MIDWEST ROW CROP COLLABORATIVE

2021 IMPACT REPORT

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MIDWEST ROW CROP COLLABORATIVE

LOOKING BACK AND MOVING FOWARD

MIDWEST ROW CROP COLLABORATIVE

While 2020 will go down in history as a year that defied expectations, 2021 was anything but a return to form for the U.S. food and agricultural system. Between continued supply chain disruptions and growing calls for change to benefit the health of people, communities, and the environment, the Midwest Row Crop Collaborative (MRCC) maintained its shared focus while growing to meet evolving system needs.

Part of MRCC's evolution included the addition of two new members, Nutrien Ag Solutions and Oatly, both of which bring critical perspectives from different parts of the value chain, notable projects driving climate-smart practice adoption on the ground, and a demonstrated commitment to scaling regenerative agriculture. With the support and input of our robust membership, we were proud to announce our **new 2030 goals** at Walmart's first Row Crop Summit, framed to more fully reflect the current approach and aspirations of MRCC.

Partnerships bloomed in 2021, including **Scale Lab**, a professional action cohort co-convened by Sustainable Food Lab and MRCC. The initiative yielded powerful resources to support participants—many of which were MRCC members—in communicating and demonstrating the importance of regenerative agriculture to food businesses and increasing the appeal and effectiveness of supply chain projects. In 2021, members of MRCC also participated in Field to Market's Innovative Finance Workgroup, which produced an **evaluation of financial tools and mechanisms** for supply chain use to accelerate sustainability at the farm level.

Investment in transformative projects deepened in 2021, with HSBC's announcement of $1.6 million to MRCC projects over the course of four years. Through its global program, **Climate Solutions Partnership**, HSBC invests in the removal of barriers and development of incentives for nature-based solutions, energy transition, and business innovation. Additionally, MRCC embarked on an equity strategy development process and accelerated its policy engagement strategy with funding support from the Walton Family Foundation.

Reflecting on our work from 2021, we see meaningful ways to address the global challenges of climate change, biodiversity loss, equity and justice, and farm viability. As we continue growing our work, partnerships, and learnings, we invite you to connect with us and join our efforts to improve environmental outcomes in the Midwest through agriculture.

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ABOUT THE MIDWEST ROW CROP COLLABORATIVE

MIDWEST ROW CROP COLLABORATIVE

Scaling Solutions for Agriculture and the Environment

The Midwest Row Crop Collaborative (MRCC) is an innovative partnership aligned to drive positive environmental change across the Midwest landscape and the Mississippi River Basin. Formed in 2016 and comprised of leading businesses and nonprofits spanning the full food and agriculture value chain, MRCC works to catalyze systems change solutions through a range of public and private sector partnerships. Members collaborate by tackling systemic barriers to scaling regenerative agriculture, developing and implementing cutting-edge pilot projects that substantiate the water, air, and soil benefits of climate-smart agricultural practices and pave the way for broader change in the agricultural system.

While MRCC serves as a platform to catalyze impact through collaborative projects, MRCC's ambition for system-wide impact extends beyond the combined footprint of its membership, and its members uphold that collaboration and shared learning are key elements to transformation. To further realize this ambition, MRCC members develop and test new approaches to increase productivity while ensuring soil health, protecting water, addressing the factors contributing to climate change, and supporting farm families.

2030 Goals

MRCC has three goals aligned with its shared ambition for a regenerative agricultural system and with recognition of the scale and urgency needed to achieve it.

By the end of 2030, the Midwest Row Crop Collaborative will:

1. Ensure that 30 million acres in the Midwest employ practices that support improved outcomes for soil health, greenhouse gases, water quality and use, biodiversity, and farmer livelihoods.
    - » At least 1 million of these acres will demonstrate multiple measurable regenerative outcomes.
2. Reduce net on-farm GHG emissions in the Midwest row crop supply chain by 7 million metric tons.
3. Directly support at least 30,000 Midwestern farm operations in the transition to regenerative agriculture.

Regenerative agriculture in the row crop system

For companies in the food and agriculture system, committing to the long-term health and vitality of critical landscapes like the Midwest and the Mississippi River Basin is a sound investment. The region serves as a globally unique resource and includes more than 125 million acres of agricultural land. It is also an important supply shed, responsible for between 80-90% of U.S. corn and soybean production as well as a key geography for other row crops, including wheat and rice.

Today, the Midwest and the Mississippi River Basin are facing dramatic environmental impacts resulting from unsustainable practices—deteriorating soil health, soil loss, nutrient loading into waterways, contamination and depletion of groundwater resources, declining water quality and biodiversity, and climate impacts through loss of soil carbon and greenhouse gas (GHG) emissions. These challenges are threats not only to the future of row crop production but also to the downstream communities that depend on food, water, and ecosystem functions affected by these systems. However, such dramatic environmental impacts are not an inevitable outcome. By shifting to regenerative agriculture, the value chain can support farmer livelihoods, increase farm resilience, improve environmental outcomes, create resilient landscapes, and mitigate the climate impacts of agriculture, all at once.

In developing MRCC's 2030 goals and theory of change, members framed the concept of regeneration as an outcome rather than an individual practice or set of practices, seeking also to move beyond practice adoption to measurable regenerative outcomes. While practice adoption will continue to be used as an indicator of outcomes, MRCC will report outcomes wherever possible and continue to push for improvements in measurement, monitoring, reporting, and verification on such a complex and variable landscape.

OVERVIEW OF OUR WORK

MIDWEST ROW CROP COLLABORATIVE

The Midwest Row Crop Collaborative embraces a systems approach to driving transformation in row crop agriculture. Its members see the primary functions of their combined efforts as identifying barriers to positive change, developing and testing solutions for removing those barriers, and catalyzing scaled adoption through shared learning. Together, the members seek to influence the agricultural system by leveraging their unique resources, infrastructure, and goals to accelerate the adoption of regenerative agriculture practices more quickly than any member could do alone.

Based on the varied roles that its members hold in the food and agricultural system MRCC uses its developed theory of change to address three barriers that members view as both central to systems change and within the scope of its members' work. The barriers are

