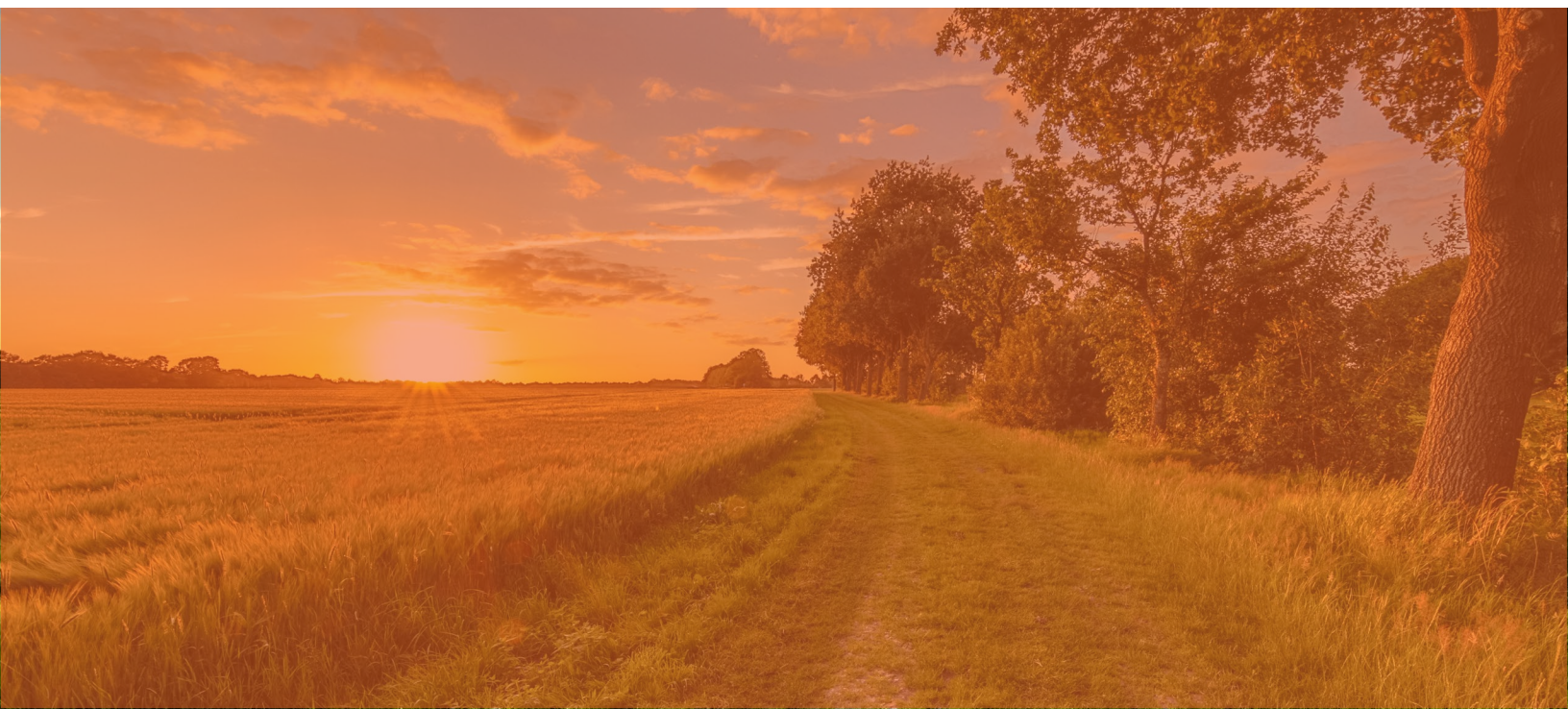




Field to Market®

WHAT LIES BEYOND: Landscape Approaches to Sustainability

Cross-Sector Dialogue Summary & Key Findings
June 24, 2022 | Raleigh, North Carolina



INTRODUCTION

Though many agricultural sustainability programs begin at the field level, agriculture's impact extends far beyond the farm gate. Farmers and agricultural communities make choices every day that feed, clothe and fuel billions of people worldwide – but these choices also influence everything from the quality of the water we drink to the survival of the ecosystems and species who share our natural resources. To offer sustainability solutions at the scale needed to affect real change, the agricultural value chain must think beyond the farm gate.

