



# BEYOND PESTICIDES

701 E Street, SE ■ Washington DC 20003  
202-543-5450 phone ■ 202-543-4791 fax  
info@beyondpesticides.org ■ www.beyondpesticides.org

October 11, 2016

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

## **Re. CS: Containerized Culture Discussion Document**

These comments to the National Organic Standards Board (NOSB) on its Fall 2016 agenda are submitted on behalf of Beyond Pesticides. Founded in 1981 as a national, grassroots, membership organization that represents community-based organizations and a range of people seeking to bridge the interests of consumers, farmers and farmworkers, Beyond Pesticides advances improved protections from pesticides and alternative pest management strategies that reduce or eliminate a reliance on pesticides. Our membership and network span the 50 states and the world.

We appreciate and support the decision of the Crops Subcommittee (CS) to separate consideration of hydroponics/biaponics/aquaponics (hereinafter “hydroponics”) from that of containerized culture in a solid medium. There is a continuum of practices from in-ground production to hydroponic production, and there are many issues –as outlined by the CS in this discussion document– to address in consideration of the containerized methods using a solid medium. However, the distinction between the endpoints of the continuum –in-ground production and hydroponics–is clear, and there are no obstacles to addressing the question of whether hydroponics can be certified organic. We therefore urge the NOSB to move ahead with voting on hydroponics while it considers the complexities of containerized production in solid media.

Our comments on hydroponics are in a separate document. See those comments for general principles as well.

### **General criteria**

Containerized production methods –like some hydroponic methods– have a place in meeting the food needs of our society, but that does not make them eligible for organic certification. We agree with this statement of the CS as a criterion for distinguishing systems that can be certified organic:

It would seem logical to assess the continuum between grown in the ground and fully liquid based systems by determining where the plant nutrition is coming from. If the nutrients are primarily coming from the "soil" or approved growing media and solid amendments, then they would be considered equivalent to in-ground production. Whereas a container production system that relies primarily on liquid fertilizers would not be within the requirement for soil-based systems.

In assessing the source of plant nutrition, a number of approaches are appropriate. We favor those that require container production to be most like in-ground production. In particular,

- Certifiers should take into account the practices used to produce the fertile organic soil. In particular, §205.203(b) is relevant: "The producer must manage crop nutrients and soil fertility through rotations, cover crops, and the application of plant and animal materials." In-ground greenhouse production and certain deep bed systems may be able to comply with this regulation.
- Research cited by the CS identifies another way of defining necessary parameters –by requiring minimum soil volumes per unit area, based on research showing that a minimum soil volume (100-180 liters) supports plants without liquid fertilizers. The CS suggests that even with a defined minimum soil volume, it may be appropriate to limit the percentage of nutrition provided by liquid fertilizers. Suggestions range from 20% to 50%. This is analogous to the restriction on sodium nitrate. We believe that an organic system should not depend primarily on the addition of soluble fertilizers, and therefore suggest that if container production is allowed, that it be limited to those systems in which the soil volume is sufficient to provide adequate nutrition without additions of soluble fertilizers.

### Other issues raised in the discussion document

- Definitions. We agree with the definitions presented in the discussion document.
- Exceptions. We address the exceptions of mushrooms, transplants, and sprouts in our comments on the hydroponics proposal. We believe that they are exceptions that prove the rule that organic production must be soil-based.
- Land, natural resources, and biodiversity conservation. We agree with the CS:
  - Natural Resource conservation includes the resources of soil and water and wildlife. This must be addressed in an Organic System Plan for a container growing system. This includes maintaining the condition of land underneath the container production, fate of any water or nutrient run-off from container production, and any positive actions taken to encourage biodiversity, such as installing hedgerows, planting insectary plants amongst the containerized crop plants, and other similar techniques.
- Rotation and cover cropping. The practices of crop rotation and cover cropping bring multiple benefits to organic systems. They can and should be practiced in a greenhouse.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Shistar". The signature is written in a cursive style with a prominent flourish at the end.

Terry Shistar, Ph.D.  
Board of Directors