FORMAL RECOMMENDATION BY THE NATIONAL ORGANIC STANDARDS BOARD (NOSB) TO THE NATIONAL ORGANIC PROGRAM (NOP)

Date: 11-25-06

Subject: Sodium Lauryl Sulfate – Crops.

Chair: **Kevin O'Rell**

Recommendation

The NOSB hereby recommends to the NOP the following:

Rulemaking Action: _____
Guidance Statement: _____
Other: ___XXX__

Statement of the Recommendation (including Recount of Vote):
The Crops Committee recommends that the NOSB reject a petitioners request for the addition of Sodium Lauryl Sulfate for use in Crop Production.

NOSB Vote: Motion: Gerald Davis Second: Dan Giacomini
Yes – 14
No – 0
Abstain – 0
Absent – 0

Rationale Supporting Recommendation (including consistency with OFPA and NOP):
This substance would violate current regulations (see attached criteria evaluation forms Category 3 question #2). There are other materials currently available that could be used, which are consistent with organic production.

Response by the NOP:

NOSB COMMITTEE RECOMMENDATION

Form NOPLIST1. Committee Transmittal to NOSB

For NOSB Meeting: _____ | Substance: Sodium Lauryl Sulfate

Committee: Crops X Livestock Handling

A. Evaluation Criteria (Documentation attached; committee recommendation attached)

	Criteria Satisfied?
1. Impact on humans and environment	Yes X No (see B below)
2. Availability criteria	Yes No X (see B below)
3. Compatibility & consistency	Yes No X (see B below)

B. Substance fails criteria?

Criteria category: 2 & 3

Comments:

C. Proposed Annotation: _____

Basis for annotation:

To meet criteria above: _____ Criteria: _____

Other regulatory criteria: _____ Citation: _____

D. Recommended Committee Action & Vote: Motion by: Nancy

Seconded: Rigo

Vote:

Yes: 5

No: 0

Abstain: 0

Agricultural		Nonagricultural		Crops	x
Synthetic	X	Not synthetic		Livestock	
Allowed[1]		Prohibited[2]		Handling	
No restriction		Deferred4		Rejected[3]	x

1—substance voted to be added as "allowed" on National List

Annotation: _____

2—substance to be added to "prohibited" paragraph of National List

Describe why a prohibited substance: _____

3—substance was rejected by vote for amending National List

Describe why material was rejected: Substance would violate current regulations (see Category 3 question 2). Other materials are currently available which are consistent with organic production (See Category 2. question 4, 6, & 7)

4-substance was recommended to be deferred

Describe why deferred; if follow-up is needed. If follow-up needed, who will follow up _____

E. Approved by Committee Chair to transmit to NOSB:

_____ _____

Committee Chair Date

EVALUATION CRITERIA FOR SUBSTANCES ADDED TO THE NATIONAL LIST

Category 1. Adverse impacts on humans or the environment? Substance Sodium Lauryl Sulfate