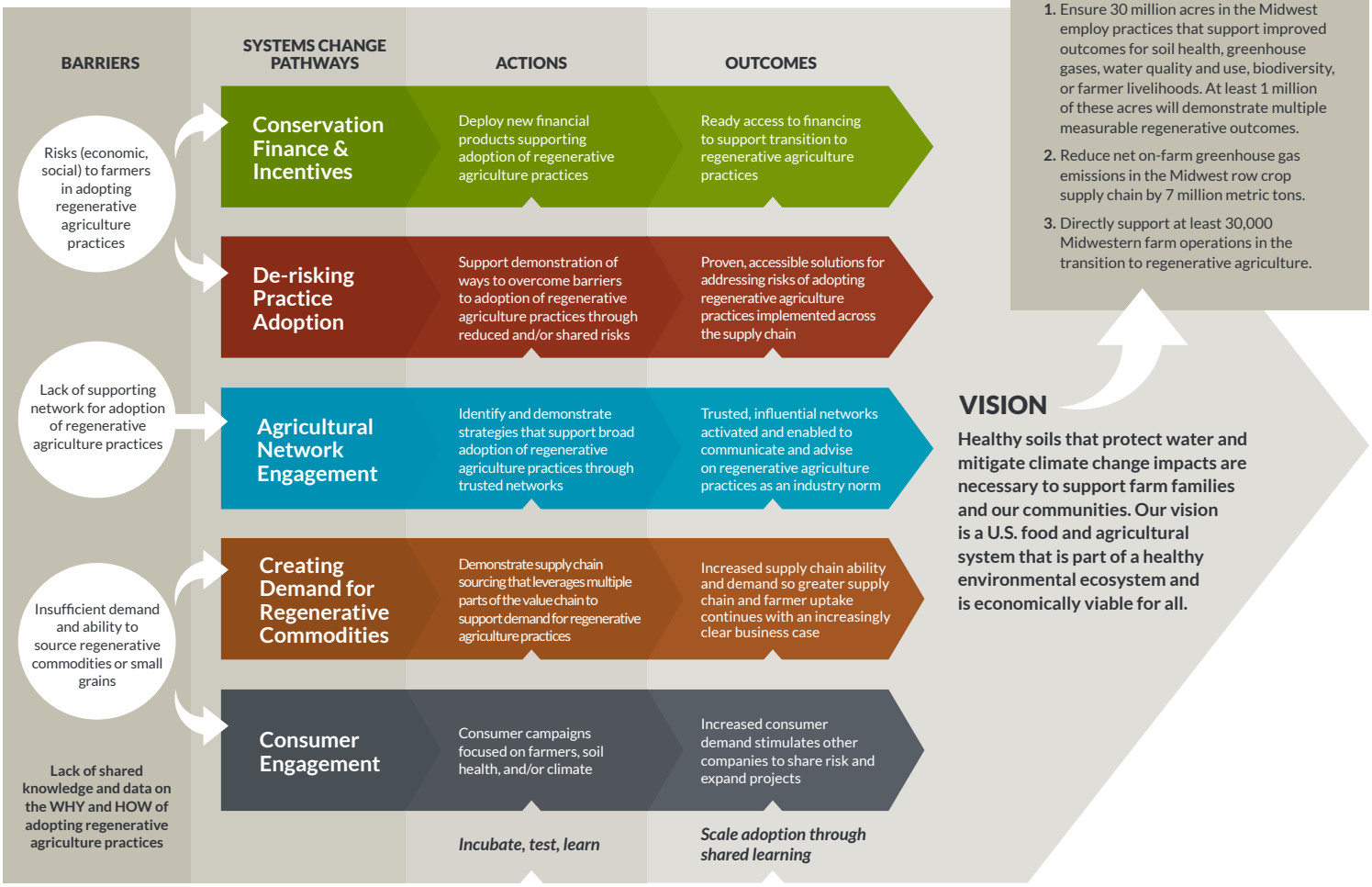
- Risks (economic, social) to farmers in adopting regenerative agriculture.
- Lack of a support network for the adoption of regenerative agriculture.
- Insufficient demand for and ability to source sustainably produced commodities or small grains.

Since 2019, Environmental Initiative has served as the administrator for the Midwest Row Crop Collaborative, bringing decades of experience developing powerful partnerships between business and environmental interests and a focus on integrating impacted communities into solution-building. Environmental Initiative is proud to provide responsive management and leadership that supports the Midwest Row Crop Collaborative in realizing its vision.

MIDWEST ROW CROP COLLABORATIVE

THEORY OF CHANGE

Mission: Test and demonstrate solutions that promote the widespread adoption of regenerative, science-based approaches which benefit the environment, and share learnings that support scaled adoption across the supply chain.



In alignment with the MRCC theory of change, members organize their efforts in five work groups or "pathways to systems change" that provide direction for the development of new collaborative projects and serve as a structure for integrating new opportunities into members' sustainable agriculture projects.

- **Pathway 1: Conservation finance and incentives**
- **Pathway 2: De-risking practice adoption**
- **Pathway 3: Agricultural network engagement**
- **Pathway 4: Creating demand for sustainable commodities**
- **Pathway 5: Consumer engagement**

MRCC's geographic focus for impact is the Mississippi River Basin, with core projects located in Iowa, Illinois, Michigan, and Nebraska.

In each of these projects, the members agree to report on outcomes from their investment and engagement. Examples of metrics include greenhouse gas reductions, irrigation efficiency improvement, reductions in nutrient loading, new acres using regenerative farming practices, and farmer benefit. The reported impacts for each project are offered in the following pages and, when taken together, demonstrate the broader impact of the Midwest Row Crop Collaborative.

SUMMARIES OF PROJECTS IN THE FIELD

MIDWEST ROW CROP COLLABORATIVE

MRCC members are committed to investing in regenerative agriculture projects within their supply chains. While these projects are developed to align with corporate sustainability goals, MRCC's members also use their projects to pilot innovative approaches that generally focus on at least one of the three critical elements of practice adoption, which are the delivery of financial, technical, and social supports.

In 2021, MRCC members invested directly into joint projects with each other, including cost share and technical assistance for farmers. In addition to direct investment, members contributed significant in-kind investment of resources within MRCC member organizations to advance research, incubate new approaches, and share expertise and lessons learned.

Leaders in the agricultural sector continue to seek improvements related to measuring the impact of regenerative agriculture projects. Given MRCC's approach, which influences different aspects of systems change and utilizes a diverse portfolio of projects, members recognize that projects will vary in their goals and impacts. There is no one-size-fits-all set of metrics that will apply across MRCC's collaborative work. Consequently, MRCC tracks a few common key metrics to understand the direct impact of its project work and its role in catalyzing broader change.

In 2021, members engaged more than 1,000 farmers, resulting in the adoption of sustainable practices on more than 380,000 acres.

In 2021, members' work together engaged more than 1,000 farmers, resulting in the adoption of regenerative practices on more than 380,000 acres. Projects are improving soil health, sequestering carbon, and increasing biodiversity. These projects are also reducing nitrogen application, water use, and soil erosion. Over the next several years as MRCC expands its portfolio of projects and measurement approaches continue to be refined, we expect that the ability to measure impact will continue to improve. The following case studies shed more light on the impact and learning from a handful of MRCC collaborative projects.

Eastern Nebraska Full Supply Chain Collaboration

Overview

PepsiCo, Cargill, and Bayer partnered in fall 2020 to implement a program designed to offer incentives for increased planting of summer and fall cover crops and reduced fertilizer use in sourcing regions in eastern Nebraska. Practical Farmers of Iowa (PFI) provides implementation capacity through farmer engagement, data collection, and analysis of project impact.

Goals

The project aims to increase conservation practice adoption, leading to increased farmer resilience, greenhouse gas (GHG) emission reductions and sequestration, better water quality, and improved farm economics by providing farmers with economic analyses and cost share as incentives for their initial use of cover crops, reduced tillage, and nutrient management.

Approach

- Cargill identifies farmers in the supply shed of its facility in Blair, Nebraska, who might be interested in the cost share program and connects them with PFI.
- PFI provides farmers with a cost share of $10 per acre of fall cover crops planted for up to 200 acres or $15 per acre of summer cover crops planted for up to 100 acres with an option to receive an additional $10 per acre if farmers reduce their nitrogen use by 40 pounds per acre.
- PFI offers technical assistance to farmers on cover crop selection and planting, fertilizer management, termination management, and other practice implementation concerns.
- PFI aggregates field-level data to analyze environmental impacts, prepares total project impact reports, and engages with farmers about the results.

