



March 30, 2017

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National Organic Standards Board
USDA-AMS-NOP
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Submitted via www.regulations.gov

RE: Docket: [AMS-NOP-16-0100](#) NOP-16-11

NOSB Discussion Document: Aeroponic/Hydroponic/Aquaponic (February 17, 2017)

Dear NOSB members:

Thank you for the opportunity to provide comments on the NOSB Discussion Document regarding Aeroponic/Hydroponic/Aquaponic production.

Currently, MOSA certifies a handful of aquaponic and hydroponic producers, taking care to ensure that the National Organic Standards, including the soil fertility and crop nutrient management practice standards, are met.

MOSA appreciates the work of the Crops Subcommittee as they attempt to define aeroponic, hydroponic and aquaponic systems. However, MOSA does not support the prohibition of hydroponic or aquaponic systems in organic production by proposing these production method be added to 7 CFR 205.105 as prohibited practices in organic production.

Our specific comments are detailed below:

Definitions:

MOSA agrees that a standardized set of definitions must be carefully considered and suggests the following revisions:

Aeroponics: A variation of hydroponics in which plant roots are suspended in air and misted with nutrient solution.

MOSA believes this to be a workable definition of this production system. However, we do not have first hand experience with this production system.

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

The term “biologically recalcitrant” is a broad term that can be misinterpreted as applying to container production, blurring the lines between hydroponic production and operations growing crops in containers with mixtures of soil, compost, peat and coco coir. MOSA suggests the term “biologically recalcitrant” be removed from the definition of hydroponics.

Aquaponics: A recirculating hydroponic system in which plants are grown in nutrients originating from aquatic animal waste water, which may include the use of bacteria to improve availability of these nutrients to the plant. The plants improve the water quality by using the nutrients, and the water is then recirculated back to the aquatic animals.

MOSA agrees with the definition of aquaponics and sees this definition as clearly separating aquaponic production (plant) and aquaculture (fish). We offer no changes to this definition.

MOSA supports the development of specific production standards for hydroponic systems and aquaponic production and supports the continued expansion of the organic industry. We believe that the inclusion of these production systems, within the context of organic production, offers innovative, creative solutions to our food sovereignty challenges and may even have a place in reducing the conversion of fragile ecosystems to soil-based organic production. For example, one of the aquaponic producers certified by MOSA is located on the edge of the largest freshwater cattail marsh in the United States, also recognized as a Wetland of International Importance. The aquaculture facility on this parcel contributes significantly to the economic stability of this multi-generational, family owned farm and allows for the remaining fragile land base to be uncultivated and preserved as an education center. On the other end of the ecological spectrum, Aeroponic/Hydroponic/Aquaponic production systems contribute to local food systems in urban and peri-urban settings, where soil-based agriculture may not be possible. MOSA recognizes that these production systems have a place in ensuring that all communities have access to fresh, organic and healthful foods.

MOSA recognizes that because we certify only a few hydroponic and aquaponic producers, who are relatively small in size, we may have a limited view into the larger picture of soil-less production systems. However, these production systems are an important part of our regional food production. In a landscape with long, harsh winters and in a climate with a limited growing season, hydroponic and aquaponic production provides off-season, less-traveled organic food options. As a part of a larger agricultural production system, hydroponic and aquaponic production can significantly contribute to the natural cycling of nutrients and steward ecological balance.

We must also acknowledge the Aquaculture Working Group, and remember the potential for certification of aquatic animals. While the suggested amendment to 205.105(j), by definition of “aquaponics” refers to only plants, this amendment may reduce the potential organic certification of fish. Will we eventually find ourselves in the position of being able to certify aquatic animals but not the plants growing above them or will we allow certification of one-half

of a whole system? It is possible this contradiction could increase consumer confusion or even erode consumer trust in the organic label.

Alternative labeling for organic aeroponic, hydroponic and aquaponic production is proposed as a way to allow crops from these production systems to make an organic claim. While MOSA would like to avoid the challenges that come with alternative labeling, specifically to the labeling of multi-ingredient products, MOSA also acknowledges that an alternative organic label could clearly identify products from these production systems and increases control and consistency within a rapidly evolving segment of food production. MOSA considers it is a priority to include these production systems under the National Organic Standards. It is important that the organic community lead in the future development of innovative, sustainable production methods. MOSA also recognizes that alternative labeling of aeroponic, hydroponic and aquaponic production honors traditional soil production, supports the growth of the organic industry and is an appropriate compromise.

MOSA feels a sense of urgency in the development of a clear path forward. As certifiers, we continue to receive inquiries from hydroponic and aquaponic growers who are interested in joining the organic community. We also acknowledge the concerns of those who do not support the inclusion of soil-less production within the realm of organics.

In summary, we encourage the further consideration of these ideas and support the continued development of production standards for soil-less growing systems and the inclusion of these systems into organic certification.

Thank you for your work on this challenging and precedent-setting issue.

Respectfully submitted,

The MOSA Certification Team