 of questions, and often as much as we hate to say
19 it, the answer is well, that depends. And I
20 would like to minimize that answer in relation to
21 hydroponics and use growing operations as much as
22 we can, because kind of going back to that common

1 language, we need to be able to speak that same
2 language and clearly express to our certified
3 operations and each other what it is that we are
4 comfortable with and what is allowed and what is
5 not.

6 So I appreciate the view of moving
7 forward and establishing that common language.

8 MEMBER THICKE: Thank you, Scott.
9 Dave, I think you are next.

10 MEMBER MORTENSEN: I too thank the
11 foursome, fearsome foursome for taking the lead
12 on this. I thank the receptivity of the Board to
13 the new members. For those in the audience, you
14 know, for a number of us, this is the first time
15 we have met, and it has been a really wonderful
16 experience for me.

17 Dan's comments, Dan kind of opened the
18 personal reporting by making the comment that
19 there is a credibility problem in science today.
20 And I think about this a lot, because I'm the
21 "scientist" on the Board. But I just am coming
22 out of a deep dive on GMO, just a spiraling out

1 of control GMO problem, both from a science point
2 of view, doing a lot of the science myself and
3 the folks that work with me, but also a lot of
4 policy work in D.C.

5 And one of the things that I think is
6 very important, in response to Dan's comment
7 about science and its credibility, is that you
8 will hear like my dean and administrators at
9 universities, we only do science-based stuff
10 here, you know?

11 And the problem with that pounding on
12 the table about we only do science-based stuff
13 here is that while scientists can be quite
14 objective about their methods, scientists are
15 incredibly subjective about the questions they
16 ask.

17 So you can have an entire -- whole
18 departments and, in fact, we do at many of our
19 finest universities across the country asking
20 this question and that about how do we do this
21 and that, molecular engineering or this or that,
22 GMO this or that?

1 And far fewer asking, well, why are we
2 doing this in the first place? Is it for input
3 reduction or sales of things, or what's the
4 motivating force behind this? What are the
5 ecosystem service level impacts of these things?
6 Very few people ask those questions when you
7 might have 100 folks hired at high salaries
8 asking, how do we put the gene in? And one or
9 two asking, what are the ecosystem service
10 impacts of this or that technology unleashed on
11 the landscape?

12 And this is not an exaggeration. So
13 I think it is going to be very important on -- as
14 we proceed as a group that we are asking the
15 right questions. And I think that, having spent
16 the time that was spent, many hours on the phone
17 together, you know, I'm confident we are all into
18 asking the right questions. And if we are not
19 asking the right questions, that we call each
20 other out on that.

21 And those questions, in my view,
22 coming to this as sort of agroecologist and

1 ecotoxicologist kind of person, an ecosystem
2 services person is -- are things like what's the
3 ecological footprint of the practices that we are
4 assessing? And do they conform with the organic
5 standards that we have?

6 I think that the point that Steve made
7 at the outset about resilience is a very
8 important question. How resilient are the
9 systems? So those are the sorts of -- you know,
10 what are the ecoservice implications of these
11 things?

12 I grew up in a city. Before I went
13 back to school, I was teaching in Spanish Harlem
14 with children. I totally get the problem of food
15 deserts and the disconnection, or at least I get
16 it pretty well, of understanding. Like when you
17 ask folks, where does your food come from, and
18 some kids think bags of food grows on trees. We
19 have an education issue here also.

20 As for how we get to the answers, I
21 think there are a couple of process things that I
22 think we heard some really important things here,

1 and I'll -- and without going on too long, I
2 totally agree with A-Dae's comment.

3 My way of thinking about what A-Dae
4 was saying is in Peter Block's language, he is
5 kind of a teaching, pedagogic guy. We must, as
6 communities of people, create space for
7 conversation. And this is definitely a case
8 where we need to create space for conversation,
9 and that means together face-to-face, not on the
10 telephone for an hour here and an hour there with
11 a lot of work in between.

12 I also agree with Ashley's point that
13 it is very important that we get out and see
14 these things. We see farmsteads growing in the
15 soil. We see what does an aquaponics system
16 look like

17 At one of the early calls for the new
18 members, I remember Asa brought this up, we need
19 to get out and see these things. And so
20 personally, I have actually been scheduling days
21 where I go out and visit places. I have now been
22 to three. I would love it if we could do that

1 together and talk about it, like debrief, what
2 did we see? What did we think?

3 And then it's clear that we are going
4 to need people. Like sometimes I can like get
5 off track. It's going to be important that we
6 keep people in the loop and engaged as we go
7 forward to be sure that we have got the best
8 solutions worked out here. That's all.

9 MEMBER THICKE: Thank you, Dan.
10 Joelle?

11 MEMBER MOSSO: Okay. Quite an act to
12 follow as well.

13 First, just thank you to everybody on
14 the collaborative conversation we have been
15 having regarding this. Something that I know I'm
16 struggling with, is I'm extremely confused about,
17 I guess, the age old question of when does
18 something stop becoming -- or stop being what it
19 is and start being something else?

20 And I think that's a big question for
21 me in regards to the current discussion document
22 and how it looks at container growing. And on

1 that spectrum of what is maybe more traditionally
2 water-based hydroponics to the gradient as to
3 when we end up in beds in the ground.

4 So I think it's a continuous spectrum.
5 It's not one that is discrete. So I think we
6 need to do better on the Crops Committee to get
7 definitions that allow us to use a vernacular
8 that everyone understands, because I do think we
9 talk in circles.

10 I say hydroponic. Maybe that means
11 one thing to you, and it means something else
12 completely to somebody else. And so I think if
13 we still have that uncertainty, we have a lot of
14 work to do. We can't speak and understand what
15 we are talking about.

16 Yes, I think one thing we all have
17 figured out at least, is that we don't understand
18 a lot. And that leads me kind of into this
19 situation where I think how can I prohibit
20 something I don't even understand? As well as
21 how can I allow something that I don't
22 understand?

1 And I just think about it. Maybe it's
2 the microbiologist in me, but the evolutionary
3 development of different things. It's, you know,
4 when we decided not to be hunter/gatherers and we
5 started putting crops in the ground, what else
6 did we change? What ecosystem did we alter when
7 we started doing that? And now we are at another
8 stage in the evolution where we look at taking
9 something that has traditionally been grown in
10 the ground and perhaps not growing it in soil or
11 not growing it in any kind of solid substrate.

12 So it's just these are all things that
13 I think about from more of a scientific
14 perspective.

15 And then something that, more on a
16 personally or ideology, if you look at the
17 impetus of the organic system and the organic
18 movement, was ecological and sustainable and how
19 can we have healthier food for everybody?

20 And then that gets me more into what
21 A-Dae was kind of mentioning as well as many
22 other Board members. Accessibility to healthier

1 organic food is something that I really struggle
2 with. If we are to limit or create a system
3 where we selectively say this is okay and that
4 means someone else doesn't get organic, I have a
5 problem with that.

6 I want organic to be the form of
7 agriculture, not a subset of agriculture. So
8 these are all kind of things that weigh heavy on
9 myself when thinking about these decisions. And
10 I think it's just -- particularly, if we can get
11 to that language where we really understand the
12 difference between hydroponic versus container or
13 container versus soil, and we go from there, I
14 think we will have a better shot at getting this
15 right, at least clarity.

16 In regards to alternate labeling, the
17 marketer in me, I think of a couple things. So
18 one, we -- let's say we decided to get rid of
19 hydroponic, however you want to describe it, we
20 will give rise to an alternate competing label,
21 because we are a capitalistic society, and that
22 will become a detriment against the organic

1 label.

2 And that weighs heavy on me, and I
3 don't know that that would do anyone justice. I
4 think part of the reason we have conversations
5 today about what does organic mean to our
6 consumers is that our consumers still don't
7 understand what our label is. And if we were to
8 introduce another similar to what non-GMO did
9 when organics were still there, what was already
10 non-GMO, I think we just see the dilution of our
11 integrity and our market. And I do worry about
12 that.

13 So I think I'll leave it at that and
14 then just emphasize how appreciative I am of the
15 collaborative nature of this Board and on this
16 topic. It is complex and will continue to evolve
17 as everything continues to evolve. I just think
18 about evolution as that continuum in so many
19 things.

20 And there was a day where we weren't
21 planting crops in the ground, and we were novel
22 and revolutionary in figuring out how to

1 cultivate land. And I just would fear that in 50
2 years, I will look back at this, or history will
3 look back at this and say well, you just
4 completely didn't understand.

5 We were ignorant, and we thought we
6 understood, and that's where we are at today.
7 I'll leave it at that.

8 MEMBER THICKE: Thank you. Asa, are
9 you interested in making some comments?

10 MEMBER BRADMAN: Yes. And I wish I
11 could just kind of, as a premise, incorporate all
12 the comments that have already been said into
13 what I would say. And I think I have heard a lot
14 of things that resonate with me. In fact, almost
15 everything does.