GEOGRAPHY

Blair, Nebraska and surrounding area

TIMELINE

2020-2030

MRCC MEMBERS

PepsiCo, Cargill, and Bayer

PARTNERS

Practical Farmers of Iowa

MRCC SYSTEMS CHANGE PATHWAYS

De-risking Practice Adoption, Creating Demand for Sustainable Commodities

Impact

- In 2021, 81 farmers planted 32,413 acres of cover crops, of which companies funded 14,540 acres or 45% of the total reported. Thirty-six percent of participants had only used cover crops for 0-2 years and 65% were new to the cost share program. Participating farmers grew corn on 55,037 acres and soybeans on 46,837 acres, with an average yield of 221 bushels of corn and the ability to deliver 12.2 million bushels of corn to the Blair facility or participating elevators. The program size doubled from 2020 to 2021.
- Using estimates of GHG emissions from the Fieldprint® Calculator and sequestration from the Cool Farm Tool models via data from the MyFarms platform, actions taken in this program resulted in a 23% overall reduction in metric tons of carbon dioxide equivalent emissions (16,270 metric tons CO2e) compared to "business as usual" conventional farming.
- Project staff asked farmers if they could reduce the total nitrogen inputs on their cover crop fields. Twenty-eight percent of respondents indicated they have already reduced fertilizer use. The 22 farmers who indicated they cut fertilizer because of cover crops lowered their fertilizer use by an average of 30 pounds of nitrogen per acre per year.

Lessons

- To reach more farmers and have a larger impact, data collection and participation need to be easier. There are many data collection tools, but all require varying levels of manual input.
- There is a great deal of interest in automated data collection and several different tools and providers have been trialed. Unfortunately, none have proven to be as accurate or reliable as manual collection.
- Analog data collection is a challenge for both data collection and scalability. Companies, like Bayer, that are starting to develop sustainability as a service are focusing on further development of their digitally enabled ecosystem services platform which may be utilized by MRCC members on value chain decarbonization and sustainability initiatives.

HSBC Grant Innovation

MRCC members PepsiCo, Bayer, and Cargill, in partnership with Practical Farmers of Iowa, are encouraging more farmers to add small grains and legumes as cover crops into corn and soybean rotations. Adding a year of small grains and legume cover crops into a corn and soybean rotation unlocks the potential to grow nitrogen-fixing cover crops and reduce the need for commercial fertilizer. Small grains also break-up pest cycles, improve water quality, spread labor throughout the season and much more.

Iowa Regenerative Agriculture Cover Crop Program

Overview

Unilever and PepsiCo have partnered with Practical Farmers of Iowa (PFI) since 2018 to implement a regenerative agriculture cover crop cost share program. Cargill joined the program formally in 2021. The Iowa program is offered to farmers producing soybeans within Unilever's Hellman's mayonnaise supply chain and farmers producing corn and soy oil for PepsiCo's supply chain.

Goals

The project aims to increase conservation practice adoption, leading to increased farmer resilience, greenhouse gas (GHG) emission reductions and sequestration, better water quality, and improved farm economics by providing farmers with economic analyses and cost share as incentives for their initial use of cover crops, reduced tillage, and nutrient management.

Approach

There are five primary components to the program:

- Cost sharing for farmers planting cover crops.
- Providing technical assistance for farmers on cover crops, advanced nutrient management, reduced tillage, and diverse rotations.
- Supporting on-farm research trials and peer-to-peer learning opportunities for farmers.
- Monitoring environmental indicators to track the program's success in reaching corporate goals.
- Developing the business case for adopting regenerative farming practices for different stakeholders in the value chain.

GEOGRAPHY

Central and Eastern Iowa

TIMELINE

2018-2028

MRCC MEMBERS

PepsiCo, Unilever, and Cargill

PARTNER

Practical Farmers of Iowa and ADM

MRCC SYSTEMS CHANGE PATHWAY

De-risking Practice Adoption

Farmers receive $10 per acre to plant cover crops on up to either 160 acres or 10% of their total farmland. Since 2019, the program has also included an increased incentive for first-time adopters—farmers new to the practice are eligible to receive $40 per acre for up to 40 acres. Both programs have grown significantly since their launch. In 2022, the partners will introduce unlimited acres of cost share for either $5 or $10 per acre to recognize the importance of supporting farmer leaders who were early pioneers and continuing to support farmers who keep cover crops in the ground even as accounting rules lean towards promoting first-time adopters.

Impact

- In 2021, 408 farmers partnered with Unilever and planted 144,200 acres of cover crops.
- 263 additional farmers received funding and planted 90,629 acres of cover crops with support from PepsiCo. Using estimates of greenhouse gas emissions from the Fieldprint® Calculator and sequestration from the Cool Farm Tool models, cover crops planted in this program resulted in a 27% reduction in metric tons of CO2 equivalent emissions than if no cover crops were planted in the PepsiCo corn and soy oil supply-shed.
- According to a program enrollee survey, 13% of central Iowa farmers indicated they can reduce fertilizer applied to corn with the use of cover crops. About half of the farmers, 49.2%, indicated they were unsure if they could reduce fertilizer, which puts this program in a good position to continue to coach on cutting inputs with cover crops. Of the 60 farmers who indicated they cut fertilizer because of cover crops, each one lowered their fertilizer use by an average of 32 pounds of nitrogen per acre per year.
- PepsiCo added a nitrogen reduction warranty to the program whereby PFI and Growers Edge offer farmers a yield-based warranty for significant nitrogen reductions.
- Cover crops demonstrated 9% improvement in biodiversity compared to no cover crops.
- The Iowa Soybean Association tile monitoring data showed a 33% improvement in water quality.

Lessons

Unilever and PepsiCo plan to use this cost share model for practice, technical assistance, and farmer support in other regenerative sourcing programs. For PepsiCo, the outcome of PFI projects is being highlighted in other regions and countries to demonstrate grower behavior change and a farmer focused formula to advance regenerative agriculture.

The work with PFI in Iowa is a demonstration project for Midwest Row Crop Collaborative. In this project, PFI recruits, assists, and tracks farmers in the supply chain making necessary on-farm practice changes to achieve GHG reductions and sustainable sourcing. This project is part of a larger 5-year over-arching multi-partner intervention strategy in central Iowa with a broad focus on improving soil health and water quality.

HSBC Grant Innovation

Teaming up with Practical Farmers of Iowa, MRCC members PepsiCo and Cargill are encouraging more farmers to add small grains and legumes as cover crops into corn and soybean rotations. Partners leveraged an additional $268,000 of cost sharing from public and private funding sources and with this funding, 14 farmers were paid for their small grain and legume cover crop cost share, resulting in 1,607 acres of small grain eligible for cost share and an additional 363 acres that were not eligible for cost share.

Supporting U.S. Farmers

Overview

The Kellogg Company and The Nature Conservancy's *Supporting U.S. Farmers* project provides funding and technical assistance to engage farmers in five key states in the adoption of conservation practices. The project focuses on crops of rice in Arkansas, corn and soybeans in Illinois, corn in Indiana and Nebraska, and wheat in Michigan. The project stands out for the inclusion of edge-of-field practices like vegetative buffers and wetland restoration, and is also unique for its focus across multiple geographies and the array of lessons resulting from this diverse suite of work.

