

2016 ANNUAL REPORT

Designing For Impact

At A Glance

■ his report provides an overview of Field to Market: The Alliance for Sustainable Agriculture's major milestones and the progress achieved in 2016 as we continue to finalize the design and development of our Supply Chain Sustainability Program to drive impact.

Convening all levels of the food and agricultural supply chain—from grower organizations and agribusinesses to brands and retailers to conservation groups, academia and public sector partners— Field to Market is a diverse, multi-stakeholder initiative that focuses on promoting, defining and measuring the sustainability of food, fiber and fuel production in the United States. Engaging in broad communication and collaboration with these diverse stakeholders, the Alliance works to ensure a coordinated and outcomes-based approach to sustainable agriculture that is grounded in science and open to the full range of technology choices.

Learn more about the progress that we have made over the last year as we seek to unite the supply chain to deliver sustainable outcomes for U.S. agriculture.

2016 By The Numbers

Combined Revenues

Our diverse membership represents combined revenues totaling more than \$1.3 trillion.



Field to Market is the premier sustainability initiative joining diverse organizations from all levels of the food and agricultural supply chain.

Membership Growth

Creating shared value from farm to fork, Field to Market's membership continues to grow at a significant pace, demonstrating convergence around a common framework to measure sustainability in U.S. agriculture.

Fieldprint® Projects

Our members are partnering with growers on a journey through 60 Fieldprint® Projects across 25 states.

Field to Market is engaging farmers on the ground to measure the environmental performance of their management practices using the Fieldprint® Platform.



2.3 Million Acres

More than 2 million acres of commodity crops are enrolled in a journey of continuous improvement through participation in our Supply Chain Sustainability Program.

Dear Stakeholders

016 was an important year for Field to Market: The Alliance for Sustainable Agriculture. We expanded our in-house expertise on technology and verification, enabling us to lay the groundwork needed to accelerate the design and development of our Supply Chain Sustainability Program. Our program offers the food and agriculture industry an essential tool for unlocking shared value for all stakeholders — a common framework for sustainability measurement that farmers and the supply chain can use to better understand and assess performance.

Over the past two years, we have focused on designing for impact—creating a program that will deliver sustainable outcomes for commodity crop production at the field and landscape level. We seek to provide an unparalleled platform that helps the food and agricultural supply chain benchmark sustainability performance; catalyze continuous improvement; and characterize the sustainability of key sourcing regions as well as measure and report out on progress against environmental goals. We continue to refine and hone our sustainability assessment tools like the Fieldprint® Platform; create the enabling conditions needed to drive sustained improvements; and develop rigorous verification protocols to credibly assess progress. We are seeking stronger convergence around our program as the leading sustainability solution for commodity crop production in the United States. Some key milestones over the past year include:

- Releasing an updated analysis of sustainability trends in commodity crop production with our third edition of the National Indicators Report, expanding the number of crops and sustainability indicators evaluated
- Building out Field to Market's Verification Protocols with the implementation of standard operating procedures for Measurement Claims, which provide clear guidance on Fieldprint® Project registration, reporting and claims
- Piloting the integration of our sustainability metrics and algorithms with existing farm management and precision agriculture software solutions to help support the scaling of Field to Market's program
- Guiding our efforts with advice from the scientific community and technical experts through the formation of the Science and Technology Advisory Councils
- Solidifying our role as the leading sustainability standards body in the U.S. for commodity crop production, with 36% growth in membership since 2015
- Expanding Fieldprint Project participation to 60 projects with more than 2,100 participating growers in a total of 25 states.

The success of Field to Market depends on the input and vision of our Board of Directors, General Assembly, Standing Committees, members, partners and dedicated staff. Thank you to all for your valued support.

ROD SNYDER, President

STEFANI MILLIE GRANT, Chair

About Us

cross the agriculture supply chain—from the farm gate to the retail and restaurant counter—the challenge of producing enough food, fiber and fuel for a rapidly growing population while conserving natural resources, has become increasingly complex.

With the world population estimated to reach 9 billion by 2050, the entire supply chain must work together to efficiently and responsibly lay the groundwork for the future. Collaboration among stakeholders through industry-wide dialogue, grounded in science and open to the full range of technology choices, will create opportunities across the agricultural supply chain to promote sustainable agriculture.

