



CCOF

Organic Certification

Education & Outreach

Political Advocacy

Promotion

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

Docket: AMS-NOP-16-0049

Re: Crops Subcommittee Proposal on Hydroponic/Aquaponics/ Bioponics and Crops Subcommittee Discussion Document on Container-Based Production

October 25, 2016

Dear Ms. Arsenault and NOSB Members,

Thank you for the opportunity to comment on the Crops Subcommittee's proposal on hydroponic/aquaponics/bioponics (the proposal) and the subcommittee's discussion document on container-based production (the discussion document). CCOF (California Certified Organic Farmers) currently certifies operations with the types of systems addressed in the proposal.

CCOF is a nonprofit organization founded in 1973 that advances organic agriculture for a healthy world through organic certification, education, advocacy, and promotion. CCOF is based in Santa Cruz, California, and represents more than 3,000 certified organic members in 42 states and three countries.

CCOF certifies approximately 130 operations that have container-based production systems. Hydroponic and container-based systems are on a continuum of production, with different systems using varying types of substrates, container sizes, and degrees of enclosure.

CCOF ensures all types of container-based production systems (whether defined as bioponic or a container system) are in compliance with organic standards. CCOF also works with all producers to ensure a whole systems approach to crop production. Producers who farm with container systems, bioponic systems, and in-ground systems are required to implement biologically-based nutrient cycling practices, which are verified through the annual organic inspection. Container systems do not inherently take a more whole systems approach to crop production than bioponic systems. And in-ground systems do not inherently have more oversight, communication, or continual improvement.

CCOF incorporates the nuanced requirements of the 2010 NOSB Crops Committee recommendation, *Production Standards for Terrestrial Plants in Containers and Enclosures*, into its certification processes. However, organic standards or guidance to address these evolving systems would ensure that all organic certifiers are implementing consistent requirements and improve the implementation of organic principals.

Furthermore, in the area of bioponic and container production, CCOF has seen innovative, complex, and biologically-based systems emerge that are conserving scarce water resources and contributing to the

ecosystem by their conservation and stewardship to the land. For example, one bioponic operation uses beneficial insects, plantings around greenhouses, and full nutrient recycling through its water systems to create a thriving operation that supplies organic produce to local retailers. Some operations have reduced their water usage to one tenth of their usage under traditional cultivation practices by establishing bioponic systems, and others have reduced their water usage to one third by using containers.

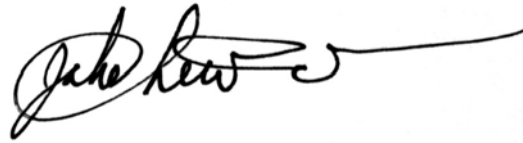
It is within the interest of the spirit of organic production and to the benefit of consumers to ensure all types of operations are in compliance with organic standards. The evolution of systems on the spectrum of container and bioponic production will help innovators and next-generation farmers address modern concerns related to energy, climate, water, and the availability of nutrients.

Thank you for considering our comments.

Sincerely,



Cathy Calfo, Executive Director/CEO



Jake Lewin, President, CCOF Certification Services LLC