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Organic Certification

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Ms. Michelle Arsenault
Advisory Committee Specialist
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Ave. SW.
Room 2642-So., Mail Stop 0268
Washington, DC 20250-0268

Docket: AMS-NOP-15-0037; NOP-15-11
Re: Crops Subcommittee Sunset 2017 Review: Humic Acids

October 7, 2015

Dear Ms. Arsenault and NOSB:

CCOF thanks the National Organic Standards Board (NOSB) for the opportunity to comment on humic acids. CCOF advances organic agriculture for a healthy world through organic certification, education, advocacy, and promotion. Founded in 1973, CCOF certifies more than 3,000 certified operations in 41 states and three countries, covering 2.1 million acres of productive farmland.

442 CCOF members have humic acids in their Organic System Plans. These substances are important to nutrient management in organic farming systems because they improve the soil structure and buffer the effects of excessive elements such as sodium.

CCOF, the NOP, and many CCOF growers have advocated for international acceptance of humic acids. Many dossiers, tours, and a tremendous amount of information have been generated demonstrating the acceptability of humic acid materials in certified organic systems. NOSB should retain humic acids on the National List.

Commonly used formulations include Humax, Humega, Actagro Humic Acid 10%, and Phytamin Liquid Humic Acid.

For reference, attached is the comment on crop materials that CCOF submitted for the spring 2015 NOSB meeting, which includes CCOF's input on other materials undergoing sunset review for 2017.

Thank you for taking the time to review this material. Please contact us for further information or clarifications.

Sincerely,

Handwritten signature of Cathy Calfo in black ink.

Cathy Calfo, Executive Director/CEO

Handwritten signature of Jake Lewin in black ink.

Jake Lewin, President, CCOF Certification Services LLC



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Ms. Michelle Arsenault
Special Assistant
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Ave. SW.
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Washington, DC 20250-0268

Docket: AMS-NOP-15-0002

Re: NOSB Crops Subcommittee, Sunset 2017 Review Summary

April 7, 2015

Dear Ms. Arsenault and NOSB:

Thank you for the opportunity to comment on the sunset 2017 crop materials. CCOF has no specific recommendations to remove any sunset 2017 crop material from the National List. CCOF does have specific recommendations to maintain certain materials to the National List, and we provide background information as well as answers to the subcommittee's questions below.

Additionally, next to each material name, we list the number of CCOF members who have the material in their Organic System Plans (OSP). We also include a table of materials as an Appendix. Notably, some materials are difficult to account for in an OSP because of variables such as product names. Overall, CCOF certifies over 2,900 diverse members and many rely on sunset 2017 crop materials for the success of their organic operations.

Sodium hypochlorite (6 OSPs): This material, otherwise known as bleach, is a relatively benign disinfectant. It is an important cleaning material for organic sprout producers. While listed on only 6 OSPs, it is a crucial production aid for these members. It is commonly and safely used in municipal water supplies.

Hydrogen peroxide (170 OSPs): Hydrogen peroxide is commonly used as both an irrigation cleaner and for plant disease control. Organic growers, working with researchers and crop pest professionals, will likely try many fire blight controls including hydrogen peroxide; however, the degree to which it will be used is not yet known. The efficacy of alternatives or ability to control fire blight in organic systems is a long-term process that will not be resolved until several seasons and weather patterns are experienced.

Commonly used products that contain hydrogen peroxide include Di-Oxy Solv Plus, Line Blaster, TerraClean, OxiDate Broad Spectrum, and OxiDate 2.0.



Soap-based herbicides (46 OSPs): We don't see these widely used; however, continued listing of these materials for roads and ornamentals encourages full integration of the grounds, roadsides, and farmstead into organic certification rather than excluding such areas in order to retain the option to use prohibited herbicides for weed control there. *CCOF does not support their use in organic field crop production.* Commonly used products in this category include AXXE Broad Spectrum Herbicide and BioSafe Weed Control.

Newspaper: We see no rationale for removal. Newspaper is a good alternative to plastic mulches, but it is not commonly used. Mulch materials may become increasingly important for CCOF members in California due to the drought and the need to retain more moisture in the soil. It is used as a feedstock in commercial composts, and it is used in the manufacture of the commercial weed mat product WeedGuardPlus. Newspaper appears to be a benign material that would appeal particularly to very small growers.

Plastic mulch (unknown number of OSPs): Many types of growers use plastic mulch because biodegradable mulches that provide equivalent performance have not yet been developed. Despite recent approvals by the NOSB and NOP of Bio-based mulches, no viable alternatives exist.

