FORMAL RECOMMENDATION BY THE NATIONAL ORGANIC STANDARDS BOARD (NOSB)
TO THE NATIONAL ORGANIC PROGRAM (NOP)
Date: <u>November 17, 2005</u>
Subject: Sunset review of National List substances used in crop production
Chair: Jim Riddle
(sign)
Recommendation
The NOSB hereby recommends to the NOP the following:
Rulemaking Action: X Guidance Statement: X
Other:X
Statement of the Recommendation (including Recount of Vote): The NOSB voted to renew 34 substances on section 205.601 of the National List. The NOSB voted to defer action on 12 substances on 205.601. The NOSB voted to renew 8 substances on 205.602, with none deferred. Votes were taken on each subsection. A complete list of the recommendations to renew and defer appears below, along with the vote totals for each subsection.
Rationale Supporting Recommendation (including consistency with OFPA and NOP): Statements from the Crops Committee explaining the rationale supported through NOSB action precede each of the recommendations presented below. A compilation of all deferred substances, complete with specific questions identified by the NOSB, are submitted to the NOP under separate cover.
<u>Response by the NOP:</u>
Updated 2/25/05

(a): As algicides, disinfectants and sanitizer including irrigation system cleaning systems

III. Committee Summary: Some commentors were proponents of keeping all materials on list 205.601. Ethanol, isopropanol, chlorine materials, hydrogen peroxide, peracetic acid and soap-based algicide/demossers were mentioned by commentors. No commentors specifically mentioned ozone. Many commentors supported while others objected to the continued use of chlorine-based materials, and hydrogen peroxide. Several commentors stated that it was inappropriate for the National List to contain either hydrogen peroxide or chlorine-based materials for crop production because these materials are inconsistent with organic principles. The Crops Committee neither agrees nor disagrees with the commentors concerning chlorine materials and hydrogen peroxide. The Committee is deferring these two materials until additional information is obtained because these substances may no longer be essential for organic productions and new information on the reactivity in the environment and quantity of residue remaining on product need to be considered. The Committee agrees with the commentors that alcohol (ethanol, isopropanol), ozone gas, and soap-based algicides/demossers should be renewed because their use does not negatively impact humans or the environment, is essential for organic production and is compatible with organic production practices. One commentor stated that all synthetic substances should be prohibited for use in organic production, however, due to the fact that the commentor did not provide any evidence on how any of those substances violated OFPA, the Crops Committee does not agree with this commentor.

IV. Committee Recommendation(s):

Recommendations Based upon Comments Received – 205.601(a)

The Crops Committee recommends the renewal of the following substances:

- (1) Alcohol
- i) Ethanolii) Isopropanol
- (5) Ozone gas-for use as an irrigation system cleaner only

(7) Soap-based algicide/demossers.

The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained. The materials to be deferred are:

(2) Chlorine materials

- (i) Calcium hypochlorite
- (ii) Chlorine dioxide
- (iii) Sodium hypochlorite

(4) Hydrogen peroxide

The Crops Committee recommends not renewing the following substances: None in this category

Moved: Second: Committee vote: 5 –0

Board vote: 13 yes, 0 no, 1 abstain

II. Category Use

(b): As herbicides, weed barriers, as applicable.

III. Committee Summary: Some commentors were proponents of keeping all materials on list 205.601. Of those commentors who mentioned specific substances within this use category, the continued listing of soap-based herbicides and mulches was mentioned. Most commentors supported the continued use of soap-based herbicides and mulches materials while several commentors indicated that paper-based mulches could be excluded because they were unnecessary for production. The Crops Committee agrees with the commentors who state the soap-based herbicides and mulches (plastic mulch and covers, newspaper and other recycled paper) should be renewed because their use does not negatively impact humans or the environment, is essential for organic production and is compatible with organic production practices. One commentor stated that all synthetic substances should be prohibited for use in organic production, however, due to the fact that the commentor did not provide any evidence on how any of those substances violated OFPA, the Crops Committee does not agree with this commentor.