16 So just a quick couple of comments
17 though. One, I definitely, to reemphasize what
18 was said earlier, I think it's really important
19 that we see different systems. I'm most familiar
20 with soil-based growing systems over decades, and
21 I really -- I kind of have put myself on a
22 mission to go out and on my own penny to see

1 different kinds of systems ranging from aquaponic
2 to hydroponic to container and really try to
3 better understand those.

4 I have seen hydroponic systems that
5 I'm not sure what to call them, whether they are
6 hydroponic or not, and it seems to me they seem
7 aligned to me with organic principles. So I
8 think that's really an important thing. And to
9 the extent that we could do that as a group, I
10 think there is value there, though I realize
11 there is potentially a lot of cost and scheduling
12 issues.

13 I tend to be a person who is
14 compromise-oriented. Ideally, it would be great
15 if we could have consensus. Sometimes compromise
16 can result in an outcome that it doesn't satisfy
17 everyone, and I think that is something that is
18 going to happen here.

19 Another piece here too is that I'm
20 kind of humbled really to be on this Board and to
21 be in a position to make decisions about how
22 other people make a living in the whole system.

1 And to the extent that we could have more input
2 and discussion from stakeholders, I think that's
3 valuable.

4 I participate in a panel in
5 California, a scientific panel, and we have
6 incorporated, I think, a lot of -- partly because
7 there is less time involved in terms of the
8 number of people, but there is a lot of public
9 input and discussion back and forth between the
10 Board and the stakeholders, and there is less
11 constraints on -- comments really aren't viewed
12 as testimony. They are viewed as interaction.

13 And I think we have a lot of in the
14 hall conversations here, but maybe we need a
15 forum where there can be a larger discussion or
16 conference or some sort of more interaction with
17 the stakeholders, because we really represent a
18 lot of people and a lot of different views.

19 And then I just want to echo I think
20 A-Dae's comments about processes, kind of what
21 I'm hinting at there. So I don't really have
22 much more to add, but just that this is really a

1 challenging topic.

2 I will say I tend not to want to
3 prohibit things. I rather would describe, like
4 to describe what we are for and what we want to
5 go forward with.

6 MEMBER THICKE: Thank you. Any other
7 comments? Yes, Emily?

8 MEMBER OAKLEY: Well, I just wanted to
9 see if the four of us who were working on this
10 document who haven't yet spoken wanted to speak?
11 So Harriet, did you want to go?

12 MEMBER BEHAR: Okay. I've got a few
13 comments. So in my work as, basically, a
14 consultant to organic farmers, I run an info
15 line, and people call me from all over the
16 country, mostly in the upper Midwest and I get a
17 lot of questions from transitioning farmers.

18 And I can always tell when they call
19 up and they say, what is the organic herbicide?
20 I want to transition to organic. I just want to
21 know, you know, I'm used to using Roundup. What
22 do I do next?

1 And then we have a very fruitful
2 conversation, I hope, about systems versus
3 inputs. And that organic is not an input
4 substitution. It is a whole system. And I
5 believe, too, as we were talking about the
6 surveys that if you asked consumers a question
7 about do they feel that organic is more than just
8 the inputs that don't cause them health problems?

9 It's about the environment that we are
10 all sharing. It's about the long-term health of
11 our entire planet. It's about healthy food for
12 seven generations and beyond. It's about a type
13 of agriculture that actually offers hope for
14 fixing the problems that we already have and
15 actually taking land that has been despoiled and
16 bringing it back to health.

17 Now, are we going to get that
18 biodiversity back completely in every system?
19 No. I mean, we are doing agriculture. But we --
20 and so then also, I have 20 years as an organic
21 inspector, and I would always ask the new people
22 that I would visit, why did you go organic? And

1 many times it was because there was somebody in
2 their family that had a health problem. I'm
3 sure, Sue, you run into that. You know, the wife
4 had breast cancer. The uncle died of leukemia.
5 You know, whatever.

6 But then if I go back two or three
7 years later, I'll say what do you see a
8 difference on your farm? And they would usually
9 say, well, my livestock is a hell of a lot
10 healthier than it was before. And then the next
11 thing they would say is I see the wildlife coming
12 back. I have owls. I have badgers. I have
13 snakes. I have frogs. I have all these things
14 that they didn't really notice were missing when
15 they were conventional farmers.

16 But then they started coming back,
17 because they had been removing the toxins from
18 the environment, but not only that, they were
19 having a crop rotation which included sod crops.
20 So the birds could nest, right? They were having
21 pasture. They were having hay ground or
22 whatever.

1 So there was more to it. So yes, they
2 came to it first for health, for non-use of
3 toxins, but they became cemented as organic
4 producers because they could see that their
5 ecosystem was becoming healthier.

6 And there's -- and when you talk to an
7 organic farmer, a long-time organic farmer and,
8 of course, this is happening now, would they go
9 back to conventional production if they could not
10 get the price? And they were like are you crazy?
11 Go back to this despoiled environment that I was
12 leaving for my children or I was living myself?
13 No. I enjoy knowing that the geese can land on
14 my land, that I'm going to have all this
15 wildlife.

16 So I think we are not educating the
17 consumers about the benefits of organic in that
18 wider way. It's an easier sell to just say that
19 organic is about the inputs, but it's much more
20 than that.

21 Okay. About the economic impact,
22 actually, if the program changes something in the

1 regulation, they are going to have to, isn't it
2 correct, Paul, shake your head yes, we are going
3 to have to justify whatever we do from economic
4 impact.

5 So that actually, I have made note of
6 that, that that should probably be somewhat in
7 our proposal, to give the program some direction,
8 if we are making a proposal to change something,
9 to help them with that. And especially have it
10 on the public record that we did look at that.
11 It's not like we didn't care. Of course, we did.

12 But as, I'm not sure who said it, it
13 will -- either way, it is going to affect people.
14 If there is more hydroponic in the market, it's
15 going to affect the soil people. If there is
16 less hydroponic in the market, it's going to
17 affect possibly at least for the short-term less
18 availability perhaps. I'm not 100 percent sure
19 on that. But it definitely -- it would obviously
20 affect the people who have the hydroponic label
21 now who would lose -- organic that would lose it.

22 Let's see if I have talked about that.

1 I think we have to find a place that protects our
2 brand for the future. It is wonderful to be
3 innovative and look at innovations, but I have
4 come to these meetings for years and years and
5 years, and I have heard Monsanto come and say
6 hey, GMOs can offer a lot to organic. Look at
7 the innovation. Don't stick your head in the
8 sand.

9 So I think we need to say, yes, some
10 things are innovative, but some things don't
11 deserve to carry the organic label. And we do
12 need to go back to the spirit of the law, not
13 just the letter.

14 I have a question for the program
15 about that. If we do get together and visit, you
16 know, maybe perhaps spend a day or two visiting
17 some operations and then talk about them, so I
18 would imagine it would be at least a two-day
19 event, so we have that time for discussion, would
20 that have to be a public meeting, if we are all
21 there?

22 And I'm not quite done, but if you

1 want to answer that you can, and then I'll finish
2 up.

3 DR. LEWIS: So this could be in terms
4 of like a site visit where there won't be any
5 deliberations. It's more in terms of education.
6 So we can talk about that with our Department in
7 terms of what the proper procedures are. And it
8 could be where a future NOSB meeting, where we
9 plan to meet at a day ahead of time to visit a
10 site, so we can look at that. Lots of options
11 here.

12 MEMBER THICKE: Can you explain about
13 the deliberation limitation?

14 DR. LEWIS: Well, in this case, the
15 Board won't be conducting business in terms of
16 seeing a site, making some -- and having
17 deliberations or discussions in terms of, based
18 on what we are learning here, here is the
19 direction we want to take. This is more of an
20 educational opportunity as opposed to an
21 opportunity for conducting business.

22 MEMBER THICKE: Okay. I guess I see

1 like some others have said, the value of us
2 seeing it and then talking about it, but would
3 that not be allowed?

4 DR. LEWIS: Well, I think it's more in
5 terms of you going to the site, seeing the site,
6 and then based on what you observed, coming back
7 at a public meeting to have that help inform in
8 terms of your deliberations and making
9 recommendations. Does that help in terms of
10 finding clarity? Okay. Thank you.

11 MEMBER BEHAR: Okay. So like I have
12 taught the organic regulation for many years.
13 Taught Sue. And so really know the OFPA and the
14 regulation quite well. And I can see how there
15 is many gray areas and how people can say that,
16 well, we can support hydroponic here or there.

17 To be open, I grow in containers.
18 However, I grow in a compost-based mix, and I do
19 not add any liquid nutrients. Would it kill me
20 if I had to stop growing my lettuce in my
21 gutters? Probably not. But I don't think that
22 that's not an organic system. But I think part

1 of it is because I'm relying on 100 percent soil
2 for the full life of the plant with no outside
3 inputs whatsoever.

4 I also have a couple of fig trees in
5 my greenhouse that are in containers, because
6 outside -- I move them outside, and I bring them
7 inside, but I also grow in the container, I have
8 like a Dutch white clover, and I put compost on
9 there, and then I put my seed and then I lightly
10 till it in. I'm trying to mimic, right, a soil -
11 - it is a soil-based system. It is actually soil
12 in that pot with my fig tree.

