NORTHWEST HORTICULTURAL COUNCIL
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October 10, 2017

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-17-0024
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 National Organic Standards Board, October 2017 Proposals & Discussion Documents.

The NHC represents growers, packers, and shippers of apples, pears, and cherries, both conventional and organic, in the states of Idaho, Oregon, and Washington on federal and international policy and regulatory matters.

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 entire organic apple crop in the United States. There is also a significant amount 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 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.

Below please find a list of materials slated for the 2019 Sunset Review that are of particular importance to organic tree-fruit growers and packers. This list is complete with NOSB citation and a brief description of the item's standard usage and a statement as to why the product is needed. The NHC also submitted comments on these materials on March 29, 2017, through Docket Number AMS-NOP-16-0100.

Crops

The NHC supports the Crop Subcommittee's decision to recommend the continued listing of chlorine materials, soap-based herbicides, biodegradable bio-based mulch film, boric acid, sticky traps/barriers, coppers, humic acids, and micronutrients on the National List. These materials are essential tools for the organic tree-fruit industry. Soap-based herbicides and biodegradable bio-based mulch are necessary for weed control. Sticky traps/barriers are valuable in monitoring and controlling pest. Coppers are critical for control of plant diseases such as fire blight and apple scab, especially since organic growers are no longer permitted to use antibiotics. Humic acids, soluble boron, and micronutrients are all important for soil health.

As recognized by the Crop Subcommittee, chlorine-based products are critical tools for the tree-fruit industry in the orchard setting. They are vital to reducing the presence of naturally-occurring pathogens that pose significant health hazards for consumers and chlorine-based products are essential for complying with new requirements for sanitizing equipment and tools that will soon be imposed on all tree-fruit growers and packers though the Food Safety Modernization Act. Paracetic acid is currently the only other widely-used sanitizer permissible under the National Organic Program, and reliance on a single sanitizer can lead to resistance development by pathogens. We strongly support the continued use of these vital tools for equipment and water sanitation purposes.

- **Calcium Hypochlorite (citation 205.601(a)) -** Calcium hypochlorite is used as an algaecide, disinfectant, and sanitizer (including for irrigation system cleaning). It is an important tool for the sanitation of water used during crop production and is critical to reducing cross-contamination of naturally-occurring human health pathogens such as *E.coli* and *Listeria monocytogenes.* It can also be used to sterilize equipment that is used for fire blight removal in organic orchards to aid in the prevention of the spread of this disease. This product is used by many organic tree-fruit growers.

- **Chlorine Dioxide (citation 205.601(a))** - Chlorine dioxide is also used as an algaecide, disinfectant, and sanitizer (including to clean irrigation systems). It is used by almost 100% of organic tree-fruit growers in the region.

- **Sodium Hypochlorite (citation 205.601(a)) -** Sodium hypochlorite is used as a sanitizer for purposes such as irrigation system cleaning. It is also used to sanitize work preparation surfaces in the field, as well as harvest containers such as buckets, totes, bins, and boxes. In addition, it can be used to sterilize pruning equipment used for fire blight removal in organic orchards to aid in the prevention of the spread of this disease. It is used by nearly 100% of organic tree-fruit growers in the region.

- **Soap Based Herbicides (citation 205.601(b)) -** Soap-based herbicides are used to kill weeds around roadways, ditches, and building perimeters. It is a broad-spectrum weed control used early in the weed cycle. It replaces mechanical weeding that accelerates loss of soil organic matter. It also replaces propane flamers that can pose a fire hazard around fences and buildings. It is used on an as-needed basis among Pacific Northwest organic tree-fruit growers.

- **Biodegradable bio-based mulch (citation 205.601(b)) -** Biodegradable bio-based mulch is used as an herbicide and weed barrier. It provides a versatile approach to combat a broad spectrum of weeds that are difficult to control particularly perennial grasses and broadleaves for which the primary alternative is repeated tillage. While we support this continued listing, we would also ask that the NOSB provide clarity as to exactly what forms of these materials should be allowed for use.

- **Sticky Traps/Barriers (citation 205.601(e)) -** Sticky traps/barriers are used by organic tree-fruit growers for monitoring and controlling codling moth, apple maggot, and western cherry fruit fly. Trapping is an essential part of monitoring for pests and is required as part of a rigorous Integrated Pest Management regime. They are a valuable tool in controlling these pests that often pose a significant threat to organic tree-fruit production. Loss of these materials would be catastrophic to the tree-fruit industry. Sticky traps are used by 100% of organic tree-fruit growers.