With that in mind, Field to Market: The Alliance for Sustainable Agriculture™ held a Cross-Sector Dialogue on June 24, 2022, titled, “What Lies Beyond: Landscape Approaches to Sustainability.” This Cross-Sector Dialogue highlighted experts who are implementing community-based approaches to sustainable agriculture, from farmer-led watershed initiatives to regional supply chain collaborations. Attendees learned from thought leaders and explored through small breakout groups how community-based approaches to implementing conservation agriculture can transcend field boundaries and empower partnerships to restore nature across landscapes.

The June Dialogue, just like others within Field to Market's Cross-Sector Dialogue series, is part of a strategic initiative that brings together diverse stakeholders from across the agricultural value chain to advance shared learning and drive collective action by focusing on seizing opportunities and overcoming systemic barriers to scaling sustainable agriculture.

This Dialogue convened approximately 80 stakeholders to explore landscape approaches to sustainability. This report summarizes the event, highlighting key takeaways from both the Dialogue's presenters and attendees.

Please note that the following summary provides a synthesis of key remarks and observations from the event and does not necessarily represent the views or perspectives of Field to Market.

SETTING THE STAGE: LIMITATIONS TO RESTRICTING SUSTAINABLE AGRICULTURE PRACTICES TO FIELD BOUNDARIES

Scott Herndon, Field to Market President, and **Brandon Hunnicutt**, farmer and chair of Field to Market's Board of Directors, welcomed the group and introduced **Sarah Alexander**, Keystone Policy Center Vice President of Programs and Field to Market Board Member, who moderated the event.

The first set of thought-starters laid the foundation for understanding the limitations of restricting sustainable agriculture practices within production field boundaries. **Gina Nichols**, Field to Market Science and Research Manager, pointed out plateauing trends in improvement for several environmental indicators described in the [2021 National Indicators Report](#). While substantial progress has been made since 1980 in reducing soil erosion; reducing greenhouse gas emissions; and improving efficiency of energy, water and land use, progress in the most recent 15 years was generally slower, and some declines in resource use efficiency were observed.

Ed Spevak, Curator of Invertebrates at the St. Louis Zoo, shared some startling statistics on biodiversity losses in the U.S. and emphasized the relationship between agricultural practices and ecosystems and the species living within them. Declines of insect populations nearing 50% have been attributed to agriculture, including 90% losses in monarch butterflies, which were designated an endangered species in July of 2022. Populations of grassland birds have dropped over 50% since 1970, coinciding with the national movement to maximize grain production. Spevak offered several ideas to promote nature-based services on the farm. For example, building barn owl nesting boxes around grain operations can significantly reduce rodent damage and rodenticide applications.

Earl Butz, U.S. Secretary of Agriculture from 1971-1976, urged farmers to maximize grain production and sell the excess overseas. To do this, Butz said growers must plant “fencerow to fencerow” and “go big or get out” of agriculture. This approach to farming in the U.S. valued high yields above all else, with lasting, negative consequences for soil health, biodiversity and the survival of small, diversified farms. Butz was appointed by Richard Nixon in 1971 and continued in that role under Gerald Ford until 1976, when he resigned after vulgar, racist comments he made were publicized.

Laura Johnson, Heidelberg University Director for the National Center for Water Quality Research, was the final speaker in this session. Johnson described her work addressing “wicked” water quality problems in Lake Erie due to excess agricultural phosphorus. Demonstrating continuous improvement in reducing phosphorus losses from farm fields is a particularly “wicked” problem for many reasons. Variable rainfall patterns, increasing manure applications and the long-time horizon for drawing down legacy phosphorus by commercial and cover crops all frustrate efforts to show continuous improvement in the quality of water affected by agricultural runoff. Johnson stressed the need for whole-farm and community-level approaches to tackling this problem collaboratively and exercising patience with the long-term commitment that is required.