13 And I know of others in the northern
14 climate that do things like that. Sometimes we
15 can't grow these tropical plants, right, unless
16 they are in containers.

17 That said, I did mention something to
18 a speaker yesterday, and so far, I have found no
19 one who agrees with it. I'm not saying that this
20 is even what I agree with, but I figure if no one
21 agrees with it, I'm probably headed down the
22 right track.

1 And that is a label that would say
2 hydroponic made with or grown with organic
3 agricultural -- organic-approved inputs or
4 something like that. If they are not organic
5 inputs, they are organically-approved inputs,
6 right? I hear all these people saying, no, I
7 don't like that.

8 And then it would be a certified
9 organic product. So there would be oversight on
10 it, and we already have a labeling -- we already
11 label things in the handling area that way, and
12 that might be a way. So it would be the same
13 thing, large "hydroponic", small "made with" type
14 thing. That might be one way to approach it.

15 I'm not even 100 percent sure that I
16 like that, but it's a way to, to me, tell the
17 truth, and that's where I started by saying I
18 know the regulation, so let's be truthful about
19 the regulation.

20 I think currently now, things that are
21 hydroponic that carry the organic label are not
22 being truthful about really meeting all aspects

1 of the Organic Rule. But a label like that is
2 truthful, because that's all they are doing is
3 having organically-approved inputs. But they are
4 not meeting the biodiversity. They are not
5 meeting the crop rotation. And I truthfully
6 think that they are not as resilient as organic
7 systems are.

8 MEMBER THICKE: Thank you. Emily, do
9 you want to say something?

10 MEMBER OAKLEY: I'm sorry, yes, go
11 ahead.

12 MEMBER DE LIMA: Just in response to
13 what Harriet just said about the label, I guess
14 thinking about what Joelle said, I'm not sure how
15 that statement can be made, because I don't know
16 if that's true for in-the-soil organic farmers as
17 well. Like there is a huge spectrum of in-the-
18 soil organic farming.

19 And if you start to get that specific
20 with a label and say but we are only going to
21 apply that to hydroponics, then you -- sorry,
22 Siri is -- it seems super nuanced, and then you

1 would have to apply that across the board to all
2 types of farms, because I think there is -- right
3 now we have a big variance in small, large, even
4 just within soil organic.

5 So, yes, I don't -- I'm not on board
6 with that.

7 MEMBER SWAFFAR: I just want to say
8 one thing to the Department. What we are asking
9 for -- right here Paul. So what a lot of us are
10 asking for when we are saying we want to saying
11 we want to go see operations is not the day
12 before the fall meeting, because we need that to
13 help us and guide us in this drafting of another
14 discussion document or a proposal, whatever the
15 Crop Committee does.

16 We need that information beforehand so
17 we can say, okay, this is what this definition
18 means. So I just wanted to clarify that for the
19 Department.

20 MEMBER THICKE: Thank you. Emily?

21 MEMBER OAKLEY: So in the fall, I
22 spoke first on this subject, and I spoke off the

1 cuff. And it was suggested to me that I might
2 want to read from something in the future. And
3 so I know nobody has done that this time, but I
4 did actually write something down that I do want
5 to read, but I also want to say before I do that
6 that I -- in proposing that we have this
7 collegial environment, I also don't want it to
8 delay us in coming up with a decision.

9 I want us to realize that stakeholders
10 on all ends of the spectrum want us to be
11 deliberate and not hurried, but they also don't
12 want us to delay a decision to the point that we
13 either never get anywhere or it takes us so long
14 that we end up creating more conflict within the
15 stakeholder community.

16 So I just -- I understand Ashley's
17 perspective about wanting to wait, but in my
18 ideal world, we might be able to find some common
19 ground by the fall and put this forward as a
20 proposal and maybe with various separate motions
21 and vote on the ones around which maybe we have
22 the most amount of consensus or agreement. And

1 then if there are ones that we need to elaborate
2 further, we could bring those back to
3 subcommittee.

4 I just want to put that out there. I
5 also want to say that as a farmer, I make my
6 full-time living growing vegetables and selling
7 them to consumers. I don't have any off-farm
8 sources of income. And I feel the burden in this
9 position of representing those family-scale
10 farmers who are like me who represent a really
11 large percentage of the organic community.

12 I heard anecdotally that 75 percent of
13 organic producers fall behind the \$250,000 limit
14 for the organic check-off, which means that a
15 huge percentage of the growers are more like me
16 than I think we sometimes hear in these
17 conversations, because they are on the farm
18 farming, and they may not have the funds or the
19 time to come here and speak to us.

20 So I feel the extra weight of
21 representing that voice to everyone here. And as
22 there are other people on this Board who make

1 their full-time living farming, but we are
2 definitely a smaller percentage. And I take to
3 heart what Asa said that we are making decisions
4 that affect people's livelihood.

5 So on both sides of the spectrum,
6 absolutely, but to Joelle's point about not
7 wanting to disallow something and then find that
8 the hydroponic or bioponic community creates its
9 own label. I also don't want to see small-scale
10 farmers feel that the label no longer represents
11 them and that they feel so disenfranchised that
12 they move elsewhere, because that also will be
13 very detrimental to the movement.

14 So many of them, as I said in the
15 fall, are talking face-to-face with their
16 customers. And I want to see more direct farmers
17 get certified. I want to see more beginning
18 farmers get certified. I don't want to see less
19 of that. And I want to see this movement grow as
20 many small-scale farmers as we can.

21 I think the answer to organic farming
22 and farming in general is not, you know, more

1 huge farms. I think it is more people just
2 growing food within their local community and
3 making farming a viable economic career for that
4 to happen.

5 And organics does provide, obviously,
6 an outlet for that. And I just also want to echo
7 the point made that many people who come to
8 farming like me do this because it's both a
9 business and a cause. And it is that cause part
10 that I think is creating a lot of the conflict
11 around this issue, because we don't all agree on
12 what the basic philosophy is.

13 And as organics has grown, you know,
14 it started out with like kind of a hippy back to
15 the land movement. That really was a big part of
16 the genesis of the organic movement. And now it
17 encompasses a wide spectrum of stakeholders. And
18 I am a small scale organic farmer, but I'm an
19 avid organic consumer.

20 And as I told Miles when I was being
21 interviewed for this role on the Board, I'm under
22 no illusion that the organic food that I get in

1 the grocery store was grown on a 5-acre parcel,
2 and I don't have that expectation, but I also
3 want to see the standards applied equally to all
4 of us. And I agree with Ashley's point that any
5 standard that we create, should we come to some
6 sort of consensus on a container production
7 system, should be applied equally.

8 If there are in-ground farms anywhere
9 in this country that are supplying a majority of
10 their nutrients through liquid means, that causes
11 me as much concern as it would on a hydroponic
12 basis as well. And I'm not sure that that is in
13 keeping with the spirit of OFPA.

14 So I am going to just read, so that I
15 don't speak or whatever too much off the cuff and
16 misspeak in any way.

17 I just want to say that in my view,
18 the expectation in organic farming is that the
19 soil will provide most or even all of the crops
20 nutrient needs. OFPA and the regulations
21 establish parameters for best practices to foster
22 soil organic matter and to provide nutrients

1 through practices, such as manure and compost
2 applications, cover crops, and incorporating crop
3 residue.

4 Outside sources of macro- and
5 micronutrients are supplied on an as-needed
6 basis, based on the results of soil tests. To my
7 knowledge, in no organic system plan would it be
8 accepted to supply a daily liquid fertilizer to
9 crops grown in the ground. I can't imagine a
10 certifier accepting that, because no -- because
11 the soil should and will provide most of the
12 crops fertility needs.

13 Supplemental nutrients are used to
14 optimize productivity, but not because the crops
15 are dependent on them for growth, which is a
16 really key point for me.

17 In contrast, hydroponic and some
18 container crops are solely or largely dependent
19 on outside liquid fertilizers not just for
20 optimal growth, but for their basic survival.

21 I can't see allowing an organic system
22 plan that relies largely or exclusively on

1 outside inputs for crop production. This
2 includes the substrate materials used in
3 containers. Those inputs are harvested or mined
4 off-farm and in the case of peat from
5 environmentally sensitive areas with ecological
6 consequences.

7 Rather than inputs supplementing a
8 farm as in-field grown organic crops, fertilizer
9 and substrate inputs are the foundation of the
10 system in hydroponic crops.

11 The dependence on and high consumption
12 of fertilizers and substrate materials for the
13 systems do not, in my view, meet the standards of
14 maintaining or improving the environment.

15 I don't want to see us allow an
16 organic system plan that creates a double
17 standard between hydroponic or container growers
18 and in-field growers. I think a lot of the
19 conversation around "competition" is mainly a
20 concern of small scale farmers feeling that the
21 requirements for their production systems are
22 much higher.

1 And then the competition is the
2 concern that those same standards aren't being
3 met by hydroponic operations. Whether we all
4 agree on that or not, my -- what I'm trying to do
5 here is just represent that perspective of where
6 they are coming from.