Goals

The project aims to reduce costs, risks, and knowledge barriers to scale the adoption of conservation practices and demonstrate that agriculture contributes to improved environmental outcomes including increased soil health, improved water quality, and expanded aquatic habitat in streams and wetlands.

Approach

- Farmer outreach and education, practice adoption, and measurement and documentation of continuous improvement.
- The specific conservation practices included in this project vary by state:
  - » In Arkansas, farmers are provided with irrigation pump timers to manage irrigation efficiently and conserve water from the Mississippi River Valley Alluvial Aquifer.
  - » In Illinois and Indiana, targeted grants and technical advice benefit farmers using practices that support Illinois's Nutrient Loss Reduction Strategy through the Saving Tomorrow's Agriculture Resources (STAR) initiative.
  - » In Michigan's Saginaw Bay watershed, soil health practices and water quality are improved through the expansion of a pay-for-performance incentive program.

GEOGRAPHY

Arkansas, Illinois, western Indiana, eastern Michigan, southeast Nebraska

TIMELINE

2019-2021

MRCC MEMBERS

The Kellogg Company, The Nature Conservancy

PARTNERS

Star of the West, Syngenta, Illinois Soil and Water Conservation Districts, University of Nebraska, the Nebraska Environmental Trust, Upper Big Blue Natural Resource District, Enterprise Rent-A-Car Foundation, Delta Plastics; Carter Morgan; Arkansas Association of Conservation Districts; KKAC Foundation; USDA Delta Water Research Station

MRCC SYSTEMS CHANGE PATHWAYS

De-risking Practice Adoption, Consumer Engagement

  - » In Nebraska, a public-private partnership supports farmers to improve soil health through interseeding cover crops.
- The Nature Conservancy (TNC) staff managed project implementation including farmer engagement and data collection at a state level and the Kellogg Company's staff provided advice and support. Each project also engaged local partners who contributed to farmer engagement, project implementation, and data collection.

Impact

In 2021	2019-2021
98 farmers joined the program	248 farmers joined the program
37,063.6 new acres were enrolled in the program: 4,659.6 in Michigan, 27,030 in Illinois and Indiana, 30 in Nebraska, and 5,344 in Arkansas	109,857.30 unique acres were enrolled in the program: 6,847.30 in Michigan, 84,269 in Illinois and Indiana, 40 in Nebraska, and 18,701 in Arkansas
Through adoption of improved practices, Michigan farmers: • Prevented 466.2 tons of sediment load. • Prevented 2,104.2 lbs. of phosphorus. • Trapped 5,805.2 lbs. of nitrogen. • Reduced more than 2,000 metric tons CO2e.	Through adoption of improved practices, Michigan farmers: • Prevented 1,094 tons of sediment load. • Prevented 4,939.2 lbs. of phosphorus. • Trapped 13,627 lbs. of nitrogen. • Reduced more than 4,900 metric tons CO2e.
	By using winter-hardy cover crops-no-till or strip-till, applying nitrogen at/below MRTN (Maximum Return to Nitrogen) rates, and applying phosphorus at or below removal rates, Illinois farmers: • Avoided 78,182 lbs. NO_3-N loss. • Avoided 5,902 lbs. TP loss. • Avoided 25,940 tons sediment delivery. • Reduced CO2e emissions by 11,666 metric tons. By applying nitrogen at or below MRTN rates, Illinois farmers: • Avoided 31,856 lbs. NO_3-N loss. By applying phosphorus at/below removal rates and through the use no-till or strip-till, Illinois farmers: • Avoided 47,752 tons sediment delivery. • Reduced CO2e emissions by 27,276 metric tons.
Through peer networks and program development in Illinois: • Four edge-of-field practices were installed, impacting over 80 acres. • 472 farmers utilized Illinois's STAR initiative.	Through peer networks and program development in Illinois: • 39 growers received direct technical assistance, leading to 1,850 acres of new no-till/strip-till and 2,400 acres of cover crops.
16 irrigation timers were installed on Arkansas farms.	186 irrigation pump timers were installed on Arkansas farms.
Through installation of irrigation timers, Arkansas farmers saved 1.086 billion gallons of groundwater.	Through installation of irrigation timers, Arkansas farmers saved 8.12 billion gallons of groundwater.

Lessons

Michigan

- Informed by the high level of perennial farmer interest and generally positive farmer feedback, TNC's Pay-for-Performance (PfP) program implemented under the Kellogg Company's Supporting U.S. Farmers collaboration is an improved model over traditional, federally funded, conservation-delivery programs. The Kellogg Company's-supported expansion of TNC's PfP program allows for more flexibility in eligibility and practices for farmer participants and the ability to cooperate with other partners including Star of the West Milling and Syngenta.
- Building relationships and trust with farmers and partners in person is important. This program would have been much more difficult to roll out and, ultimately, produce such significant outcomes if not for the solid foundation of awareness built in the first 18 months, prior to social distancing requirements and other COVID-19 constraints.

Illinois and Indiana

- Support to local licensees of STAR is critical for long-term engagement.
- Peer networks are integral to long-term adoption, but difficult to sustain, and the network facilitator needs to be a trusted, local expert.
- Without a financial incentive to offer growers, STAR needs to message the value of the tool: growers can understand where their management aligns with local nutrient loss reduction goals and can promote their stewardship (easy to message rating).
- Even with substantial financial support, retrofitting tile systems to include edge-of-field (EOF) practices is a tough sell. Promoting inclusion of EOF practices at the point of tile system design and installation could lead to broader adoption.

Nebraska

- COVID-19 limited in-person events, but organizers hosted a producer meeting and an interseeding cover crop field tour which received significant media attention including broadcast television coverage on program field days by the regional ABC News affiliate.
- Crop rotation by a few producers resulted in a change of acres interseeded and provided an opportunity to try interseeding soybeans. With the trialing of new seed mixes, herbicides, and management practices, program participants experienced a variety of successes including several fields where cover crop growth far exceeded expectations and lessons learned in the case of several fields where the herbicide program prevented the cover crop from growing.
- Challenges related to minimizing soil disturbance, timing corn growth and herbicide windows, and assessing soil health persisted for program participants.
- Project staff expanded the use of interseeding cover crops by experimenting with the establishment of perennial clover and application of herbicide at the time of interseeding.

Arkansas

- The pandemic had a substantial impact on outreach, however program staff adapted, and virtual calls, meetings, and presentations helped facilitate new farmer participation. Effective outreach shifted from direct farmer-facing events to online events with county conservation districts, cooperative extension virtual field days, and individual farmer visits.
- COVID-19 also had a significant impact on the supply chain for timers causing delayed orders and installation.
- Farmers experienced several benefits by using irrigation timers, two we anticipated were water and energy savings, but we overlooked the time and labor savings the timers' offered farmers.
- This project inspired other private companies (e.g. Cargill, General Mills) to invest in supplying irrigation pump timers on rice ground and for other commodities sourced in the Arkansas Delta for the next three years and established a relationship with The KKAC Organization which advocates for historically underserved landowners in the Delta.

