September 29, 2022

Ms. Michelle Arsenault
National Organic Standards Board
USDA-AMS-NOP

Docket: AMS-NOP-22-0042

RE: CAC Subcommittee – Discussion Document: Organic and Climate-Smart Agriculture

Dear Ms. Arsenault:

Thank you for this opportunity to comment on the National Organic Standards Board (NOSB) Compliance, Accreditation & Certification Subcommittee's (CACS) Discussion Document on the link between organic practices and climate mitigation. The CACS aims to articulate why a certified organic producer should be automatically considered climate-smart and made eligible for all climate-smart funding, buying, and other programmatic opportunities administered by the USDA.

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 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 CACS is responding to seventeen questions included in a February 2022 memo from NOP to NOSB. OTA thanks the CACS for its thoughtful response. We strongly agree with the feedback developed by the CACS and offer the following additional points that would bolster a final recommendation to NOP:

1) *What existing data or research support the link between organic practices and climate change mitigation?*

- Fossil fuel-based and most synthetic fertilizers and pesticides are prohibited in organic agriculture. The manufacture and application of those substances constitute more than 10% of direct global agricultural GHG emissions, largely from the Haber-Bosch process to manufacture synthetic nitrogen fertilizer alone.[i]
- Organic techniques such as cover cropping, organic soil amendments, crop rotations and tillage improve soil microbial communities, which in turn can elevate important climate-related function in the soil (e.g., carbon sequestration, nitrogen cycling).
- In 2017, Northeastern University's National Soil Project partnered with The Organic Center to publish a groundbreaking study that found organic farms held greater quantities of humic acid and total soil organic carbon (SOC) in their soils than conventionally managed farms. According to the study, which evaluated over 1,000 soil samples from organically and conventionally managed farms, organic growers who adopted best practices increased their SOC by 26%.[ii]

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- OTA's White Paper: Advancing Organic to Mitigate Climate Change also provides an excellent summary with references to some of the current research on organic's climate benefits.
    - Organic farming slows the growing over-abundance of reactive nitrogen on our planet, such as nitrous oxide, by minimizing the introduction of reactive nitrogen into our global pool through the application of synthetic fertilizer. Instead, the majority of reactive nitrogen on organic farms comes from recycled sources like compost, or a small amount of new reactive nitrogen from nitrogen-fixing bacteria in the roots of cover crops or other legumes. A 2020 study shows that across all food groups, organic production uses around 50% less new reactive nitrogen in comparison with conventional production. Not only does organic add significantly less to the global pool of reactive nitrogen, but it also helps cycle potential nitrogen waste pollution back into food production by using manure and food waste as fertilizer.[iii]

2) *What research should USDA prioritize to demonstrate the efficacy of organic farming as climate-smart agriculture?*

- Climate impact models like COMET must be updated with soil carbon and practice data from organic farms to allow organic farmers to accurately gauge the benefits of their complex management systems.
    - More soil data is needed beyond total SOC, with samples from many farms representing a broad geographic range of soils, to gain a holistic understanding of how climate-smart practices are working to mitigate climate change, and which practices may need modification.
- Long-term studies at scale are needed to determine the most effective carbon sequestration techniques in organic systems. Such research can evaluate the relative impacts of different organic management practices on soil health outcomes and identify which practices are most efficient and effective depending on each farm's unique circumstance. Right now, organic research is too general to tailor to every soil type, crop type, or region of operation.

3) *What key practices that support climate-smart agriculture are already codified in the USDA organic regulations?*

- Crop rotations are also required under the USDA organic regulations. **§ 205.205.**

4) *What climate-smart organic practices should new/transitioning farmers be made aware of?*

- The new Organic Management conservation practice standard at NRCS through the Organic Transition Initiative.
- Adaptive multi-paddock (AMP) grazing supports the requirement for manure management practices **[§ 205.203(d)]** and ruminant pasture management and daily grazing **[§§205.239(a)(2)**

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and 205.237]. AMP sites have an average of 13% more soil carbon and 9% more soil nitrogen compared to continuous grazing sites over a 1-meter depth.[iv] This practice can help farmers survive the economically challenging transition years, but implementation requires technical assistance, pasture plotting and fence redesign, and hardware.

5) *What specific practices already documented in organic system plans (OSPs) support climate-smart agriculture?*

- Crop rotations are also required under the USDA organic regulations. **§ 205.205.**

6) *How could organic system plans and other organic recordkeeping more clearly demonstrate that organic farmers' practices support climate-smart agriculture?*

- Develop an electronic OSP that can calculate the climate benefits of each practice employed on farm while tracking compliance with the organic standards.

7) *How can NOP better communicate to new and transitioning farmers that organic supports climate-smart agriculture?*

- Work with other agencies like NRCS and FSA to ensure regional offices have the knowledge base necessary to adequately inform farmers of organic practices, benefits, support programs, and market opportunities.

8) *What are the barriers to capturing and reporting on organic farming benefits?*

- Testing and monitoring the outcomes of organic practices requires time, expertise, and resources. Organic farmers, especially those with small operations, often cannot divert efforts away from their daily tasks and responsibilities to contribute to this knowledge base.

9) *What changes would increase the efficiency and effectiveness of organic reporting of climate-smart agriculture data? What federal, state, or local climate-smart programs could organic farmers apply for?*

- Farmers require increased technical and financial assistance to access existing programs, with particular and intentional attention to historically underserved farmers.

10) *What types of crosswalk tools would most help farmers in making connections between the Organic Systems Plan and any documentation required for other climate-smart and/conservation programs?*

- Work with OpenTEAM through the Wolfe's Neck Farm Foundation's ACTION for Climate Smart Agriculture grant project to tie an electronic OSP to climate benefits.