7 But all that being said, even though
8 my preference would be to see us focus on in
9 ground production, I'm being pragmatic that's not
10 going to happen. And I, you know, was looking
11 around the room throughout the past two days
12 thinking okay, that's obviously not going to
13 happen.

14 But what can we do? Like what can we
15 come to that we can agree on? Can the in ground
16 soil folks concede to containers? Can the 100
17 percent liquid feeding no soil folks agree to a
18 percentage of soil in containers and limit them
19 on liquid feeding?

20 And I see that is probably our best
21 and only possible way forward in terms of trying
22 to find something where we are all giving a

1 little, we are all getting a little. Nobody is
2 going to be 100 percent happy, but I think our
3 work over the next several months is to try to
4 find that middle ground. Thanks.

5 DR. THICKE: Thank you, Emily.

6 Ashley?

7 MS. SWAFFAR: So, Emily, I just want
8 to respond on moving forward this fall. I want
9 to say again and really stress that that line is
10 so blurred between hydroponics and containers and
11 I can't see myself really being able to vote on a
12 hydroponic proposal without a container proposal.

13 And, you know, we didn't see a
14 container discussion document this spring, so I
15 just think we owe it to the stakeholders to come
16 out this fall with a container discussion
17 document. And another hydroponic discussion
18 document. And then, you know, vote in the
19 spring, because that line is so blurred.

20 I mean, to me, it means one thing and
21 to you, it probably means a totally different
22 thing. And, you know, I just want to caution us,

1 let's not rush it, because we need to get these
2 definitions right.

3 And, you know, I think it could really
4 be a challenge if we don't bring them forward at
5 the same time together. Especially since we are
6 going to have some great compromises. You know,
7 we need to -- you know, for me to give up some
8 stuff, I need to feel like, honestly, containers
9 are safe.

10 You know, I think that kind of this
11 give and take that if we move forward with that,
12 I need to feel like part -- you know, some of,
13 you know, mine -- what I believe in can still be
14 protected if we are giving out some things.

15 MS. OAKLEY: You know, I definitely
16 don't want it to be rushed, too. I guess I'm
17 just asking us to keep an open mind of optimism
18 that maybe we will just all work so hard this
19 summer that in that time we will be able to come
20 up with something that, you know, is agreed upon
21 and who knows what -- I mean, of course, the
22 stakeholder comments are going to be all over the

1 Board, no matter what we do, but I just want us
2 to keep an open perspective that maybe we could
3 come up with something that we can agree on.

4 DR. THICKE: And keep in mind we did
5 have a discussion document on containers last
6 fall, which covered a lot of ground and we can --
7 we have already started working on that in our
8 Crops Committee.

9 Sue, you had your hand up?

10 MS. BAIRD: I want to bring to the
11 table that the system of aquaponics which they
12 feel, at least, the aquaponic producers don't
13 feel that they should be categorized as straight
14 hydroponics. They use very little inputs, very
15 little inputs, probably in most cases less than
16 in ground, in soil input people.

17 They would like to have a special
18 consideration as well, just bringing that to the
19 table.

20 DR. THICKE: Okay. Ashley, you wanted
21 to say something?

22 MS. SWAFFAR: Sorry, one more time.

1 You know, I think even though we have had these
2 discussion documents, where I -- why I feel like
3 we need that one more time is, you know, this
4 audience out here, the growers, the producers,
5 they are the ones that we rely on that feedback
6 that it's right.

7 And so if we bring a proposal forward
8 then we just pull it back, I mean, that's just
9 kind of -- I don't like that. But I do want to
10 say to the stakeholders and Francis touched on
11 this a little bit in his opening, you know, I was
12 a little disappointed in that the meat of what we
13 got, you know, answering those questions, you
14 know, we got an oh, I just don't like it or it
15 should be allowed.

16 That's great, but, you know, these
17 guys are working really hard on a discussion
18 document that is to get stakeholder input and
19 they pose those questions for a reason. And I
20 was looking for more answers to those questions.

21 DR. THICKE: Okay. I would like to
22 make a couple of points, too, if I can. And no

1 reflection on you, Ashley. Sorry.

2 And one of them is about biological
3 activity. We hear a lot about that and I just
4 want to clarify that, you know, biologically if
5 we put in a labile substrate like hydrolyzed
6 soybean oil into water, we are going to get a
7 huge amount of biological activity. So that by
8 itself doesn't really define anything.

9 And secondly, biological diversity.
10 I have been looking down -- trying to find out
11 how much diversity is in these bioponic systems.
12 And there were some references given, but I
13 couldn't really find any data. Mostly I found
14 people quoting each other in a circle about there
15 is a lot of biological diversity. But I would be
16 interested in that information.

17 But I did see a paper that compared
18 the diversity, ecological diversity at soils
19 under organic and dimensional agriculture. And
20 they found that the organic soils had two and a
21 half times more biological diversity than the
22 conventional.

1 And so I'm thinking that probably soil
2 versus in water. We are going to see a different
3 complexity in the system.

4 And the other point I want to make is,
5 and I'm stepping out of the box here a little bit
6 as a soil scientist, and it reminds me when I was
7 -- I had been an organic farmer in the '70s and I
8 came back to graduate school in the '80s. And I
9 made the mistake of telling my professors I had
10 been an organic farmer.

11 And one of them asked me how far back
12 in the horse and buggy days are you going to go
13 here?

14 But anyway, that was outside the box
15 then. Now, it is, you know, we have professors
16 doing research in organic and it's very credible.

17 But there are -- let's look ahead,
18 maybe look back. I have studied some ancient
19 cultures a little bit and if you look at, for
20 example, Chinese medicine, they talk about Chi
21 energy. And they talk about it coming from food.
22 And this is really life force energy.

1 In Japan it was Ki energy, like Reiki.
2 In Ayurveda, it's prana, that life force that is
3 in food and they prescribe how to cook it, how to
4 grow it and how to prepare the soil in order to
5 get maximum prana or chi energy in the soil.

6 And in the -- back to the Chinese
7 system, they, for example, lay out that the earth
8 connects with the roots, the water, the stem and
9 leaves, the air, the flowers, the fire is in the
10 fruit and seed. And the fruit is made up of chi
11 from soil, sunlight and water.

12 So there is all these cultural things
13 and A-Dae mentioned too that there are cultural
14 things in Native American systems. There is
15 plant spirit medicine.

16 And like Lao Tzu is purported to have
17 said "The footstep of the farmer is the best
18 fertilizer." And when you think about that,
19 either he is full of manure and he spreads it on
20 the -- when he goes around or else there is that
21 relationship between the farmer and the soil and
22 the plant that is really key.

1 And I think that Rudolf Steiner also
2 talked about that. He talked about -- became
3 biodynamics about how the plant is in the soil
4 and the clay function and the limestone and all
5 these soil functions and the cosmic energy and so
6 on, but that make that energy in the plant.

7 And even in western society, we had
8 this idea of vitality or vital energy and the
9 Greeks had that. Hippocrates, as Dan said, said
10 food is -- make food they medicine. But that
11 was, of course, when the reduction in science
12 came in, that was thrown out.

13 However, it is starting to reappear.
14 Even back in the '70s, the book on the "Secret
15 Life of Plants" about how plants could actually
16 perceive what is going on around them and that
17 was totally discounted by the farmers, but now it
18 is coming back and new research shows that
19 actually plants can perceive light. They can
20 perceive smell, touch. They can know what color
21 your shirt is.

22 And so we are seeing that science is

1 showing us more complexity than we thought. It's
2 not just about 16 to 18 essential elements and
3 how we get them in that plant. But there could
4 be more subtle things that we don't want to close
5 the door to. And so 10 years down the road we
6 don't want to -- as we get more information about
7 these things, we don't want to think oh, we
8 really kind of maybe made a wrong step.

9 Somebody told me two days ago that
10 there is now a radionics type of machine that
11 will measure vitality in food, that they are
12 taking to the grocery stores and so on.

13 So anyway, I just want to kind of open
14 it up a little bit to our thinking that it's not
15 just about how you get the elements into the
16 plant. It's more complex than that. Tom?

17 CHAIR CHAPMAN: I agree with most
18 things you said. And the only other point I
19 would like to point out is that, you know, in --
20 I saw less of this time, but definitely in the
21 fall we received a lot of comments about the long
22 history the hydroponic operations have in

1 agriculture, including hanging gardens of
2 Babylon, operations in shallow lake beds by
3 Native Americans in Mexico. And like even in
4 aquaponic -- not aquaponic -- aquaculture --
5 aquaponic operations in China that incorporate
6 rice and fish.

7 So it does have a long, long history
8 as well dating back hundreds and thousands of
9 years.

10 DR. THICKE: Okay. Jesse? I'm not
11 sure who is next.

12 MR. BUIE: You know, I'm, kind of to
13 summarize all of this, encouraged by the attitude
14 that this Board has in approaching this issue.
15 And I think that what we need to do first of all
16 is listen to what each other have said here as we
17 go forward.

