October 8, 2015

Ms. Michelle Arsenault
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Avenue, SW
Room 2648-So., Ag Stop 0268
Washington, DC 20250-0268

Docket: AMS-NOP-15-0037

RE: Crops Subcommittee – 2017 Sunset Review

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment to the National Organic Standards Board on its 2017 Sunset Review process and the subcommittee votes posted for the fall 2015 meeting.

The Organic Trade Association (OTA) is the membership-based business association for organic agriculture and products in North America. OTA is the leading voice for the organic trade in the United States and represents organic businesses across all 50 states. Its members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. OTA's Board of Directors is democratically elected by its members. OTA's mission is to promote and protect the growth of organic trade to benefit the environment, farmers, the public and the economy.

OTA thanks NOSB for carefully considering each crop production input scheduled to sunset in 2017. It's critical that NOSB hear from certified farmers on whether these inputs are consistent with and necessary for organic production, or whether there are other effective natural or organic alternatives available.

To help facilitate a robust comment and review process, OTA created an electronic survey for each input under review for 2017. The surveys are user-friendly, available to **every NOP certificate holder**, and include 7-10 questions addressing the necessity of the National List input under review. The names of the companies submitting information are confidential (not disclosed to OTA). The goal is to collect information for NOSB to consider at the first stage of the two-step process to shape their recommendation and again prior to the vote at the second meeting.

To ensure wide distribution of the surveys beyond OTA membership, OTA worked with Accredited Certifying Agencies (ACAs) to distribute the survey links to all of their certified clients as well as to targeted clients they know are using the inputs under review. We also worked through our Farmers Advisory Council (FAC[1]) to help assist us with distribution to NOP certified farmers. We hope these efforts will help NOSB in its review process.

[1] OTA's Farmers Advisory Council was established in 2013 to formalize two-way communication between OTA and member producers as well as regional organic producer organizations across the United States. Through dialog and input, FAC gives organic farmers a voice to directly influence OTA's policy and provides an avenue for OTA to share information and advocacy work with this stakeholder group.

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The comments submitted at this time include everything we have received through October 07, 2015. We have received the following total responses:

- **205.601** Synthetic substances **allowed** in use in organic crop production: 147 responses
- **205.602** Non-synthetic substances **prohibited** for use in organic crop production: 0 responses

New survey comments have been provided on the following National List materials:

- Soap-based algicide/demossers
- Copper Sulfate
- Humic Acids
- Boric Acid
- Micronutrients
- Ethylene Gas
- Chlorine Materials
- Newspaper – Compost Feedstock
- Horticultural Oils
- Liquid Fish Products
- Lignin Sulfonate – Soil Amendment
- Elemental Sulfur
- Alcohols: Ethanol & Isopropanol
- Potassium Bicarbonate
- Pheromones
- Sticky Traps
- Lime Sulfur
- Hydrogen Peroxide
- Plastic Mulch

National List Criteria

Materials that have been placed on the National List for use in organic crop production should remain on the National List if: 1) they are consistent with organic farming; 2) they are still necessary to the production of the agricultural product because of the unavailability of wholly natural substitute products in organic production; and 3) no new information has been submitted demonstrating adverse impacts on humans or the environment (OFPA SEC. 2118 [7 U.S.C. 6517] National List). Furthermore decisions must be transparent, non-arbitrary, and based on the best current information and in the interest of the organic sector and public at-large. We bring forward a number of substances on the National List that farmers indicated were still necessary that the Crop Subcommittee either voted to remove or was split on its vote to remove.

