

Public comment for Fall, 2024 NOSB meeting: There is risk inherent in allowing “organic” hydroponics and container production

I am Kestrel Burcham, Policy Director for The Cornucopia Institute. I will focus my comment on the inherent risk in allowing soil-less production under the organic seal.

First and foremost, despite the organic standards requiring soil-based practices, soil-less produce continues to grow in the organic market. This soil-less production exists within a regulatory vacuum. Organic products *cannot* meet a consistent standard while soil-less production exists alongside the requirements for soil. OPFA requires this consistency!

Allowing soil-less production under the organic label is also misaligned with the existing rules. From a regulatory standpoint this puts the organic marketplace on shaky ground because it's not clear which regulations apply to which products. This has already created huge schisms in the marketplace that go to the heart of organic integrity.

Inconsistencies in crop production practices and their enforcement have several detrimental effects on the organic market:

1. Producers can have significantly different production costs for the same organic product, causing economic unfairness;
2. Certifiers cannot apply rules consistently when soil-less production apparently exists within a regulatory vacuum;
3. In some cases, consumers are unaware that not all organic products are grown in soil, resulting in consumers paying for an attribute they are not receiving.

We are headed to another “market failure” – if we are not there already – because soil-less organic production is allowed without any regulatory basis. When the issue of inconsistency arose in the livestock realm, the Organic Livestock and Poultry Standard (OLPS) was finalized to help cure the issue. We need to act to cure this issue as well.

This schism must also be resolved to move forward with any form of risk-based certification – because how do you calculate risk for soil-less operations when they are operating outside so many of the organic standards?

Finally, one of organic agriculture's strengths is its emphasis on soil health. Many studies now definitely show that the soil-fostering practices found in the organic regulations are the basis for all sustainable farming. For example, a recent [study](#) confirmed that compost and manure applied to the soil directly fight rising global temperatures through boosting carbon sequestration. How can we continue to argue that organic is "climate smart" when we haven't dealt with this issue?

The Cornucopia Institute continues to support the [Organic Agriculture is Soil-Based: Position Statement](#):¹ organic farming is soil-based, and hydroponic and container production is incompatible with the regulations as they stand.

Thank you for your time and continued work supporting organic integrity!

RESOURCES AND REFERENCES:

Here are the relevant regulations in case the NOSB asks:

According to the Organic Food Production Act (OFPA) 6513(b)(1), "An organic plan shall contain **provisions designed to foster soil fertility**, primarily through the management of the organic content of the **soil** through proper tillage, crop rotation, and manuring" (emphasis added).

Support for the idea that organic production is soil-based is found in the USDA's [preamble to the regulations](#) published in 2000 which states, "The **soil fertility and crop nutrient management practice standard** in section 205.203 [of the National Organic Program Final Rule] establishes the universe of allowed materials and practices" (emphasis added).

§ 205.203 Soil fertility and crop nutrient management practice standard.

- (a) The producer must select and implement tillage and cultivation practices that maintain or improve the physical, chemical, and biological condition of soil and minimize soil erosion.
- (b) The producer must manage crop nutrients and soil fertility through rotations, cover crops, and the application of plant and animal materials.
- (c) The producer must manage plant and animal materials to maintain or improve soil organic matter content in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances. (emphasis added) 7 CFR 205.203(a-c)

¹ Note that where Cornucopia refers to soilless production or "hydroponics", we mean any soilless production where the plants are grown to maturity. This includes traditional aeroponic and hydroponic systems, and systems where plants are grown in an inert media (like coconut coir) in containers.

The general requirements in the USDA organic regulations also include a requirement that presumes soil as a part of an organic production operation: § 205.200 General. Production practices implemented in accordance with this subpart must maintain or improve the natural resources of the operation, **including soil and water quality**.

§ 205.2 Natural resources of the operation. The physical, hydrological, and biological features of a production operation, including **soil**, water, wetlands, woodlands, and wildlife.

Organic production requires a plan of management that has been agreed to by the producer and the certifying agent and that includes written plans concerning all aspects of agricultural production described in the Act and the regulations.

The stated purpose of OFPA is to establish national standards that will then be used to govern the marketing of organic products, to assure consumers that organic products **meet a consistent standard**, and to facilitate commerce in organic food.

The USDA's own Consumer Brochure from 2007 describes organic food as "...produced by farmers who emphasize the use of renewable resources and the **conservation of soil and water** to enhance environmental quality for future generations."²

² "Organic Food Standards and Labels: The Facts." Accessed March 16, 2021.
<https://www.nal.usda.gov/afsic/organic-productionorganic-food-information-access-tools>