18 And I want us -- we have done a lot of
19 talking, but it's time to try to figure out the
20 solution to this. And Ashley has said some
21 things that I hope that we will listen to in
22 order to make this thing move quicker, but I

1 think like I said, I'm encouraged that we now
2 understand what the challenge is and we
3 understand what the impact is going to be when we
4 make a decision on the people and the industry.

5 So I think we are ready to move in the
6 right direction on this.

7 DR. THICKE: Steve? Harriet next.

8 MR. ELA: I would agree and I think
9 though we are going to run into the buzz saw
10 continuously. And, you know, Ashley asked for
11 clear definitions. And yes, we all want those.
12 However, you know, we also provided what we
13 thought were clear definitions this meeting. And
14 you know, recalcitrant gets blown up and I don't
15 know that we are -- I think that is the -- I
16 don't think there is.

17 I think the definitions are trying to
18 set something in black and white in a continuum.
19 And so, you know, while I think we to need
20 definitions, I think it is still going to be the
21 definition is never going to be black and white.
22 It is going to be a continuum and we are going to

1 have to agree that this is the definition.

2 So I am not sure it's going to provide
3 clarity. I think it may provide process. But I
4 guess I'm a pessimist on that side of things.

5 DR. THICKE: So we have a few minutes.
6 I promised Tom we would get done by noon.
7 Harriet, you had your hand up. And anybody else?
8 And then Dan.

9 MS. BEHAR: Well, I think we need to
10 also remember that we are not in a vacuum here.
11 That there are other countries around the world
12 that are dealing with this as well. We can look
13 at what they have defined it as, because they are
14 our trading partners.

15 But I wanted to also say, too, that
16 when I was looking at all the public comments,
17 especially on the native ecosystems and I was
18 just kind of searching all the comments for the
19 word ecosystem, how often it came up in the
20 hydroponic comments as well.

21 So there is a lot of synergy. And as
22 we are talking, too, about the reliance on

1 inputs, we are talking about marine algae and
2 sustainable harvest and really trying to find
3 systems that are self-reliant and are not -- you
4 know, so it's a much bigger picture and it's not
5 just hydroponic is separate, you know, or this
6 issue of containers. We need to look at it how
7 almost everything that we are looking at feeds
8 into this discussion as well.

9 DR. THICKE: Dan?

10 DR. SEITZ: This is a little off
11 topic, but I just want to say that I am deeply
12 heartened by what you might call the organic
13 holistic nature of this decision making process.
14 And I feel that we, in the spirit of field trips,
15 might like to invite the Congress to come visit
16 us and watch a process like this at work.

17 Miles mentioned that he is under
18 pressure to -- with any new regulation, you have
19 to get rid of two old regulations and so much of
20 regulation making is a win/lose and sometimes a
21 lose/lose process. And sometimes we all benefit
22 actually by gridlock, because at least some bad

1 things don't happen.

2 But I just want to say this I think is
3 a wonderful example of a truly positive approach
4 to what is typically in a political situation a
5 much more combative type of situation.

6 DR. THICKE: Remember, Dan, last fall
7 we Sunsetting 11 materials, so that means we can
8 make five and a half new regulations. Next?

9 MR. BRADMAN: I almost feel like we
10 should end there. But I just want to say
11 Harriet's comments just before I think really
12 resonate with me and that we need to look at
13 whole systems.

14 I know some of the issues that
15 resonate with me are around water use and
16 resource use. I have also -- you know, I have
17 met for example the owners and some of the top
18 growers in the Salinas Valley where we do a lot
19 of work, many of whom have both conventional and
20 organically certified products and these are big
21 producers.

22 These are, you know, it's a family

1 farm, but it's a very big family operation with
2 thousands and thousands of acres. And you know
3 one thing they say, to put it bluntly, there is
4 not enough manure, to use a different term,
5 around to grow organic, at least the crops they
6 grow, vegetables, row crops, things like that.

7 And there is a case where they are
8 very dependent on outside inputs and, in fact,
9 the outside inputs aren't available to expand
10 growth, that there is a basic limitation there.

11 So this larger issue of ecosystem and
12 impacts and ecological services, I mean, in a
13 closed greenhouse, you are not going to find the
14 biodiversity that you are going to find in an
15 organic field.

16 At the same time, in an organic field,
17 that's a tremendous alteration from a natural
18 land use. And that dovetails with the native
19 use. Also for example, I see in the Salinas
20 Valley, you know, there has been a big effort to
21 reduce "trespass" of mammals or other animals
22 onto fields, because of concerns around food

1 safety.

2 There has been a reduction in
3 vegetation along drainage ditches and things like
4 that. So there has been a real alteration that
5 is a food safety issue across agriculture, but it
6 is distressing to a lot of people we're certain
7 the ecosystem services.

8 Then my last thought I kind of hinted
9 at this earlier, this need for a broader
10 discussion and the concern about not getting deep
11 enough answers during this process. And really
12 three minutes, you know, even if it's sequential,
13 a few people on the same issue, is not enough to
14 go into real depth.

15 There is the written comments and I
16 can tell you I have read every comment related to
17 hydroponics and aeroponics. There is hundreds.
18 I have read the Task Force report. I have it
19 right here. But I think it would be useful to
20 have -- you know, if there was a conference, I
21 mean, I would appreciate if the people from
22 Driscoll came up and gave a half hour

1 presentation with a very clear description of
2 their procedures.

3 If the people from Wholesome Farms
4 have a very clear description, if people who are
5 dealing with constraints on soil-based systems
6 that we can kind of combine in a way of review of
7 the larger ecological and environmental issues
8 around with both systems, that might help us in
9 our thinking of defining what we might want to go
10 forward with.

11 And I understand there is time
12 constraints with that and expense, but I know
13 that would be helpful to me. I know there is a
14 lot of people here with a lot more history than I
15 do on this issue and I don't know if that would
16 feel redundant, but I sense that that would be
17 valuable based on our discussions and discussions
18 in the hall.

19 DR. THICKE: Thank you. We will have
20 Tom and then Joelle and then maybe then we have
21 to close it up. Tom, it's your decision.

22 CHAIR CHAPMAN: Yeah. I mean, I don't

1 want to end this if people have more to say. We
2 can keep talking about it, but I guess my
3 statement here was a question to you and the
4 leaders on this proposal.

5 So far, you know, I think this
6 conversation has been great. It has laid out a
7 foundation and the multiple perspectives of the
8 different stakeholders. But my question I'm
9 going to pose to you guys is are you prepared?
10 Do you have a -- what is -- where do we go from
11 here? What's the next step? And are you guys --
12 did we -- did this discussion provide that?

13 MS. OAKLEY: Yeah, I think this is
14 extremely helpful, because it allowed everybody
15 to kind of air their questions, kind of state
16 some of the positions they may have, the
17 confusion that they have, but it's very helpful
18 for us to know that we are dealing with a
19 diversity of use.

20 And I also think it is extremely
21 helpful for stakeholders to realize the extent of
22 the diversity on the Board because that is going

1 to help, I hope, everyone stomachs whatever
2 compromise we come up with and realize if we all
3 stake lines in the sand, we are not going to go
4 anywhere.

5 So I think our progress forward is to
6 make amendments on the hydroponic proposal
7 section of the discussion document and delve
8 right into the container aspect. And I would
9 welcome any more detail that people want to
10 provide us on the open docket regarding
11 containers, regarding substrate materials,
12 regarding liquid inputs, because at the end of
13 the day, even though we don't want to be
14 reductionists, that's where a lot of the
15 philosophical conflict comes from.

16 So I think we need more information on
17 that and we will continue to work on that. Do
18 the other co-leads want to add something to that?

19 DR. THICKE: Joelle and then, Dave,
20 you had your hand up, too? Did you?

21 MR. MORTENSEN: No.

22 DR. THICKE: Oh, okay.

1 MS. MOSSO: I'll be very brief. As we
2 owe kind of the community better definitions of
3 hydroponics and containers and all those things,
4 I would ask the public to be clearer in their
5 definitions. I think microbial activity is a
6 really poor definition. I think what we are
7 really trying to get at is microbial ecology.

8 Activity is just active. I think if
9 we could get clarity from the public when you use
10 those in talking about these systems, how we can
11 then use that to incorporate and define our
12 systems. So we owe you something, but I think we
13 need clarity from the community as well. It's
14 very vague to just say microbial activity.

15 DR. THICKE: Steve, did you have a
16 comment?

17 MR. ELA: Yes. And I would echo that.
18 And I think -- I mean, I asked a couple of
19 questions yesterday. I think we know it's a
20 continuum and we know we are going to have to
21 draw a line somewhere in the gray area probably.
22 And so, to me, the stakeholders need to give us

1 some sense of what is acceptable and what is not.
2 How far can we go? And what crosses the line?

3 And we know every stakeholder is going
4 to be a little bit different, but otherwise it is
5 going to come back to amateurs, you know, where
6 we are trying to figure something out where
7 people have experience. And I think, you know,
8 with actual details, this would work. It would
9 make me edgy, but this would work. It would be
10 very helpful.

