

Foundation for Food and Agriculture Research Convening Event Report

Organic Research Consortium: Strategic partnerships to build a scaffolding for prioritizing research projects to address the top needs of the organic community

September 10, 2019 / Baltimore, MD

Introduction

Organic Farming in the U.S. has been growing rapidly, with over 20,000 certified organic operations in the U.S.: a 300% increase in domestic certified organic operations since 2002. Organic food sales have increased by 6 percent over the last year, blowing past the 3.7 percent growth rate in the overall food market. With total organic sales exceeding \$50 billion annually, organic food now accounts for more than five percent of total food sales in the U.S., and demand for organic products continues to outpace production.



Despite this increase in demand, the organic system continues to face a variety of challenges that constrain growth. Unfortunately, the diversity of the organic sector makes prioritizing research needs complicated, especially when those needs must be paired with current research capacities and funding constraints.

To address this issue, the Foundation for Food and Agriculture Research (FFAR) partnered with the Organic Center to host a convening on September 10, 2019, examining methods for building a scaffolding to prioritize research that would address the top needs of the organic community.

Attendees examined research areas that would have the greatest impact on advancing the organic sector, explored avenues for private-public partnerships, and identified areas where scientific advancement met farmer need and industry support.

The convening was attended by a broad array of farmers, researchers, policymakers, industry members, and non-profits, who engaged in panels, listening sessions, break-out discussions, and group activities to develop a roadmap for research areas that would have the biggest impact on moving the organic sector forward.

Goals of the Convening Event

FFAR recognizes that there are specific needs in the organic community that demand transformative discoveries from the best and brightest scientists. This convening event was an opportunity to **bring together leading experts to identify and investigate researchable questions whose answers have the potential to enhance economic and environmental resilience of our food supply.**

FFAR and the Organic Center have a shared vision to collaborate and to bring together farmers, researchers, policymakers, industry members, and non-profits to investigate the current landscape of tools available for farmers. This vision includes building a scaffolding for prioritizing research projects to address the top needs of the community. The convening's objective was to identify high-impact research areas that could have a substantial positive impact on advancing organic production systems, build partnerships in support of scientific collaborations, and provide a venue for cross-sector sharing of ideas and priorities. **FFAR convening meetings are an opportunity to engage with stakeholders and work together to identify research gaps that might inform future funding opportunities.**

Agenda

September 10, 2019: Hilton Baltimore, Key Ballroom 6

9:00 – 9:15 am Welcome: Opening Remarks and Introductions

9:15 – 10:15 am **Organic Research Opportunities**

Researchers will set the stage for how the direction of the organic industry could be advanced through additional research by discussing the advances that have been made because of past scientific studies, and what would be possible with additional research focus and funding. Topics will focus on synergies between soil health, climate change, weed ecology, and breeding within the organic sector.

Moderator:

Julie Grossman, **University of Minnesota**

Speakers:

Steven Mirsky, **USDA ARS**

Erin Silva, **University of Wisconsin**

Jim Myers, **Oregon State University**

David Suchoff, **North Carolina State University**



10:15 – 10:45 am Break

10:45 – 11:45 am **Advancing Organic in the Field**

Farmers and extension agents will examine the challenges that they face on the farm that could be addressed by research. They will discuss the value of past research and examples of research that have helped production, while focusing on systems-based questions that would enhance their ability to holistically manage weeds with techniques that combine organic-specific breeds and soil health.

Moderator:

Brise Tencer, **Organic Farming Research Foundation**

Speakers:

Dan DeSutter, **DeSutter Farms**

Heather Darby, **University of Vermont / The Darby Farm**

Matt Fry, **Fair Hill Farm**

Doug Crabtree, **Vilicus Farms**

11:45 am – 1:00 pm Lunch

1:00 – 2:00 pm **Sector-wide Collaboration**

Industry involvement has launched the success and increased the impact of many organic research projects. Private-public partnerships, industry funding of extension, and full-chain level communication are critical for the success of organic research. This session will feature panelists sharing their perspectives on the value of research engagement, and ways that research could drive the organic industry forward.