HSBC Grant Innovation

Illinois:

Supported by funding from HSBC, the Illinois-based project led by the Kellogg Company and The Nature Conservancy (TNC) worked to identify a way for supply chain customers (i.e. consumer packaged goods companies or merchandisers) to offer incentives for farmers to either improve or maintain a high level of conservation on their working lands through the use of the Saving Tomorrow's Agricultural Resources (STAR) tool. STAR is a simple, practice-based evaluation tool that farmers can use, field-by-field, to understand the soil and water quality impacts of their management practices, providing a roadmap for improvement. The project addressed the societal challenge of reducing the risk inherent in changing management practices for the farm operator by providing financial assistance from the end users of the commodities produced by the farmer.

The STAR Pay-for-Performance (PfP) pilot began in two counties in Illinois in July 2021, with ADM conducting outreach, fielding questions from farmers, and processing grower agreements.

Michigan:

In Michigan, TNC received funding for the purpose of expanding the number of farmers (and acres) implementing nature-based solutions, demonstrating that agriculture can contribute significantly to improved environmental outcomes, and helping the U.S. food supply to become more resilient to future disasters, including the impacts of climate change.

The Nature Conservancy is developing a program for farmers in Michigan's Saginaw Bay watershed that incorporates incentives for sustainable best practices directly into the supply chain, eliminating the need for a third-party environmental entity like TNC to provide incentives and practice verification, and supporting a long-term shift toward the widespread use of nature-based solutions for soil health and water quality.

In 2021, 1,226.1 acres were enrolled and treated with conservation practices in Year 1 through work with five farmers. Across the participating acres, project partners estimate that 446 metric tons of carbon dioxide equivalent (CO_2e) were avoided/sequestered in Year 1, with the following benefits to local water quality were recorded:

- 447.9 pounds of phosphorus (P) loss avoided.
- 1,219.1 pounds of nitrogen (N) loss avoided.
- 97.9 tons of sediment loss avoided.

Precision Conservation Management in Eastern Illinois

Overview

PepsiCo and Cargill support Illinois Corn Grower's Precision Conservation Management (PCM) program in east-central Illinois to provide farmers with economic analysis and resources to adopt a range of conservation practices including nutrient management, reduced tillage, cover crops, and diverse rotations.

Goals

Through its partnership with PCM, PepsiCo aims to reduce greenhouse gas (GHG) emissions, improve soil carbon, increase biodiversity, decrease water and nutrient runoff, and improve farm profitability in its corn and vegetable oil supply chains within the region.

Approach

- PepsiCo partners with its regional suppliers to recruit farmers to the program. Illinois Corn Growers Association's PCM program specialists work with PepsiCo originators or suppliers in different geographies to bring farmers into the program.
- PCM program specialists enroll farmers in the program and analyze the economics of a range of potential regenerative agricultural practices. PCM program specialists then produce a report on field-by-field performance with environmental metrics and include cover crop and cost share advice through the program.
- In addition to advisory support, Illinois Corn Growers Association administers a cost share program and provides overall tracking and GHG emissions reporting.

GEOGRAPHY

East-central Illinois and central Nebraska

TIMELINE

2018-2030

MRCC MEMBERS

PepsiCo

PARTNERS

Illinois Corn Growers Association, Bunge, ADM, Sustainable Food Lab, Foundation for Food & Agriculture Research

MRCC SYSTEMS CHANGE PATHWAY

De-risking Practice Adoption

Impact

- 15,369 acres of conservation practices were implemented by 21 farmers in Danville, Illinois.
- 15,119 acres conservation practices were implemented by 25 farmers in Sidney, Illinois.
- 18,463 acres of conservation practices were implemented by 41 farmers in Decatur, Illinois.
- 10,391 acres of conservation practices were implemented by 11 farmers in Nebraska.

Conservation practices include cover crops, no-till, and nitrogen reduction.

- In 2021 PepsiCo and PCM also introduced an insurance buy-up program whereby farmers that agree to reduce their nitrogen application down to the MRTN recommended levels are eligible for $5 per acre to increase their crop insurance coverage to 95%.

Lessons

Growers are experts at the farming practices they implement. Ideally, they also become experts in innovative conservation practices with the right agronomic and network support. Testing new innovations and practices is economically risky, so this project finds that financial incentives are important to prove the business case. PCM projects have shown a scalable demonstration of the above-mentioned three key characteristics of comprehensive change happening on the ground with growers.

HSBC Grant Innovation

Funding from HSBC is being matched by partners including Cargill, PepsiCo, Illinois Corn Growers Association, and the Illinois Soybean Association. Participating farmers also have access to an exclusive pool of funding through Natural Resources Conservation Service's Regional Conservation Partnership Program. This pool, coupled with the cost share funding from HSBC and other partners, covers the cost of implementing cover crops for farmers.

In 2021, 1,110 acres of cover crops were planted on the enrolled fields in this region, supporting 25 farmers in expanding their sustainable acres in the region. Participating farmers are gathering data on the impacts of their practices which will be used to help other farmers make informed decisions about adding cover crops into their rotations.

Verified Outcomes in Illinois for PepsiCo and Nutrien

Overview

Starting in late 2020, Nutrien and PepsiCo began a partnership with Ingredion and the Soil and Water Outcomes Fund to increase corn grower adoption of carbon reduction practices such as cover crops, no-till, and nutrient management by providing financial incentives and agronomic advisory.

Goals

The goal of this project is to catalyze farmer adoption of practices that generate measurable carbon reductions. Reduction targets are:

- 0.5 – 0.9 metric tons carbon dioxide equivalent (CO_2e) sequestration per acre per year.
- 15 – 18 pounds nitrogen reduction per acre per year.
- 1.1 – 1.5 pounds phosphorus reduction per acre per year.

Approach

Soil and Water Outcomes Fund identifies and engages with farmers in priority locations around core regenerative agriculture practices.

Once recruited and enrolled into the program, farmers are paid to implement regenerative practices that improve water quality and sequester carbon.

Payment to the farmer is tied to the volume of outcomes produced, and the resulting environmental outcomes are independently quantified, monitored, and verified.

Environmental attributes are sold to customers after they have been produced.

GEOGRAPHY

Argo, Illinois, and surrounding area

TIMELINE

December 2020 – TBD

MRCC MEMBERS

Nutrien Ag Solutions, PepsiCo

PARTNERS

The Soil and Water Outcomes Fund, Ingredion

MRCC SYSTEMS CHANGE PATHWAYS

Conservation Finance & Incentives, De-risking Practice Adoption, Agricultural Network Engagement, Creating Demand for Sustainable Commodities

Impact

- 14,684.08 acres of land were enrolled through this program.
- Seven farmers joined the program and received payment for implementing conservation practices on their land.
- 8,818.00 metric tons of greenhouse gases were reduced as a result of this program.

Lessons

Nutrien and PepsiCo applied insights for improved communication and implementation practices related to how partners lead the farmer outreach and enrollment process. Since the program offering has some nuance, robust and proactive farmer engagement is key. To ensure that the expectations of farmer-first service are present in all aspects of the program and that potential enrollees have their questions answered and promptly receive the required follow-up, it is critical that partner agronomy teams are part of the farmer education process, receive up-front training, demonstrate an openness to questions and learning, and provide frequent farmer status updates.