Ethylene – for regulation of pineapple flowering

OTA received survey responses representing 2,140 acres of organic pineapple in Costa Rica. All respondents indicated that ethylene is critically essential for the success of their organic businesses. In

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order for these operations to supply tropical fruit to export markets, regulating the timing of pineapple flowering is necessary. Without this regulation, it is nearly impossible to harvest adequate supplies of fruit at proper maturity to allow for safe and efficient transport. OTA members involved in organic pineapple production indicate this tool is equally important for organic farmers regardless of the scale of their operations, and there are no known alternatives proven to be effective. Based on this producer feedback, OTA feels that ethylene remains necessary for organic pineapple production and should be retained on the National List for such purpose.
(See OTA's separately filed comments for more detail)

Humic Acids
OTA received survey responses regarding Humic Acids representing over 2,000 acres of specialty crops grown in the desert Southwest, Pacific Northwest, Mid-West, and Mid-Atlantic region which corroborate CS statements that these substances are necessary for organic production. All organic farms are required to maintain and improve their soil quality, and certifiers must ensure organic farming systems accomplish this goal. Humic Acid products help farmers mobilize micronutrients when soil biological activity is low during times of transition, under drought conditions, or when parent soils are lower in native soil organic matter. These products do not solve problems stemming from poor soil management, but rather augment and support natural processes under certain extreme growing conditions. OTA agrees with the CS that Humic Acids are necessary, and encourages the full Board to renew the allowance for these substances. We also acknowledge that while humic acids previously were not allowed to be used on organic crops exported to Japan, the equivalency signed between the U.S. and Japan has eliminated that restriction. Thus, we request NOSB to focus its review of Sunset materials solely on the National List criteria.
(See OTA's separately filed comments for more detail)

Sodium Silicate
Through direct outreach to suppliers of sodium silicate pear floating agents, it appears as though this material is still in use by some smaller conventional pear packing facilities in the Pacific Northwest. These facilities have switched to sodium silicate due to increased regulation on the use of Lignin Sulfonate. Removing sodium silicate at this time would eliminate the possibility of these smaller facilities, with older style packing lines, in engaging in the organic industry. OTA requests NOSB to consider potential impacts on these smaller packing facilities, should both pear float materials currently listed on 205.601 be removed and no longer allowed in organic fruit handling.

Non-synthetic substances prohibited for use in organic crop production (7 CFR 205.602)
OTA created surveys for each of the prohibited non-synthetic substances. However, we did not receive any responses. This is not surprising, as organic farmers—who have no experience with these inputs—would not be compelled to provide feedback on their necessity in organic production. The lack of response to these surveys suggests that these substances should continue to be prohibited, and OTA supports the CS' recommendations to renew each of the materials' prohibition on 7 CFR 205.602.

Below is a summary of the feedback received via OTA's Sunset surveys to date. Please note that our surveys focus on the necessity of a National List input. We are not aware of or reporting on any new information regarding adverse impacts on humans and on the environment.

Synthetic Substances Allowed for Use in Organic Crop Production (§ 205.601)

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Substance	Survey Information
Alcohols: Ethanol & Isopropanol	**Specific comments describing the use of this substance on organic farms:** For sanitizing hands and equipment to comply with food safety rules Food safety. Hand sanitation **Specific comments regarding the availability and efficacy of alternatives:** I can't think of any alternatives for hand sanitation; equipment could be sanitized with chlorine materials. I do not see that as any more environmentally friendly, however. Less effective
Chlorine Materials (sodium hypochlorite, calcium hypochlorite, chlorine dioxide)	**Specific comments describing the use of this substance on organic farms:** Equipment and facility sanitation We use chlorine for sanitation As a sanitizing agent for batch production vessels and equipment to remove and prevent bacteria growth in our processing environment. I would use it to sanitize harvest bins. Equipment sanitation We use it for sanitation **Specific comments regarding the availability and efficacy of alternatives:** We use alcohol where we can; but various food safety requirements make this material necessary in a variety of circumstances. Alternatives are much more costly and some are not organic certified. Hydrogen peroxide, very effective substitute for chlorine Research shows organic alternatives are ineffective as a treatment Alternatives are more difficult and possibly dangerous to use Very few substitutes. Peracetic acid, and other very harmful chemicals
Hydrogen Peroxide	**Specific comments describing the use of this substance on organic farms:** This is the one disease control material that we cannot do without. It is used to control bacterial blotch, cob web disease, verticillium disease, and others. Sanitation of processing equipment Late blight on tomatoes; sanitizing flats Sanitize We use peracetic acid on all packing sheds due to listeria potential on packed fruit **Specific comments regarding the availability and efficacy of alternatives:** For organic production, there are no alternatives for this material. Conventional growers have many alternatives, including chlorine products and fungicides. This product has also become an important part of our food safety plans.
Soap-based algicide/demossers	**Specific comments describing the use of this substance on organic farms:** Sanitation of production equipment **Specific comments regarding the availability and efficacy of alternatives:** Not available except for toxic substances
Mulch & Compost	**Specific comments describing the use of this substance on organic farms:**