Question	Yes	No	N/A[1]	Documentation (TAP; petition; regulatory agency; other)
1. Are there adverse effects on environment from manufacture, use, or disposal? [§205.600 b.2]			X	
2. Is there environmental contamination during manufacture, use, misuse, or disposal? [§6518 m.3]		X		SLS is unlikely to cause environmental contamination. It is rapidly degraded. (TAP lines 144-141) Misuse of material could lead to environmental contamination.
3. Is the substance harmful to the environment? [§6517c(1)(A)(i);6517(c)(2)(A)i]	X			SLS is unlikely to harm to environment because it rapidly biodegrades and has a low bioaccumulation potential. SLS can be toxic to aquatic organisms (TAP lines 179-196
4. Does the substance contain List 1, 2, or 3 inerts? [§6517 c (1)(B)(ii); 205.601(m)2]		X		
5. Is there potential for detrimental chemical interaction with other materials used? [§6518 m.1]		X		SLS should not react with other materials used because it is a soap and is not reactive. (TAP lines 27-45)
6. Are there adverse biological and chemical interactions in agro-ecosystem? [§6518 m.5]	X			SLS disrupts cellular structure, leading to dehydration and death; it can kill insects, beneficial soil organisms, and plants. If used to excess adverse biological interactions are possible. TAP lines 86-96
7. Are there detrimental physiological effects on soil organisms, crops, or livestock? [§6518 m.5]	X			SLS is slightly to moderately toxic in aquatic ecosystems. SLS stimulates algal growth at low concentrations but at high concentrations it inhibits growth. Improper use could "adversely affect the survival and function of soil organisms". (TAP lines, 225-244)
8. Is there a toxic or other adverse action of the material or its breakdown products? [§6518 m.2]	X			SLS is slightly to moderately toxic in aquatic ecosystems. (TAP lines, 225-244) SLS disrupts cellular structure, leading to dehydration and death; it can kill insects, beneficial soil organisms, and plants. (TAP lines 86-96) If used properly, there would be no toxic or other adverse impacts from the use of SLS or its breakdown products. (TAP lines, 205-268)
9. Is there undesirable persistence or concentration of the material or breakdown products in environment?[§6518 m.2]		X		SLS is biodegraded and its breakdown products are carbon dioxide and saturated fatty acids. (TAP lines 157-158 & 184-187)
10. Is there any harmful effect on human health? [§6517 c (1)(A)(i) ; 6517 c(2)(A)i; §6518 m.4]		X		SLS is a food additive and is GRAS. (TAP lines 73-77) Occupational exposure requires safety goggles, rubber gloves and proper ventilation because SLS is an eye, skin, respiratory and gastrointestinal tract irritant. It can cause nausea, vomiting and diarrhea. (TAP lines 285-293)
11. Is there an adverse effect on human health as defined by applicable Federal regulations? [205.600 b.3]			X	
12. Is the substance GRAS when used according to FDA's good manufacturing practices? [§205.600 b.5]			X	
13. Does the substance contain residues of heavy metals or other contaminants in excess of FDA tolerances? [§205.600 b.5]			X	

[1]If the substance under review is for crops or livestock production, all of the questions from 205.600 (b) are N/A—not applicable.

Category 2. Is the Substance Essential for Organic Production? Substance _Sodium Lauryl Sulfate

Question	Yes	No	N/A[1]	Documentation (TAP; petition; regulatory agency; other)
1. Is there a natural source of the substance? [§205.600 b.1]			X	
2. Is there an organic substitute? [§205.600 b.1]			X	
3. Is the substance essential for handling of organically produced agricultural products? [§205.600 b.6]			X	
4. Is there a wholly natural substitute product? [§6517 c (1)(A)(ii)]	X			Corn gluten prevents sprouting seeds from developing normal roots. "Vinegar (acetic acid) is also considered to be a natural herbicide." "List 4A minimal Risk inerts" such as citric acid, safflower oil could be used. (TAP, lines 321-330)
5. Is the substance used in handling, not synthetic, but not organically produced? [§6517 c (1)(B)(iii)]			X	
6. Is there any alternative substances? [§6518 m.6]	X			List 4A minimal Risk inerts" such as citric acid, safflower oil could be used. (TAP, lines 328-330)
7. Is there another practice that would make the substance unnecessary? [§6518 m.6]	X			Crop rotation, use of allelopathic plants, "nurse" crops, and intercropping can also be used. (TAP, lines 355-372) Cultivation can replace intended petitioned use in crops.

[1]If the substance under review is for crops or livestock production, all of the questions from 205.600(b) are N/A—not applicable.

Category 3. Is the substance compatible with organic production practices?

Substance __Sodium Lauryl Sulfate

Question	Yes	No	N/A[1]	Documentation (TAP; petition; regulatory agency; other)
1. Is the substance compatible with organic handling? [§205.600 b.2]			X	
2. Is the substance consistent with organic farming and handling? [§6517 c (1)(A)(iii); 6517 c (2)(A)(ii)]		X		The intended use is beyond the intent of the regulation because the material would be used within crops. "Herbicides, soap-based – for use in farmstead maintenance (roadways, ditches, right of ways, building perimeters) and ornamental crops. (Section 205.206 of the regulation; 205.601(b)(1) and as per original NOSB recommendation September 1996)
3. Is the substance compatible with a system of sustainable agriculture? [§6518 m.7]	X	X		It is compatible for sustainable agriculture with maintenance per the regulation but not sustainable for crop production.
4. Is the nutritional quality of the food maintained with the substance? [§205.600 b.3]			X	
5. Is the primary use as a preservative? [§205.600 b.4]			X	
6. Is the primary use to recreate or improve flavors, colors, textures, or nutritive values lost in processing (except when required by law, e.g., vitamin D in milk)? [205.600 b.4]			X	
7. Is the substance used in production, and does it contain an active synthetic ingredient in the following categories: a. copper and sulfur compounds;		X		
b. toxins derived from bacteria;		X		
c. pheromones, soaps, horticultural oils, fish emulsions, treated seed, vitamins and minerals?	X			SLS is a soap.
d. livestock parasiticides and medicines?		X		
e. production aids including netting, tree wraps and seals, insect traps, sticky barriers, row covers, and equipment cleaners?		X		

