



ORGANIC FARMERS ASSOCIATION

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November 22, 2019

Congresswoman Kathy Castor
Chair
Select Committee on the Climate Crisis
H2-359 Ford Building
Washington, DC 20515

Dear Chairwoman Castor,

Organic Farmers Association (OFA) is responding to the Select Committee on Climate Crisis' request seeking additional, detailed input from stakeholders in the agriculture sector on reducing carbon pollution, maximizing carbon storage, and suggestions on agriculture policies to adapt to the impacts of climate change.

Organic Farmers Association is a membership organization that represents America's 19,500 certified organic farmers. While we have supporting and organizational members, only domestic certified organic farmers vote on OFA's policies and leadership. The organization was founded by and is controlled by certified organic farmers nationwide.

Our members are concerned about climate change and have been documenting climate change on their farms for the past four decades through careful recording of slight changes in planting and harvest dates, frost dates, and rainfall and heat shifts. In the past few years, severe weather events have been a more forceful reminder that climate is changing, and we must make societal changes to achieve a better balance.

It is extremely important that as a nation we reduce or eliminate fossil fuels to reduce the major sources of carbon emissions into the atmosphere. At the same time, we must implement policies that encourage practices that sequester carbon to remove it from the atmosphere as well as practices that support healthy soil to hold water, preventing erosion and desertification.

The Rodale Institute last year released a Regenerative Organic Agriculture and Climate Change paper¹ highlighting regenerative organic agriculture's role in storing carbon in healthy soil. The report shows it is possible to sequester all the 52 gigatons of CO₂ and CO₂ equivalents emitted annually by switching to organic regenerative farming practices, which maximize carbon fixation while minimizing the loss of carbon returned to the soil.

¹ Rodale Institute, 2014. "Regenerative Organic Agriculture and Climate Change A Down-to-Earth Solution to Global Warming," Accessed November 12, 2019 at: <https://rodaleinstitute.org/wp-content/uploads/Regenerative-Organic-Agriculture-White-Paper-RodaleInstitute.pdf>

Researchers comparing the carbon sequestration ability of certified organic soils and conventional soils have consistently shown that organic soils outperform conventional soils' ability to sequester carbon.² A meta-analysis of 20 organic/conventional comparison trials around the world, showed that organic systems accrued an average of 400 lb carbon per acre per year more than conventional systems.³ Another meta-analysis of 59 studies found total soil organic carbon (SOC) averaging 19 percent higher in organic than conventional systems.⁴ A 2019 comprehensive meta-analysis looked at 528 studies that had compared at least one organic farm to at least one conventional farm.⁵ This meta-analysis found that on average, organic soils had a 10 percent higher organic carbon content than conventional soils and sequestered 230 more lbs per acre of carbon (256 kg C /hectare) each year than the conventional soils, and concluded that converting farmland from conventional to organic production would have “a cumulative climate protection performance... of 1,082 kg CO₂ equivalents per hectare per year” equivalent to eliminating 963 lbs of CO₂ emissions per year for each acre converted.⁶

In addition to carbon sequestration, certified organic farms use the sequestered carbon to build healthy soils, which are instrumental in productive hydrological cycles. In the U.S., a nationwide study that sampled 659 organic fields and 728 conventional fields showed 13 percent higher total soil organic matter (SOM) and 53 percent higher stable SOM in the organic soils.⁷ Organic soil management also shows additional climate benefits such as higher aggregate soil stability (15 percent higher) and reduction of soil erosion and soil loss occurrences 22 percent and 26 percent lower, respectively.⁸ High SOM in healthy soil is essential for holding water, which helps reduce soil loss, erosion and prevents desertification. Soils with high SOM can hold water for longer, sustaining plants through a drought; thus, prolonging soil cover with photosynthesizing plant growth for a longer period. Increased photosynthesis sequesters carbon from the atmosphere into the plant to support plant growth. Increased plant cover also provides cooling benefits through transpiration, the evaporation of water from plant leaves. Expansive forests and grasslands create large amounts of transpiration that produce significant water vapor in the atmosphere, increasing precipitation and cloud cover, both offering beneficial climate cooling.

Moving more farms towards organic management is essential to our future. We must reverse climate change, and the USDA National Organic Program provides a ready-made solution with a market-based approach that can be implemented quickly and widely. The desired practices for reducing climate

² National Sustainable Agriculture Coalition. 2019. Agriculture and Climate Change: Policy Imperatives and Opportunities to Help Producers Meet the Challenge. Washington D.C.

³ Gattinger, A., A. Muller, M. Haeni, C. Skinner, A. Fliessbach, N. Buchmann, P. Mader, M. Stolze, P. Smith, N. E. Scialabba, and U. Niggli. 2012. Enhanced topsoil carbon stocks under organic farming, PNAS, 109 (44) 18826-18231.

⁴ Lori, M., S. Symnaczik, P. MaEder, G. De Deyn, A. Gattinger. 2017. Organic farming enhances soil microbial abundance and activity – A meta-analysis and meta-regression. PLOS ONE | <https://doi.org/10.1371/journal.pone.0180442> July 12, 2017, 25 pp.

⁵ Sanders J and J. Hess (Eds), 2019. Leistungen des ökologischen Landbaus für Umwelt und Gesellschaft. Braunschweig: Johann Heinrich von Thünen-Institut, 364 p, Thünen Report 65. Accessed May 2, 2019 at: https://www.thuenen.de/media/publikationen/thuenen-report/Thuenen_Report_65.pdf

⁶ *Ibid*, 186.