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Feedstock – Newspaper or other recycled paper, without glossy or colored inks	I use a no-till method in my garden. Layering cardboard and newspaper on fallow ground (old hay field) I can add compost and mulch to the top and smother the weeds (sheet mulching). This is the only non-mechanical organic way to kill existing grasses and weeds and convert it to garden without destructive plowing and tilling on my steep sloping land. Shredded paper is used to make my fungal-based compost. I compost a lot of grass clippings and need a large base of carbon materials to keep my compost fungal-based Weed suppression **Specific comments regarding the availability and efficacy of alternatives:** None Cultivation requires increased fuel consumption and soil compaction Do not have enough "brown " materials when I have a lot of grass clippings to compost
Mulch – Plastic mulch and covers (petroleum-based other than polyvinyl chloride (PVC))	**Specific comments describing the use of this substance on organic farms:** We always use black plastic mulch when we establish a vineyard. We do not irrigate and the black plastic mulch is critical to us getting the baby vines growing well over their first three years in the ground. We always take the black plastic up after it has been in for 4-5 years. We use this to cover the soil in the spring. It is stretched over raised beds and warms the soil. Without this product, my business would not be able to exist We use it for lots of long-season crops for: weed control, soil warming, moisture retention. In Vermont, without plastic mulch lots of cucurbit crops, peppers, tomatoes would not be possible in our cool short-growing season Warm the soil Hops are perennial plants so I need to control weeds without tilling. This is a cheap and effective way to control weeds. **Specific comments regarding the availability and efficacy of alternatives:** If we could not use black plastic mulch, we would have to invest heavily in irrigation. There are none. There is no other way to warm the soil enough to be able to get the growing conditions we need here in Vermont. There is none except paper, which is a disaster. Would love to be able to use biotello/bio360 Straw and wood mulch are much more expensive and need to be bought yearly. I use these as well as another layer of barrier directly around the plants
Boric Acid	**Specific comments describing the use of this substance on organic farms:** Effective, safe, available (Boric acid is widely available in both formulated products and in bulk in powdered form) and affordable. Used in packing facilities as an insect control—primarily for cockroaches and ants. In the field, boric acid has been used in baits to control ants As an insecticide, it is a naturally occurring compound that can be used safely when appropriate safety guidelines are followed, and its use is consistent with organic farming principles, similar to other naturally occurring compounds that have

