

Sunset 2018 Review Summary
Meeting 1 - Request for Public Comment
Crops Substances
April 2016

Introduction

As part of the [Sunset Process](#), the National Organic Program (NOP) announces substances on the National List of Allowed and Prohibited Substances (National List) that are coming up for sunset review by the National Organic Standard Board (NOSB). The following list announces substances on the National List used in organic crop production that must be reviewed by the NOSB and renewed by the USDA before their sunset dates in 2018. This list provides the substance's current status on the National List, use description, references to past technical reports, past NOSB actions, and regulatory history, as applicable. If a new technical report has been requested for a substance, this is noted in this list. To see if any new technical report is available, please check for updates under the substance name in the [Petitioned Substances Database](#).

Request for Comments

While the NOSB will not complete its review or recommendations on these substances until the fall 2016 public meeting, the NOP is requesting that the public provide comments about these substances to the NOSB as part of the spring 2016 public meeting. These comments should be provided through www.regulations.gov by April 6, 2016 as explained in the meeting notice published in the Federal Register.

These comments are necessary to guide the NOSB's review of each substance against the criteria in the Organic Foods Production Act (7 U.S.C. 6518(m)) and the USDA organic regulations (7 CFR 205.600). The substances currently on the National List were added to the list based on evidence available to the NOSB at the time. The substances were found to be: (1) not harmful to human health or the environment, (2) necessary because of the unavailability of wholly nonsynthetic alternatives, and (3) consistent and compatible with organic practices.

Public comments should focus on providing new information about a substance since its last NOSB review. Such information could include research or data that may support a change in the NOSB's determination for a substance. Public comment should also address the continuing need for a substance or whether the substance is no longer needed or in demand.

Guidance on Submitting Your Comments

Comments should clearly indicate your position on the allowance or prohibition of substances on the list and explain the reasons for your position. You should include relevant information and data to support your position (e.g., scientific, environmental, manufacturing, industry impact information, etc.).

For Comments That Support Substances Under Review:

If you provide comments in support of an allowance of a substance on the National List, you should provide information demonstrating that the substance is:

- (1) not harmful to human health or the environment;
- (2) necessary to the production of the agricultural products because of the unavailability of wholly nonsynthetic substitute products; and
- (3) consistent with organic crop production.

For Comments That Do Not Support Substances Under Review:

If you provide comments that do not support a substance on the National List, you should provide reasons why the use of the substance should no longer be allowed in organic production or handling. Specifically, comments that support the removal of a substance from the National List should provide new information since its last NOSB review to demonstrate that the substance is:

- (1) harmful to human health or the environment;
- (2) unnecessary because of the availability of alternatives; and
- (3) inconsistent with crop production.

For Comments Addressing the Availability of Alternatives:

Comments may present information about the viability of alternatives for a substance under sunset review. Viable alternatives include, but are not limited to:

- Alternative management practices that would eliminate the need for the specific substance;
- Other currently exempted substances that are on the National List, which could eliminate the need for this specific substance; and
- Other organic or nonorganic agricultural substances.

Your comments should address whether any alternatives have a function and effect equivalent to or better than the allowed substance, and whether you want the substance to be allowed or removed from the National List. Assertions about alternative substances, except for those alternatives that already appear on the National List, should, if possible, include the name and address of the manufacturer of the alternative. Further, your comments should include a copy or the specific source of any supportive literature, which could include product or practice descriptions; performance and test data; reference standards; names and addresses of producers or handlers who have used the alternative under similar conditions and the date of use; and an itemized comparison of the function and effect of the proposed alternative(s) with substance under review. The following table can help you describe recommended alternatives in place of a current substance that you do not want to be continued.

Written public comments will be accepted through April 6, 2016 via www.regulations.gov. Comments received after that date may not be reviewed by the NOSB before the meeting.

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Reference: 7 CFR §205.601 Synthetic substances allowed for use in organic crop production.
(Linked below)

[Copper sulfate](#)

[Ozone gas](#)

[Peracetic acid](#)

[EPA List 3 - Inerts of Unknown Toxicity](#)

Reference: 7 CFR §205.602 Nonsynthetic substances prohibited for use in organic crop production.

[Calcium chloride](#)

Copper sulfate

Reference:

205.601(a)(3) Copper sulfate—for use as an algicide in aquatic rice systems, is limited to one application per field during any 24-month period. Application rates are limited to those which do not increase baseline soil test values for copper over a timeframe agreed upon by the producer and accredited certifying agent; and,

205.601(e)(4) Copper sulfate—for use as tadpole shrimp control in aquatic rice production, is limited to one application per field during any 24-month period. Application rates are limited to levels which do not increase baseline soil test values for copper over a timeframe agreed upon by the producer and accredited certifying agent.