Moderator:

Britt Lundgren, **Stonyfield**

Speakers:

Britt Lundgren, **Stonyfield**

Mike Menes, **True Organic Products**

Logan Peterman, **Organic Valley / CROPP Cooperative**

Adrienne Shelton, **Vitalis / Enza Zaden**



2:00 – 2:15 pm

Update: GRO Voluntary Research, Promotion, & Education Program

This brief session will provide an update on the effort to advance a voluntary industry-invested organic research, promotion and education check-off-like program, referred to as “GRO Organic.” This is a private-sector initiative that will be collaboratively designed and implemented by organic stakeholders, with an opt-in strategy that pools resources to collectively address critical needs across the organic sector.

2:15 – 2:30 pm

Break

2:30 – 3:30 pm

Break-out Discussions

Discussion groups will synthesize the information presented in the panels with participant knowledge and experiences to identify areas that will enable advancement of the organic sector as a whole. Each group will have representation from multiple organic groups and areas of expertise to facilitate holistic approaches to these issues.

Breakout Rooms:

Group A - Key Ballroom 2

Moderator: Julie Grossman, *University of Minnesota*

Group B - Key Ballroom 3

Moderator: Brise Tencer, *Organic Farming Research Foundation*

Group C - Key Ballroom 4

Moderator: Britt Lundgren, *Stonyfield*

3:30 – 4:00 pm

Breakout Group Summaries and Concept Presentations

Groups will summarize outcomes from their discussions and present their concepts to the rest of the convening participants.

4:00 – 4:30 pm

Interactive Concept Selection

Convening participants will select concepts that they believe will have the greatest impact in shifting our understanding of how to overcome challenges to the organic sector, and that they would be interested in investing in.

4:30 – 5:00 pm

Synthesis Discussion and Development of Recommendations

Event Outcomes and Future Research Priorities

The primary goal of this convening was to find common ground between the research needs of farmers, scientific expertise, and funding interests of industry members. The presentations, breakout sessions, and concept selection activity that allowed participants to identify top priority research topics.

Overall, organic industry members expressed interested in funding research that increases the domestic supply of organic food and fiber. There was also interest in funding research that increases consumer education and addresses consumer's concerns/interests such as climate change and nutrition.

Several research priorities emerged that were of interest to farmers, researchers, and industry members alike:

Organic Seed Breeding

There is a need for regional breeding of organic seeds to enhance crop performance. Breeding for the specific conditions farmers experience in different regions U.S. is critical because successful varieties in one area may underperform in a different location. For instance, plants bred for mildew resistance in northwestern states will likely be less resistant than needed for success in southeastern states. Additionally, in order for organic seeds to be truly robust, they must be bred in organic systems, because phenotypes of plants bred in conventional conditions may be expressed differently when those genotypes are planted in an organic field. Breeding for flavor and nutrition was also highlighted as targets for consumer preference, which would give organic a competitive edge in the market.

Soil Health

Research on soil health was flagged as an area of shared interest. While past research on organic systems had made significant advances in supporting on-farm soil health, new areas of interest include systems based investigations on the connections between soil health and microbial communities, water quality, food safety, plant productivity, and nutrition/human health.

Agronomic and Socioeconomic Research

The goal for this research is to address barriers that keep farmers from transitioning to organic or continuing to farm organically, with a focus on farm profitability and ensuring organic farmer livelihoods are secure and sustainable. Within this research theme, emphasis was placed on accounting for true costs and benefits of organic farming, incorporating a monetary value for ecosystem services such as carbon sequestration, improved water quality and beneficial biodiversity. Social science research could prioritize the exploration of reasons farmers choose (or don't choose) to farm organically and include an analysis of risk perception.

Climate Resiliency



Climate change mitigation and adaptation was also identified as an area of interest in the organic sector, with a breadth of research questions ranging from livestock forage management to water usage, seed breeding for resilience in different regions, and the role of crop diversification in protecting against losses from extreme weather changes. Overall, there was interest in better understanding how climate change would continue to affect farmers, how farmers could be more resilient to those changes, and how organic farming can help mitigate future climate change.



Agricultural Technology

Research on technology to improve the feasibility and success of organic operations was flagged as a top priority by convening attendees. It was expressed that organic agriculture has room for precision technologies that could help make water and nutrient usage more efficient, food safety monitoring more reliable and real-time, and reduce the burden of laborious tasks such as weeding. However, the biological and ecological foundations of organic agricultural need to be considered when designing precision technologies for organic production. A suggestion was made for a sociologist to be included on any research team that explores agricultural technologies in order to understand true costs and benefits of technological developments and usage.