Field to Market defines sustainable agriculture as meeting the needs of the present while improving the ability of future generations to meet their own needs by:

- Increasing productivity to meet future food, fuel and fiber demands
- Improving the environment
- Improving human health
- Improving the social and economic well-being of agricultural communities

Our Vision

To champion solutions for tomorrow's safe, accessible, and nutritious food, fiber and fuel in thriving ecosystems.

Our Mission

To meet the agricultural challenge of the 21st century by providing collaborative leadership that is:

- Transparent
- Grounded in science
- Focused on outcomes
- Open to the full range of technology choices
- Committed to creating opportunities across the agricultural supply chain for continuous improvements in productivity, environmental quality and human well-being

Our Commitment To Continuous Improvement

ield to Market strives to meet the challenge of producing enough food, fiber and fuel for a rapidly growing population while conserving natural resources and improving the ability of future generations to meet their own needs.

The Alliance and its members recognize that a critical component of any sustainability goal is the maintenance of economic viability. Field to Market will provide useful measurement tools and resources for growers and the supply chain that track and create opportunities for continuous improvement.

Our efforts are guided by the following goals:

- Energy Use Sustained improvement in energy use efficiency from U.S. crop production
- **Greenhouse Gases** Sustained reduction in greenhouse gas emissions from U.S. cropland per unit of output, and sustained contribution to addressing the overall greenhouse gas (GHG) emissions from agriculture, recognizing the need to meet future crop production demands.
- Irrigation Water Use Sustained contribution to solving regional water scarcity problems through continual improvement in irrigation water use efficiency and conservation.
- **Land Use** Sustained improvement of land use efficiency by increasing productivity on U.S. cropland, conserving native habitat, and enhancing landscape quality.
- **Soil Conservation** Sustained reduction in soil erosion to tolerable levels or below on all U.S. cropland.
- Water Quality Sustained contribution to solving regional water quality problems as evidenced by reductions in sediment, phosphorus, nitrogen, and pesticide loads from U.S. cropland.

To measure progress against these goals, outcomes will be measured and reported based on a five-year rolling average. In addition, Field to Market will promote a research agenda to address questions about the ability of U.S. agriculture to achieve:

- Absolute GHG emissions reductions, accounting for soil carbon sequestration and other advances in accounting for GHG emissions in crop production
- Conservation of native habitat, enhancement of landscape quality, and improvement of conservation outcomes; and
- Overall maintenance and improvements to soil health.

To achieve these goals, Field to Market's membership pledges to engage 20 percent of productive acres of U.S. commodity crop production—the equivalent of **50 million acres**—in our Supply Chain Sustainability Program by 2020.

A YEAR IN REVIEW

MARCH 2016



Celebrating Continued Investment in Innovative and Results-Focused Projects Focused on Conservation Impacts

Field to Market celebrated USDA's continued support in funding public-private partnerships to advance conservation through the Regional Conservation Partnership Program (RCPP) and the awarding of approved grants from to collaborative projects with Field to Market members such as the Illinois Corn Growers Association, Iowa Agriculture Water Alliance and The Nature Conservancy. Field to Market will help support the implementation of these projects, including:

- Big Pine Watershed Partnership Collaborating with the Nature Conservancy, Field to Market will help quantify environmental outcomes resulting from the targeted implementation of practices to reduce the loss of nutrients and sediment to achieve watershed water quality objectives by utilizing the Fieldprint® Platform.
- Midwest Agriculture Water Quality Partnership Collaborating with the Iowa Agriculture Water Alliance and the Iowa Department of Agriculture and Land Stewardship, Field to Market will help to scale conservation planning and conservation practices by working with leading agribusinesses to integrate environmental metrics from the Fieldprint® Platform into precision agriculture platforms over the next few years in order to drive greater practice adoption and improved conservation outcomes.
- Precision Conservation Management Collaborating with the Illinois Corn Growers Association, Field to Market will support efforts to integrate conservation into the foundational farm management of commodity crop operations, by pairing the sustainability analytics of the Fieldprint® Platform with hard-nosed financial farm business planning to provide a blueprint for conservation decision-making.