IV. Committee Recommendation(s):

<u>Recommendations Based on Comments Received – 205.601(b)</u> The Crops Committee recommends the renewal of the following substances in this use category:

(1) Herbicides, soap-based—for use in farmstead maintenance (roadways, ditches, right of ways, building perimeters) and ornamental crops.

(2) Mulches.

- i) Newspaper or other recycled paper, without glossy or colored inks.
- **ii**) Plastic mulch and covers (petroleum-based other than polyvinyl chloride (PVC))

The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained:

None in this category

The Crops Committee recommends not renewing the following substances: None in this category

Moved: Rose Second: Jim Committee vote: 5 - 0Board vote: 14 yes, 0 no

II. Category Use

(c): As compost feedstocks

III. Committee Summary: Some commentors were proponents of keeping all materials on list 205.601. No comments were submitted that specifically mentioned newspaper or recycled paper as compost feed stock. One commentor stated that all synthetic substances should be prohibited for use in organic production, however, due to the fact that the commentor did not provide any evidence on how the materials on the National List violate OFPA, the Crops Committee does not agree with this commentor. Newspaper or other recycled paper meets the OFPA criteria.

IV. Committee Recommendation(s):

<u>Recommendations Based on Comments Received – 205.601(c)</u> The Crops Committee recommends renewing the following substances in this use category based on the submitted evaluation forms:

As compost feedstocks

Newspaper or other recycled paper, without glossy or colored inks.

The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained: None in this category

The Crops Committee recommends not renewing the following substances: None in this category

<u>Recommendations Based not on Comments Received –205.601(c)</u> The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained. The materials to be deferred are: None in this category

Moved: Second: Committee vote: 5-0 Board vote: 14 yes, 0 no

II. Category Use

(d): As animal repellents

III. Committee Summary: Some commentors were proponents of keeping all materials on list 205.601. No comments were submitted that specifically mentioned soap, ammonium – for use as a large animal repellant, no contact with soil or edible potion of crop. The Crops Committee agrees with commentors who support the renewal of ammonium soaps because their use does not negatively impact humans or the environment, is essential for organic production and is compatible with organic production practices. One commentor stated that all synthetic substances should be prohibited for use in organic production, however, due to the fact that the commentor did not provide any evidence on how the materials on the National List violate OFPA, the Crops Committee does not agree with this commentor.

IV. Committee Recommendation(s):

<u>Recommendations Based on Comments Received – 205.601(d)</u> The Crops Committee recommends the renewal of the following substances in this use category:

Soaps, ammonium—for use as a large animal repellant only, no contact with soil or edible portion of crop.

The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained: None in this category

The Crops Committee recommends not renewing the following substances: None in this category

Recommendations Based not on Comments Received – 205.601(d) None in this category

Move: Jim Second: Gerry Committee vote: 5 - 0Board vote: 14 yes, 0 no

II. Category Use

(e): As insecticides (including acaricides or mite control).

III. Committee Summary: Some commentors were proponents of keeping all materials on list 205.601. Of those commentors who mentioned specific substances within this use category, the continued listing of ammonium carbonate, boric acid, elemental sulfur, lime sulfur, horticultural oils, soaps, sticky traps/barriers were mentioned. Many commentors supported the continued use of the materials in this category. The Crops Committee agrees with the commentors concerning the renewal of ammonium carbonate, boric acid, elemental sulfur, lime sulfur insecticidal soaps, and sticky traps/barriers because their use does not negatively impact humans or the environment, is essential for organic production and is compatible with organic production practices. A commentor indicated that horticultural oils should not be allowed because there are non-synthetic materials available. Committee agrees with the commentor and is recommending the review of oils, horticultural - narrow range oils as dormant, suffocating, and summer oils because the non-synthetic materials are available but the appropriateness of vegetable oils for this use is unknown. One commentor stated that all synthetic substances should be prohibited for use in organic production, however, due to the fact that the commentor did not provide any evidence on how the materials on the National List violate OFPA, the Crops Committee does not agree with this commentor.

