

This is a **Sunset Preliminary Review** by a Subcommittee of the National Organic Standards Board (NOSB). Sunset preliminary reviews are posted for public comment and the NOSB will refer to them to complete the sunset review process. They are not final Board recommendations or NOP policy. For more information, see [the Sunset Review and Renewal Process](#) fact sheet, and [Federal Register notice of Sept. 16, 2013](#).

**Sunset 2015 Review**  
**Meeting 2 - October, 2014**  
**Crops Subcommittee**  
**Sodium Carbonate Peroxyhydrate**

**August 19, 2014**

As part of the National List Sunset Review process, the NOSB Crops Subcommittee has evaluated the need for the continued allowance for or prohibition of the following substances for use in organic crop production

**Sodium Carbonate Peroxyhydrate**

*Synthetic*

**Use** - as an algaecide

**Listing:** Sodium carbonate peroxyhydrate (CAS # 15630-89-4)—Federal law restricts the use of this substance in food crop production to approved food uses identified on the product label.

**Technical Report:** [2006 \(PDF\)](#); [2014 \(PDF\)](#)

**Petition(s):** : [Sodium Carbonate Peroxyhydrate \(2005\)](#)

**Past NOSB Actions:** Recommended for addition to the National List on [11/30/07](#).

**Regulatory Background:** Proposed rule (including justification) published 6/3/2009 ([74 FR 26591](#)). Added to National List 12/13/2010 ([75 FR 77521](#)).

**Sunset Date:** **12/14/2015**

Reference: 7 CFR 205.601(a)

**Subcommittee Review**

**The Crops Subcommittee believes that the full Board should have the opportunity to complete the review of each sunset material by voting. The NOP has stated that to do this a motion to remove should be brought from the Subcommittee for each substance. If the Subcommittee motion to remove fails to receive a majority, the motion will still be put forward to the full board for review. The motion to remove is voted by the full Board and needs to receive a 2/3 majority to recommend removal.**

**Summary:**

Sodium Carbonate Peroxyhydrate<sup>1</sup> was added to the National List in 2007 with the hope that growers would use this as an alternative to more problematic materials such as copper and chlorine. However organic producers had had no previous experience to draw from with this product and in particular its use in rice, which has only been registered since 2010.

A new TR was commissioned in 2014 to address alternatives, and use patterns. The material is used as an algaecide in ponds, ditches and irrigation lines. It can also be used in rice production for scum disease. New information provided in that TR was used to prepare this review.

Summarized points from the TR:

- The material is a precursor to hydrogen peroxide and is used widely in household cleaners and detergents as well as water bodies. (TR lines 89-100).

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<sup>1</sup> Sodium Carbonate Peroxyhydrate is the active ingredient in products such as the brands GreenClean, GreenClean Pro, Terracyte Pro, and PAK 27 Algaecide

- While most international standards do not mention sodium carbonate peroxyhydrate by name, they do allow both hydrogen peroxide and sodium carbonate which are the components and the precursors of this substance. (TR lines 164-202).
- There are no new concerns since the earlier review about human health or environmental effects. (TR lines 391-434)
- Of the alternatives presented, copper sulfate is clearly the most problematic and also the most widely used (on 97,757 acres vs. 1,177 acres in 2010, representing 17.4 and 0.3% of California rice acreage) (TR lines 448 - 457).
- Some proposed alternative controls, such as Chinese herbs, garlic extracts, or panchagavya, have not been tested in the U.S. and may not be available. (TR lines 487 - 497).

The Crops Subcommittee (CS) posed the following question in seeking public comment on this substance in the first posting in Spring 2014:

The subcommittee is seeking input on the comparison of this material to copper sulfate for control of algal scum in rice production and whether it can replace copper sulfate for that use.

Only 5 comments were received. Another 4 were received for the cancelled Fall 2013 meeting. While some of the comments were against renewing it at sunset and one was in favor, the only one that addressed the question posed was the one in favor which came from the original petitioner. The ones against did not mention any actual first-hand experience with the substance or the alternatives.