Farmer payment has been a core part of project implementation. The Soil and Water Outcomes Fund program aims to provide higher farmer incentives by measuring and securing outcome contracts for both carbon dioxide equivalent reductions and water quality improvements. A key takeaway is that large-scale enrollment requires incentives sufficient to make practice change cost neutral. There will be a small minority of farmers that are interested in these practices and take a long view on soil health. But, for most farmers, the near-term economics do influence their practice decisions.

Bringing together multiple parties in a supply chain provides a pathway for corporations to scale conservation practice implementation in a cost-effective way. Participating corporations share in the cost of the carbon dioxide equivalent reductions while receiving 100% of the benefit toward their goals. While upfront coordination is required to determine costs among parties, the per-acre cost savings can help corporations like PepsiCo scale programs across acres to achieve greater reductions.

The outcomes-based approach continues to be cost-efficient, data-driven, and a turnkey one for achieving environmental outcomes. It allocates funding to growers who achieve the greatest environmental benefits, taking into consideration all on-farm practices across a full rotation (versus traditional grant programs that pay uniformly for a practice). In addition, this approach captures outcomes data using peer-reviewed USDA-supported models, and it de-risks the investment by the carbon dioxide and water quality outcome buyers since they only pay for what has been produced and verified (versus upfront grants, that may not result in expected outcomes). 2021 showed how this approach can easily scale and be implemented across more than 1 million acres.

The in-person field verifications are important to the integrity of the verified emission reduction credit. The Soil and Water Outcomes Fund visits all fields enrolled to visually inspect for practices under contract. In 2021, several fields were unenrolled because cover crops were not planted or reduced tillage commitments were not upheld. Remote sensing technology needs to improve before it can be a substitute for data collected directly from the farmer and practice verification. By visiting all of the enrolled fields, Nutrien and PepsiCo provide their customers with the certainty that practices under contract are being implemented.

The Soil and Water Outcome Fund that this project will establish the framework for a broader collaboration with PepsiCo and Ingredion at a larger scale across multiple priority locations, helping both companies achieve sustainability goals and create meaningful new economic opportunities for farmers in its supply sheds.

U.S. Oats for Oatly

Overview

The U.S. Oats for Oatly Program began in 2019 and aims to help producers diversify their production beyond corn-only or corn-soybean rotations by providing agronomic coaching and a food-grade market to farmers planting oats, as well as providing incentives and coaching for planting cover crops and strategically reducing the use of fertilizers. Practical Farmers of Iowa (PFI) leads project implementation with growers and provides technical assistance, peer coaching networks, and cost share administration. Sustainable Food Lab (SFL) supports PFI with program planning and strategy, as well as data analysis.

Goals

This program aims to provide a stable market and support for growers in southern Minnesota and northern Iowa to diversify the typical corn-soybean rotation by growing milling oats with a legume cover crop and provide support and incentives for growers to reduce fertilizer use given the biological nitrogen gained from the legume cover crop. Oatly also hopes to learn from growers what support and incentives or risk mitigation mechanisms are needed for growers to stick with an extended rotation system.

Approach

The Oatly program provides farmers cost share to grow oats with a cover crop, a price floor for oats, and a facilitated market for oats that do not meet program specifications. Grain Millers, who develop the contracts with growers, provide agronomic support and ultimately buy and process the oats at their mill in St. Ansgar, IA. Practical Farmers of Iowa provides technical support and peer network learning opportunities. Program enrollment includes PFI membership and requires growers attend a PFI learning event and complete a wrap-up survey.

PFI collects farm production data such as oat yield, test weight, and farm management practices. This is used to populate the Cool Farm Tool and Fieldprint® Calculator to track environmental impacts (e.g., GHG emissions, water quality) as well as explore farmer risks and incentive needs. The program also offers support for Oatly growers to test their tile lines to monitor water quality on their farm.

GEOGRAPHY

Iowa and Minnesota

TIMELINE

2019-2024

MRCC MEMBERS

Oatly

PARTNERS

Grain Millers, Practical Farmers of Iowa, Sustainable Food Lab

MRCC SYSTEMS CHANGE PATHWAYS

Conservation Finance & Incentives, De-risking Practice Adoption, Agricultural Network Engagement, Creating Demand for Sustainable Commodities

Impact

In 2021, there were 1,892 acres enrolled with 22 farmers in the small grain and legume cover crop cost share program. There are also 803 acres enrolled with seven farmers in the fertilizer reduction cost share, where they must cut 40 units of nitrogen or limit the application to their corn crop to less than 100 units. Grain Millers purchased over 70,000 bushels of oats for this program in 2021, and farmers planted 150 more acres of oats than they would have if this program did not exist.

Lessons

After three years, Oatly has learned the program requires sustained communication, advertising, and transparency to increase awareness, build trust, and recruit growers. Oatly is also finding that the cost share (plus technical assistance and peer networking) may not be fully addressing the reasons why farmers do not plant small grains, cover crops, and reduce nitrogen in a corn year. Farmers continue to perceive financial risk and need more support from—and trust in—merchandisers. Since the program's establishment, islands—or hubs—of oat farmers who support each other are developing across the landscape, but Oatly has heard that increased support for small-grains related infrastructure (e.g., storage, additional buyers, and better transport options) would help further support these hubs. Some steps that have been taken to address concerns include:

- To support transparent practices and clear communication with farmers, Grain Millers initiated a monthly bid email list noting the prices offered for oats.
- PFI updated the program recruitment materials with language revised to reduce confusion related to program requirements and contracts.
- All cost share funds for the program will be funded by Oatly to address the competitiveness of the program with high corn and soy prices, as compared to some historical funding by the Conservation Innovation Grant funding. As a result, farmers can stack these cost share funds with Environmental Quality Incentives Program funding, and PFI has promoted this stacking incentive.

In 2022, Oatly will host a farmer meet-up with current and past growers as well as project partners, Practical Farmers of Iowa and Sustainable Food Lab. The goal is to have an open dialogue with growers to hear about the benefits and challenges of the program, what farmers need to successfully integrate an oat into their rotation and reduce inputs in the corn year, to discuss what farmers want in terms of a relationship with Oatly, and what more the program can offer farmers. Oatly has a keen interest in supporting growers to reduce their fertilizer application in the corn year and anticipate using this feedback discussion to inform program design and incentive structures in the future. Farmer feedback from this meet-up will be evaluated for program design improvements. Oatly intends to explore partnership opportunities with other companies to offer incentives for farmers to diversify their typical corn-soybean rotation.

Learnings from this project inform how Oatly will structure incentives to de-risk farmer innovation and uptake of regenerative farming practices. This information is concretely shaping new pilot projects in development in Canada and the United States.

Understanding the Information Needs of Farmers and Trusted Advisors

Overview

In 2021, Bayer administered surveys to growers and certified crop advisors (CCAs) to help better understand their information needs. To reach growers, CCAs, ag retailers, district conservationists, and other trusted advisers, Bayer partnered with Field to Market and Saving Tomorrow's Agricultural Resources (STAR) to administer the survey and engage their grower and crop advisor networks. Developed in collaboration with key partners, research findings provide insights into growers' communication preferences, as well as what information trusted advisers are sharing about conservation practices.