⁷ Ghabbour, E. A., G. Davies, T. Misiewicz, R. A. Alami, E. M. Askounis, N. P. Cuzzo, A. J. Filice, J. M. Haskell, A. K. Moy, A. C. Roach, and J. Shade. 2017. National Comparison of the Total and Sequestered Organic Matter Contents of Conventional and Organic Farm Soils. *Advances in Agronomy*, 146: 1-35.

⁸ *Ibid*.

change, when done regeneratively using organic methods, also pay off financially for farmers, which encourages implementation.

Organic Farmers Association encourages policy makers to support agricultural production practices that are most effective at sequestering carbon, building soil organic matter, and improving soil biological activity, all important tools that also reduce soil erosion and soil loss.

We hope your report to be released in March 2020 recognizes that regenerative organic soils are an effective strategy for sequestering atmospheric carbon and a necessary part of the solution to reversing climate change. While we must work to reduce or eliminate harmful emissions into the atmosphere, an immediate available solution is sinking the carbon into the soil.

We encourage the Select Committee to take a comprehensive view of the policies our Organic Farmer Members have passed identifying a variety of strategies and policies from tax and farm policy to pricing of carbon, that will aid us in reversing climate change, although we recognize that the Farm Bill is the main agricultural policy driver in Congress.

Organic farmer members have identified the following policy suggestions that will help reduce climate change:

- **A national organic agriculture transition program**

This would entail a federal program with targets for involving a significant number of U.S. farms to transition significant domestic acreage to organic management. Starting with three years of financial incentives during the high-risk transition period, farmers would then need more market driven support in the form of a fair marketplace and access to federally subsidized insurance and incentive programs equal to that of non-organic farmers. National Organic Program's accredited certification agencies' annual certification inspections would ensure implementation of climate-beneficial practices. A federal program like this would also need to provide technical assistance funding to organic farm organizations to help farmers in transition as well as professional development training to NRCS and other USDA agencies to support farmers using existing programs for their transition. Organic Farmers Association farm members passed a policy position in the Spring of 2019 that supports organic transition incentive programs that provide financial and technical assistance to non-organic farmers to help them convert land to certified organic management systems.

- **Use of the USDA's NRCS Agricultural Conservation Easement Program (ACEP) to incentivize organic/carbon farming**

Earmarking a certain percentage of the ACEP program for the preservation of certified organic farmland will incentivize carbon sequestration through organic production. NRCS uses ACEP to purchase easements on farms to prevent the ground from being developed. If there was a goal or earmark (much like the organic EQIP) to prioritize preservation of certified or transitional acreage, then the NRCS dollars that go towards preserving farmland will be preserving farmland that supports production known to sequester carbon.

- **Increased investment in the National Organic Program**

Organic regulations require certified organic farmers to implement beneficial carbon sequestration practices by eliminating chemical soil disturbance through the prohibition of synthetic fertilizers, herbicides, and other crop protection chemicals. The standards require organic farmers to adopt tillage and cultivation practices that "maintain or improve" soil

condition. To ensure consistent and equitable implementation of the organic regulations there must be an increased investment in the National Organic Program to enable USDA to fulfill its role as accreditor of the standards ensuring accountability and enforcement of the regulations.

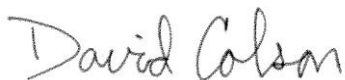
A fundamental principle at the foundation of organic farming, and underlying the recommendations listed above, is that organic management is a holistic production practice that aims to manage the farm as an ecological system. Thus, an organic farmer doesn't merely focus on using best practices on a specific field, or on farming without chemicals, but must also consider soil health, crop diversification, crop rotation, fostering biodiversity in and around fields, and market diversification. A diverse ecological systems-approach is the organic farmer's best insurance program because it not only builds carbon in soil and vegetation, but also builds resilience for the farm and its host ecosystem in the face of climate change and other disruptions. Organic Farmers Association believes it is time for our nation to take an analogous "whole-farm view" of our national agricultural system.

Unfortunately, nationwide U.S. agricultural lands host a greatly diminished diversity, with a handful of commodity crops dominating the landscape and economy of farming. Agriculture in our nation has not always been so ecologically unstable, but most of our agricultural policies have incentivized a disproportionate commitment to non-human-food crops that service feedlots, fructose and ethanol. As a result, pragmatic farmers who have simply been responding to the economic imperatives laid before them, are now vulnerable to the long-term systemic effects of fossil fuel-intensive, non-diversified farming, i.e., flooding and/or drought, soil loss and degradation, dependence on imported nitrogen fertilizers and expensive chemical inputs, limited markets, and poor diets. This puts our nation's food security at risk, not to mention our long-term ecological stability.

Organic Farmers Association encourages the Select Committee on the Climate Crisis to proceed with a "whole-farm view" as you establish policy priorities for the carbon-sequestration potential discussed throughout this letter. This approach brings hope and practical solutions for climate stability. The organic farming community already demonstrates hopeful, diverse and feasible strategies for geographically specific mitigation of, and adaptation to climate change. Organic farming's potential can be magnified with Congress's help to update the Farm Bill considering climate change and evolving food systems.

Thank you for your dedicated work on this important issue. Our membership believes that organic agricultural systems provide an essential solution to reversing carbon change. With policies that encourage organic transition and the proper support to aid farmers to successfully transition to organic management, regenerative organic farmers will be effective at sinking large quantities of carbon, while simultaneously producing healthy food for the nation. Immediately removing carbon from the atmosphere through increased organic production will give policymakers time to implement additional policies to decarbonize our economy and improve the qualities of regenerative, organic soils.

Sincerely,

A handwritten signature in cursive script that reads "David Colson".

David Colson
President