- **Copper sulfate (citation 205.601(i)) -** Copper sulfate is a fungicide that is used for plant disease control. In particular, it is used to treat fire blight in apple and pear production. With the loss of streptomycin and oxytetracycline, copper sulfate has become an even more vital tool in treating fire blight and apple scab in apple and pear production. Coppers are typically applied prior to harvest and are not overly applied. Soil, leaf, and fruit testing are employed to ensure that copper sulfate is used in a manner that minimizes accumulation of copper in the soil and therefore prevents toxicity build-up.

- **Coppers, fixed (citation 205.601(i)) -** Fixed copper is used as a fungicide for control of fire blight in apple and pear production as well as in treating bacterial cankers and Gummosis of sweet cherry trees. Importance of fixed copper usage has increased for fire blight control in organic apple and pear production since the loss of streptomycin and oxytetracyline. Copper accumulation in the soil is properly minimized by testing soil, leaf, and fruit. It is estimated that almost 100% of organic tree-fruit growers in our region use this product.

- **Humic acids (citation 205.601(j)) -** Humic acid is used as a plant or soil amendment. It promotes better soil, which in turn promotes root health for the tree. It is also a good stimulant for soil microbes, helping the plant utilize other nutrients and thereby enhancing the quality of the fruit and overall soil and plant health. It is estimated that nearly 100% of organic tree-fruit growers use this product.

- **Soluble boron (citation 205.601(j)) -** Soluble boron is a plant micronutrient that is essential for plant growth and development. Use of this substance in the orchard improves fruit health and quality, improving the fruit's storability and reducing the probability of post-harvest physiological disorders in handling. This product is extensively used in the tree-fruit industry.

- **Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, iron, manganese, molybdenum, selenium, and cobalt. (citation 205.601(j)(6) (ii)) -** Micronutrients are used as a foliar spray or as a ground-applied nutrient for apples, pears, and cherries. They supplement

ground nutrients and aid with soil and plant health needs. These products are used extensively by organic tree-fruit growers, but at low rates applied per application.

Handling

The NHC supports the Handling Subcommittee's decision to recommend the continued listing of nitrogen, acidified sodium chlorite, calcium hypochlorite, chlorine dioxide, and sodium hypochlorite. These materials are essential tools for the organic tree-fruit industry. Nitrogen is necessary for fruit quality and chlorine materials are crucial in the fight against food borne pathogens.

As recognized by the Handling Subcommittee, chlorine-based products are critical tools for the tree-fruit industry in the packinghouse setting. They are vital to reducing the presence of naturally-occurring pathogens that can pose significant health hazards for consumers, and may be found in the orchard and therefore may enter a packinghouse.

- **Nitrogen (citation 205.605(a)) -** Nitrogen is used in cold room facilities to displace oxygen. Proper storage of tree-fruit is essential to maintaining fruit quality until it reaches the consumer. This product is used considerably by the organic tree-fruit industry.

- **Acidified sodium chlorite (citation 205.605(b)) -** Acidified sodium chlorite is a secondary direct antimicrobial food treatment and indirect food contact surface sanitizer. It is one of several sanitizers and disinfectants used throughout organic handling facilities to control food-borne pathogens to protect consumer health and comply with FSMA.

- **Calcium hypochlorite (citation 205.605(b)) -** Chlorine dioxide is used as an algaecide, disinfectant, and sanitizer. It is used in packinghouses to treat process water, sanitize hard surfaces, and as a fruit wash. It is used by 100% of organic fruit handling (packing) operations in the region.

- **Chlorine dioxide (citation 205.605(b)) -** Chlorine dioxide is used for disinfecting and sanitizing food contact surfaces. It is also used as a fruit rinse, and in dump tanks. It can be used to sanitize storage rooms prior to use. Its use is universal in commercial organic tree-fruit handling facilities and is essential to prevent cross-contamination of food-borne pathogens of human health concern.

- **Sodium hypochlorite (citation 205.605(b)) -** Sodium hypochlorite is used to disinfect and sanitize food contact surfaces. It is commonly used in packinghouse dump tanks as a disinfectant.

Conclusion

The 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. Removal of these substances from the National List could force our local organic tree-fruit growers and packers out of organic production, significantly reducing consumers' access to U.S.-grown organic tree-fruit.

We support both the Crop Subcommittees' and the Handling Subcommittee's recommendations to maintain each of these materials on the National List based on the NOSB October 2017 proposals and discussion documents. We ask that members of the board recognize the critical importance of these materials, both for 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, and follow the subcommittees' recommendations to maintain their presence on the National List.

Thank you for your careful consideration of these comments.

Sincerely,

NORTHWEST HORTICULTURAL COUNCIL

Marisol Oviedo

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Regulatory Information Specialist

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