Boric acid (65 OSPs): CCOF considers boric acid to be a benign and useful material for managing ants because it has low impact on natural enemies and honey bees (UC IPM 2015a). Formulations include MotherEarth Granular Scatter Bait and NiBan Granular Bait. It is often used as an ingredient in homemade ant bait stations.

Elemental sulfur (2,042 OSPs): This material is listed as an insecticide, plant disease control, and plant or soil amendment. Elemental sulfur is still used in all three categories. Sulfur products used include InteGro Magic Sulfur Dust, Kumulus DF, Micro Sulf, Wilbur-Ellis Dusting Sulfur, and Microthiol Disperss.

Lime sulfur (272 OSPs): In answer to the subcommittee's question regarding lime sulfur's use in managing fire blight: it is too early to tell. Fire blight season just started, so increased use has not yet been demonstrated. This material can be used effectively with other materials for fire blight control/management, so removal at this point would be inappropriate. Products containing lime sulfur include Rex Lime Sulfur Solution, Lime Sulfur ULTRA, Brant Lime Sulfur, Green Cypress Lime-Sulfur Solution, and Lime-Sulfur Solution by Tessengerlo Kerley Inc.

Horticultural oils (1,041 OSPs): Oils are used for both insect and plant disease management. Typical brand name products are IAP Hi 440 Supreme Spray and IAP Summer 415 Spray Oil. No better alternatives are known.

Insecticidal soaps (341 OSPs): These are widely used as "soft" pesticides in organic crop production. These materials have no residual activity, which minimizes their impact on beneficial insects including honey bees (UC IPM 2015b). They are used responsibly in organic



farming operations and continue to be safe and effective alternatives to toxic materials. Common formulations include M-Pede, Safer Soap, and DES-X Insecticidal Soap Concentrate.

Sticky traps/barriers (unknown # of OSPs): Most CCOF-certified growers include use of sticky traps on their pest management matrix rather than on their input list so the number of members who use them is difficult to estimate. Sticky traps are an important tool to create economic thresholds for insecticide applications, to monitor for invasive insects (often required by the state of California), and can also be used to monitor for the presence of beneficial insects so that the use of insecticide can be avoided altogether. Common formulations are Tanglefoot and yellow sticky traps. CCOF sees these materials as benign physical tools whose inclusion on the national list is inappropriate. Rather, they should simply be allowed as physical practices.

Pheromones (450 OSPs): Pheromone use has increased as various formulations have been developed for specific target species. Commonly used formulations are various Checkmate and ISOMATE products. These materials are often the best choice for organic growers dealing with invasive species.

Fixed coppers (902 OSPs): These materials continue to be a crucial part of disease control for organic tree fruit and many other growers. CCOF supports continued listing of fixed coppers on the National List because no viable alternatives exist. CCOF has not seen evidence that growers over-apply copper. The cost of copper materials in addition to environmental and water regulations limits its use and consequently reduces the potential for soil copper accumulation.

In the past, CCOF verified to international standards that limited copper application rates, and CCOF never found that the use was over half the allowed amount of international organic standards. CCOF is confident that copper materials are used responsibly by the full spectrum of growers we certify and is still needed for effective disease control in organic tree fruit production. Further, we do not support additional annotations or verifications because we see no evidence that a problem of accumulation exists. Formulations include Agri StarNu Cop 50 WP, Badge X2 Dry Flowable, Champ WG, Nordox, and Cueva.

Copper sulfate (212 OSPs): This material is an important tool for organic rice growers, among others. The subcommittee asks accredited certifying agencies (ACAs) if they require testing when copper sulfate has been applied and if non-compliances have been issued when copper accumulation in soil is found. CCOF has not required testing in most cases because we have found use rates to be low. Similarly, testing for accumulation would require long term testing and development of baseline levels for specific locations. We have no basis for concern over accumulation because we have not found rates or frequency to be excessive. Common formulations are Agri Star Basic Copper, Chem One Copper Sulfate Crystals, and Quimag Copper Sulfate Crystals. More feedback on copper is provided in our comment on fixed coppers.



Hydrated lime (77 OSPs): The product most commonly used is Western Hydrated Lime, high calcium.

Potassium bicarbonate (396 OSPs): This material is a safe and non-toxic alternative to fungicides, similar to baking soda. It is significantly better for soil than baking soda, which causes soil crusting. CCOF has worked hard to gain the acceptance of this material for use internationally with both the European Union (EU) and Japan. The material does not appear in the EU standards but is commonly used in organic production as a "plant strengthener." Potassium bicarbonate is important to many of our greenhouse and crop producers and very important for grape growers. This benign material does not warrant researching alternatives. Common formulations include Kaligreen, EcoMate ARMICARB O, MilStop, and PHP MilStop Plus.