[1]If the substance under review is for crops or livestock production, all of the questions from 205.600 (b) are N/A—not applicable.

EVALUATION CRITERIA FOR SUBSTANCES ADDED TO THE NATIONAL LIST

Category 1. Adverse impacts on humans or the environment? Substance Sodium Lauryl Sulfate

1. Are there adverse effects on environment from manufacture, use, or disposal? [§205.600 b.2]			X	
2. Is there environmental contamination during manufacture, use, misuse, or disposal? [§6518 m.3]		X		SLS is unlikely to cause environmental contamination. It is rapidly degraded. (TAP lines 144-141) Misuse of material could lead to environmental contamination.
3. Is the substance harmful to the environment? [§6517c(1)(A)(i);6517(c)(2)(A)i]	X			SLS is unlikely to harm to environment because it rapidly biodegrades and has a low bioaccumulation potential. SLS can be toxic to aquatic organisms (TAP lines 179-196
4. Does the substance contain List 1, 2, or 3 inerts? [§6517 c (1)(B)(ii); 205.601(m)2]		X		
5. Is there potential for detrimental chemical interaction with other materials used? [§6518 m.1]		X		SLS should not react with other materials used because it is a soap and is not reactive. (TAP lines 27-45)
6. Are there adverse biological and chemical interactions in agro-ecosystem? [§6518 m.5]	X			SLS disrupts cellular structure, leading to dehydration and death; it can kill insects, beneficial soil organisms, and plants. If used to excess adverse biological interactions are possible. TAP lines 86-96
7. Are there detrimental physiological effects on soil organisms, crops, or livestock? [§6518 m.5]	X			SLS is slightly to moderately toxic in aquatic ecosystems. SLS stimulates algal growth at low concentrations but at high concentrations it inhibits growth. Improper use could "adversely affect the survival and function of soil organisms". (TAP lines, 225-244)
8. Is there a toxic or other adverse action of the material or its breakdown products? [§6518 m.2]	X			SLS is slightly to moderately toxic in aquatic ecosystems. (TAP lines, 225-244) SLS disrupts cellular structure, leading to dehydration and death; it can kill insects, beneficial soil organisms, and plants. (TAP lines 86-96) If used properly, there would be no toxic or other adverse impacts from the use of SLS or its breakdown products. (TAP lines, 205-268)
9. Is there undesirable persistence or concentration of the material or breakdown products in environment?[§6518 m.2]		X		SLS is biodegraded and its breakdown products are carbon dioxide and saturated fatty acids. (TAP lines 157-158 & 184-187)
10. Is there any harmful effect on human health? [§6517 c (1)(A)(i) ; 6517 c(2)(A)i; §6518 m.4]		X		SLS is a food additive and is GRAS. (TAP lines 73-77) Occupational exposure requires safety goggles, rubber gloves and proper ventilation because SLS is an eye, skin, respiratory and gastrointestinal tract irritant. It can cause nausea, vomiting and diarrhea. (TAP lines 285-293)
11. Is there an adverse effect on human health as defined by applicable Federal regulations? [205.600 b.3]			X	
12. Is the substance GRAS when used according to FDA's good manufacturing practices? [§205.600 b.5]			X	
13. Does the substance contain residues of heavy metals or other contaminants in excess of FDA tolerances? [§205.600 b.5]			X	

[1]If the substance under review is for crops or livestock production, all of the questions from 205.600 (b) are N/A—not applicable.

