

April 29, 2021

Mr. Seth Meyer
Office of the Chief Economist
U.S. Department of Agriculture

Docket: USDA-2021-0003

Request for Comments: Executive Order on Tackling the Climate Crisis at Home and Abroad

Thank you for the opportunity to provide input on climate resilience and mitigation in agriculture. 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 over 9,500 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 threat that climate change poses to our world, our ecosystem and our health demands bold policy solutions. OTA's board of directors recently adopted ten guiding principles for policy solutions to fight climate change and formed a member-wide Climate Change Task Force. Over 65 leading members of the trade association currently participate in the Climate Change Task Force representing fiber and textiles, grains, dairy, specialty crops, retailers, input suppliers, consumer packaged goods companies, and more.

Ten Guiding Principles for Smart Climate Policy

We ask that you use the following guiding principles as you develop policy solutions to tackle the climate crisis:

- 1. Advance organic agriculture:*** Any policy that addresses the role of climate change in food and agriculture should advance the opportunity for organic to be a climate change solution, allow organic to be successful and not undermine organic.
- 2. Are Science-based, data-driven and verifiable:*** Policy solutions should be based on and supported by science and data, with strong verification measures to meaningfully reduce agriculture's impact on climate change. Tools for conducting data collection and life-cycle analysis should be best in class and subject to continual improvement with support from USDA and experts across science, industry, and agriculture.
- 3. Focus on outcomes and continuous improvement:*** Policies should reward the outcomes of good agricultural practices and enable a system of continuous improvement that achieves specific positive outcomes over time.

4. Promote soil health and carbon sequestration: Improving soil health is an important and central component in addressing agriculture's role in climate change. Policies should include provisions for advancing soil health and carbon sequestration.

5. Lower the use of fossil fuel-based chemicals: Chemical fertilizers and pesticides are a key source of greenhouse gas emissions in agriculture. Climate policies should minimize the use and eliminate the dependency on fossil fuel-based inputs, especially of synthetic nitrogen fertilizers.

6. Provide solutions for mitigation and adaptation: Policies should provide the resources to not only mitigate the impacts of climate change but also help the agricultural sector adapt to a changing climate.

7. Incentivizes farmers and businesses: Farmers should not have to bear the brunt when making transformational changes. Public and private sector programs should provide tools and resources to achieve outcomes through market-based incentives or financial payments that encourage conservation practices or ecosystem services.

8. Decarbonize the economy: Policies that increase greenhouse gas emissions or rollback progress in decarbonizing the economy and reducing emissions should be opposed.

9. Foster agricultural diversity and innovation: Climate policies should foster diversity and innovation in farming systems, and provide incentives for increasing diversity in cropping systems.

10. Address equity and inclusion: Policies should address the environmental and economic inequities caused by climate change and include ways to support disadvantaged communities in adapting to climate change.

Organic agriculture must be a key part of the solution to tackle climate change

The \$55 billion a year U.S. organic industry is a voluntary, market-based, federally backed, independently certified agricultural system that can reduce greenhouse gas emissions, store away huge amounts of carbon, and enable farmers to be resilient in an evolving climate. Organic agriculture provides a critical opportunity to mitigate climate change and at the same time create economic, environmental and health benefits for all those involved in our food system--from the grower and the processor, to the distributor and the consumer.

✓ ***Organic protects natural resources***

Organic farming is a production system of cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity. Organic standards require that farmers use practices that maintain or improve natural resources, including soil, water, wetlands, woodlands, and wildlife.