DISCUSSION

After the first panel of speakers, attendees reacted to what they heard in facilitated breakout groups. Some key takeaways from discussions included:

- All sectors noted that maximizing yields remains the ultimate goal for many supply chain actors.
- The mention of taking fields out of production is still considered taboo by many, even if the return on input investment does not cover the cost of production.
- Connecting growers to innovative economic alternatives to protect their profitability and promote success stories is a critical strategy to change the “fencerow to fencerow” mind set.

There was cross-sector agreement regarding the need for a “system”, “holistic” or “comprehensive” approach to scaling landscape solutions. Neither in-field practices nor edge-of-field (EoF) systems are enough on their own. Narrowing attention to a single outcome overlooks both the co-benefits and potential negative consequences resulting from implementing new practices.

What were you most surprised to learn today?

“I was surprised to learn that more efficient phosphorus applications alone are not enough to reduce harmful algal blooms.”

– Civil Society Sector Representative

“Taking low-yielding land out of production can improve yields.”

– Affiliate Sector Representative

“It is possible to help biodiversity and help farming at the same time.”

– Agribusiness Sector Representative

“From a pest management perspective, biodiversity can be a big help. Controlling the pest in one region can help prevent spread to other regions.”

– Grower Sector Representative

SETTING THE STAGE: USING PARTNERSHIPS TO TAKE CONSERVATION PRACTICES BEYOND THE FIELD BORDER

Next, participants heard from Field to Market members leading projects that leverage community partnerships to take conservation practices beyond the field border.

Jessica D'Ambrosio, Ohio Agriculture Director with The Nature Conservancy (TNC), highlighted their work addressing persistent water quality concerns in the Lake Erie watershed. She offered the following lessons they learned:

- Build the economic case. Enhance the value proposition for farmers to adopt EoF practices via payments for ecosystem services, improved targeting of state and federal programs, and whole-farm management that diversifies profitability and optimizes resilience.
- Increase technical assistance and capacity to implement EoF practices. Invest in and diversify the technical assistance that supports farmers' conservation efforts and integrate this capacity with in-field technical support.
- Elevate a culture of conservation and innovation in agriculture. Leverage farmer networks and momentum around soil health and nutrient management to grow the shared understanding that EoF practices are an essential part of a systems approach to improving management and conservation in agriculture.
- Invest in science, technology and data to increase the understanding of practice effectiveness and provide farmers and conservation professionals with the information necessary to inform EoF practice implementation.
- Align policies and programs so that they work in tandem and amplify corporate supply chain efforts and emerging ecosystem services markets to create watershed-level improvements.
- Communicate a vision of a more holistic, regenerative U.S. agriculture system to develop a shared appreciation of the importance of EoF practices among farmers, landowners and others throughout the value chain.



A Roadmap to Advance
Edge of Field Practices in Agriculture



Leading at the Edge – A Roadmap to Advance Edge of Field Practices in Agriculture

<https://nature.org/edgeoffield>

Ambrosio was followed by a panel of experts leading initiatives featuring perennial plantings and irrigation practices to promote biodiversity and protect water resources. **Brent Rudolph**, Director of Sustainability Partnerships at Pheasants Forever and Quail Forever, described the [Sorghum for B.I.R.D.S](#) (Building Innovative, Resilient, Diverse agricultural Systems) project occurring in partnership with sorghum growers to implement in-field and EoF practices that support pheasants, quail and other wildlife. **Tim Youngquist**, Agricultural Specialist at Iowa State University, described their [work](#) to encourage growers to plant strips of native, perennial grasses and flowers in and around their fields to reduce soil erosion, improve water quality, and provide wildlife habitat. **Scott Manley**, Director of Conservation Innovation at Ducks Unlimited, and **Josh Hankins**, Director of Grower Relations and the Rice Stewardship Partnership for USA Rice, shared their [success story](#) of improving water quality and providing habitat for waterfowl in irrigated rice fields. Each of these projects serve as a model for future work creating partnerships between grower groups, academia and civil society to put farmers at the center of creating landscape-scale solutions to persistent environmental challenges related to commodity crop production.