Technical Report: [1995 TAP \(Copper Sulfate and Other Coppers\)](#); [2001 TAP](#); [2011 TR](#)

Petition(s): [2001](#)

Past NOSB Actions: [10/2001 meeting minutes and vote](#); [11/2007 recommendation](#); [04/2011 recommendation](#)

Recent Regulatory Background: National List amended 10/31/2003 ([68 FR 61987](#)); Sunset renewal notice effective 11/03/2013 ([78 FR 61154](#))

Sunset Date: 11/03/2018

Background

Copper sulfate and fixed coppers used for plant disease control (§205.601(i)(2) and §205.601(i)(3)) were recently reviewed for Sunset 2017 and the [documents were posted](#) regarding the review criteria in

regards to copper. The listings under review now are for copper used in aquatic rice production to control algae or tadpole shrimp (§205.601(a)(3) and §205.601(e)(4), respectively). Because the copper sulfate is used in aquatic systems the current annotations include specific requirements for application rates.

Additional information requested by NOSB:

1. Has there been any new information regarding the viability of alternatives to these uses of copper?
2. Have ACAs noticed any increase in baseline soil test values for copper and done anything about it?

Ozone gas

Reference: 205.601(a)(5) Ozone gas—for use as an irrigation system cleaner only.

Technical Report: [2002 TAP](#)

Petition(s): [2001](#)

Past NOSB Actions: [09/2002 meeting minutes and vote](#); [11/2007 recommendation](#); [12/2011 recommendation](#)

Recent Regulatory Background: National List amended 10/31/2003 ([68 FR 61987](#)); Sunset renewal notice effective 11/03/2013 ([78 FR 61154](#))

Sunset Date: 11/03/2018

Background

Ozone was petitioned for use for weed control in crop production. It was suggested that ozone be injected through irrigation drip tape under plastic mulch. A subsequent additional request was made for use of ozone as an antimicrobial agent to clean irrigation lines. Ozone is a strong oxidant and works by oxidizing plant tissue and bacterial membranes.

In the 2002 TAP review, one reviewer objected strongly to use of “a known and problematic air pollutant” in organic farming. Two reviewers felt that ozone should be permitted with restrictions.

Ozone was not approved for use in weed control, but was listed for use as an irrigation system cleaner in September, 2002. Used as an irrigation cleaner, ozone is much less likely to be released into the atmosphere. Used for weed control, ozone could escape into the atmosphere. At sunset in November 2007, ozone was relisted by a vote of 14 to 0. At sunset in December 2011, ozone was relisted by a vote of 13 to 0.

Additional information requested by NOSB:

The Crops Subcommittee would like to know if ozone is currently in use for irrigation system cleaning. The Subcommittee asks certifiers, inspectors, and producers to provide feedback on whether or not ozone is listed on organic system plans and used in organic crop production, to help evaluate if it is still necessary for ozone to remain on the National List.

Peracetic acid

Reference:

205.601(a)(6) Peracetic acid—for use in disinfecting equipment, seed, and asexually propagated planting material. Also permitted in hydrogen peroxide formulations as allowed in §205.601(a) at concentration of no more than 6% as indicated on the pesticide product label; and, 205.601(i)(8) Peracetic acid - for use to control fire blight bacteria. Also permitted in hydrogen peroxide formulations as allowed in §205.601(i) at concentration of no more than 6% as indicated on the pesticide product label.

Technical Report: [2000 TAP](#)

Petition(s): [2008](#)

Past NOSB Actions: [11/2007 recommendation](#); [11/2009 annotation change](#); [12/2011 sunset recommendation](#)

Recent Regulatory Background: National List amended 10/31/2003 ([68 FR 61987](#)); Sunset Review 10/09/2008 [73 FR 59479](#) ; Annotation change 05/28/2013 ([78 FR 31815](#))

Sunset Date: 5/29/2018

Specific Uses of the Substance: Peracetic acid in organic crop production is used to disinfect equipment. It can also be used to treat seeds or asexually propagated planting materials as a disinfectant. It can be used to disinfect pruning equipment to help prevent the spread of the fire blight bacterium or used in one of the hydrogen peroxide formulations for control on the tree canopy of this same disease. Peracetic acid is also used in formulations of hydrogen peroxide, allowed at a concentration of no more than 6%, for use in organic crop production. (The Handling listing for Peracetic acid, a 2016 Sunset Review material, has recently been voted on to re-list its allowed use).

Technical Report: The Crops subcommittee has requested a new Technical Evaluation Report for peracetic acid, but it has not yet arrived and thus any additional information that it might provide will be in the 2nd posting for this material review (Fall 2016 NOSB meeting).