✓ ***Organic reduces emissions of carbon dioxide and sequesters more carbon in the soil***

The production, transport and use of fossil fuel-based fertilizers and pesticides are the main uses of energy in agriculture, and are significant contributors to greenhouse gas emissions,

particularly carbon dioxide.^{1, 2} Petroleum-based fertilizers are prohibited in organic, as are most synthetic pesticides. Instead of relying on energy intensive synthetic pesticides and fertilizers that can deplete the soil of valuable nutrients and increase environmental degradation, organic farmers build soil and plant health using practices that incorporate organic materials like manure and compost. The four key organic farming techniques that improve soil health outcomes are cover cropping, crop rotation, organic soil amendments, and conservation tillage.³

The science says organic farms:

- Sequester 26% more carbon than soils from non-organic farms⁴
- Have a global warming potential 18% lower than their conventional counter parts⁵
- Create around 50% less new reactive nitrogen⁶
- Have 30% more species and support up to 50% more pollinators^{7, 8, 9}

✓ ***Organic fosters biodiversity***

Research shows that organic production increases beneficial insect biodiversity without augmenting pest populations.¹⁰ Organic practices benefit pollinators by avoiding toxic chemicals, providing diverse habitat, and providing an abundance of food sources. Organic farming also supports soil biodiversity. Soil organic carbon found in organic farms provides important building blocks for beneficial microorganisms in the soil that are vital to decomposition and nutrient cycling.¹¹

✓ ***Organic increases resiliency of agricultural systems***

¹ Scialabba, N.E., and Muller-Lindenlauf. 2010. “Organic Agriculture and Climate Change.” *Renewable Agriculture and Food Systems*; Cambridge 25: 158.

² Camargo, G.G., M.R. Ryan, and T.L. Richard. 2013. “Energy Use and Greenhouse Gas Emissions from Crop Production Using the Farm Energy Analysis Tool.” *BioScience* 63: 263–73.

³ Tully, Katherine L., and Cullen McAskill. 2019. “Promoting Soil Health in Organically Managed Systems: A Review.” *Organic Agriculture*. <https://doi.org/10.1007/s13165-019-00275-1> (July 14, 2020).

⁴ Cooper, J.M., et al. 2016. “. Shallow Non-Inversion Tillage in Organic Farming Maintains Crop Yields and Increases Soil C Stocks: A Meta-Analysis.” *Agronomy for Sustainable Development* 36: 1–20.

⁵ Goh, Kuan M. 2011. “Greater Mitigation of Climate Change by Organic than Conventional Agriculture: A Review.” *Biological Agriculture & Horticulture* 27(2): 205–29.

⁶ 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).

⁷ Tuck, Sean L. et al. 2014. “Land-Use Intensity and the Effects of Organic Farming on Biodiversity: A Hierarchical Meta-Analysis.” *Journal of Applied Ecology* 51(3): 746–55.

⁸ Kremen, C, N. M. Williams, and R.W. Thorp. 2002. “Crop Pollination from Native Bees at Risk from Agricultural Intensification.” *Proceedings of the National Academy of Sciences* 99(26): 16812–16.

⁹ Andersson, G.K.S., et al. 2014. “Effects of Farming Intensity, Crop Rotation and Landscape Heterogeneity on Field Bean Pollination.” *Agriculture, Ecosystems & Environment* 184(0): 145–48.

¹⁰ Lichtenberg, Elinor M. et al. 2017. “A Global Synthesis of the Effects of Diversified Farming Systems on Arthropod Diversity within Fields and across Agricultural Landscapes.” *Global Change Biology* 23(11): 4946–57.

¹¹ The Organic Center. 2015. *The Role of Organic in Supporting Pollinator Health*.

Soils high in organic matter support healthy crops, are less susceptible to drought, and foster a diversity of organisms vital to soil health.¹² Organically managed soils also tend to have higher water-holding capacity, porosity, and aggregate stability than conventionally managed soils, which can lead to yield advantages in extreme weather events such as droughts and flooding.^{13, 14, 15}

✓ ***Organic supports local food systems***

Organic agriculture is associated with increased utilization direct to consumer goods and local food outlets, simultaneously decreasing costs and emissions associated with transportation of food while improving local economies.¹⁶ Organic “Hot Spots,” clusters of counties with more organic farms, have been shown to increase incomes and reduce poverty rates.¹⁷

Key policy opportunities to advance organic and climate-smart agriculture at USDA

Although public and private initiatives to support organic as a climate mitigation tool exist, stronger federal support is needed for organic to reach its full potential to fight against climate change. Given their climate change benefits, we recommend the following policies to advance organic, encourage voluntary transition to organic and support the adoption of climate-smart agricultural practices.