Collaboration is needed at all levels—from government and NGOs to businesses and producers—to feed more than 9 billion people by 2050 while responsibly managing our planet's natural resources. We are proud to partner with our diverse membership to meet this challenge by delivering sustainable outcomes in the areas of water quantity, water quality, soil health and biodiversity.

Increasing Technical Capacity with Addition of Data and Technology Director

Paul Hishmeh becomes the fifth member of Field to Market's staff, providing strategic leadership and direction for the development of the Fieldprint Platform, including integration into other farm management tools and software to support the scaling of Field to Market's program. In this role, he will collaborate with Field to Market member organizations to establish policies and procedures for collecting, storing, managing, aggregating and reporting field level data. Paul possesses more than 15 years of experience in IT project management, previously overseeing millions of dollars in federal government contracts for several agencies.



APRIL 2016



Establishing Measurement Claims Protocol to Enable Brands and Retailers to Report **Progress on Supply Chain Engagement**

Field to Market officially launched the Measurement Claims Methodology and Protocol that were approved at the November 2015 General Assembly Meeting, enabling Field to Market members to make claims on their engagement of farmers and enrolled acreage in a journey of continuous improvement in their Fieldprint Projects as well as report out on a static, one-year snapshot of aggregate performance of those farmers on specific environmental outcomes. Releasing clear guidance on the registration and reporting for Fieldprint Projects, there are now standard operating procedures in place including the development of plans for grower engagement and risk mitigation as well as a framework for annual reporting to enable claims verification.

JUNE 2016



Shaping the Future of Sustainability Measurement with Formation of Science **Advisory Council**

Field to Market launched a Science Advisory Council focused on informing the Alliance's science-based approach to delivering sustainable outcomes at the field and landscape level.

Twelve leading experts from the scientific community have agreed to lend their knowledge and expertise to guide Field to Market's staff and diverse membership across the food and agricultural supply chain for the continued development of the sustainability standard for U.S. commodity crop production that catalyzes continuous improvement in environmental outcomes. Meet our Science Advisory Council members on page 24.

Exploring Opportunities to Advance Soil Health

Over the past decade, Field to Market has developed a set of sustainability metrics that

focus on environmental outcomes of agricultural management practices, specific to commodity crop production systems in the United States. Responding to a charge from our diverse membership to conduct an assessment on how the Alliance can work to



further overall maintenance of and improvement to soil health, we prepared a situational assessment of the science of soil health, current efforts of the U.S. agriculture industry and conservation community, related research and the relationship to Field to Market's ongoing metrics development program. Learn more about our findings and recommendations on page 22.

A YEAR IN REVIEW

AUGUST 2016



Unlocking Productivity, Profitability and Sustainability on the Farm Through **Technology Integration**

Field to Market launched a Technology Advisory Council with nine experts to provide important guidance and counsel to Field to Market's Board of Directors and membership on the data and technology needs of our Supply Chain Sustainability Program, with an emphasis on the current and future state of the Fieldprint® Platform. The Council members bring expertise in a wide variety of disciplines and topics such as: agronomic models, data management, data privacy, data security, precision agriculture, software architecture, software development, technical infrastructure, and sectorspecific insights. Get to know our Technology Advisory Council members on page 26.

OCTOBER 2016

Building In-House Expertise on Verification and Assurance

We hired Chisara Ehiemere to serve as Field to Market's Business Director where she will lead efforts to finalize verification protocols, enabling Field to Market members to communicate and report on sustainability outcomes from agricultural operations. In this role, she will also oversee the development and maintenance of the Alliance's business plan, including revenue diversification and licensing of assets. Chisara previously served as vice president of certification at Fair Trade USA where she created and implemented certification strategies for agricultural supply chains to improve farmer livelihoods, improve environmental outcomes and increase transparency in sourcing.



NOVEMBER 2016





Convening Diverse Perspectives to Advance Sustainable Agriculture

Field to Market hosted the second annual Sustainable Agriculture Summit in Atlanta, GA together with the Innovation Center for U.S. Dairy, the National Pork Board, the Stewardship Index for Specialty Crops, the U.S. Poultry & Egg Association, and the U.S. Roundtable for Sustainable Beef. Convening more than 500 diverse stakeholders from across the food and agricultural supply chain, the Summit explored opportunities to advance continuous improvement in agricultural sustainability.