Goals

The surveys aimed to determine growers' preferred communication styles and understand the conversations and resources growers have with their crop advisers.

Approach

Bayer led the collaborative effort to develop a survey to better understand identities, motivations, and behaviors of farmers and landowners who are the potential audience for STAR and other conservation programs. They reached growers through the following platforms:

- Illinois Soybean Association email and social media
- Soil and Water Conservation District outreach
- Illinois Sustainability Ag Partnership ISAP Aggregate Newsletter
- Farm Progress Show
- Association of Illinois Soil and Water Conservation Districts committee and website

TIMELINE

January – December 2021

MRCC MEMBERS

Bayer, the Kellogg Company

PARTNERS

Field to Market, Saving Tomorrow's Agricultural Resources

MRCC SYSTEMS CHANGE PATHWAY

Agricultural Network Engagement

A variety of approaches were deployed to survey the CCA community.

- An online Qualtrics survey of trusted advisers assessed their certifications, utilization of existing sustainability education resources, and needs for continuing education.
- Nine articles were prepared for Crops and Soils, including quizzes that CCAs submitted for continuing education units. The articles focused on ways CCAs can support growers in achieving better environmental outcomes on their farms. Four articles were published in 2021 and five are slated for 2022.
- Two advertorials were published in The Scoop, a trade magazine for agricultural retailers.
- Partners virtually attended the American Society for Agronomy's and Sustainable Agronomy's annual conference to connect with field agronomists.
- Partners attended the annual Sustainable Agriculture Summit in-person.
- Partners exhibited at the annual conference and expo of the Agricultural Retailers Association.

Impact

The grower survey, administered in 2021, had more than 1,100 responses. Bayer is working with Dr. Linda Prokopy, an expert in Social Dimensions of Agriculture/ Natural Resource Management, at Purdue University to conduct the next-level statistical analysis of survey results. A post-doctoral student from her lab will lead the next statistical analysis, which will include cross-tabulation to quantitatively analyze the relationship among several key variables. Bayer anticipates a report and an academic publication of the results. The results will be used to develop communication and outreach strategies to support practice adoption, increasing and deepening engagement opportunities for groups working with producers.

Lessons

This work has improved Bayer's internal understanding of its customers' communication preferences, adoption behaviors, and learning styles. The initial findings also allowed Bayer to secure additional funding for Purdue University to further analyze the results. Communication with farmers requires a nuanced understanding of varied information needs, as they are a diverse audience spanning many generations. These survey exercises help build personas within the farming community that can be used to develop communication materials and strategies.

Scale Lab

Overview

The Midwest Row Crop Collaborative's theory of change embraces a systems focus to understand how companies can best contribute to the growth of regenerative agriculture. For MRCC members to effectively pursue systems change, deep engagement of key stakeholders within companies is required to demonstrate, communicate, and realize the value that regenerative agriculture can bring to the value chain. To understand and address this critical link, Sustainable Food Lab (SFL) and the Midwest Row Crop Collaborative partnered to create Scale Lab.

While the traditional approach that companies take when driving regenerative agriculture frequently looks like new checklists and data collection requests added to farmers' supply-chain requirements, this standard assumes that supporting new practice adoption could be realized through a combination of training and peer-to-peer engagement. However, this approach does little to help farmers, or ensure the long-term future of their croplands.

What would it take to empower more farmers to adopt these practices, which can make fields more resilient to climate change and potentially at least as profitable as the current system, especially over the long term?

Approach

In 2021, the project began by enlisting the participation of key leaders in agribusiness to map the agricultural system and identify leverage points that would help extend the influence of supply-shed programs. Program participants created stories of climate risk and regenerative agriculture to use within each company for identifying internal champions and creating cross-functional alignment, executive buy-in, and more efficient allocation of resources. By interviewing farmer network leaders, organizers were able to identify the investments needed to increase the capabilities and reach of implementing partners.

MRCC MEMBERS

The Kellogg Company, Oatly, PepsiCo, The Nature Conservancy, Unilever

PARTNERS

Sustainable Food Lab

MRCC SYSTEMS CHANGE PATHWAY

Creating Demand for Sustainable Commodities

Impact

Downloadable outputs from Scale Lab's first year include:

- A **deck on how to build and support the capabilities of farmer networks** to help implement programs.
- A **system model of farmer decision-making**.
- A **climate risk deck**, with:
  - » Data and graphs about frequency and impacts of increased temperatures, droughts, and flooding.
  - » Tips for engaging procurement teams about climate risk.
  - » Brand risks from climate change.
  - » Tips for engaging marketing and brand teams.
  - » Financial risks.
  - » Tips for engaging finance teams.
- A **cross-function interview guide** with suggested engagement questions for procurement, supply chain, and finance leaders.
- **Function-specific strategy maps** to use along with the interview guide to identify where the priorities of sustainability intersect with those of other key functions.
- A **marketing engagement decision tree** to show how sustainability can be a critical issue for customers.
- A **guide for engaging marketing and branding departments**.
- A **give-get tool** to build closer relationships with key stakeholders and better understand how they might benefit from the partnership.

Next steps

During the next phase of the Scale Lab in 2022, participants will sort into focus areas so they can:

- Continue to share decks and strategies to communicate about of regenerative agriculture for different audiences.
- Combine learning about accounting guidelines for Scope 3 and landscape impacts, seeking to reduce the data collection burden on farmers.
- Jointly invest in the capabilities of project partners to reach more mainstream farmers beyond the early adopters.
- Explore contracting models with farmers and suppliers to support practice adoption.
- Test collaborations among feed, food, and ethanol companies to increase crop diversification.
- Share the evolving science on nutrient density and microbiomes and potential shifts in food markets.

Scale Lab will generate models and tools for widespread use as well as a set of scenario stories that will make a significant difference for the overall goal of growing the adoption of regenerative agriculture.

SHARED LEARNING TO SHIFT SYSTEMS

MIDWEST ROW CROP COLLABORATIVE

Participation in the Midwest Row Crop Collaborative is more than the development of collaborative projects. Each member also commits to sharing lessons from their experience to strengthen the efforts of others, while seeking to learn from others to inform their own work. This "shared learning" process includes internal member opportunities, as well as external opportunities for public engagement, and it is one of the most powerful opportunities to establish how to overcome barriers to make projects more scalable and effective.

Some examples of internal opportunities that build on the trusted relationships between members include member monthly learning calls, webinars, and other convenings.

Topics explored in these events in 2021 included:

- Understanding the human dimensions of practice change.
- Pairing academic research with action in sustainable enterprise.
- Scaling soil health practices with financial data.
- Flexible support for practice adoption.
- Measurement for regenerative agriculture.
- Innovative investment in ag tech.
- Sustainability bond frameworks.
- Growing Our Future USA.
- Labeling and consumer engagement.

In 2021, MRCC notably released its first Insights Report, "**From the Inside Out**," which highlights key trends, emerging opportunities, and sector challenges, documented alongside lessons from a range of other supply chain projects.

