March 30, 2017

Ms. Michelle Arsenault  
National Organic Standards Board  
USDA-AMS-NOP  
1400 Independence Avenue, SW  
Room 2642-So., Ag Stop 0268  
Washington, DC 20250-0268  

Docket: AMS-NOP-16-0100  

RE: Crops Subcommittee – Aeroponics/Hydroponics/Aquaponics (Discussion Document)  

Dear Ms. Arsenault:  

Thank you for this opportunity to provide comment on the Crops Subcommittee’s Discussion Document on Aeroponics/Hydroponics/Aquaponics.  

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, representing over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. OTA's mission is to promote and protect organic with a unifying voice that serves and engages its diverse members from farm to marketplace.  

The Crops Subcommittee (CS) has presented a discussion document to further the work of previous boards on the important issue of the compatibility of soil-less production systems with organic principles. Because this has been brought to the meeting as a discussion document, OTA assumes that the CS will not be voting on the definitions or proposed additions to 7 CFR 205.105 at this meeting, but will rather continue to solicit feedback for a more developed proposal at a future NOSB meeting.  

In this discussion document, the CS clearly has heeded the feedback from stakeholders that clear definitions for each type of entirely water based growing system must be developed. Similarly, the CS has presented a possible regulatory road-map for prohibiting certain water based growing practices by proposing these terms be added to 7 CFR 205.105 as practices prohibited in organic production. OTA appreciates the CS’ added clarity in this discussion document, however, we believe the proposed definition for hydroponics is too broad and vague, and we question whether adding these terms to 7 CFR 205.105 is the best way to accomplish the goal to ensure all organic products are grown in alignment with organic principles.  

Definitions  
The ongoing discussion around aeroponics/hydroponics/aquaponics has been marked by confusion around how to accurately identify which of these terms applies to the various types of operations currently certified under the USDA organic regulations. Narrowing and clarifying these definitions to include specific and clearly identifiable characteristics of production systems are essential to lay the groundwork for future rulemaking on excluding certain practices or developing specific production standards. The CS
understands this and has proposed specific definitions to be adopted into the regulation. In general, OTA supports the effort to clearly define these terms, however, we do not support the added terminology in the definition for “hydroponics.” We suggest the following revisions:

**Hydroponics** The production of normally terrestrial, vascular plants in **sterile** nutrient-rich solutions, or in a medium of inert or biologically recalcitrant solid materials to which a **sterile** nutrient solution is added.

We suggest removing the term “biologically recalcitrant” for two reasons. First, it is a vague term that can be broadly interpreted and applied. If the intent of the board is to either prohibit hydroponics or apply specific production standards to hydroponics, the definition must be narrow and easily interpreted and applied. Addition of the term “biologically recalcitrant” also could be misinterpreted as applying to operations that grow crops in containers with mixtures of soil, compost, peat, and coco coir. Previous NOSB recommendations have upheld the separation of hydroponics from container production, and this proposed definition appears to blur that distinction.

We also suggest the addition of the term “sterile” when describing the solutions used to deliver crop nutrients in hydroponic systems. This describes hydroponic operations in the classical sense which do not rely on a biologically diverse ecosystem to make organic fertilizers available to plants but rather on sterile systems, devoid of biology, and water soluble nutrients.

Lastly, OTA would like to see the CS align its proposed definition of “soil” with the definition contained in 7 CFR 205.2 after the Organic Livestock and Poultry Practices final rule becomes effective on May 20, 2017:

**Soil** The outermost layer of the earth comprised of minerals, water, air, organic matter, fungi, and bacteria in which plants may grow roots.

**Prohibited Methods**

The CS is proposing to add aeroponics, hydroponics, and aquaponics as defined in the discussion document to 7 CFR 205.105 “Allowed and prohibited substances, methods, and ingredients in organic production and handling.” This will essentially make organic’s “Big 3” (GMOs, sewage sludge, and ionizing irradiation) into the “Big 6” with potential down-stream effects not fully described in this discussion document. Will certifiers now need to verify any non-organic agricultural ingredient included in the 5% of an “organic” product or the 30% of a “made with organic…” product be produced without the use of aeroponics, hydroponics, and aquaponics? Does this prohibition apply to non-organic seed and planting stock used on organic farms when organic forms are not commercially available?

The discussion document clearly states that the proposed prohibition of aeroponics, hydroponics, and aquaponics does not refer to edible sprouts, but there was no language included that indicate how this exception would be made. Vaccines are the one exception currently contained on 7 CFR 205.105, and this exception has created inconsistent review decisions by certifiers prompting significant work for USDA and NOSB in an attempt to clarify the seemingly simple exception to the prohibition on GMOs. How will the exception for edible sprouts or livestock fodder be made clear in the regulation?
OTA suggests the CS consider ways to accomplish NOSB’s intent through means other than extending the list of prohibited practices at 7 CFR 205.105.

On behalf of our members across the supply chain and the country, OTA thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,

Nathaniel Lewis
Farm Policy Director
Organic Trade Association

cc: Laura Batcha
Executive Director/CEO
Organic Trade Association