Support for Research and Technical Assistance

Research in organic production can accelerate the growth of the organic industry by identifying cost effective and environmentally sustainable solutions to on-farm production challenges. Successful organic and transitioning farmers also need to rely on agronomists and extension agents that are trained in organic production methods. However, there is a large gap in research and technical assistance investment to meet the needs of organic and transitioning farmers across production systems, scales, and geographic regions.¹⁸ This lack of assistance undercuts organic farmers and those seeking to adopt climate-smart practices. We recommend the following:

¹² Mader, Paul et al. 2002. “Soil Fertility and Biodiversity in Organic Farming.” *Science* 296: 1694–97.

¹³ Lotter, D. W., R. Seidel, and W. Liebhardt. 2003. “The Performance of Organic and Conventional Cropping Systems in an Extreme Climate Year.” *American Journal of Alternative Agriculture* 18(3): 146–54.

¹⁴ Reganold, John P., and Jonathan M. Wachter. 2016. “Organic Agriculture in the Twenty-First Century.” *Nature Plants* 2: 1–8.

¹⁵ Kehinde, Temitope, and Michael J. Samways. 2014. “Management Defines Species Turnover of Bees and Flowering Plants in Vineyards.” *Agricultural and Forest Entomology* 16(1): 95–101.

¹⁶ Arunrat, Noppol, Nathsuda Pumijumnong, and Ryusuke Hatano. 2018. “Predicting Local-Scale Impact of Climate Change on Rice Yield and Soil Organic Carbon Sequestration.” *Agricultural Systems* 164: 58–70.

¹⁷ Jaenicke, Edward. 2016. *US Organic Hotspots and Their Benefit to Local Economies*. State College: Penn State.

¹⁸ Farmer, James R., Graham Epstein, Shannon Lea Watkins, and Sarah K. Mincey. 2014. “Organic Farming in West Virginia: A Behavioral Approach.” *Journal of Agriculture, Food Systems, and Community Development* 4(4): 155–171–155–171.

Vastly expand technical assistance providers that are trained in organic systems to help transitioning and current organic farmers as well as all farmers in adopting more sustainable on-farm practices.

- Every state should have at least one NRCS organic coordinator. Reduce or waive the industry contributions under USDA-NRCS cooperative agreements from 50:50 to 25:75 for organic technical assistance providers.
- Develop a competitive grant program for providing technical services to organic and transitioning farmers.
- Invest in innovative public-private partnerships to provide technical assistance. For example, the Organic Agronomy Training Service (OATS), a privately funded program sponsored by the Organic Trade Association seeks to expand the network of agronomists and technical service providers for organic and transitioning farmers. A “train-the-trainer” model, OATS provides science-based trainings for agriculture professionals to gain competency in organic systems to better serve their farmer clients. USDA should invest in programs like OATS. Partnerships across organizations, sectors, and supply chain participants create public goods while allowing private businesses to strengthen their own supply chains.
- Producer-to-producer information sharing is the most effective method of practice implementation. USDA’s Organic Integrity Database is a tremendous resource for organic operation information and could be expanded to facilitate information exchange on organic production practices and resources at a regional level. Extension agencies and NRCS support show the effectiveness of such a model and this should be expanded to organic specific resources.

NIFA’s Organic Agriculture Research and Extension Initiative (OREI) is a federally funded research program on organic production methods and ingredients, pest control, and weed management. This program is critical to the survival of organic farms by helping them meet the unique challenges they face. Several policy improvements can be made to this program to further invest in long-term solutions to climate change. We recommend the following:

- Program restrictions have made it impossible to utilize grant funding for long-term research and trials, which will be increasingly necessary to deal with the impacts of a changing climate on agriculture. Eliminate the current cap of \$2 million to invest in larger scale and longer-term grants.
- Ensure that the results of organic research are applied in the field by increasing the budget allowance for extension and outreach activities.
- Prioritize small grains, food grade, and perennial grains breeding.
- Encourage applied research to develop strategies and techniques to reduce the risk of transitioning.
- Emphasize disease resistance, climate change resilience, water conservation, and water holding capacity.

