

**NORTHWEST HORTICULTURAL COUNCIL**  
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October 2, 2018

Ms. Michelle Arsenault  
Advisory Committee Specialist  
National Organic Standards Board  
USDA-AMS-NOP  
1400 Independence Ave. SW  
Room 2648-S Mail Stop 0268  
Washington, DC 20250-0268

Dear Ms. Arsenault,

**RE: Docket Number: AMS-NOP-18-0029**  
**Notice of Meeting of the National Organic Standards Board**

The Northwest Horticultural Council (NHC) appreciates the opportunity to comment on the upcoming Sunset Review of organic materials listed in the most recent National Organic Standards Board (NOSB) Materials Report.

The NHC represents growers, packers, and shippers of apples, pears, and cherries in Idaho, Oregon, and Washington on federal and international policy and regulatory issues.

The Pacific Northwest is the national leader in the production of organic apples, pears, and cherries. Over 12 million boxes of organic apples are now harvested from more than 21,000 acres in Washington state, amounting to over 90 percent of the fresh organic apple crop in the United States. There is also a significant volume of organic pears and cherries grown in our region, with more than 4,100 acres planted across the Pacific Northwest. Organic tree fruit production in the Pacific Northwest is increasing, with additional acreage being transitioned to organic each year.

In many ways, this region is the epicenter for organic pome fruit and cherry production in the United States. The total value of the organic tree fruit crop for the region topped \$463 million in 2015, of which organic apples alone accounted for approximately \$398 million. In fact, tree-fruit accounted for 60% of farm gate sales for all Washington state organics that year.

We have compiled a list of materials from those listed by the NOSB for review that are of particular importance to organic tree fruit growers and packers. Below you will find this list, complete with NOSB citation, a brief description of the item's standard usage, and a statement as to why the product is needed.

## Crops

The NHC supports the Crops Subcommittee’s decision to recommend the continued listing of alcohol materials, elemental sulfur, lime sulfur, hydrated lime, liquid fish products, and sulfurous acid on the National List. These materials are essential tools for the organic tree fruit industry in the Pacific Northwest.

As recognized by the Crop Subcommittee, alcohol products are critical tools for the tree fruit industry in the orchard setting. They are effectively used to decontaminate the lines of irrigation systems as well as a variety of agricultural implements. Elemental sulfur is an essential insecticide, plant and soil amendment as well as a crucial plant disease control. In the Pacific Northwest, elemental sulfur is used as a wettable application 100% of the time. Lime sulfur is also used as a plant disease control and insecticide. Sulfur is heavily used in the Pacific Northwest and is still necessary in organic crop production.

- **Alcohols (ethanol) (citation 205.601(a)(1))** –Ethanol is used as an algaecide, disinfectant, and sanitizer (including for irrigation system cleaning). It is not applied to the edible portion of organic apples, pears, or cherries. This product is used by approximately 90% of organic tree fruit growers.
- **Alcohols (isopropanol) (citation 205.601(a)(1))** –Isopropanol is also used as an algaecide, disinfectant, and sanitizer (including to clean irrigation systems). It is used on a rotation with other sanitizers because reliance on a single sanitizer can lead to resistance development by pathogens. It is used by almost 100% of organic tree fruit growers in the region.
- **Elemental Sulfur**
  - **(citation 205.601(e)(5)) as insecticides** – Elemental sulfur is used to control rust mites in organic apples and pears. It allows control of other insects as well. Elemental sulfur has been used by our growers for over 100 years. There are no alternatives.
  - **(citation 205.601(i)(10)) as plant disease control** –Elemental sulfur helps control powdery mildew, rusts, scab, and brown rot in apples, pears, and cherries. Elemental sulfur is a significant tool used by organic growers as there are few options to treat powdery mildew. It is an essential material that our organic growers depend on. It is important to have several materials to rotate between to avoid resistance development, and the alternatives to elemental sulfur do not provide the same level of control and are not compatible with other materials used during the growing season.
  - **(citation 205.601(j)(2)) as plant or soil amendments** –Elemental sulfur is used to adjust soil pH. 99 percent pure elemental sulfur is the material used in our sulfur burners to generate the on-site form of sulfurous acid needed to treat our irrigation water. A balanced pH through the use of elemental sulfur ensures better nutrient uptake, better water penetration, and enhanced overall plant health, which in turn provides a healthy soil environment for beneficial insects and microbial activity. Sulfur is one of the six “macronutrients” (along with nitrogen, phosphorus, potassium, calcium, and magnesium), meaning that plants need a relatively large amount to survive. It is a necessary tool for organic production.