Animal Health and Livestock Integration

Convening attendees flagged a focus on animal health and livestock integration into cropping systems during discussions of multiple research themes including climate change mitigation, food safety, and soil health. In general, it was noted that there is a dearth of animal science research in the organic. With increasing interest in livestock integration, there is a need for more knowledge about how organic practices including pasture-based production affect animal health, human health and soil health simultaneously.

Research Challenges and Next Steps

Beyond funding limitations, researchers and farmers identified challenges related to conducting research and disseminating research results. Future projects that receive funding would be more successful if the following were considered:

- 1) More on-farm research is needed with participation from farmers beginning early in the research development process. However, there needs to be proper consideration of the effort

required for farmer participation. Farmers can provide the research setting but need researchers to provide the staff to conduct the work. Farmers need to be properly compensated for their time, particularly when involved in complex projects budgets for these projects should be developed with these things in mind.

- 2) In order to accommodate the diversified cropping nature of many organic farms, research should focus on systems based questions. Additionally, studies should take place across multiple regions so that results are more inclusive of the wide range of growing conditions that exists for farmers across the country.
- 3) Whole-systems approaches require interdisciplinary academic teams which are more challenging to manage—a common language takes time to develop. These projects, while very much needed, require more funding for longer time periods. Most funding resources are granted for periods of 2-5 years, but longer and larger grants would allow this research type to be more successful.
- 4) Farmer networks need to be built in order to create long-term, regionally specific databases that farmers can access. This will help offer farmers local solutions to local challenges.
- 5) Smaller grants with faster turnaround times may help applied research be more accessible to farmers. Research takes time. From when a question is developed, funding is received, work is conducted and results are written and published, research projects can take many years. Farmers need information as quickly as possible and some results may still be useful even before they are published. Outreach plans that keep farmers in the loop throughout the process will be more effective than disseminating results to farmers after results are published.
- 6) Extension-focused grants could help increase adoption of best practices. While many federal grants include an extension component to the research, information transfer is often an afterthought because the majority of funding is required for research. Grants that specifically target sharing research-based recommendations could help ensure that more thought and consideration is placed on extension.



The Mission of the Foundation for Food and Agriculture Research

As a major component of our research, we conduct science that results in thriving farms, environmental resilience, and well-being.

We build public-private partnerships to fund audacious research addressing the biggest challenges in food and agriculture.

Our world is changing rapidly. The global population is increasing, climate change is causing extreme weather events and natural resources are diminishing. FFAR brings together leading experts to identify and investigate the researchable questions whose answers have the potential to enhance the economic and environmental resilience of our food supply.

The Vision of the Foundation for Food and Agriculture Research

We envision a world in which ever innovating and collaborative science provides every person access to affordable, nutritious food grown on thriving farms.

We believe that this common goal can be met by working together with our research community of nonprofits, foundations, governments, individual researchers and producers, colleges and universities, and companies who can support and implement the science we need. Our research aims to achieve this vision by producing food in an economically and environmentally sustainable way. Part of our role in this collaborative effort is to convene individuals and groups who can pool creative ideas, expertise, and resources so that we can make a difference, together.

The Mission and Vision of Organic Center

The Organic Center represents a trusted, go-to source of information for scientific research about organic food and farming. The Organic Center's mission is to conduct and convene credible, evidence-based science on the environmental and health effects of organic food and farming and communicate those findings to the public.

The Organic Center has clear goals to accomplish this mission:

- *Education and research on sustainable organic food and farming to improve the health of humans and the environment.*
- *Communicate credible, evidence-based science to examine the health and environmental impacts of sustainable organic food and farming*
- *Advance understanding about the health and environmental impacts of organic food and farming through scientific research*
- *Improve the efficacy and sustainability of organic farming methods through scientific research*



Join the Conversation

FFAR looks forward to continuing to build strong public-private partnerships within the agriculture community and welcomes your input. Please feel free to contact Dr. LaKisha Odom at lodom@foundationfar.org to learn about how you can engage with FFAR.

To stay up to date on future funding opportunities, please join the Soil Health mailing list: <http://bitly.com/ffarnews>

Many Thanks to the Steering Committee members for their hard work and support

Steering Committee for the Organic Research Consortium Convening Event

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