IV. Committee Recommendation(s):

Recommendations Based on Comments Received – 205.601(e)

The Crops Committee recommends the renewal of the following substances

- (1) Ammonium carbonate—for use as bait in insect traps only, no direct contact with crop or soil.
- (2) Boric acid—structural pest control, no direct contact with organic food or crops.
- (4) Elemental sulfur.
- (5) Lime sulfur—including calcium polysulfide.
- (7) Soaps, insecticidal.
- (8) Sticky traps/barriers.

The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained:

(6) Oils, horticultural—narrow range oils as dormant, suffocating, and summer oils.

The Crops Committee recommends not renewing the following substances: None in this category

Recommendations Based not on Comments Received – 205.601(e) None in this category

Move: Jim Second: Rose Committee vote: 5 - 0

Board vote: 13 yes, 0 no, 1 absent

II. Category Use

(f): As insect management.

III. Committee Summary: Some commentors were proponents of keeping all materials on list 205.601. Of those commentors who mentioned specific substances within this use category, all supported continued listing of pheromones. The Crops Committee agrees with the commentors supporting the renewal of pheromones because their use does not negatively impact humans, or the environment, is essential for organic production and is compatible with organic production practices. One commentor stated that all synthetic substances should be prohibited for use in organic production, however, due to the fact that the commentor provide any evidence on how any of those substances violated OFPA, the Crops Committee does not agree with this commentor.

IV. Committee Recommendation(s):

<u>Recommendations Based on Comments Received – 205.601(f)</u> The Crops Committee recommends the renewal of the following substances in this use category:

Pheromones.

The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained:

None in this category

The Crops Committee recommends not renewing the following substances: None in this category

Recommendations Based not on Comments Received – 205.601(f) None in this category

Move: Jim Second: Gerry Committee vote: 5 - 0 Board vote: 13 yes, 0 no, 1 absent

II. Category Use

(g): As rodenticides.

III. Committee Summary: Some commentors were proponents of keeping all materials on list 205.601. Of those commentors who mentioned specific substances within this use category, they all supported continued listing of sulfur dioxide – underground rodent control only (smoke bombs) and Vitamin D_3 . The Crops Committee agrees with the commentors supporting the renewal of sulfur dioxide and vitamin D_3 because their use does not negatively impact humans or the environment, is essential for organic production and is compatible with organic production practices. One commentor stated that all synthetic substances should be prohibited for use in organic production, however, due to the fact that the commentor did not provide any evidence on how any of those substances violated OFPA, the Crops Committee does not agree with this commentor.

IV. Committee Recommendation(s):

<u>Recommendations Based on Comments Received – 205.601(g)</u> The Crops Committee recommends the renewal of the following substances in this use category:

- (1) Sulfur dioxide—underground rodent control only (smoke bombs).
- (2) Vitamin D₃.

The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained:

None in this category

The Crops Committee recommends not renewing the following substances: None in this category

Recommendations Based not on Comments Received – 205.601(g) None in this category

Move: Gerry Second: Rose Committee vote: 5 - 0Board vote: 14 yes, 0 no

II. Category Use

(h): As slug or snail bait.

III. Committee Summary: No items are in this category. No comments were made specific to this category.

IV. Committee Recommendation(s):

<u>Recommendations Based on Comments Received – 205.601(h)</u> The Crops Committee recommends the renewal of the following substances in this use category:

None in this category

The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained:

None in this category

The Crops Committee recommends not renewing the following substances: None in this category

<u>Recommendations Based not on Comments Received – 205.601(h)</u> None in this category

Move: Second: Committee vote: 5-0 Board vote: No recommendation in this subsection; no vote.

II. Category Use

(i): As plant disease control.

