

September 29, 2022

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

Docket # AMS-NOP-22-0042

Re: Meeting of the National Organic Standards Board

The Cornucopia Institute seeks to defend and improve integrity in the certified organic marketplace. Through research and investigations into agriculture and food issues, The Cornucopia Institute provides needed information to family farmers, consumers, and other stakeholders in the organic agriculture community.

Certification, Accreditation and Compliance Subcommittee (CACS)

Proposal: NOSB Technical Support

Cornucopia supports the notion of independent technical support for the NOSB, particularly if the USDA does not agree to compensate NOSB members for their time. As the National List grows and more scientific issues appear before the NOSB, the workload for individual board members is becoming untenable.

Any technical support position should be dedicated to that singular task without other affiliations. This would help ensure a “fire wall” to avoid conflicts of interest. While technical support for the NOSB is obviously needed, that technical support must incorporate as much independent research as is available and not rely solely on industry studies.

We also have concerns about summarizing public comments for NOSB members. While summaries can be a tool to track and catalogue large groups of similar comments (such as “form” comments), important nuance in comments could easily be lost. It is critical that NOSB members continue to read individual comments and not rely entirely on summary documents.

Oversight Improvements to Deter Fraud: Acreage Reporting Proposal

Continued efforts to deter fraud are vital to organic integrity. Unresolved fraud issues will lead to organic marketplace failure.

Cornucopia supports streamlining how certifiers format organic certificates to help deter and catch fraud while it’s occurring. Accurate accounting of certified crops is only possible if certifiers track the number of acres in production of each crop. Knowing the acreage for each crop would allow inspectors to quickly determine whether the capacity of the supplying operations supports amounts purchased by the aggregator.

Operations with a small number of acres in production should be exempt from this reporting, as it would unduly burden farmers and certifiers and these operations generally carry low risk in regard to fraud. This change to organic certificates and inspections will not be a heavy lift for certifiers and will improve the marketplace as a whole.

There is no integrity without transparency!

Discussion Document: Organic and Climate-Smart Agriculture

Cornucopia supports the NOSB's efforts toward articulating that organic agriculture is always climate-smart. We hope that the Organic and Climate-Smart Agriculture discussion document will lead to USDA and public understanding that certified organic production is inherently "climate-smart."

USDA tends to fund agricultural practices that are in opposition to sustainability; this must change.¹ Our hope is that new funding programs will be available to the most climate-smart organic farmers and resources supporting truly sustainable farming will become more available to all organic farmers.

Pesticide prohibition is climate-smart

In addition to what has already been expressed by the NOSB in their letter, we would like to emphasize that the prohibition of pesticide use in organic agriculture is particularly important to climate-smart principles. In the US, some farms tout "regenerative" practices while still using large amounts of agrochemicals.

Pesticides have compounding effects on the environment and impact both climate change progression and climate resilience. The harm caused by the manufacture, transport, and application of pesticides all have a negative climate impact. For example, in the Intergovernmental Panel on Climate Change report, the 30% of global emissions attributable to agricultural activities included pesticide use.² Other data shows that widespread pesticide use also impacts human health and ecosystem resilience, both of which will become more fragile as climate change inevitably progresses.^{3,4}

Synthetic fertilizers and pesticides disrupt and often harm soil health.^{5,6} Pesticides reliably infiltrate the soil or water, affecting non-target organisms. Pesticides can damage soil biomass and microorganisms such as bacteria, fungi, and earthworms. Synthetic fertilizers also limit the functioning of soil

¹ Marcia S. DeLonge, Albie Miles, Liz Carlisle. 2016. "Investing in the transition to sustainable agriculture." *Environmental Science & Policy*, Volume 55(1): 266-273. ISSN 1462-9011, <https://doi.org/10.1016/j.envsci.2015.09.013>.

² See IPCC. 2022. "Climate Change 2022. Mitigation of Climate Change: Summary for Policymakers." Sixth Assessment Report of the Intergovernmental Panel on Climate Change Working Group III. https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_SPM.pdf

³ Grewal AS, Singla A, Kamboj P, Dua JS. Pesticide residues in food grains, vegetables and fruits: a hazard to human health. 2017. *J Med Chem Toxicol*; 2(1): 1-7. Available from: <https://doi.org/10.15436/2575-808X.17.1355>. https://www.researchgate.net/publication/316618578_Pesticide_Residues_in_Food_Grains_Vegetables_and_Fruits_A_Hazard_to_Human_Health