Improve Risk Management Tools

The financial risk taken on by new or transitioning organic farm operators or landowners can be a significant barrier to adopting sustainable agricultural and conservation practices. Organic farmers need improvements in the farm safety net in order to achieve appropriate risk management tools for organic farms as well as to eliminate policies that penalize farms when transitioning to organic production. We recommend the following:

When farms successfully transition from conventional to organic, they can anticipate significant increases in revenue. However, current RMA policies on Whole Farm Revenue Protection (WFRP) coverage limit expansion of revenue coverage to 30%. RMA should ensure that all producers, including rapidly expanding operations and operations that have recently obtained access to premium markets, like organic, are able to obtain coverage under this policy.

- Under the Whole-Farm Revenue Protection Program, recognize the change in farm revenue after a farm has transitioned to organic. Eliminate the 30% cap on increased production value under the expansion provision.

Organic farmers can obtain contract prices that far exceed two-times the conventional price for a specific commodity. However, current RMA policies cap the amount a producer can insure against at two-times the conventional price election regardless of the price indicated on the contract.

- RMA should evaluate whether current caps on the Contract Price Addendum (CPA) improperly limits the ability of an organic producer to obtain crop insurance, and determine whether to eliminate or raise the caps if they do limit the organic producers' ability to obtain crop insurance with the CPA option.

When farmers successfully transition from conventional to organic, they currently cannot utilize their previous conventional or transitional production histories when calculating actual production history for their crop insurance coverage.

- RMA should allow producers to utilize previous yield history, whether conventional or transitional, with appropriate discounts for known reductions in yields that may occur when employing organic production practices, when calculating Actual Production History for their organic crop insurance coverage.

Organic farmers' crops command premiums at market, and FSA should incorporate organic price premiums when determining loan rates for their Farm Storage Facility Loan Program.

- Develop organic price elections for farm storage facility loans offered. Producers will then have the ability to access working capital based on the actual value of their crops for their operations.

Organic producers may obtain Marketing Assistance Loans for their crops in storage, but the loan rates are not adjusted for the premium prices that organic commodities receive in the market.

- FSA should make adjusted Marketing Assistance Loans based on organic prices available to organic producers with crops in storage.

Market and Infrastructure Development

Successful organic production requires market access, local processing infrastructure, and market stability. Improved access to land, credit and capital, investment in distribution systems and infrastructure, and facilitating more market connections between buyers and sellers for the organic market will create opportunities to expand organic production. USDA should adopt policies that encourage organic transition in a way that does not distort markets but rather facilitates producer and handler choice in response to market signals.

For organic farms practicing diverse crop rotations and cover cropping, it can be challenging to market the full range of crop types produced on a farm. The organic market would benefit from improved market infrastructure and development, particularly around minor rotational crops such as oats, yellow peas, and others that are critical for soil health building but are not the primary cash crops. Cover and rotation crops are important for carbon sequestration and organic farm production due to the benefits they have for soil health, suppressing weeds, nitrogen fixing, biodiversity, and climate change mitigation.^{19, 20}

Small markets may exist for these minor crops, but it can be challenging for organic producers to access those markets. Expanding the market infrastructure for soil-building crops will incentivize all farmers to implement conservation practices. Better partnerships and connections need to be established by food companies and farmers to create food-grade markets for these soil-building crops in both organic and conventional systems. We recommend the following:

- Provide market and infrastructure development grants for minor rotational crops that improve soil health.

Additionally, 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

¹⁹ Farmer, James R., Graham Epstein, Shannon Lea Watkins, and Sarah K. Mincey. 2014. "Organic Farming in West Virginia: A Behavioral Approach." *Journal of Agriculture, Food Systems, and Community Development* 4(4): 155–171–155–171.

²⁰ Syswerda, S. P., and G. P. Robertson. 2014. "Ecosystem Services along a Management Gradient in Michigan (USA) Cropping Systems." *Agriculture, Ecosystems & Environment* 189: 28–35.