- **Lime Sulfur**
  - **(citation 205.601(e)(6)) as insecticides** – Lime sulfur is used during the dormant season prior to the trees leafing out. This use helps control insects, such as aphids, scale, and mites, that have overwintered on the trees..
  - **(citation 205.601(i)(6)) as plant disease control** – Lime sulfur is also used to control pathogens like mildew, several blights, and scab. With the loss of antibiotics, lime sulfur has become extremely important in controlling fire blight in both organic apples and pears. In Washington state, the label and application guidelines are more restrictive than federal standards. It is believed that lime sulfur is used by approximately 99% of regional organic growers.
  
- **Hydrated Lime (citation 205.601(i)(4))** – Hydrated lime is an important organic fungicide used as a foliar application. There are few other alternatives available to organic tree fruit growers in the region to control various types of mildew. It has been used since the 1800’s when a French scientist discovered it was effective against downy mildew.
  
- **Liquid Fish Products (citation 205.601(j))** – Liquid fish products are used as a plant and soil amendment. These products are important fertilizers for organic farmers, providing nitrogen and phosphorus, as well as trace minerals important to tree health. Liquid fish foliar applications not only improve crop yields and help reduce insect and disease, but also contain many trace minerals critical for tree health. Liquid fish products play a vital role in aiding organic farmers. It is believed that 100% of organic growers use this product.
  
- **Sulfurous Acid (citation 205.601(j))** – Sulfurous acid is used as a plant and soil amendment. It is used to reduce high pH in irrigation water which is not conducive to plant or soil health. The process involves running irrigation water through sulfur burners, acidifying the water which adjusts the soil pH, improving water absorption. Irrigation water with a high pH, if left untreated, causes calcium carbonate build-up on the leaf and fruit surface. Lowering the pH with the use of sulfurous acid reduces calcium carbonate build-up resulting in better nutrient uptake – improving crop yields and reducing soil degradation while also improving soil for beneficial microbes and bacteria.

### **Handling**

The NHC supports the Handling Subcommittee’s decision to recommend the continued listing of phosphoric acid. As recognized by the Handling Subcommittee, phosphoric acid is a necessary tool used in the cleaning of food processing equipment.

- **Phosphoric Acid (citation 205.605(b))** – Phosphoric Acid is used to clean food packing equipment to remove calcium and mineral deposit build-up. It is used on a limited scale, only on an as-needed basis for this purpose.

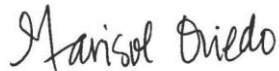
## **Conclusion**

These products listed above are important – and in some cases critical – to organic tree fruit production. The loss of these products would negatively impact our organic tree fruit growers and packers and consequently could force our local tree fruit growers and packers out of organic production. We ask that members of the board consider their decision carefully while recognizing the importance of these materials, both for the role each plays in organic tree fruit production but also to preserve management options necessary to respond to food safety concerns and operational needs in organic production and packing.

Thank you for your careful consideration of these comments.

Sincerely,

NORTHWEST HORTICULTURAL COUNCIL



Marisol Oviedo  
Regulatory Information Specialist

CC: NHC Science Advisory Committee's Organic Subcommittee  
NHC SAC Chairman Don Gibson