National Organic Standards Board
Compliance, Accreditation, and Certification Subcommittee (CACS)
Proposal - Letter to Secretary Vilsack regarding USDA Climate Change Initiatives
August 10, 2021

Secretary of Agriculture
US Department of Agriculture
Washington, DC 20250

Subject: USDA Climate Change Initiatives

Dear Secretary Vilsack,

The climate focus of USDA is an encouraging step forward for the U.S., as scientific research provides evidence for the ability of agriculture to help mitigate climate change. As members of the National Organic Standards Board, the federal advisory committee to the National Organic Program, and our stakeholders who commented on this document during the October 2021 public meeting, we want you to know that we are wholly supportive of USDA engaging agriculture as a tool for mitigating climate change.

Organic farming systems have significant potential to contribute to climate change solutions through both avenues, by emitting fewer GHGs and carbon sequestration by healthy soils under organic management. The 90 Day Progress report, dated May 2021, fails to mention the potential contributions to climate change mitigation that certified organic production systems may offer. We believe this is a grave omission that USDA needs to rectify as concrete plans for the department's climate change strategies are developed. Furthermore, the National Organic Program is already well established at USDA. Rather than reinventing the wheel, we urge USDA to leverage organic agriculture as the department moves forward to incorporate climate smart strategies into U.S. agriculture.

The extant body of research provides strong support that organic farming systems emit lower levels of GHG. Organic agriculture does not rely on synthetic inputs,[1] and when paired with good organic farming practices, an organic farm emits fewer GHGs. Concerns have been raised that, since organic field crop yields are below those of conventional crop yields, the net GHG 'footprint' per unit production may not be lower than that of conventional farming (Lee et al., 2015; McGee, 2015). That said, some of the farmers on the NOSB report achieving yields equivalent to those realized on conventional farms, indicating that yield differentials are crop and location specific. Research supports the experience of the NOSB farmers, and finds that an overall reduction in GHG emissions, due to the widespread adoption of organic farming systems, is possible (Muller et al., 2017; Skinner et al., 2019; Squalli and Adamkiewicz, 2018).

While soils under organic management have more soil organic matter, there are numerous problems that make it difficult to definitively tie the higher soil organic matter to increased carbon sequestration. These challenges are related to measurement, testing, and understanding which types of soil organic

[1] Synthetic inputs are disallowed unless included on the National List; environmental impact is one factor considered prior to the inclusion of a synthetic input. Note that the majority of inputs used on a certified organic farm are non-synthetic.

carbon are best able to sequester carbon (OFRF, 2018). Other obstacles identified include the lengthy time period required to build soil organic carbon, the reduced yields of some organic systems,[2] and lack of technical assistance for organic farming systems in many areas of the country. We encourage additional research on this important topic.

Nevertheless, research finding that organic farms produce fewer GHG emissions, coupled with the research showing that regenerative organic practices build soil carbon, should lead USDA to emphasize organic as a climate mitigation centerpiece as research continues. Organic farms start from the vantage of having higher soil organic carbon, as research has consistently shown, suggesting that there is potential for these farms to contribute to climate change mitigation. We believe that USDA should support research and other efforts to improve our understanding of the potential contribution of organic farming systems to climate change mitigation.

Furthermore, the higher levels of soil organic matter allow farmers to better cope with the extreme weather associated with climate change (Bellprat *et al.* 2019). Soil under organic management offers benefits such as higher water holding capacity, more filtration, and less erosion, which helps ensures a food supply amongst increasingly irregular drought and flooding conditions. Recent research is helping to narrow down which organic practices are better at promoting soil health (Tully and McAskill 2019).

We have direct responses to several points made in the 90 Day Progress Report:

- *Support new and better markets* (page 9): The organic market is already thriving, with organic food retail sales exceeding $56 billion in 2020 as reported by OTA. Prioritizing transition-to-organic market development is strongly encouraged to continue to remove barriers for producers choosing to convert to organic production. Overall, a greater reliance on certified organic products in the climate smart strategy would solve the 'finding a market' for environmentally friendly food and agricultural products, and investing federal funds into further developing the domestic organic market is likely to have a sizeable impact.
- *Education and technical assistance* (page 8): There is just one extension agent in the US who works exclusively with organic producers. Increasing the number of trained organic extension agents, housed at land grant universities, would provide producers with important technical assistance and education. Better technical assistance would help organic producers manage their risk and help farmers identify best organic farming practices.
- *Leverage existing USDA programs to support CSAF strategies* (page 6): Prioritize updating Risk Management Agency (RMA) programs, including adjusting actuarial data for transition and organic t-yields. Additionally, adjust RMA programs by allowing innovative production practices to be eligible for risk management insurance for those in transition, certified organic, and other climate-smart producers. All organic farmers, including those newly certified, *need equal access to federally subsidized crop insurance and other incentives*, on the same scale and scope as those available to non-organic farmers.
- *Strengthen the role of USDA climate hubs* (page 8): Each USDA climate hub should have at least one researcher with organic production as a key part of their research portfolio.
- *Increased research Comment 1* (page 13): More research is needed to understand the organic-conventional yield gap, by crop and by location. For some crops in some locations, the gap is nonexistent or minimal, and for others it is larger. This key area has not been adequately examined. Additional investment in the NASS/ERS data collection of the Agricultural Resource

[2] Depending on crop, yields may be lower on organic farms, whereas for other crops, yields are equivalent to those obtained via conventional production.

Management Survey for more complete coverage of organic crops is a great way to leverage and enhance existing USDA resources.

- *Increased research Comment 2* (page 13): Closing any existing organic-conventional yield gap is an important component of reducing GHG emissions of organic systems, particularly when measured in terms of pound or kilo of product grown. Historically, the US lacks a sufficient investment in organic agricultural research and into crop cultivars well-adapted to climate-friendly organic production systems (Hultengren et al., 2016; Ponisio et al, 2014). Thus, we suggest developing specific seed varieties for organic crops, improving organic farm weed mitigation through technology, no-till/ minimum till practices, cover cropping and other innovations specifically targeting organic systems can close the organic-conventional yield gap and reduce input dependency, leaving organic systems as better climate mitigators. This work should be done by ARS scientists and university researchers (through NIFA funding).
- *Supporting research and data collection* (page 4): We encourage USDA to invest in data collection on soil organic matter and its ability to sequester carbon. The data collection needs to take place over long time periods, to see how carbon sequestration changes as soil health improves. Additionally, research identifying 'early indicators' of soil health would allow organic farmers to understand whether their soil is on an optimal trajectory for building soil health. Sites for this type of research are the existing long term cropping system trials and working organic farms. At least some of the data collected should be from farms at the beginning of the transition period.
- *Integrate climate smart strategies into existing conservation program*s (page 9): expanding access of organic farmers (an existing USDA program) for conservation programs would better support the economic health of organic farms.
- *Transition payments*, which would provide support to farmers during the critical transition period when risks are high, yields and revenues typically decline, would help farmers adopt organic farming systems. However, these payments should go to farmers who are transitioning into sectors that are able to support a greater number of operations, as economic viability is a critical aspect to a healthy organic farming sector. Any federal support via a transition payment should be attached to a requirement that the newly transitioned farms obtain organic certification.
- At the same time, as mentioned on page (6), early adopters of organic systems need to be recognized. Allow eligibility for early adopters to have access to current offerings such as RCCP, EQIP, and other programs that are available to encourage continued deployment of these practices on organic farms.

The Organic Foods Production Act (OFPA), 7 U.S.C. §§ 6501-6522, requires that organic farmers *select and implement tillage and cultivation practices that maintain or improve the physical, chemical, and biological condition of soil and minimize soil erosion.* Furthermore, OFPA requires that organic farmers *Maintain or improve soil organic matter content.* In other words, OFPA codifies regenerative agriculture through the requirements it places on organic farmers to build and maintain soil health.

OFPA further requires investment in soil health on organic farms, which supports climate change mitigation: *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.* (OFPA §6513(b)(1)).

In closing, we stress the importance of explicitly including organic production systems in the climate-smart strategy of the department. We urge you to portray organic farmers and ranchers as models for

climate responsible producers. Then, as the rest of the US agricultural sector moves towards adopting climate-mitigation practices, they can rely on the example of the organic agriculture sector, which is both economically viable and climate friendly in its farming practices.
We would be happy to talk with you or any of your representatives about this important issue.

Best regards,

National Organic Standards Board

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Motion to accept the proposal on the letter to the Secretary re: climate change initiatives
Motion by: Nate Powell-Palm
Seconded by: Kyla Smith
Yes: 7 No: 0 Abstain: 0 Absent: 0 Recuse: 0

Approved by Nate Powell-Palm, CAC Subcommittee Chair, to transmit to NOP August 10, 2021.