⁴ *Pesticide efficacy is strongly associated with environmental conditions*. Matzrafi M. Epub August 31, 2018. "Climate change exacerbates pest damage through reduced pesticide efficacy." *Pest Manag Sci*. 75(1):9-13. doi: 10.1002/ps.5121. PMID: 29920926. <https://pubmed.ncbi.nlm.nih.gov/29920926/>

⁵ See Richard Schiffman. May 3, 2017. "Why It's Time to Stop Punishing Our Soils with Fertilizers." *Environment 360*, Yale School of the Environment. <https://e360.yale.edu/features/why-its-time-to-stop-punishing-our-soils-with-fertilizers-and-chemicals>

⁶ See Sachchidanand Tripathi, Pratap Srivastava, Rajkumari S. Devi, Rahul Bhadouria. 2020. "Chapter 2 - Influence of synthetic fertilizers and pesticides on soil health and soil microbiology." *Agrochemicals Detection, Treatment and Remediation*, Pages 25-54. ISBN 9780081030172. <https://www.sciencedirect.com/science/article/pii/B9780081030172000027>

ecosystems.⁷ When a soil ecosystem is unhealthy it provides fewer ecosystem services and decreases yields. Farmers using these synthetic inputs must continue to use high nitrogen synthetic fertilizers—all of which contribute to GHG emissions—to maintain high yields. Soils dependent on chemical applications for fertility and pest control are not resilient, increasing the risk to crops during times of drought and other weather events.

Native ecosystems must be left intact

Cornucopia also strongly supports the preservation of lands with high conservation value. Some of the negative climate impact caused by the agriculture sector is through land-use changes, including deforestation.^{8,9} Currently, there is a perverse incentive within the organic rules and regulations: Because prohibited chemicals have not been applied to the land in question, native ecosystems can be immediately put into organic production without the customary three-year transition period.

Unfortunately, the National Organic Program has failed to implement the NOSB's badly needed 2018 proposal concerning the incentive to convert native ecosystems to farmland. It undermines efforts to label organic as climate-friendly when organic farmers are still explicitly allowed to benefit from the destruction of native ecosystems.

Cornucopia continues to urge the USDA to enact the NOSB's 2018 Native Ecosystem recommendation. Functional ecosystems such as wild prairie, old-growth forest, and native wetlands provide more robust ecosystem services than is possible on any agricultural land. These ecosystems provide benefits to both the global climate and local resilience to the changes brought on by climate change. Unfortunately, these ecosystems are fragile and rapidly disappearing on a global scale. We need to not only protect the native ecosystems that survive but rehabilitate degraded land.

Soilless production systems are not climate-smart

Cornucopia is also concerned by the lack of discussion surrounding soilless production systems within the organic marketplace and the conflict those farming systems have with "climate-smart agriculture."

Soilless production, including "organic" hydroponic and container production, does not contribute to climate mitigation. While hydroponic and containerized agriculture may have a place in the food system, soilless production does not contribute to soil health, improving biodiversity, or other ecosystem services that support climate resilience. Despite law that mandates soil fertility requirements for organic crop producers, hydroponic and container-based operations continue to carry the USDA organic seal.

If soilless systems are here to stay in the organic marketplace, it is imperative that comprehensive regulation is developed surrounding soilless production. There is a dangerous vacuum in standards and widely varying practices among the certifiers who do certify soilless production, all of which is a recipe for market failure.

⁷ Bai, Yong-Chao, *et al.* May 8, 2020. "Soil Chemical and Microbiological Properties Are Changed by Long-Term Chemical Fertilizers That Limit Ecosystem Functioning." *Microorganisms*, 8(5):694.

doi:10.3390/microorganisms8050694. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7285516/>

⁸ See Nature Climate Change. December 18, 2014. "Effects of Tropical Deforestation on Climate and Agriculture: A policymaker summary." https://www.climateandlandusealliance.org/wp-content/uploads/2016/02/Effects_of_Tropical_Deforestation_Policymaker_Summary.pdf

⁹ Forests Forever. 2022. "Forests and Climate Change." Accessed 9/20/2022.

https://www.forestsforever.org/archives_resources/climate_crisis/Climate_Crises_-_Forests_of_the_World.html

Cornucopia recommends making the organic rules and regulations more rigorous and adhering to the principle of “continuous improvement” when it comes to addressing regulatory change. The organic rules were never meant to be stagnant, and climate-smart agriculture necessitates programs that are constantly improve on the baseline.

For example, climate-smart practices that are already present within the organic standards should have stricter standards and stronger enforcement. The existing requirements to use soil building practices (such as crop rotations, cover cropping, careful tillage, and use of compost) and support biodiversity are quantifiable and should be measured.

Organic agriculture provides an opportunity to adapt US agricultural systems toward climate mitigation and resilience as research unfolds.