Opportunities exist for expanding organic production by focusing on access to credit, capital, and loans especially during the critical transition period. USDA should include organic's eligibility in:

- Valuation of local and regional crops.
- Definition of qualified beginning farmer and rancher for rural business development grants.

Renewable energy sources can be integrated on-farm, simultaneously reducing greenhouse gas emissions and potentially providing low-cost energy to the surrounding grid.

- Funding for the Rural Energy for America Program (REAP) should be expanded to leverage private capital and meet increased demand for renewable energy.

Equity and Access to Climate-Smart Foods

The organic sector is committed to ensuring that organic is accessible to everyone. Together, we are building institutional, community, and individual capacity for collaborative actions that empower all people to exercise the right to healthy and sustainable food. With over 1 in 5 children in the United States living in a food insecure household, organic can play a critical role in the healthy development and long-term health outcomes for at-risk communities.²¹

Organic foods are minimally processed and produced without the use of toxic pesticides, antibiotics, synthetic hormones, artificial ingredients, colors or synthetic preservatives. Over 700 chemicals are prohibited in organic food including chlorpyrifos, which has been linked to neurological damage to children. Research has shown that eating organic, even occasionally, dramatically reduces pesticide exposure in children, and lowers associated cancer risk later in life.^{22, 23, 24}

Expanding access to organic food within USDA feeding and procurement programs will not only create new markets for climate friendly agriculture but also provide more safe and healthy choices for parents and low-income individuals. We recommend the following:

- Organic should be included as an option for participants in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).
 - Consider how organic foods can help USDA and states fulfill the recommendations of the recent National Academies of Sciences report that calls

²¹ COVID Impact Survey April 2020; Brookings Institution Hamilton Project and Future of the Middle Class Initiative Survey of Mothers with Young Children April 2020; Current Population Survey Food Security Supplement 2018.

²² Asa Bradman, et al. Effect of Organic Diet Intervention on Pesticide Exposures in Young Children Living in Low-Income Urban and Agricultural Communities. *Environmental Health Perspectives*. 123:1086–1093.

²³ Cynthia L. Curl, et al. Estimating Pesticide Exposure from Dietary Intake and Organic Food Choices: The Multi-Ethnic Study of Atherosclerosis (MESA). *Environmental Health Perspectives*. 123:475-483.

²⁴ Julia Baudry, et al. Association of Frequency of Organic Food Consumption With Cancer Risk: Findings From the NutriNet-Santé Prospective Cohort Study. *JAMA Internal Medicine*. 2018; 178(12):1596-1606.

for increased consumption of fruits and vegetables and offering more choices to improve the attractiveness of the program.²⁵

- Create an organic food pilot program under which school food authorities could explore opportunities to build relationships with local organic companies, farms and food providers to make organic foods available to schoolkids within the confines of the existing cost structure.

Lastly, the prohibition of the most toxic agricultural chemicals in organic farming not only benefits the environment, but also reduces farmworker exposure and improves occupational health.²⁶

- USDA should invest in programs and policies that minimize the use, eliminate the dependency on synthetic fertilizers and pesticides on farms, and consider the impacts that the most toxic chemicals used in agriculture have on farmworkers and vulnerable populations.

Conservation

The voluntary conservation programs administered by USDA are fundamentally important tools for expanding adoption of climate mitigation and adaptation practices, alongside practices that support the delivery of other ecosystem services from farms. USDA should significantly expand enrollment in existing conservation programs (EQIP, CSP, CRP) especially for bundles of practices that are included in a farm's climate mitigation and adaptation plan. As part of this, USDA should increase the focus on "Adaptive Management" related practice codes and focus on continual improvement by creating a stronger link between the planning, management and the outcomes measurement and feedback process. Payments for sets of practices associated with adaptive management activities in support of climate mitigation and adaptation should be increased to a level that creates a stronger, more adequate incentive for farmers to participate in the full adaptive management process.