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	insecticidal properties **Specific comments regarding the availability and efficacy of alternatives:** A primary advantage in using boric acid is that the substance, used in bait stations, does not come in contact with produce or food processing surfaces. Other products rely on sprayed applications that can raise questions about residues on both produce and food processing surfaces.
Elemental Sulfur	**Specific comments describing the use of this substance on organic farms:** Necessary to manage soil pH to create a favorable soil to cranberries that in addition aids in suppression of legume weeds For organic blueberries as the only organic soil amendment available in high pH soil here. Control mites It is used to lower the pH of my soil to create a better environment for my blueberry plants. It is used as a fungicide on fruit, primarily apples Need to keep the pH of the blueberries in an acid state To acidify alkaline soils I use Kumulus DF or Microthiol Disperss every 10 days during the growing season from April through color change in early August. This spray is the foundation for my Powdery Mildew control. Elemental Sulphur is burned during the kilning process in order to reduce the bacteria presence on the grain kernels To acidify soil for blueberries Mildew control wine grapes We use Elemental Sulfur as an insecticide and a fungicide. With the pressure of Powdery mildew in certain varieties, it is imperative to have many tools to control it. Critical control for mildew **Specific comments regarding the availability and efficacy of alternatives:** Not many products available. Others are far too costly and ineffective. None. Peat moss is one possible alternative. It would take significant more peat moss to lower pH to the extent sulfur can. We use many approaches to fungal diseases and sulfur is on option for us in situations that have high fungal disease pressure. Some weather conditions and fruits have more fungal pressure and sulfur is a limited but important part of our disease control Do not know what else to use There is no substitute available There really are none. Not aware of any substitutes None that I know of Compost tea made on farm from ORMI compost effective for some varieties, more protective of beneficial insects. There are few alternatives available but to save the few we have there needs to be a rotation of all to prevent resistance to any one substance Easy to use, cheap and effective on all stages of mildew life cycle

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Lime Sulfur – including calcium polysulfide	**Specific comments describing the use of this substance on organic farms:** Lime Sulfur is our "Dormant Spray." We only use it once a year and it is a critical spray for us. It keeps the Willamette Mites off our vineyard and also helps kill off any over-wintering mildew spores. We use Lime-Sulphur mixed with Crocker's Fish oil for a blossom thinner on Asian pears. If we do not use it, the thinning process by hand is extremely labor intensive. Thinning, mildew, Fire blight at bloom Been using this very important material since 1976. Essential thinning and scab control. There is no other material that comes close to taking care of scab To control Fire blight **Specific comments regarding the availability and efficacy of alternatives:** There are none. We have not found any alternative that works There is no alternative There are some but with different modes of action
Oils, Horticultural – narrow range oils as dormant, suffocating, and summer oils	**Specific comments describing the use of this substance on organic farms:** Organic oils on 25b exempt list. It is necessary for our formula of pest control. Used to control mites and thrip insects that cause damage to lemons San Jose Scale and Rosy apple aphid control at delayed dormant stage Used for key pest Codling Moth and for powdery mildew Used to improve efficacy of varies chemical inputs **Specific comments regarding the availability and efficacy of alternatives:** Availability is slim Not aware of any alternatives Other materials are available but for resistance management all are needed. Limited available and efficacy
Soaps, insecticidal	**Specific comments describing the use of this substance on organic farms:** Controls insects, mites, thrips Aphid control when cultural measures are not sufficient. **Specific comments regarding the availability and efficacy of alternatives:** Not aware of any alternatives. Would have to farm conventionally. Alternatives are more destructive/harmful/toxic to other insect species and to humans. Soap is mechanical, alternatives are toxic.
Sticky traps/barriers	**Specific comments describing the use of this substance on organic farms:** We use sticky traps to monitor Codling Moth to prevent unnecessary spraying **Specific comments regarding the availability and efficacy of alternatives:** None
Pheromones	**Specific comments describing the use of this substance on organic farms:** Codling Moth sex pheromones are used to monitor presence and disrupt mating, lessening the dependence on insecticide use **Specific comments regarding the availability and efficacy of alternatives:** None