11 MR. MORTENSEN: And I -- maybe just
12 quickly on the point that Steve is on right now
13 and I'll follow on on Joelle's point.

14 You know, it may seem like this is
15 nitpicking, but, you know, microbial ecology
16 versus activity that Joelle is raising, but the
17 literature on biodiversity is very clear. You
18 know, if there are breakdowns in biodiversity,
19 and functional groups of organisms, whole chains
20 of other organisms disappear from the system.
21 They just aren't there.

22 So it may seem like a picky thing, but

1 it's actually fundamentally important to
2 understanding, you know, is biodiversity high or
3 low in a system that is, you know, managed in
4 this way or that. And that's the sort of detail
5 I think we need to, you know, proceed forward and
6 make smart decisions about this on the kind of
7 ecology of the system side of things.

8 DR. THICKE: Harriet, can you make it
9 short?

10 MS. BEHAR: Yes, very short. So the
11 way I'm approaching this is looking at giving the
12 program, the tools -- I mean, it's -- when we
13 look at, you know, a definition that could
14 actually be put in regulatory language, a
15 standard for container growing that could
16 actually be put into the regulation. So of
17 course, I welcome all of you who are also kind of
18 a certification geek like me to also look at it
19 from that point of view, because we have to make
20 sure that it is practical and understandable and
21 verifiable.

22 DR. THICKE: This may be a good place

1 to pause here. Tom?

2 CHAIR CHAPMAN: Yes. Do you want any
3 closing comments or do you -- okay. Emily, do
4 you want to?

5 MS. OAKLEY: Yes, I will just say I
6 want to thank everybody for a very positive and
7 friendly and forward moving conversation and I
8 have a lot of confidence that we will come to a
9 place that we can all meet in the middle as much
10 as possible and I hope that we can all agree on
11 something together as a Board. So thanks,
12 everybody, for your work on it and we appreciate
13 ongoing input.

14 CHAIR CHAPMAN: Thank you. And with
15 that, that concludes the Crops Section of the
16 agenda. Thank you everyone for that great amount
17 of dialogue that we look forward to taking it
18 forward from here or the Board taking it forward
19 from here.

20 And now I have to pull my agenda back
21 up. Up next, just so the public is aware, our
22 plan right now is to continue through the agenda

1 and wrap up stuff prior to breaking for lunch, so
2 we may go longer than the, I think, scheduled
3 12:15 break. But then we won't be adjourning for
4 lunch. We will be adjourning permanently.

5 So up next is the Policy and
6 Development Subcommittee update with Dan. Sorry,
7 I didn't realize Dan was just coming back. Dan,
8 I put you on the spot. Do you want me to switch
9 to -- so we will give Dan a second to get
10 settled, if I can. And, Harriet, do you mind if
11 I move to you on materials?

12 MS. BEHAR: So the Materials
13 Subcommittee did not bring anything forward for
14 this meeting, but we are working on two items.

15 One is last fall we approved a
16 decision mechanism for reviewing and categorizing
17 excluded methods, because there is so much change
18 in that area and continuous addition of new
19 methods. And so we have a list of to be
20 determined that we are going to try to tackle. I
21 don't know if we will get them all determined or
22 not. There still may be some that are to be and

1 some that are proposed to be put on the excluded
2 or not excluded methods list.

3 But there will be a -- there was a
4 group of people that CEAA worked with that met a
5 few times. We will continue with those people
6 and add some more. Dave has expressed a lot of
7 interest and I'm just thrilled to have his
8 expertise on this subject. And so we will be
9 continuing with that.

10 The second thing is Dan with my help
11 and also with Dave will be working on seed
12 purity, which is purity from the contamination of
13 GMOs. So we will be coming forward with a
14 discussion document on that.

15 And research priorities, which is
16 actually amongst all of the committees. We are
17 always looking at that.

18 CHAIR CHAPMAN: Thank you. Any
19 questions or discussion on the Materials
20 Subcommittee update? Thank you, Harriet. And we
21 will move back to the Policy and Development
22 Subcommittee update. Dan?

1 DR. SEITZ: So I don't know if you
2 know this, but this is the most exciting
3 Subcommittee. So we are responsible for looking
4 at our Policies and Procedures Manual,
5 determining whether any revisions need to be made
6 to that.

7 A comprehensive revision of that was
8 made when the Subcommittee was chaired by Tom.
9 Thank you, Tom. That was -- and others involved
10 with that, that was a major project. And based
11 on the revisions that the Committee made at that
12 time, an updated edition of the Policies and
13 Procedures Manual was adopted last year.

14 So at this point, there are not a lot
15 of questions or issues before the Committee. The
16 Committee has been looked -- has been asked to
17 look at how we might review ancillary substances
18 and to see if we can put some wording into the
19 Policies and Procedure Manual that would address
20 that procedure. So we will be looking at that
21 over the next few months.

22 And then a question did come up about

1 our conflict of interest policy, the policy that
2 pertains to NOSB Members. There was a question
3 about whether a statement in that policy that
4 said you -- Board Members can't accept
5 compensation related to their Board duties would
6 apply to Members who actually do some work during
7 the regular business day when they are otherwise
8 gainfully employed by their regular employers.

9 And in talking with the NOP staff,
10 they made it clear that if you happen to do work
11 during the regular work day when you are paid by
12 your regular employer, that would not constitute
13 a conflict of interest. And we may put a little
14 wording to that effect in the Policies and
15 Procedures Manual, but that is not a super
16 pressing matter.

17 So that's all I have to report.

18 CHAIR CHAPMAN: Thank you, Dan. Any
19 questions for Dan on the Policy and Development
20 Subcommittee update? No slides, Dan? Not one,
21 not two, not 83 slides.

22 DR. SEITZ: No.

1 CHAIR CHAPMAN: Sorry. Emily?

2 MS. OAKLEY: So if you guys propose
3 some wording changes, will that come out first
4 for stakeholder comment? What's that process
5 like?

6 DR. SEITZ: Tom, that's my
7 understanding that when we make changes, they go
8 out for stakeholder comment. Is that always
9 true?

10 CHAIR CHAPMAN: So changes to the PPM
11 would need to be voted on by the Board, so the
12 Policy Subcommittee would make a proposal and it
13 would get published with the other proposals.
14 The way that style of proposal is handled is
15 under the Subcommittee, so it doesn't always have
16 the same level of greater background research, I
17 would say like the normal proposals we see have.
18 But it's open for the public comment and then we
19 would vote on it at the Board meeting.

20 Any other questions? All right.

21 Thank you, Dan.

22 Up next on the agenda is Deferred

1 Proposals and Final Votes. And we do have
2 something to bring up in this section.

3 During my introductory comments, we
4 mentioned the Final Rule that we are waiting for
5 implementation upon the Organic Livestock and
6 Poultry Practices Rule OLPP, for short.

7 And in my comments, we are -- you
8 know, I was spontaneously interrupted by Ashley
9 and Harriet to also speak their mind on support
10 for this item. And so I think it is proper for
11 the Board, at this time, to consider a resolution
12 supporting the implementation without delay of
13 the Organic Livestock and Poultry Practices as an
14 Advisory Board to the USDA.

15 We do sit here representing the
16 diverse interests of the community from consumer
17 groups to retailers to industry to farmers,
18 ranchers, handlers, everyone like that. I think
19 it is important for incoming Administration and
20 the new Secretary once appointed to know where we
21 stand on this issue.

22 And so I'm proposing that what is

1 being projected right now is a resolution that
2 the Board considers to pass at this meeting. And
3 I'll read it very briefly.

4 "The National Organic Standards Board
5 recognizes that consumers trust in the organic
6 label and industry growth depends on the strength
7 and consistent application of organic
8 regulations.

9 The National Organic Standards Board
10 has an integral role advising the USDA in the
11 promulgation of these volunteer standards and
12 strives to seek consensus amongst organic
13 stakeholders in its recommendations to the USDA
14 and the Secretary.

15 The recently finalized Organic
16 Livestock and Poultry Practices Rule was based on
17 a unanimous NOSB recommendation to the USDA in
18 2011.

19 The NOSB recommendation was a product
20 of a decade of public NOSB meetings, lengthy
21 discussions, public comment periods and
22 consultation from organic producers, processors,

1 consumers and the veterinary and scientific
2 community.

3 According to a survey by the Organic
4 Egg Farmers of America from 2014, the majority of
5 egg producers representing the majority of
6 organic egg production already adhere to the
7 practices and standards set forth in the rule.

8 A recent consumer report survey found
9 that 83 percent of consumers who frequently
10 purchase organic products believe that organic
11 eggs should come from hens that have access to
12 the outdoors.

13 Additionally, the USDA APHIS has found
14 no significant differences in mortality rates
15 between organic and conventional laying hen
16 operations.

17 Support of this rule has been
18 expressed through public comment by major and
19 growing organic brands. The rule is supported by
20 organic producers, consumers and industry, as
21 well as, the NOSB.