- USDA's recent updates to the Conservation Reserve Program (CRP) are vital to incentivizing appropriate and effective climate change mitigation and adaptation. USDA should continue to evaluate and respond to environmental and market changes to ensure policies and programs effectively incentivize climate-smart practices. Data shows that enrollment in land conservation programs for marginal farmland mirrors minor variation in commodity price changes, suggesting the value conservation programs place on ecosystem services is not always effective for mitigating climate change.²⁷ The recent changes made to CRP will help address this issue, and continued monitoring and

²⁵ National Academies of Sciences, Engineering, and Medicine. 2017. Review of WIC Food Packages: Improving Balance and Choice: Final Report. Washington, DC: The National Academies Press. <https://doi.org/10.17226/23655>.

²⁶ The Organic Center. 2018. Organic Agriculture: Reducing Occupational Pesticide Exposure in Farmers and Farmworkers

²⁷ Rissman, Adena. 2011. "Evaluating Conservation Effectiveness and Adaptation in Dynamic Landscapes." <https://link-galegroup-com.proxyau.wrlc.org/apps/doc/A272363804/LT?sid=lms> (December 11, 2019).

evaluation of practices and incentives are vital to meet the United States' goal of a net-zero emissions economy by 2050.

- The Conservation Stewardship Program (CSP) is another vital program for effective conservation management on working lands. Soil, water, animal, plant, and air quality improvement practices developed through local one-on-one cooperation between producers and NRCS conservation planners should continue to be emphasized for organic and conventional producers. Additional practices should be added to both the Conservation Stewardship Program and the Environmental Quality Incentives Program (EQIP) for their proven environmental and soil health benefits:
 - Compost application
 - Conservation activity plans
 - Irrigation water management
 - Mulching to improve soil health
 - Pollinator or beneficial insect or monarch butterfly habitat establishment
- Agricultural subsidies should be shifted to farmers and ranchers who are implementing conservation practices used in organic production and climate-smart practices like crop diversification, low toxicity pest control measures, cover cropping, maintaining natural buffer zones, and other practices that are determined to improve agricultural resilience.
- USDA NRCS Web Soil Survey is a cooperative public private-partnership of public institutions, state and federal offices, and professional societies that was launched in 2014 with the purpose of helping farmers, ranchers, and other land users understand, evaluate, and conserve soils. This existing tool could be updated, expanded, and refined to provide easy access to soil samples across the United States. The Survey contains information from nearly every county in the United States, but some of the data is several decades old. This data should be updated to reflect changes in the United States' soil and to help researchers and producers evaluate which practices are more effective at improving soil quality and sequestering carbon. Soil samples should also be reflective of the soil type and ecosystem variation within a given area, county, and region with periodic updates to maintain data quality and utility.

Incentivize transition to organic production

Organic farming presents a promising economic opportunity for U.S. farmers, yet less than one percent of domestic farmland is certified organic today. Many farmers face steep challenges and barriers when seeking to transition to organic production. Given the long-term economic and environmental benefits organic agriculture provides, USDA should wisely invest in programs that support farmers in successfully transitioning to, and staying in, organic production.

The arduous three-year transition process is an important prerequisite to becoming eligible for organic certification, but there is little federal support to help farmers through this transition. Lack of agronomic and technical assistance, access to credit and loans, and adequate tools for managing on-farm risk are all significant barriers farmers face during the transition process. We recommend the following:

- Establish a national program to incentivize transition to organic with a specific focus on reducing financial risks, improving market and infrastructure development, increasing access to land and credit, and providing technical assistance.
- Provide tax credits for landowners who have long-term leases under organic production.
- Issue a report that analyzes the impacts of short and long-term leases on the adoption of sustainability and conservation practices.

Ecosystem Services and Carbon Markets

As USDA sets up a program to reward and incentivize farmers to adopt more climate-friendly practices they should recognize organic farmers as early adopters, ensure the reduction and absence of chemical-based inputs is rewarded, and use organic certification status as sufficient verification to participate.