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11) How can organic farmers better market their current practices as climate-smart?

- The marketing efforts of organic farmers are limited by challenges in getting their products to market and thereby making organic choices available to consumers. Farmers are often unable to market the bounty of their cover and some rotational crops due to a lack of aggregators and processing infrastructure. USDA should provide market and infrastructure development grants for minor rotational crops that improve soil health.
- It is important that market and infrastructure development policies recognize that organic is a distinct supply chain that requires certified organic handlers to process these crops. For example, while the production capacity and market demand for domestically produced organic grains are high, the processing infrastructure has not kept pace, and farmers face challenges in finding local grain mills to process organic.
    - Encourage organic's eligibility within existing USDA rural development programs. Particularly,
        - Rural business development grants
        - Locally and regionally produced agricultural food products
        - Value-added agricultural product market development grants

12) What organic practices and attributes should organic farmers highlight to help them qualify for climate-smart programs?

- We wholly agree with the comments offered by the CACS subcommittee

13) How can organic farmers talk about their practices so they can benefit from the variety of federal, state, and private sector climate-smart agriculture programs? i.e., reducing duplication of reporting?

- We wholly agree with the comments offered by the CACS subcommittee

14) USDA already supports climate-smart agriculture through many technical assistance and incentive programs. What can be done to ensure those resources reach organic farmers?

- Intentional and culturally appropriate outreach must be employed to reach organic farmers who are historically underserved.
- Issuance or renewal of an organic certificate should trigger an automatic communication to organic farmers listing which technical assistance and incentive programs for which they are automatically eligible or poised to be successful in applying for.

15) What types of technical assistance do organic farmers need to transition? Is this assistance available now? What type of assistance may be missing?

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- Organic farmers across the country need culturally relevant technical assistance to achieve certification. Expert organic agronomy advisers who are fluent in languages other than English, particularly Spanish and Hmong, should be trained up and supported by USDA to ensure all farmers practicing organic management have access to certification.
- USDA's NRCS should increase their base salary for soil conservationists and other specialists, who are often required to hold a 4-year bachelor's degree and are vital to the success of our rural economies. For example, a soil conservationist job posting for a full-time position in Houlton, ME (announcement number NRCS-22-11658372-DE-MI-JH) listed $36,118 as the lower amount in its yearly salary range. According to the Living Wage Calculation for Maine (https://livingwage.mit.edu/states/23), the low range salary (18.52/hour) is less than a dollar over living wage for a single adult with no children. Offering NRCS service providers a compelling wage for their expertise and education will expand the pipeline of young people looking to start a career in or continue their passion for agriculture. Young people will not be motivated to achieve higher education in conservation and take on the added travel expenses of living in a rural area if their labor is not respectfully compensated.

16) How can USDA better connect organic farmers with the tools, expertise, and networks they need to successfully promote themselves as climate-smart?

- Recent research shows that although consumers value and trust the organic label and the climate impact of the food supply chain, they do not clearly associate the organic label with climate benefits and cannot describe the environmental benefits or requirements of organic production.[v] To address this knowledge gap, USDA should develop a marketing campaign, with public messaging and creative development as well as consumer, digital, direct farmer, and retail marketing.

17) What are the most critical research needs organic farmers could benefit from?

- We appreciate the large diversity of priorities currently presented and also **recommend the inclusion of the following <u>additional</u> priorities**:
  - Assessing impacts of inadvertent chemical contamination across the supply chain (runs almost parallel with issue of GMO contamination, but is a separate problem that requires separate exploration)
  - Assessing benefits and risks of livestock integration into crop rotations
  - Quantifying nutritional values of organic <u>animal</u> products (such as dairy, meat, and eggs)
  - Comparisons of pesticide and antibiotic residues in organic and conventional products
  - Measuring impacts of organic crop production on water
  - Cultural and social barriers to organic adoption

In closing, the CACS subcommittee has advanced excellent and thorough recommendations, and we wholeheartedly endorse their comments on Organic and Climate-Smart Agriculture. Please take these additional comments in conjunction the subcommittee's recommendations. Organic farmers are dedicated to

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practices that mitigate, and have the power to reverse, the effects of climate change, while increasing farm resilience in the face of droughts and floods. We are optimistic that USDA will increase their support and encouragement of organic farming systems as the climate, economic, and health benefits of those systems are continuously revealed.

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,

Gwendolyn Wyard
Vice President, Regulatory, OTA

cc: Tom Chapman
CEO, OTA

[i] Walling, Eric, and Celine Vaneeckhaute. "Nitrogen Fertilizers and the Environment." In Nitrate Handbook. CRC Press, 2022.

[ii] Elham A. Ghabbour et al., "National Comparison of the Total and Sequestered Organic Matter Contents of Conventional and Organic Farm Soils," in Advances in Agronomy, vol.

[iii] Shade, Jessica et al. 2020. "Decreasing Reactive Nitrogen Losses in Organic Agricultural Systems." Organic Agriculture. https://doi. org/10.1007/s13165-020-00297-0 (July 14, 2020)

[iv] Samantha Mosier, Steven Apfelbaum, Peter Byck, Francisco Calderon, Richard Teague, Ry Thompson, M. Francesca Cotrufo, Adaptive multi-paddock grazing enhances soil carbon and nitrogen stocks and stabilization through mineral association in southeastern U.S. grazing lands, Journal of Environmental Management, Volume 288, 2021, 112409, ISSN 0301-4797

[v] Daniel J. Edelman Holdings, Inc. "2022 Edelman Trust Barometer." Edelman, January 2022. https://www.edelman.com/trust/2022-trust-barometer.

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