Celebrating Ten Years of Convening the Supply Chain to Deliver Sustainable Outcomes for Agriculture

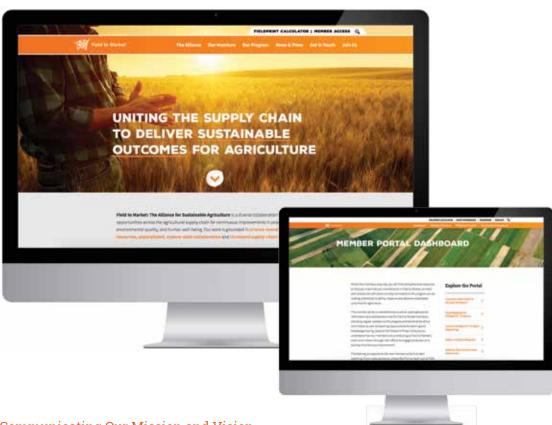
At Field to Market's November General Assembly Meeting, our membership celebrated the ten-year anniversary of our very first stakeholder convening that formed the Alliance in November 2006. Founding members that have been engaged in Field to Market from the very beginning were honored, including Bunge, Cargill, Dupont Pioneer, Monsanto, National



Cotton Council, National Corn Growers Association, The Nature Conservancy, United Soybean Board and the World Wildlife Fund. In addition, the Keystone Policy Center was recognized for their support, guidance and nurturing of the Alliance that has enabled it to become the independent, 501(c)3 organization we are today. In addition, special recognition was given to Andy Jordan, formerly of the National Cotton Council, for his continued commitment to sustainable agriculture and decade long engagement in Field to Market on behalf of the cotton industry.

A YEAR IN REVIEW

NOVEMBER 2016



Communicating Our Mission and Vision

In November, Field to Market launched a redesigned website and newly designed Member Portal to share the efforts of our program with a broader stakeholder community. The website features in-depth profiles on farmers utilizing the Fieldprint Platform, spotlights on members who participate in the Alliance and case studies on how Fieldprint Projects are connecting farmers and the supply chain on a journey of continuous improvement. In addition, the website provides a Fieldprint Project directory to clearly communicate how Field to Market members are contributing to the Alliance's vision and mission through their efforts to engage producers in local communities. Visit the new website at www.fieldtomarket.org.

DECEMBER 2016

Analyzing Sustainability Trends of U.S. Commodity Crop Production

We published our third edition of the National Indicators Report, Field to Market's analysis of sustainability metrics focused on U.S. agriculture and the science-based measurements of outcomes associated with commodity crop production. The report analyzes eight environmental indicators and five socioeconomic indicators for ten crops (barley, corn for grain, corn for silage, cotton, peanuts, potatoes, rice, soybeans, sugar beets, and wheat) over a 36-year period at a national level. Learn more about U.S. agriculture's sustainability story on Page 28.



Membership

Field to Market's Supply Chain Sustainability **Program Emerges as Trusted Solution for U.S. Agriculture**

More organizations across the food and agricultural supply chain have come to rely on Field to Market's Supply Chain Sustainability Program as the trusted solution for assessing the sustainability performance of commodity crops. As a result, our membership has more than doubled since the Alliance opened its offices in Washington, DC in March 2014. This year, the Alliance welcomed 34 new members including:

New Full Members

- Agrible
- American Peanut Council
- Bartlett Grain
- Bioplastic Feedstock Alliance
- California Rice Commission
- **CF Industries**
- Columbia University
- **■** Corn Refiners Association
- Dairy Business Milk Marketing Cooperative
- **■** Dairy Farmers of America
- Dartmouth College
- **GMO Renewable Resources**
- Hampton Creek
- Healthy Food Ingredients

- **Iowa State University**
- Kansas State University
- **LifeLine Foods**
- Minnesota AgriGrowth Council
- NACHURS
- National Association of State **Conservation Districts**
- National Barley Growers Association
- National Farmers Union
- Nebraska Corn Board
- National Sorghum Producers
- Texas A&M AgriLife Research
- The Sustainability Consortium
- **■** U.S. Grains Council

"We are proud to welcome more organizations who are committed to achieving and scaling a shared vision of sustainable agriculture. We look forward to working with them as we continue to refine our sciencebased approach to measuring and advancing continuous improvement of environmental outcomes at the field and landscape levels."