DISCUSSION

Attendees participated in facilitated breakout discussions to process the shared learnings and consider how these projects could be modified for implementation in their own supply chains. The following key points to successful landscape scale projects were identified:

- Identify and support a local network of trusted farmer advisers who bring a deep understanding of the cropping system, natural resource concerns and the local culture.
- Recognize and prepare for potential unintended consequences, both negative and positive.
- Don't focus communications on only one outcome, such as carbon or water quality, because practices that have a positive impact on one outcome often benefit others. For example, prairie strips are good for biodiversity, water quality and soil conservation.
- Research available sources of public and private funding to support the project at hand and present a variety of incentives to farmers that they can choose from.
- Be patient. Farmers vary in their awareness of, and interest in, EoF practices. Planning and executing landscape-level projects requires time and impacts may not be immediately measurable.

LANDSCAPE APPROACHES TO SUSTAINABILITY

Discussion Call-Outs

“At the beginning of our project, the growers we work with needed help to start. Now they say that they like the practices and keep them even though they are not getting any more payment.”

– *Affiliate Sector Representative*

“Our approach is successful because it is farmer-led. They don’t feel like they are being told what to do. Growers are voluntarily addressing the problem.”

– *Grower Sector Representative*

“To be effective you need a source of money, boots on the ground, a way to manage the data; the programs are a lot of work – no way to get around it.”

– *Agribusiness Sector Representative*

“Education is a key component, and some incentives too. There’s a lot of opportunity that’s been untapped.”

– *Grower Sector Representative*

“There are good stories to be told, but are we getting the word out?”

– *Brands & Retail Sector Representative*

HOW CAN EACH SECTOR SUPPORT THIS WORK?

Affiliate

- Support farmer data collection.
- Check in on projects in subsequent years to encourage practice persistence.
- Include farmer values and decision-making in research projects.
- Seek collaboration with agribusinesses and brands & retail.

Agribusiness

- Train farmer-facing staff on edge-of-field practices.
- Offer products, like pollinator seed, and services, like technical assistance.
- Build relationships with local Natural Resources Conservation Service offices, conservation districts and university extensions.

Brands & Retail

- Offer incentives to supplement public funding.
- Avoid the appearance of changing goals or inconsistent messaging.
- Build relationships with local, trusted implementation partners.
- Minimize barriers to participation for growers.

Civil Society

- Keep farmers and landowners at the center.
- Communicate a broad range of potential benefits - environmental, economic and social.
- Partner with grower groups and agribusiness to gain trust.

Grower

- Promote available opportunities to your members.
- Encourage good farm data management.
- Challenge the fencerow-to-fencerow mentality.
- Support research on farmer decision-making.

CONCLUSION

As the impacts of agriculture extend beyond the borders of the farm field, so must efforts to improve the environmental outcomes resulting from crop production. Persistent climate and water quality problems, biodiversity losses, and plateauing improvements in soil erosion warrant solutions that can be taken to rapidly to scale. Only implementing conservation practices and systems to productive crop fields limits our collective potential to tackle the challenge before us. For these solutions to be truly sustainable, they must not only benefit the environment, but must also be economically viable and good for agricultural communities.

The speakers at this Cross-Sector Dialogue highlighted successful projects that can serve as models for new initiatives and partnerships. By putting farmers at the center of such projects, leveraging public and private funding for edge-of-field practices, and patience, Field to Market members are in a powerful position to devise new solutions to accelerate improvements in agricultural sustainability at a landscape scale.

Join us on Tuesday, October 25, 2022, in Washington, D.C. for the next Cross-Sector Dialogue, “Circularity in Sustainable Agriculture.” Register for this upcoming Dialogue [here](#).

To suggest topics for future dialogues, please contact [Kelly Murray Young](#), Senior Manager of Education, Diversity, Equity and Inclusion at Field to Market.



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