Aquatic plant extracts (589 OSPs): Seaweed extracts are an important element of the fertility program on many organic farms. Numerous formulations are used including Maxicrop Soluble Seaweed, several Acadian products, BioFlora Seaweed Creme, and Eco-Nutrients Eco-Nereo Kelp. Removal from the National List would significantly impact a large number of growers.

Humic acids (442 OSPs): These substances are a very important element of nutrient management in organic farming systems. CCOF, the NOP, and many CCOF growers have been heavily involved in an effort to gain international acceptance of humic acids. Many dossiers, tours, and a tremendous amount of information have been generated demonstrating the acceptability and innocuous nature of these materials. Commonly used formulations include Humax, Humega, ActagrowHumic Acid 10%, and Phytamin Liquid Humic Acid.

Lignin sulfonate (68 OSPs): CCOF members who use lignin sulfonate primarily apply it as a dust suppressant, which helps prevent mite infestations in crops. They do not use it as a floating agent. Because this material may be included in many formulations that CCOF does not review directly, we believe its use as a dust suppressant far exceeds the numbers above. Primary brands used are BorrePlex and Phyto-Plus Brand Plant Stimulator.

Micronutrients: soluble boron products and sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt (801 OSPs): CCOF recommends that the annotation allows for other methods to show need for micronutrients. For example, forms of documentation such as a Certified Professional Agronomist recommendation should be accepted. The OSP should include the reason for its use and documented for the certifier. Thus, we suggest removing the words "by testing" after the word "documentation."

CCOF supports the prohibition of use as defoliant and suggests naming inappropriate uses.

Commonly used micronutrient products include Biomin Booster 126, various Citra-Grow products, Organic Biolink Micronutrient Fertilizer, Phyto-Plus Brand Zinc, and various Green Cypress products.



Liquid fish products (1,212 OSPs): These are widely used by CCOF members as part of their crop fertility regimes. Brands used include Eco-Nutrients 1.5-3-.2 and Grower Preferred Organics Pride of the Sea. The annotation is sufficient.

EPA list 4: Inerts of Minimal Concern (Incalculable number of OSPs): Many materials commonly used in organic crop production contain inerts. The U.S. national organic standards have the strictest and most thorough approach to materials review compared to all other organic standards. We encourage the NOSB and NOP to find viable approaches to inert materials that provide continuity to producers in the materials available for use.

References

UC IPM 2015a. <http://www.ipm.ucdavis.edu/TOOLS/PNAI/pnaishow.php?id=16>

UC IPM 2015b. <http://www.ipm.ucdavis.edu/TOOLS/PNAI/pnaishow.php?id=43>

CCOF thanks you for the opportunity to comment on these materials and for the subcommittee's work to maintain organic integrity. We are available to answer any questions or provide further clarification.

Sincerely,



Cathy Calfo, Executive Director/CEO



Jake Lewin, President, Certification Services LLC

CCOF is a nonprofit organization founded in 1973. CCOF serves as a trade association for more than 2,900 certified organic producers in 42 of the United States and three countries.



APPENDIX

Please find below a chart of sunset 2017 materials that are found on CCOF member Organic System Plans (OSP). Note that some materials are difficult to account for in an OSP.



Material	# OSPs Which Include	Number of Brand Name Products	Notes
Sodium Hypochlorite	6	2	Undercounted
Hydrogen Peroxide	170	13	
Soap-based Algicides/ demossers	371	21	Significant overlap in soap materials labeling makes use analysis difficult.
Soap-based Herbicides	46	11	Significant overlap in soap materials labeling makes use analysis difficult.
Plastic Mulch	12	9	Undercounted due to not recording as a material in most instances.
Boric Acid	65	11	
Elemental Sulfur	2,042	27	
Lime Sulfur	272	4	
Horticultural Oils	1,041	10	
Insecticidal Soap	341	25	
Sticky Traps	64	7	Not consistently identified as a material.
Pheromones	450	49	
Vitamin D3	35	3	
Coppers Fixed	902	14	
Copper Sulfate	212	13	
Hydrated Lime	77	9	
Potassium Bicarbonate	396	5	
Aquatic Plant Extracts	589	29	
Humic Acids	442	54	
Lignin Sulfonate	68	9	Often in branded materials that are not reviewed by CCOF so full numbers may not be available.
Magnesium Sulfate	379	28	
Micronutrients			
Boron	415	15	
Zn Sulfate	183	11	
Iron	187	17	
Mn Sulfate	16	4	
Liquid Fish	1,212	43	
List 4 Inerts	Incalculable	Incalculable	Difficult to ascertain.
TOTAL POTENTIAL EFFECTS IN CROPS	10,237	443	