III. Committee Summary: Some commentors were proponents of keeping all materials on list 205.601. Of those commentors who mentioned specific substances within this use category, all supported the continued listing of fixed coppers, copper sulfate, hydrogen peroxide, lime sulfur, horticultural oils, potassium bicarbonate, elemental sulfur, streptomycin, tetracycline were mentioned. No comments were submitted that specifically mentioned peracetic acid – for use to control fire blight bacteria. The Crops Committee agrees with the commentors concerning the renewal of fixed coppers, copper sulfate, lime sulfur, peracetic acid, potassium bicarbonate and elemental sulfur because their use does not negatively impact humans or the environment, is essential for organic production and is compatible with organic production practices. A commentor indicated that horticultural oils should not be allowed because there are non-synthetic materials available. The Crops Committee agrees with the commentor and is recommending the review of oils, horticultural – narrow range oils as dormant, suffocating, and summer oils because the non-synthetic materials are available but the appropriateness of vegetable oils for this use is unknown. The Crops Committee neither agrees nor disagrees with the commentors concerning the renewal of hydrated lime, hydrogen peroxide, streptomycin and tetracycline. The renewal of these materials is being deferred until additional information can be obtained. The use of antibiotics in organic production for therapeutic purposes (not growth enhancement) needs to be clarified. Hydrated lime and hydrogen peroxide have been suggested to be inappropriate for organic production because there is no OFPA category that specifically allows their use. One commentor stated that all synthetic substances should be prohibited for use in organic production, however, due to the fact that the commentor did not provide any evidence on how any of those substances violated OFPA, the Crops Committee does not agree with this commentor.

IV. Committee Recommendation(s):

Recommendations Based on Comments Received - 205.601(i)

The Crops Committee recommends the renewal of the following substances in this use category:

- (1) Coppers, fixed—copper hydroxide, copper oxide, copper oxychloride, includes products exempted from EPA tolerance, *Provided*, That, copper-based materials must be used in a manner that minimizes accumulation in the soil and shall not be used as herbicides.
- (2) Copper sulfate—Substance must be used in a manner that minimizes accumulation of copper in the soil.
- (5) Lime sulfur.
- (7) Peracetic acid—for use to control fire blight bacteria.
- (8) Potassium bicarbonate.
- (9) Elemental sulfur.

The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained:

(6) Oils, horticultural, narrow range oils as dormant, suffocating, & summer oils.

The Crops Committee recommends not renewing the following substances: None in this category

Motion: Rose Second: Jim Committee vote: 5 - 0

Committee vote: <u>Recommendations based on inconsistency with OFPA in Section</u> 205.601(i). The crops committee recommends deferring the following materials until further technical information is obtained. The materials to be deferred are:

- (3) Hydrated lime.
- (4) Hydrogen peroxide.
- (10) Streptomycin, for fire blight control in apples and pears only.
- (11) Tetracycline (oxytetracycline calcium complex), for fire blight control only.

Motion: RoseSecond: JimCommittee vote: 5 - 0Board vote: 10 yes, 2 no, 2 abstain

II. Category Use

(j): As plant or soil amendments.

III. Committee Summary: Some commentors were proponents of keeping all materials on list 205.601. Of those commentors who supported continued listing of substances, the following were specifically mentioned: aquatic plant extracts, elemental sulfur, humic acid, magnesium sulfate, lignin sulfonate, micronutrients (soluble boron and sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium and cobalt), vitamins B1, C, and E, liquid fish products. The Crops Committee agrees with the commentors concerning the renewal of elemental sulfur, magnesium sulfate, micronutrients and vitamins B₁, C, and E because their use does not negatively impact humans or the environment, is essential for organic production and is compatible with organic production practiced. A commentor agreed with the continued listing of humic acid but suggested an annotation for the material. The 5-year review process only allows for the renewal or removal of materials as they appear on the current National List. A change in an annotation for a substance would need to go through the formal petition process established by the NOP and NOSB. A commentor stated that it was inappropriate for lignin sulfonate to be on the National list because non-synthetic alternatives exist (aeration, bubblers, or other gentle agitation). Additionally, the commentor stated that if the material is allowed no residues should be allowed on the product. The Crops Committee agrees with the commentor that additional information is needed to determine the suitability of lignin sulfonate for organic production. Therefore this material is being deferred. The Committee disagrees with some commentors concerning the renewal of aquatic plant extracts, humic acids, and liquid fish products. and is recommending the deferral of these materials until additional information is obtained concerning the manufacturing process(es) and stabilizers and extractants for aquatic plant extracts and the availability of water extracted humic acid. One commentor stated that all synthetic substances should be prohibited for use in organic production, however, due to the fact that the commentor did not provide any evidence on how any of those substances violated OFPA, the Crops Committee does not agree with this commentor.