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Vitamin D3	**Specific comments describing the use of this substance on organic farms:** We use this in external bait stations—not in our facilities. We use only mechanical traps where there is any possibility of contact with our crop. As we are in a populated area with a lot of surrounding residential, light industry, and agriculture, rats can be a problem. **Specific comments regarding the availability and efficacy of alternatives:** There are very few alternatives to this material in an organic operation, and none that we would feel comfortable using.
Copper Sulfate & Coppers, fixed—copper hydroxide, copper oxide, copper oxychloride	**Specific comments describing the use of this substance on organic farms:** Copper products are used routinely for blight control in tomatoes, also for fungal diseases in other crops. Mildew crop and antibacterial actions To lessen an overwintering fire blight infection As a broad spectrum fungicide on several crops. I find it provides the best available, organically approved protection against a wide variety of plant bacterial and fungal pathogens. European Canker suppression in Chile, fire blight control in Washington and California Apple scab Used as fungicide to control cherry leaf spot in cherries and bacterial canker in peaches Primary control for downy mildew, the major plant disease on hops in the Northeast Disease control Blight control on tomatoes **Specific comments regarding the availability and efficacy of alternatives:** Copper products are not the only material effective for fungal control, but are extremely valuable in control programs as substances used for alternate applications to reduce the likelihood of fungal diseases developing resistance. Limited in available and effectiveness Very few and because of the loss of antibiotics There aren't many organic alternatives that the broad efficacy of Copper Hydroxide None invented yet There is none None Bacterial extracts are not as effective as copper Bio fungicides are not as effective as far as I know
Hydrated Lime	**Specific comments describing the use of this substance on organic farms:** This is used almost universally in mushroom casing for disease control. It is important to raise the pH of the casing material into a range that makes it less vulnerable to weed molds such as Trichoderma. Other pH adjusters require much larger quantities to do the same job and change the structure and texture of the casing material so that it is not suitable for production. To control clubroot of cole crops when alternative management is not sufficient. **Specific comments regarding the availability and efficacy of alternatives:**

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	There are no viable alternatives that I know of. As mentioned above, it is possible to adjust the pH with other materials, but doing so changes the nature of the casing material. This material has been used this way for many decades and it would be hard to find a better way. Clubroot can persist even when all management recommendations are followed: five year rotation, sanitation between fields, and liming. Rotation is not fully effective because of the ability of weed species to perpetuate the disease. Complete sanitation between fields is impossible, and not all soils can be maintained at the recommended pH, nor would doing so benefit all crops in a healthy rotation. Fast acting lime (hydrated) is essential when clubroot persists even when following the above described cultural practices
Potassium Bicarbonate	**Specific comments describing the use of this substance on organic farms:** For disease management of Powdery Mildew in highly susceptible Varieties of apple **Specific comments regarding the availability and efficacy of alternatives:** There are others but to avoid resistance to one material, all must be used in rotation.
Humic Acids	**Specific comments describing the use of this substance on organic farms:** Increases the efficiency of soil inputs used for fertility, improves microbial activity, detoxifies toxic substances such as arsenic, mercury, etc. It is used as a supplement in various [mushroom] substrates As good organic based plant soil health product As a soil amendment and used for crops and in nurseries. Also combined with other liquid organic inputs, such as kelp extract, to transport molecules through plant cell walls **Specific comments regarding the availability and efficacy of alternatives:** There are no alternatives I know of no alternatives for this particular usage Compost teas, difficult to make and apply There are no products directly comparable to the unique properties of humic acid. Particularly for soils with naturally low native fertility.
Lignin Sulfonate—chelating agent, dust suppressant	**Specific comments describing the use of this substance on organic farms:** We spray it on our high-traffic tractor roads around our vineyard to keep the dust down during our very dry summers here in western Oregon. Dust in the vine canopy is not a good thing so we need to use something for dust control. We use calcium lignin sulfonate as a binder or chelating agent for our organic fertilizer manufacturing process. The calcium lignin sulfonate greatly helps us granulate our organic fertilizer materials. Without this product, we would not be able to manufacture a high nitrogen organic fertilizer for growers who greatly need this type of fertilizer. Dust control LS is used as a dust suppressant and binder in the manufacture of our pelleted fertilizers and soil amendments that we distribute. **Specific comments regarding the availability and efficacy of alternatives:**