22 The NOSB stands ready to answer any

1 additional questions the Secretary may have on
2 the Organic Livestock and Poultry Practices
3 Rule."

4 Michelle, can you advance?

5 "Therefore, be it resolved by
6 unanimous vote, the National Organic Standards
7 Board, as the USDA's Federal Advisory Board on
8 organic issues and representing organic farmers,
9 ranchers, processors, retailers and consumers
10 urges the Secretary to allow the Organic
11 Livestock and Poultry Practices Rule to become
12 effective on May 19, 2017 without further delay."

13 I now open it up for discussion.

14 MS. SWAFFAR: So I said my main point
15 of this the other day, but I just want to stress
16 how important this rule is to become implemented.
17 And I think that our Board having this
18 resolution, you know, shows the Secretary that we
19 are unanimous in this also just like the Board
20 was when they passed the Animal Welfare
21 recommendations back in the middle of 2011.

22 Yeah, that was just -- you know, this

1 is really important to me. I spent a ton of my
2 time prior to getting on this Board actually
3 standing at that podium commenting on this
4 proposed welfare recommendations coming out of
5 the Livestock Committee.

6 So I'm very passionate about this.
7 And this is very important. And like I said the
8 other day, you know, I'm on egg farms every
9 single week doing inspections. And this is all I
10 hear about. Is this in the finding?

11 So a little different topic for that
12 one, but, you know, farmers really feel like this
13 is important to them to see this implemented and
14 not delayed any further.

15 CHAIR CHAPMAN: Okay. Harriet?

16 MS. BEHAR: I think we need to
17 recognize, too, that organic is unique in that we
18 tend to want strict regulations and we also want
19 to protect our brand. And that right now, there
20 are many producers that have to have more than
21 one certification in order to show that they meet
22 standards such as this. And that was one of the

1 reasons why we wanted this was to provide that
2 full -- the full range of what consumers expect
3 that brand to mean to be in our regulation.

4 And as Ashley said, the producers want
5 this. And the consumers want this. And the
6 environmentalists want this. And the scientists
7 want this. The full range of stakeholders want
8 this. And those who don't want it, don't have to
9 carry the organic label. It's all voluntary.

10 MS. SWAFFAR: Don't talk me out of a
11 job, Harriet.

12 CHAIR CHAPMAN: Emily?

13 MS. OAKLEY: I just want to say that
14 what is wonderful about organics is that it
15 crosses the political divide and I'm an organic
16 farmer in Oklahoma. And we have organic farmers
17 who are republicans and democrats and
18 libertarians and otherwise.

19 And so too do our consumers reflect
20 that diversity. So I hope that Congress and the
21 Secretary will recognize that this is not a
22 political issue. This is simply a consumer and

1 farmer issue.

2 CHAIR CHAPMAN: Any other discussion?

3 MS. SWAFFAR: Mr. Chair, I would like
4 to move that -- this forward or make a motion for
5 that.

6 MS. BEHAR: I'll second.

7 MS. SWAFFAR: Unanimous resolution,
8 sorry.

9 CHAIR CHAPMAN: So I have a motion to
10 adopt this resolution as written and a second
11 from Harriet. A motion by Ashley. Any further
12 discussion on this? Otherwise, we will proceed
13 to a vote starting with Sue. A yes vote on this
14 is to approve the resolution.

15 MS. BAIRD: Yes.

16 MS. BEHAR: Enthusiastic yes.

17 MS. OAKLEY: Yes.

18 DR. THICKE: Yes.

19 MS. ROMERO-BRIONES: Yes.

20 MS. De LIMA: Yes.

21 MR. BRADMAN: Yes.

22 MS. MOSSO: Yes.

1 MR. ELA: Yes.

2 MR. MORTENSEN: Yes.

3 MR. BUIE: Yes.

4 MS. SWAFFAR: And another enthusiastic
5 yes.

6 DR. SEITZ: Yes.

7 MR. RICE: Yes.

8 CHAIR CHAPMAN: The Chair votes yes.

9 15 votes, the Board passes this resolution
10 unanimously. And we will be working with the
11 program to communicate this to the Secretary.

12 I'm sorry, I have to flip back to my
13 agenda, which next up on our agenda is review of
14 the Subcommittee Work Agendas. And if Michelle
15 could pop that open, we will quickly run through
16 these with each Subcommittee Chair reviewing
17 their section.

18 First up is Scott with CACS.

19 MR. RICE: Thanks, Tom. We have the
20 Eliminating the Incentive to Convert Native
21 Ecosystems into Organic Crop Production proposal
22 that we referred back to Subcommittee and look

1 forward to having something in the fall.

2 We have the in-field annual
3 evaluations of inspector's update. Again, a
4 proposal that was referred back and look to more
5 information and work on that for the fall.

6 CHAIR CHAPMAN: Okay. Thank you.
7 Francis?

8 DR. THICKE: I can't see far enough to
9 see over there. Fatty alcohols. We have just
10 gotten a revision of the petition from the
11 petitioner, so we will be working on that.

12 Anaerobic digest, we have just gone
13 back to the TR writers to get a little more
14 information on. And both of those are set for
15 fall, as most of these things are.

16 Polyaxon D zinc salt. That one is --
17 it's for control of fungal diseases in organic
18 crops and that one will -- we are also heading
19 for fall with.

20 Allyl isothiocyanate, that's for a
21 soil-applied nematocide and also for a soil-
22 applied fungicide. So these are all going to

1 come for the fall.

2 Sodium citrate, an allowed synthetic.
3 It is being petitioned as an allowed -- no, I'm
4 sorry, that's different. This was synthetic for
5 an anti-coagulant for processing bovine blood
6 after slaughter to maintain the blood as a liquid
7 for processing into organic fertilizer.

8 And natamycin is petitioned as a non-
9 synthetic to be used as a fungi -- in mushroom
10 production and to control fungal diseases on
11 fruit.

12 So these are all scheduled for fall.

13 Contamination issues in farm inputs,
14 that's kind of languishing, but it's -- it might
15 move forward by fall in maybe a discussion
16 document.

17 Anaerobic digest, well, we have
18 covered before. That's -- we have kind of taken
19 a broader reproach to anaerobic digest because
20 there are -- there have been more than one
21 petitions for anaerobic digest. So the TR we got
22 was broader in scope, so we can use that for

1 future reference.

2 Biodegradable biobased mulch. We may
3 have a discussion document for fall. We are
4 still talking about that.

5 Inerts, this is on hold. NPEs and
6 inerts, annotation change, that one is kind of on
7 hold.

8 Newspaper annotation change. We got
9 a TR on that and it wasn't very conclusive, so we
10 are still discussing what to do with that and
11 whether we need a discussion document or not.

12 And hydroponics and container, our
13 hope is to have a proposal for fall.

14 Strengthening and clarifying the seed
15 requirements. Again, we took that back. We are
16 going to have that for fall.

17 Marine materials. We will look at
18 that and see if we decide we want to bring it
19 forward again as a proposal in the fall.

20 The Sunsets, I guess. Okay. The
21 Sunsets, we will, of course, have in the second
22 step of the Sunset review this fall for all of

1 those.

2 Is that all that's on the list,
3 Michelle? Yes, I think that's coming. All
4 right. There are some more down below. That's
5 it. Okay.

6 CHAIR CHAPMAN: Thank you. Up next
7 handling, Lisa.

8 MS. De LIMA: All right. So for
9 petitions, for SDBS, we are still waiting for a
10 TR. So whether we bring a proposal forward in
11 the fall or not is uncertain at this point.

12 Sodium chlorite, we need to discuss as
13 a Subcommittee. We had some questions for the
14 petitioner that we put forward to them and they
15 did submit some answers via the public docket,
16 but we haven't had a chance to discuss yet as a
17 group.

18 We have -- the rest of the petitions
19 there, we do have leads on and are moving forward
20 with: Silver dihydrogen citrate, Japanese
21 pepper, Ethiopian pepper.

22 The tamarind seed gum, we sent

1 additional questions back to the petitioner, so
2 that's likely to be a spring item, not this fall.

3 And then other projects: BPA, again
4 waiting for the TR as we sent that back. Most
5 likely a discussion document, again, in the fall,
6 but we will have to discuss together as a
7 Subcommittee.

8 Tocopherols, again, lots of good
9 public comment. So not sure where we are going
10 to go with that yet.

11 On hold is the nutrient, vitamin and
12 mineral annotation change.

13 And then marine materials, again, we
14 will be working alongside with crops in figuring
15 out what the next steps are, to be determined.

16 And the same goes for ancillary
17 substances, hopefully bringing up a proposal back
18 in the fall, but again, we need to discuss as a
19 Subcommittee.

20 And then the magnesium chloride,
21 probably a proposal in the fall.

22 And then we have got all the Sunsets,

1 which I am not going to read through. And that's
2 it.

3 CHAIR CHAPMAN: Thank you. Up next is
4 livestock, Ashley?

5 MS. SWAFFAR: So we have had several
6 petitions, one for sulfur that we will plan to
7 bring forward in the fall. We just got our TR
8 back.