IV. Committee Recommendation(s):

Recommendations Based on Comments Received - 205.601(j)

The Crops Committee recommends the renewal of the following substances:

- (2) Elemental sulfur.
- (5) Magnesium sulfate—allowed with a documented soil deficiency.

(6) Micronutrients—not to be used as a defoliant, herbicide, or desiccant. Those made from nitrates or chlorides are not allowed. Soil deficiency must be documented by testing.

- (i) Soluble boron products.
- (ii) Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt.
- (7) Liquid fish products—can be pH adjusted with sulfuric, citric or phosphoric acid. The amount of acid used shall not exceed the minimum needed to lower the pH to 3.5.

(8) Vitamins, B₁, C, and E.

The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained:

(4) Lignin sulfonate—chelating agent, dust suppressant, floatation agent.

The Crops Committee recommends not renewing the following substances:: None in this category

Motion: Rose Second: Jim Committee vote: 5 - 0

Motion: Rose Second: Jim Committee vote: 5 - 0

Recommendations Based not on Comments Received – 205.601(j)

The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained:

- (1) Aquatic plant extracts (other than hydrolyzed)—Extraction process is limited to the use of potassium hydroxide or sodium hydroxide; solvent amount used is limited to that amount necessary for extraction.
- (3) Humic acids—naturally occurring deposits, water and alkali extracts only.

Motion:Second:Committee vote: 5-0**Board vote: 12 yes, 0 no, 2 abstain**

II. Category Use

(k): As plant growth regulators.

III. Committee Summary: Some commentors were proponents of keeping all materials on list 205.601. Of those commentors who mentioned specific substances within this use category, all supported the continued listing for ethylene gas – for regulation of pineapple flowering. The Crops Committee agrees with the commentors concerning the renewal of ethylene gas because their use does not negatively impact humans or the environment, is essential for organic production and is compatible with organic production practices. One commentor stated that all synthetic substances should be prohibited for use in organic production, however, due to the fact that the commentor did not provide any evidence on how any of those substances violated OFPA, the Crops Committee does not agree with this commentor.

IV. Committee Recommendation(s):

<u>Recommendations Based on Comments Received – 205.601(k)</u> The Crops Committee recommends the renewal of the following substances in this use category:

Ethylene gas—for regulation of pineapple flowering.

The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained: None in this category

The Crops Committee recommends not renewing the following substances: None in this category

Recommendations Based not on Comments Received – 205.601(k) None in this category

Rose: Moved Second: Jim Committee vote: 5 - 0 Board vote: 12 yes, 2 no

II. Category Use

(l): As floating agents in postharvest handling.

III. Committee Summary: Some commentors were proponents of keeping all materials on list 205.601. Of those commentors who mentioned specific substances within this use category, lignin sulfonate and sodium silicate – for tree fruit and fiber processing were mentioned. One commentor stated that sodium silicate is unnecessary and they have never encountered a tree fruit producer who used it or requested to use it. The commentor further stated that if lignin sulfonate and sodium silicate remaining on the National list, they should be placed under processing rather than crop production. Another commentor stated that lignin sulfonate should be removed from the list because practical alternatives exist. The Crops Committee is recommending deferral of lignin sulfonate and sodium silicate to obtain additional information concerning potential alternatives and the need for sodium silicate. One commentor stated that all synthetic substances should be prohibited for use in organic production, however, due to the fact that the commentor did not provide any evidence on how any of those substances violated OFPA, the Crops Committee does not agree with this commentor.

IV. Committee Recommendation(s):

<u>Recommendations Based on Comments Received – 205.601(1)</u> The Crops Committee recommends the renewal of the following substances in this use category:

None in this category

The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained:

- (1) Lignin sulfonate.
- (2) Sodium silicate—for tree fruit and fiber processing.