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	I don't know of any alternatives that are organic We do not know a viable alternative at this time. Reduces need for miticides Other all natural binders do not provide the same level of pellet hardness resulting in increased fines and potential inhalation exposure to applicator.
Magnesium Sulfate	**Specific comments describing the use of this substance on organic farms:** Soil amendment in the spring to correct Magnesium deficiency and throughout the growing season as a foliar spray if plants are still missing the element. **Specific comments regarding the availability and efficacy of alternatives:** Don't know of any readily available alternatives
Micronutrients – Soluble boron products, sulfates, carbonates, oxides, or silicates of zinc, copper, iron manganese, molybdenum, selenium, and cobalt	**Specific comments describing the use of this substance on organic farms:** Boron. We have low boron and it is necessary for calcium to be utilized properly. Copper sulfate Micro nutrients, especially boron, are easily leached from soils in the PNW. Regular application is REQUIRED for quality cole crops, beets, celery, and many others. Used to correct micronutrient soil deficiencies. These micronutrients are necessary for optimal crop health. Occasional amendments to unbalanced or poor soils Spring applications prior to bloom, and throughout the season due to loss of nutrients because of harvest. To correct micronutrient uptake of the plant Almonds are dependent on boron for strong bloom. The soils in our area are boron deficient. Without supplemental application, there would be crop reduction **Specific comments regarding the availability and efficacy of alternatives:** I have not found alternatives None An alternative would be to use kelp meal, but application rates to achieve required levels or boron are price prohibitive. I am not aware of other alternatives. None Lacking None What alternatives?
Liquid Fish Products	**Specific comments describing the use of this substance on organic farms:** We use whole fish hydrolysate. It builds the soil and provides lots of trace minerals—sulfur, zinc, and copper plus lipids and other items. foliar spray, improve soil and plant health Used as fertigation through my irrigation system. Liquids are utilized through the soil faster and more efficiently, leading to increase proficiency. The cost of equipment has been an investment. It provides needed micronutrients that improve soil biology and root systems. There are very limited organic liquid fertilizers available on the market and with fertigation that is important. My trees struggle in clay soil. These bring vigor to the trees, helping them produce a crop. Will not use anything else. Nothing works as great as the fish fertilizer. Tried many other products.

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	1-foliar feeding of greenhouse starts for transplanting 2- added to drip-line irrigation in tomatoes and peppers grown in a greenhouse to supplement cover crop and soil incorporated fertilizer We are using Dramm Liquid Fish fertilizer on our black currants, applied as a foliar spray three times during the growing season. We hope to not only provides nutrients for our current plants and improve the Brix in the fruit, but to also improve the health of the soil microbiome We apply emulsified fish in furrows at planting in our row crops, and as a foliar fertilizer on small grains, hay. Emulsified fish provides an economical source of essential nutrients for delicious and nutritious certified organic food. I rarely use it. I do not agree with the approved uses of synthetics in organic inputs. Foliar feeding, soil application—it is very good for soil biology for healthier plants and better fruit. Improved plant health that suppresses disease and insects Our hay crop is sprayed 2 times a year with outstanding results—sweetest smelling hay around with very healthy cows and horses We apply it foliarly. It improves crop yield and reduces both insect and disease pressure We use it through fertigation, after conducting soil tests and plant tissue analysis. We especially depend on it to tweak fertility for our more valuable and finicky crops, like tomatoes, strawberries, raspberries, and high tunnel crops. In cold soil, this substance is more available to our crops than compost or manure inputs, which is invaluable to us Seedling Soil Life Enhancer, Seedling Fertilizer Level Stabilizer, Foliar Feed, Emergency Fast Acting Crop Nitrogen Supplement. Why? It is needed for stabilizing nutrition in the small 4" pot soil volume at seedling growth stage. It enhances diversity of life, and more varied inputs make more varied soil life. It fills the need for a liquid organic fertilizer Foliar feeding enhances foliar life, thus suppressing foliar diseases **Specific comments regarding the availability and efficacy of alternatives:** What alternative? There are few if any available alternatives to liquid fish fertilizers that provide the necessary benefits. If unavailable I would be forced to make my own liquid fish "tea." There is nothing we can use that delivers as much nitrogen for so little cost that the plants use totally and fully. I used to purchase other products, but those companies had either dissolved or stopped carrying those products. I know the local district representative, so the whole process has been very convenient Very few alternatives. Liquid form means less product to get desired results Most chemicals used today kill or harm the necessary biology that uses the carbon or humus to feed the plants. Not aware of any alternatives There is none There are few alternatives for emulsified fish. These alternative fertilizers are more expensive and they are not as effective.