9 Glycolic acid, waiting on a TR.

10 Hypochlorous acid, waiting on a T --
11 a limited scope TR, so those may or may not come
12 out in the fall, depending on when we get that
13 back.

14 Thymol, just received that one. We
15 had some more questions for the petitioners, so
16 not sure if we will crank that out for fall, but
17 we don't have just a time of stuff happening, so
18 we might.

19 All the aquaculture stuff is currently
20 on hold.

21 And we are working on our Sunset 2019
22 materials.

1 Other projects defining emergency
2 treatment for parasiticides. Do look for a
3 proposal in the fall of 2017 for that. And that
4 one is still there.

5 The Organic Poultry Task Force, that
6 is set on hold until OLPP Rule is -- that says
7 published. So maybe that should say final. But
8 that is -- what that was, if anybody forgot about
9 that, is we had looked at different ways on
10 methionine alternatives, different stuff like
11 that. It was a proposal right after I got on the
12 Board.

13 So, Tom, are you itching to say
14 something?

15 CHAIR CHAPMAN: So the OLPP Rule is
16 published and final. It's just not effective.

17 MS. SWAFFAR: Well, not effective,
18 yes. And that is kind of it for livestock as far
19 as things that are approved.

20 We are -- I will mention that, you
21 know, at some point we will be adding quite a bit
22 of stuff to our work planner requesting that we

1 add once OLPP is enforced, the data is final.

2 There are several things that the
3 Department called out that our Subcommittee will
4 need to do more work on, so we are ready and
5 willing to start on that and maybe a few other
6 poultry items.

7 CHAIR CHAPMAN: Thank you. Up next is
8 materials, Harriet?

9 MS. BEHAR: So I did talk about this
10 earlier, so we are going to keep looking at
11 research priorities. We look at the tracking of
12 petitions and TRs and are going to make sure that
13 things are moving along and work with all the
14 Committees on that.

15 We will probably have a discussion
16 document for seed purity from GMOs in the fall.
17 And we will, I'm pretty sure, at least be able to
18 deal with maybe half. I'm not sure how many we
19 will end up with in the excluded methods
20 terminology to have a proposal there to see if we
21 would add a few more of those methods to our
22 excluded list.

1 CHAIR CHAPMAN: Thank you. Policy,
2 Dan?

3 DR. SEITZ: As mentioned a few minutes
4 ago, our work is just to make ongoing revisions
5 to the policy manual as needed.

6 CHAIR CHAPMAN: All right. I think
7 that concludes the work agendas.

8 All right. So that takes us to --
9 since we dealt with presentation certificates
10 last meeting, other business and closing remarks.
11 I have a couple comments that I'll say in a
12 second.

13 And for those folks interested in the
14 work agenda, what we just reviewed, it will be
15 posted on the meeting page after the meeting.

16 So in closing, I want to thank the
17 public for their written and oral comment. I
18 think we had a great interaction between the
19 Board and the public at the webinar and at this
20 meeting, even more so than we normally do. And I
21 think that level of interaction is invaluable.

22 And then again I'm impressed with all

1 my fellow Board Members, especially the new
2 Members in their interaction and engagement with
3 the issues before the organic community.

4 I mentioned earlier about the time
5 spent unpaid away from colleagues, students, your
6 own farms and operations, your businesses and
7 most importantly your family. And I'm just
8 personally inspired by how some Members, you
9 know, through pressing family issues or physical
10 or medical issues that may occur, still, you
11 know, are so dedicated that they still show up
12 and come here.

13 And I really draw inspiration from
14 that. So thank you guys. But with that, I think
15 we are concluded.

16 Yes, and at this point, I will pass
17 the meeting back to Paul Lewis to adjourn the
18 meeting.

19 DR. LEWIS: Thank you, Tom. I just
20 want to echo some of the remarks that Tom just
21 made.

22 CHAIR CHAPMAN: Sorry, Paul, my

1 apologies. I wanted to mention the next meeting
2 as well. So our next meeting will be in
3 Jacksonville, Florida in the fall in October, the
4 end of October. It's a three day meeting and as
5 you can tell from the work agenda, we have a lot
6 of issues. We will be scheduling two webinars,
7 one on October 24th and another one on October
8 27th. They will be handled in overflow fashion,
9 so we will fill up the 24th and if we still have
10 additional commenters, then we will add the 27th.

11 If we don't have enough commenters,
12 then we will just have the 24th.

13 At the in-person meeting as well, so
14 in total we will have just under 12 hours of
15 public comments, similar to this one at the in-
16 person meeting, though it will only -- public
17 comment will only be heard on that first day,
18 since we will have a lot of issues to vote on.
19 We will need to save more time for that
20 deliberation and voting.

21 In total though, we will have enough
22 time. It's similar to this time. I had enough

1 time scheduled for about 140 public commenters as
2 well as question time and discussion by the Board
3 with those public commenters.

4 So look for those notices to come out
5 as they do and we plan to have the open docket on
6 this as well, so published as shortly as
7 possible. I apologize for the interruption,
8 Paul, and I hand it back to you to adjourn the
9 meeting.

10 DR. LEWIS: Thank you, Tom. I just
11 want to echo in terms of what Tom shared. I want
12 to thank Board Members, especially new Board
13 Members for all your work getting ready for this
14 first meeting. I know it was a lot to come up to
15 speed and I applaud you in terms of really doing
16 a great job.

17 And also overall for the Board for
18 your thoughtful dialogue, insight and really
19 helping us in terms of as a program to do our
20 work in filling our mission.

21 Appreciate the stakeholders,
22 especially the very thoughtful comments and

1 perspectives that you shared. I always find it
2 very insightful in terms of information that is
3 shared for the Board and for the program to help
4 the Board do their work.

5 And finally, I want to thank my USDA
6 colleagues for tirelessly all their work that
7 they have done for preparing for this meeting and
8 making this a success. Yes?

9 MS. BEHAR: Before you close, I have
10 a short poem that I would like to read. Is that
11 okay with everyone? Okay. This is something
12 that Dave Engel wrote and I just thought it would
13 be fitting, since his recent passing, to read it.
14 I'm not going to sing it. It was a song that he
15 did sing, but it is, I think, his -- I think it
16 was 19 -- no, 2002 when he sang it to the NOSB.

17 "But if for just one time we would
18 farm this land organic, and see the hand of
19 Howard reaching for the horizon, it would be so
20 fine. There would not be all this panic and
21 sweat and mud and tears and blood. This truth,
22 we set our eyes on.

1 For 50 years, the chemicals and sprays
2 have harmed the planet. For 50 years we have
3 taken Mother Nature for granted. Now, the time
4 has come to be more humble and wise, lest one day
5 we awaken to a rather rude surprise.

6 Leopold and Carson both wrote and
7 warned about stuff like this, that the web of
8 life and a silent spring simply cannot coexist.
9 And still we are so dang wrapped up in our
10 technology and greed, we think we are cool, but
11 we are fools to play with God's seed.

12 This truth we set our eyes on. And so
13 many of us now around the world are trying hard
14 to find in tune with Mother Nature, we are trying
15 not to harm.

16 The life in the soil and in the water
17 and in the air, we are learning things, lots of
18 new things and what we are learning we share.

19 We can choose to buy our food from
20 those whose farms are near and if that food is
21 organic, then how wonderful, how great. But if
22 we wait for all those who eat to come to care,

1 then it would be too late.

2 And so it is our time will come, our
3 time will come just so for each of us one-by-one.
4 Our time will come to go. And when we meet Saint
5 Pete, he will ring the bell and he will say dear
6 friend, you farmed organic, you did very well.

7 Let us pray that more folks will take
8 and farm their land organic and see the hand of
9 Howard reaching for the horizon, then it will be
10 so fine. There will not be all this panic in
11 sweat and mud and tears and blood. This truth we
12 set our eyes on."

13 DR. LEWIS: Thank you, Harriet, for
14 sharing that. Appreciate it. Just a few more
15 closing remarks. In the theme of having an open
16 docket for working on publishing the Federal
17 Register Notice announcing our next meeting,
18 which will be occurring October 31st to November
19 2nd.

20 And in that Federal Register Notice it
21 provides the opportunity for the public to
22 provide comments for the Board for the

1 deliberation of that meeting.

2 And finally, we will be working on
3 publishing a Federal Register Notice for the
4 upcoming seat for Francis, I want to thank
5 Francis again for your service, working on that
6 filling the seat for an environmentalist resource
7 conservationist.

8 So look for both the Federal Register
9 Notice for that and upcoming real soon the
10 Federal Register notice announcing our meeting
11 for the fall.

12 And with that, I would like to adjourn
13 the meeting and again thank, especially all the
14 Board Members for all your thoughtful insight and
15 perspectives.

16 This meeting is now adjourned.

17 (Applause.)

18 (Whereupon, the above-entitled matter
19 was concluded at 12:37 p.m.)
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21
22

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In the matter of: Board Meeting

Before: USDA National Organic Standards Board

Date: 04-21-2017

Place: Denver, Colorado

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