The Crops Committee recommends not renewing the following substances: None in this category

Recommendations Based not on Comments Received – 205.601(1) None in this category

Motion: Second: Committee vote: 5-0 Board vote: 14 yes, 0 no

(m): As synthetic inert ingredients as classified by the Environmental Protection Agency (EPA), for use with nonsynthetic substances or synthetic substances listed in this section and used as an active pesticide ingredient in accordance with any limitations on the use of such substances.

III. Committee Summary: Some commentors were proponents of keeping all materials on list 205.601. Of those commentors who mentioned specific substances within this use category, the continued listing of List 4 materials was mentioned. The Crops Committee agrees with the commentors concerning the renewal of EPA List 4 inerts because their use does not negatively impact humans or the environment, is essential for organic production and is compatible with organic production practiced. One commentor stated that all synthetic substances should be prohibited for use in organic production, however, due to the fact that the commentor did not provide any evidence on how any of those substances violated OFPA, the Crops Committee does not agree with this commentor.

IV. Committee Recommendation(s):

<u>Recommendations Based on Comments Received – 205.601(m)</u> The Crops Committee recommends the renewal of the following substances in this use category:

(1) EPA List 4—Inerts of Minimal Concern.

The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained:

None in this category

The Crops Committee recommends not renewing the following substances: None in this category

Recommendations Based not on Comments Received – 205.601(m) None in this category

Motion: Rose Second: Jim Committee vote: 5 - 0Board vote: 14 yes, 0 no

I. List: 205.602 Nonsynthetic substances prohibited for use in organic crop production

II. Category Use

The following substances may not be used in organic crop production:

III. Committee Summary: All commentors who mentioned 205.602 were proponents of keeping all materials on list 205.602. Only one material [tobacco dust (nicotine sulfate)], and no others, was mentioned. A commentor stated that tobacco dust (nicotine sulfate) should be removed from the list because it is allowed by the ECC for insect control. The Crops Committee disagrees with the commentor and is recommending the renewed listing of tobacco dust (nicotine sulfate) because this material negatively impacts humans and the environment, is not essential for organic production and is not compatible with organic production practices. The Committee agrees with commentors and is recommending the renewed listing of ash from manure burning, arsenic, lead salts, sodium fluoaluminate, strychnine, and sodium nitrate-unless use is restricted to no more than 20% of the crop's total nitrogen requirement; because these materials negatively impact humans and the environment, are not essential for organic production and are not compatible with organic production practices. A commentor recommended the removal of the annotation for sodium nitrate. The Five-year review process looks to only renewing or removing materials; changes in annotation need to be petitioned. The Crop Committee will leave the annotation unchanged.. A commentor favored the removal of the annotation for Potassium chloride-unless derived from a mined source and applied in a manner that minimizes chloride accumulation in the soil. As stated above, annotation changes need to be addressed through the petition process.. One commentor stated that all synthetic substances should be prohibited for use in organic production, however, due to the fact that the commentor did not provide any evidence on how any of those substances violated OFPA, the Crops Committee does not agree with this commentor.

IV. Committee Recommendation(s):

<u>Recommendations Based on Comments Received – 205.602</u> The Crops Committee recommends the renewed listing of the following substances:

- (a) Ash from manure burning.
- (b) Arsenic.
- (d) Lead salts.
- (e) Potassium chloride—unless derived from a mined source and applied in a manner that minimizes chloride accumulation in the soil.
- (f) Sodium fluoaluminate (mined).
- (h) Strychnine.
- (g) Sodium nitrate—unless use is restricted to no more than 20% of the crop's total nitrogen requirement; use in spirulina production is unrestricted until October 21, 2005.
- (i) Tobacco dust (nicotine sulfate).

The Crops Committee recommends not renewing the following substances: None in this category Motion: Rose Second: Jim Committee vote: 4 – 0; 1 abstain

<u>Recommendations Based not on Comments Received – 205.602</u> The Crops Committee recommends deferring the vote on the following materials until further technical information is obtained: None in this category

Motion: Second: Committee vote: 5-0 Board vote: 14 yes, 0 no