Points raised in favor of renewing substance:

- It has provided better control of algae and its breakdown components of water and oxygen are a needed relief from elemental copper accumulation associated with copper based chemistries.
- In 2014 copper labels have been restricted to a label that is rendered useless when treating algae.
- Sodium carbonate peroxyhydrate has been approved for use in drinking water by the NSF and has also been Kosher certified.
- When utilized in irrigation ponds Sodium carbonate peroxyhydrate has less corrosion issues with irrigation equipment than copper sulfate.

Points raised against renewing substance:

- It was found by the NOSB in its 2007 recommendation not to meet the OFPA criteria of essentiality, compatibility with organic production, and no impacts on human health and the environment.
- SCP is not permitted in organic production internationally (lines 164-202).
- The TR mentions several materials and a number of alternative practices to reduce algae in ponds and rice paddies: Alternatives are available for control of algae: Rice straw, Allelopathic plants, Herbivorous fish
- SCP does not fit any OFPA categories.

Additional point raised:

- The annotation for this material is confusing and difficult to interpret for products that are manufactured outside of the U.S. or are labeled for other uses beside a pesticide.
- The annotation indicates it is restricted to only those food crops on the label. However, if used as an irrigation cleaner, it wouldn't necessarily have food crops on the label to indicate to the end user whether they are in compliance with this annotation.

It is likely that the growers who use or have tried this material did not write in because they did not recognize the generic name as being the active ingredient in the product they are using. Therefore the CS hopes that product users will submit comments this time, particularly about the efficacy and relevance of the alternatives mentioned above and in the TR such as rice straw, allelopathic plants, and herbivorous fish.

The CS did some further investigation into points raised in public comment. In particular the 2007 report of

the California Rice Research Board that studied the efficacy of this material<sup>2</sup> and found that it did not work well enough to recommend it for rice paddies. Further investigations into controlling algae by the same group in 2010<sup>3</sup> indicated that management of phosphorus fertilization can influence the severity of algal growth. Reducing phosphate concentrations in rice field water was not mentioned in the TR but may be a promising alternative practice.

**Motion to Remove:**

This proposal to remove will be considered by the NOSB at its public meeting.

Based on the Subcommittee's review, the Subcommittee proposes removal of this substance from the National List based on the following criteria in the Organic Foods Production Act (OFPA): **[OFPA criteria at 7 U.S.C. 6158(m), (7) its compatibility with a system of sustainable agriculture.**

The subcommittee found no concerns regarding the continued listing of Sodium Carbonate Peroxyhydrate. The justification for this motion is that the whole NOSB needs to consider and vote on each material, rather than just a subcommittee.

**Motion to remove Sodium Carbonate Peroxyhydrate from the National List**

**Motion by:** Zea Sonnabend

**Seconded by:** Harold Austin

Yes: 4 No: 3 Abstain: 0 Recuse: 0 Absent: 0

**Minority Statement on Motion to Remove**

While the minority of the CS agrees with the majority that the full NOSB should vote on sunset materials, in voting against this motion it is following what we believe are required procedures of AMS/USDA as established by the September 16, 2013 Federal Register notice (78 FR 56811), which states that motions to remove be justified by criteria established by the Organic Foods Production Act. Because of concern that a change in NOSB procedures should be disclosed to the public before taking effect, the minority does not accept the compatibility criteria from 7 U.S.C. 6158(m) (7) that was provided in this case. Furthermore, AMS/NOP has said that no action by the NOSB maintains a sunset material on the National List.

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<sup>2</sup> Spencer, David 2007. Annual Report Comprehensive Research on Rice. Project Title: Assessing alternative methods for managing algae in California Rice fields. <http://www.carrb.com/07rpt/2007%20Spencer%20RP-14.pdf>

<sup>3</sup> Spencer, David 2010. Annual Report Comprehensive Research on Rice. Project Title: Assessing alternative methods for managing algae 2010. <http://www.carrb.com/10rpt/Algae.htm>