Organic is unique in that it has federally defined, enforceable, standards that are third party certified. Organic farmers are required to keep extensive records as part of their annual certification and it is important that new programs do not increase barriers or require duplicative record keeping for organic farmers who are already implementing climate-smart agriculture practices. We recommend the following:

Early adopters of climate-smart agricultural practices like certified organic should be rewarded for their efforts. Benefits should not only accrue to new-adopters.

- As ecosystem service credits and programs are developed, one option to reward producer innovation would be to provide early-adopters of climate smart practices a one-time benefit in the form of direct payment, loan forgiveness, or prioritization in conservation grant applications. This benefit could be based on the amount of carbon sequestered against a regional baseline given relevant factors such as soil type, environmental variables, and performance of other agricultural operations in the area.

Organic should be recognized as a sustainable farming practice in markets or programs designed to incentivize climate-smart agriculture due to their adherence to rigorous USDA organic standards, which require maintaining or improving natural resources.

- Certified organic producers should be automatically eligible for any USDA program designed to reward farmers for ecosystem services.

To the extent that USDA takes steps to support the development of private voluntary ecosystem services and carbon markets, the agency should assess any potential biases in these markets and establish strategies that ensure that farms, ranches, and forests of all sizes, types, and geographies are able to participate in implementing climate-smart practices. Entities that develop, aggregate, and sell carbon credits from agriculture and forestland have a strong financial incentive to develop these credits in the most cost-effective way, which generally means working with larger operations where more credits can be generated per operation. This means that small and even mid-sized producers may have a harder time accessing these markets. In addition, non-owner operators could face additional barriers accessing markets because short-term leases

disincentivize practices that show greater return-on-investment over longer periods, such as carbon sequestration, reduced emissions, and other ecosystem services.

- USDA should seek to complement emerging markets and ensure that all producers, regardless of geographic location or farm size, are supported and incentivized to identify the best opportunities on their operation to reduce emissions and increase carbon sequestration.

Whether producers are participating in private voluntary ecosystem services markets supported by USDA or participating directly in USDA programs that provide incentives for climate smart agriculture, they should be supported in efficiently managing data from their own operations. Organic certification, USDA conservation programs, crop insurance programs, and other agency programs already collect a substantial amount of, often redundant, information that is needed to support producer participation in ecosystem service markets.

- USDA should ensure that producers have on-demand electronic access to their data with appropriate permission to utilize data about their operation in any relevant setting.
- USDA should ensure that the data architecture that supports farmer participation in USDA conservation planning and programs is aligned with the tools and technologies producers need to use to participate in ecosystem services markets, not limited to current practices due to the evolving nature of climate-smart practices, and that producers can choose to utilize data collected or generated in the course of working with USDA to support their market participation and vice versa.
- Producers should be able to access all available USDA decision and planning tools and incentives available to them, easily move data about their operation between these tools, and benchmark their performance with others in similar situations.

Continuous improvement of practices and environmental outcomes is central to organic production. While some practices and outcomes are readily and deeply understood, more research can be done on what specific practices are best for sequestering carbon.

- Establish a commission utilizing the model employed by the National Academy of Sciences, to evaluate ecosystem services delivered by organic production and recommend policies to reward and incentivize these services.

Organic has pioneered many of the practices now being discussed as regenerative and climate-friendly. It is critical that organic farms and businesses have a seat at the table in the development of policy at USDA to address the climate crisis.

- Appoint an organic farmer and industry representative on any USDA stakeholder advisory committee created to advise the Secretary on climate-smart agriculture.
- Establish a new USDA advisory committee for certified organic farmers, ranchers and handlers to advise the Secretary on organic farm policies and issues outside of organic standards which are handled by the National Organic Standards Board.

In conclusion, organic agriculture is a scientifically backed method of farming that is proven to help farmers mitigate and adapt to climate change. USDA has the opportunity to support and grow organic production by policies to incentivize transition, increase technical assistance, support market and infrastructure development and create market opportunities through climate-friendly procurement. Thank you for providing the opportunity to share our feedback. We are committed partners in encouraging the widespread adoption of climate-smart, resilient agriculture.

Sincerely,

Organic Trade Association