Discussion: This appears to be a pretty straightforward material: made from and decomposes back to acetic acid, oxygen, and water. Peracetic acid is a very strong oxidizing agent. This substance was first developed in 1950. Historically it has been used to treat fruits and vegetables to reduce spoilage from bacteria and various fungi. It is used to treat bulbs, to disinfect potting soil, clean irrigation equipment, and in seed treatment to inactivate fungi or other plants diseases. Additionally, in organic crop production it is also used as a bactericide/fungicide in wash waters to help decrease *Escherichia coli* O157:H7 on some fruit and vegetable crops. With the recent removal of two antibiotics previously allowed for use in organic crop production to assist in fire blight reduction, use of this substance as part of a rotational control and fire blight prevention program has increased, according to information provided by some organic stakeholders during recent public comment periods.

In the December 2, 2011 NOSB recommendation for the 2013 Sunset Review of peracetic acid for the 2 Crops listings at §205.601(a)(6) and §205.601(i)(8), the board clarified the annotation change from the 2009 recommendation and supported it. The original recommended annotation change was:

§205.601(a)(6) Peracetic acid—for use in disinfecting equipment, seed, and asexually propagated planting material. Permitted in hydrogen peroxide formulations at concentration of no more than 5%.

§205.601(i)(8) Peracetic acid—for use to control fire blight bacteria. Permitted in hydrogen peroxide formulations at concentrations of no more than 5%.

This annotation was later implemented by the NOP with a slight change. The recommended 5 percent limit was changed to a 6 percent limit, based on information provided during public comment stating the recommended 5% limit was too low compared to percentages in use at the time. This has brought some slight confusion into this review, so we are going to try and clean up this historic information and also seek to get some clarity on what impact, if any, this annotation had on the various stakeholders that are involved.

Additional information requested by NOSB:

1. Can organic crop producers or certifiers provide the full committee with any information that can explain why this material (or one of the alternative materials) is a better option for use, in organic crop production, for the listed allowed uses?
2. Has anything changed during the current sunset cycle that would make this material no longer necessary for its intended uses for organic crop production? If so, please help to explain.
3. It would help the NOSB in the review of this material if we could get feedback as to whether the current annotation (at a concentration of no more than 6%) presents any unforeseen problems for organic stakeholders, certifiers, or for product formulation. Also, could you provide input as to whether or not this annotation is even necessary?

EPA List 3 - Inerts of Unknown Toxicity

Reference: 205.601(m)(2) EPA List 3—Inerts of unknown toxicity—for use only in passive pheromone dispensers.

Technical Report: N/A

Petition(s): NA

Past NOSB Actions: [10/2002 meeting minutes and vote \(see pheromones\)](#); [11/2007 recommendation](#); [05/2012 recommendation](#)

Recent Regulatory Background: National List amended 10/31/2003 ([68 FR 61987](#)); Sunset Review 10/09/2008 [73 FR 59479](#) Sunset Review 10/03/13 ([78 FR 61154](#))

Sunset Date: 11/03/2018

This listing will be superseded by the annotation change approved by the NOSB for EPA List 4 and List inerts (§205.601(m)(1)). The NOSB is continuing the sunset review process for these EPA List 3 inerts in case that change cannot be implemented through rulemaking before the 11/03/2018 sunset of EPA List 3 inerts.

Additional information requested by NOSB:

None

Calcium chloride

Reference: 205.602 - Nonsynthetic substances prohibited for use in organic crop production.

(c) Calcium chloride, brine process is natural and prohibited for use except as a foliar spray to treat a physiological disorder associated with calcium uptake.

Technical Report: [2007 TAP](#)

Petition(s): [2005](#); [2015](#)

Past NOSB Actions: [09/1996 minutes and vote](#); [11/2006 annotation change \(failed\)](#); [11/2007 sunset recommendation](#); [12/2011 sunset recommendation](#)

Recent Regulatory Background: National List amended 10/31/2003 ([68 FR 61987](#)); Sunset renewal notice effective 11/03/13 ([78 FR 61154](#))

Sunset Date: 11/03/2018

Background

The NOSB originally voted to allow calcium chloride for use to control bitter pit in apples and as an emergency defoliant for cotton; the material was categorized as nonsynthetic and was not included on sections 205.601 or 205.602. Calcium chloride was subsequently petitioned and added to National List section 205.602 as a nonsynthetic substance prohibited for use in organic crop production. The annotation states: “brine process is natural and prohibited for use except as a foliar spray to treat a physiological disorder associated with calcium uptake.”

This material has historically not been allowed for direct soil applications due to high chloride and high solubility concerns, however a 2015 petition for removal of the prohibition contests these concerns and argues the contrary. Natural substitutes including limestone, gypsum, rock phosphate and bone meal are unable to supply calcium in sufficient quantities when faced with limited calcium uptake conditions. There are currently 20 registered OMRI products and 10 WSDA registered products.

The Subcommittee has no concerns regarding the continued listing of calcium chloride.

Additional information requested by NOSB:

None