— BETSY HICKMAN

VP of stakeholder engagement and implementation, Field to Market

"We are very excited to join Field to Market and help them demonstrate that growing high yielding crops in a sustainable manner is achievable to help feed a growing world population."

- MURRAY VAN **ZEGGELAAR** VP of marketing, NACHURS

New Associate Members

- Agren
- Agrian
- Ardent Mills
- **■** Dairy Farmers of America

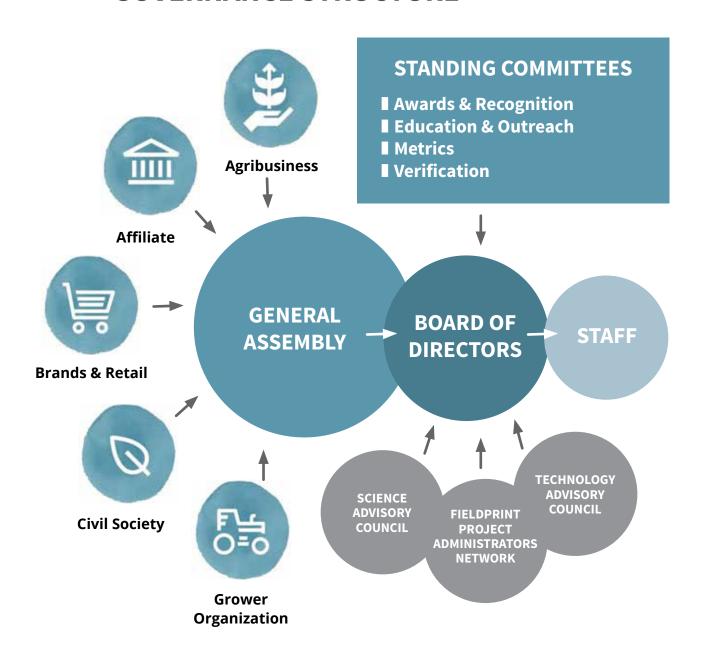
- **■** Granular
- **■** Western Sugar Cooperative
- Weston Food

As membership continues to grow, please visit our website for the most up to date list of members: http://fieldtomarket.org/members/.

MEMBERSHIP STRUCTURE & GOVERNANCE

n 2016, Field to Market's Board of Directors approved a formal standing committee structure which sunset certain working groups and formalized a more permanent governance structure. In addition, the Board approved the formation of three advisory councils to provide expert guidance on implementing a science-based and data-driven approach to measuring and advancing the sustainability of commodity crop production.

GOVERNANCE STRUCTURE



General Assembly

The General Assembly is Field to Market's highest decision-making body, comprised of one representative from each of the Field to Market voting member organizations. The General Assembly manages the organization and its affairs, adopts policies to guide the activities of the organization, and is responsible for the receipt, proper custody and expenditure of its funds and the care of its property. The General Assembly exercises all of the powers of the organization and meets bi-annually. To ensure balanced voice across sectors, the General Assembly is divided into five membership sectors:

- **Affiliate:** Representing academia & the public sector
- **Agribusiness:** Farmer facing companies (*selling products or providing services to or buying directly from farmers*)
- Brands & Retail: Consumer facing companies
- Civil Society: Representing conservation, social and environmental interests
- Grower Organizations: Representing farmers and commodities

Board of Directors

The Board of Directors is made up of 14 members, with three representatives from each of the four voting sectors: Agribusiness; Brands & Retailers; Civil Society; and Grower Organizations, as well as two non-voting members from the Affiliate sector, thus giving each voting sector balanced representation and influence in decision-making. Between meetings of the General Assembly, the Board of Directors exercises the power of the General Assembly, including the approval of new members, employment of the President and provision of guidance to staff. From the Board, four officers are elected to represent the interests of each voting sector and serve for a two year term in the roles of Chair, Vice Chair, Treasurer and Secretary.