Category 2. Is the Substance Essential for Organic Production? Substance Sodium Lauryl Sulfate

1. Is there a natural source of the substance? [§205.600 b.1]			X	
2. Is there an organic substitute? [§205.600 b.1]			X	
3. Is the substance essential for handling of organically produced agricultural products? [§205.600 b.6]			X	
4. Is there a wholly natural substitute product? [§6517 c (1)(A)(ii)]	X			Corn gluten prevents sprouting seeds from developing normal roots. "Vinegar (acetic acid) is also considered to be a natural herbicide." "List 4A minimal Risk inerts" such as citric acid, safflower oil could be used. (TAP, lines 321-330)
5. Is the substance used in handling, not synthetic, but not organically produced? [§6517 c (1)(B)(iii)]			X	
6. Is there any alternative substances? [§6518 m.6]	X			List 4A minimal Risk inerts" such as citric acid, safflower oil could be used. (TAP, lines 328-330)
7. Is there another practice that would make the substance unnecessary? [§6518 m.6]	X			Crop rotation, use of allelopathic plants, "nurse" crops, and intercropping can also be used. (TAP, lines 355-372) Cultivation can replace intended petitioned use in crops.

[1]If the substance under review is for crops or livestock production, all of the questions from 205.600(b) are N/A—not applicable.

Category 3. Is the substance compatible with organic production practices?

Substance Sodium Lauryl Sulfate

1. Is the substance compatible with organic handling? [§205.600 b.2]			X	
2. Is the substance consistent with organic farming and handling? [§6517 c (1)(A)(iii); 6517 c (2)(A)(ii)]		X		The intended use is beyond the intent of the regulation because the material would be used within crops. "Herbicides, soap-based – for use in farmstead maintenance (roadways, ditches, right of ways, building perimeters) and ornamental crops. (Section 205.206 of the regulation; 205.601(b)(1) and as per original NOSB recommendation September 1996)
3. Is the substance compatible with a system of sustainable agriculture? [§6518 m.7]	X	X		It is compatible for sustainable agriculture with maintenance per the regulation but not sustainable for crop production.
4. Is the nutritional quality of the food maintained with the substance? [§205.600 b.3]			X	
5. Is the primary use as a preservative? [§205.600 b.4]			X	
6. Is the primary use to recreate or improve flavors, colors, textures, or nutritive values lost in processing (except when required by law, e.g., vitamin D in milk)? [205.600 b.4]			X	
7. Is the substance used in production, and does it contain an active synthetic ingredient in the following categories: a. copper and sulfur compounds;		X		
b. toxins derived from bacteria;		X		
c. pheromones, soaps, horticultural oils, fish emulsions, treated seed, vitamins and minerals?	X			SLS is a soap.
d. livestock parasiticides and medicines?		X		
e. production aids including netting, tree wraps and seals, insect traps, sticky barriers, row covers, and equipment cleaners?		X		

[1]If the substance under review is for crops or livestock production, all of the questions from 205.600 (b) are N/A—not applicable.

NOSB COMMITTEE RECOMMENDATION

Form NOPLIST1. Committee Transmittal to NOSB

For NOSB Meeting: _____ | Substance: Sodium Lauryl Sulfate

A. Evaluation Criteria (Documentation attached; committee recommendation attached)

		Criteria Satisfied?
1.	Impact on humans and environment	Yes X No (see B below)
2.	Availability criteria	Yes No X (see B below)
3.	Compatibility & consistency	Yes No X (see B below)

B. Substance fails criteria?

Criteria category: 2 & 3

Comments:

C. Proposed Annotation: _____

Basis for annotation:

To meet criteria above: ____ Criteria: _____

Other regulatory criteria: ____ Citation: _____

D. Recommended Committee Action & Vote: Motion by: Nancy

Seconded: Rigo

Vote:

Yes: 5

No: 0

Abstain: 0

Agricultural		Nonagricultural		Crops	X
Synthetic	X	Not synthetic		Livestock	
Allowed[1]		Prohibited[2]		Handling	
No restriction		Deferred4		Rejected[3]	X

1—substance voted to be added as "allowed" on National List

Annotation: _____

2—substance to be added to "prohibited" paragraph of National List

Describe why a prohibited substance: _____

3—substance was rejected by vote for amending National List

Describe why material was rejected: Substance would violate current regulations (see Category 3 question 2). Other materials are currently available which are consistent with organic production (See Category 2, question 4, 6, & 7)

4-substance was recommended to be deferred

Describe why deferred; if follow-up is needed. If follow-up needed, who will follow up _____