MRCC continued to engage in visible formats with support from key leadership within its member organizations, with significant public events including **Walmart's first Row Crop Summit**. At the Row Crop Summit, MRCC announced its new 2030 goals in a segment that included reflections from:

- Jim Andrew, Chief Sustainability Officer for PepsiCo
- Oli Morton, Chief Customer Officer for the Kellogg Company
- Pilar Cruz, Corporate Senior Vice President and Chief Sustainability Officer for Cargill
- Stewart Lindsay, Managing Director of Corporate Engagement for The Nature Conservancy.

At the invitation of HSBC, MRCC was also highlighted at a Climate Week panel event "**Financing Nature: Unlocking Solutions for Regenerative Agriculture**" which included participation from Christine Daugherty, Vice President of Global Sustainable Agriculture & Responsible Sourcing at PepsiCo, who conveyed the importance of the financial sector's commitment and action related to nature-based solutions and regenerative agriculture.

The goals MRCC works toward are dependent on collaborative efforts across the value chain. Whether it's farmers making decisions to implement conservation practices in their fields, or a multinational retailer working to reduce their environmental footprint, those with similar priorities are not alone in their endeavors. By joining MRCC, members commit to sharing their experiences, lessons, and the risks of transitioning to regenerative approaches with others in service of an agricultural system that benefits farmers, nature, and communities.

PARTNERSHIPS TO ADVANCE REGENERATIVE AGRICULTURE

MRCC actively seeks partners with a vision for the U.S. food and agricultural system that is part of a healthy environmental ecosystem and economically viable for all. Its members welcome partnerships which help scale solutions, streamline the efforts and investments of our members and other stakeholders, and strengthen collaboration in the region.

Each partnership is unique, but they all have certain features:

- A systems-change approach that considers the interrelationships of different parts of the food and agriculture system.
- A shared interest in strategic alignment and the efficient use of resources.
- An open orientation toward the sharing of learnings, challenges, and opportunities.
- A desire to build project work that serves the needs of all partners involved.

Partners may include project implementers, technical advisors, solutions developers, funders, or other industry collaboratives. Together, we work on shared goals and research or test specific solutions with leading companies and NGOs working on the ground across the food and agriculture value chain. Examples of key MRCC partnerships include:

Field to Market: The Alliance for Sustainable Agriculture: As a diverse collaboration working to create productive and profitable opportunities across the agricultural value chain for continuous improvements in environmental outcomes, Field to Market's work is grounded in science-based tools and resources, system-wide collaboration, and increased supply-chain transparency. MRCC and Field to Market work closely together to ensure that plans are aligned, helping to streamline company and NGO investments in new approaches and complementing each other's initiatives for more impactful delivery on our shared mission of a more sustainable agricultural system. Our partnership includes collaborating on new research to better understand how trusted advisors influence and support farmer practice adoption and MRCC's participation in Field to Market's Innovative Finance Workgroup, now named the Innovative Finance Standing Committee.

Sustainable Food Lab: Like MRCC, the Sustainable Food Lab embraces a systems approach in developing solutions to the challenges facing our food system and is currently engaged with several MRCC members and other peer companies demonstrating leadership in sustainable agriculture. In 2021, MRCC and Sustainable Food Lab jointly led the Scale Lab program and continue their work together with the engagement of Sustainable Food Lab's Soil Health Leadership Lab, a group of experienced agricultural professionals with expertise in socializing and implementing regenerative agriculture.

DEEPENED ENGAGEMENT ON PUBLIC POLICY

MIDWEST ROW CROP COLLABORATIVE

Systems approaches are core to MRCC, reflected in the theory of change, the multisector membership, and the way in which members engage pre-competitively to enable regenerative agriculture across the landscape. Public policy influences our food and agriculture systems at every point in the supply chain: from field, to farm, to fork.

MRCC members committed to deepening their engagement around policy in 2021. To do this, members tapped their own organizational expertise by bringing in experienced and knowledgeable representatives from policy and government affairs staff to the Policy Work Group. The Policy Work Group has enabled MRCC meaningful policy opportunities over the past year and coincided with increased interest from policymakers in regenerative and climate-smart agriculture.

With support from the Walton Family Foundation, MRCC engaged Monument Advocacy, a Washington, D.C.-based firm specializing in public policy and government relations, to catalogue input from all MRCC members and identify key areas of priority and alignment. This process created a clear picture of how MRCC can contribute to public policy discussions.

Simultaneous to the work with Monument Advocacy, the Policy Work Group met with numerous partners over the course of the year to better understand the priorities and landscape of issues that affect MRCC projects. A meeting with U.S. Senate Agriculture Committee staff allowed MRCC members to hear about the committee's priorities for the upcoming reauthorization of the farm bill, expected in 2023, particularly around Title 2 programs which relate to conservation agriculture. The Land Stewardship Project, a non-profit organization, presented on issues related to state-level soil health policy initiatives. AgOutcomes, a part of the Soil and Water Outcomes Fund, presented on how Pay for Performance programs can support water quality in agricultural landscapes. Rural Investment to Protect our Environment presented on their work building the case for public investment in climate-smart agriculture.

MRCC members **provided input** to USDA regarding the Executive Order on Tackling the Climate Crisis at Home and Abroad and to the **request for comment** related to the establishment of a Climate-Smart Agriculture and Forestry Partnership Program. Looking forward, the reauthorization of the farm bill presents significant opportunities for continued engagement with policymakers in Congressional offices, federal agency leadership, and advocacy groups. State and local policy is also an opportunity for MRCC members to help create an enabling environment for regenerative agriculture in the Midwest.

OPPORTUNITIES FOR GROWTH IN THE YEAR TO COME

MIDWEST ROW CROP COLLABORATIVE

The past year allowed MRCC to strengthen the portfolio of collaborative work that is essential to improve environmental outcomes in Midwestern row crop agriculture. The 2030 goals create a clear directive for members that aligns with the global goals for Sustainable Development and the Paris Agreement on climate change. Continued and increased volatility in weather events—from drought to derecho—highlight the need for improved resiliency and reduced environmental impacts in the agricultural system. Reducing emissions, improving water quality and quantity, and supporting biodiversity will not only support family farms, but also the local and global communities who are most impacted by climate change and its cascading effects.

As MRCC looks ahead to 2022, there are many exciting opportunities on the horizon. A few of these include:

- USDA's request for proposals for Partnerships for Climate-Smart Commodities, which will invest $1 billion into the climate-smart and regenerative agriculture sector.
- With support from Walton Family Foundation, MRCC will be engaging more deeply in issues related to justice, equity, diversity, and inclusion in the Midwest row crop system.
- Expanding MRCC crop and geographic focus to include rice, crop diversification, and more, building on successes of current projects and partnerships.
- Launching a media campaign targeting farmers who have yet to adopt regenerative agriculture in their operation. This work will include data collection, campaign creation and deployment, and shared learning that can enable more impactful communications with farmers about conservation practices and regenerative agriculture.
- Engaging policy through education and relationship building, with particular focus on the reauthorization of the farm bill, expected in 2023.

The Midwest Row Crop Collaborative continues to be a place where members find value in sharing, learning, building, and collaborating around efforts to create more sustainable landscapes in the Midwest. MRCC members' organizations are leading companies and non-profit organizations working to promote the widespread adoption of regenerative, science-based approaches that reduce negative environmental impacts and improve farm viability and resiliency. As this work continues, MRCC members welcome other organizations to join the collaborative and work together to achieve these ambitious and necessary goals.