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	I think fish products are beneficial addition in organic crop production, but I do not understand how NOP can allow the use of synthetics to stabilize this product and still consider this an organic product. There are citric acid products available and other methods can be used to stabilize the fish product without the use of synthetics. There are few if any equivalent alternatives to liquid fish fertilizer. Where nutrient equivalents exist, they are not economically viable due to their high cost, No equivalents that supply so much. I do fine without Not aware of anything that would be equivalent Fewer and fewer products like this are available. None It is the only liquid nitrogen rich fertilizer available. Have not found any organic fertilizer that can compare to the results at near the cost where I'm located at. There are few if any equivalent alternatives to liquid fish fertilizer. Equivalent products are typically cost prohibitive. We do not have a comparable product. I am not aware of equivalent alternative products. I am not aware of good alternatives in liquid form that have the benefits of liquid fish. Liquid products have so much more flexibility in application. We generally use dry fertilizer because it is less expensive. Other liquid organic fertilizers are similarly or more expensively priced and typically more "manufactured." I don't know of any Rotted compost/aged manure. Time consuming. Expensive. Doesn't work like fish in the spring. Limited/Unstable I'm not aware of alternative products with the same benefits. There are no alternatives supplying the same level of benefits. I don't know of any. I could use soil amendments but it is good to have if I notice that the garlic has some nutritional problems after it is already planted.
Compost Feedstocks: Newspapers or other recycled paper, without glossy or colored inks	**Specific comments describing the use of this substance on organic farms:** Shredded paper is used to make my fungal based compost. I compost a lot of grass clippings and need a large base of carbon materials to keep my compost fungal based **Specific comments regarding the availability and efficacy of alternatives:** Do not have enough "brown " materials when I have a lot of grass clippings to compost
Plant Growth Regulators: Ethylene gas—for regulation of pineapple flowering	Three survey responses representing 2,140 acres of organic pineapple in Costa Rica. **Specific comments describing the use of this substance on organic farms:** Ethylene gas is mixed with activated carbon and water and sprayed on pineapple fields to induce flowering. This is a highly-effective method to cause the plants to uniformly begin the fruit production process, allowing for programmed harvesting and fruit shipments.

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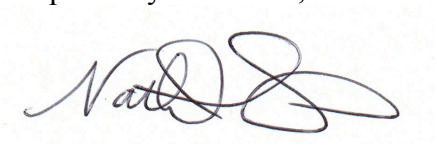
	Ethylene gas is used for flower induction in any pineapple field to program harvest. I use it because is the only way to plan the production and to induce to flowers. I have 15 years' working in pineapple organic and I don't know another way to make this. **Specific comments regarding the availability and efficacy of alternatives:** There are no alternative substances or practices that can effectively induce flowering in pineapples. There is no available alternative for this ethylene use. I don't know another alternative to induce flowers in pineapple. In Costa Rica we have a lot of experience in organic pineapple production. Most of the pineapple in the world is from here, and we don't have alternatives.
EPA List 4 Inert Ingredients	**Specific comments describing the use of this substance on organic farms:** Water spray application for control of powdery mildew, gray mold, and bunch rots on organic table grapes. **Specific comments regarding the availability and efficacy of alternatives:** Natural alternatives have medium-low efficacy. List 4 inerts are critically essential to my operation currently.

In closing, we thank the Board for its time and commitment. OTA is committed to collecting information from our broad membership and beyond in order to assist NOSB in determining whether or not a substance on the National List remains necessary in organic crop production.

Again, on behalf of our members across the supply chain and the country, OTA thanks NOSB for the opportunity to comment and for your commitment to furthering organic agriculture.

Respectfully submitted,



Nathaniel Lewis
Senior Crops and Livestock Specialist
Organic Trade Association

cc: Laura Batcha
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