MEMBERSHIP STRUCTURE & GOVERNANCE

Standing Committees

Four standing committees have been established to oversee various aspects of Field to Market's program and to make formal recommendations to the General Assembly and Board of Directors. These committees will have a number of responsibilities including developing and refining metrics, establishing verification protocols for sustainability claims, developing education and outreach materials to accelerate continuous improvement, and establishing awards and recognition programs for outstanding growers and supply chain partners.

AWARDS & RECOGNITION

The Awards and Recognition Committee is responsible for developing programs for Field to Market members and growers that incentivize continuous improvement and recognize efforts to advance sustainable agriculture. The committee also considers how various recognition opportunities, incentive programs and other value-added opportunities can help accelerate grower adoption of sustainable practices.

Field to Market is committed to recognizing farmers' stewardship and conservation efforts through our Farmer Spotlight Series, where we showcase farmers who are committed to a journey of continuous improvement and helping deliver sustainable outcomes for agriculture.

In 2016, we are proud to recognize farmers whose strong commitment to stewardship and conservation is helping to advance sustainable agriculture. These 2016 Farmer Spotlight Honorees are committed to protecting water, soil, air, habitat and a way of life for generations to come.

- Meet David and Kevin Beske, 3rd generation farmers from Fox Lake, WI on page 24
- Meet Mike Milligan, 5th generation farmer from Cass City, MI on page 22

EDUCATION & OUTREACH

The Education and Outreach Committee develops resources to help scale Field to Market's Supply Chain Sustainability Program and accelerate continuous improvement at the field and landscape levels through Fieldprint® Projects. This includes developing education materials for use by entities that offer decision support services for growers, as well as information for use by local Fieldprint Projects to standardize and identify best practices for engaging with growers that are participating in our program.

This year, the Education & Outreach Committee commissioned research on best practices for organizing and managing Fieldprint Projects by surveying more than 20 Field to Market members, including consumer product companies, manufacturers, suppliers, technology companies, NGOs, grower groups and government agencies. Key learnings included:

- As efforts to help large, diffuse groups of people to document and change their farming and management practices, Fieldprint® Projects require organizational skills in fostering and managing change that are just as critical as the technical skills necessary to implement new farming practices.
- Identifying and documenting the lessons learned by existing Fieldprint Projects and providing that knowledge in a coherent and systematic way can provide a value-added service to Field to Market members in carrying out projects that helps increase the unique value of our implementation efforts throughout the supply chain.

METRICS

The Metrics Committee will make recommendations to the Board of Directors on revisions to existing metrics as newly available science becomes available. The committee will also make recommendations to the Board and General Assembly on the inclusion of new metrics and indicators in the Field to Market program. Lastly, the committee will oversee metrics alignment with other sustainability programs and standards.

This year, the Metrics Committee has worked to advance development of an improved metric for assessing Greenhouse Gas Emissions. In July, the International Plant Nutrition Institute submitted a proposal to revise the nitrous oxide emissions calculations for corn, soybeans and wheat, which was reviewed by the Committee as well as two external scientific experts, resulting in requests for clarification and revision submitted to IPNI in early September. Once the Metrics Committee receives and approves the revision, it will be submitted to the Board of Directors for final approval in 2017.

In addition, the Metric Committee has worked over the past twelve months to explore potential quantitative approaches to the Water Quality and Soil Carbon metrics; continue assessing the need for revisions to the Irrigation Water Use Metrics; and prepare for the integration of the Biodiversity Metric in Fieldprint Platform Version 3.0 by forming a subgroup to inform any improvements that are needed.

In addition, the Committee completed a situational assessment paper the role of commodity crop supply chains in maintaining and improving the health of our nation's soil. Learn more about our findings and recommendations on page 26.

VERIFICATION

The Verification Committee oversees the creation, refinement, and publication of governance and process documents that will enhance the credibility and transparency of Field to Market's program. This includes making recommendations to the Board of Directors and General Assembly on the establishment and revision of participation, measurement and impact claims protocols, as well as the data requirements to support these claims. The committee will also oversee the engagement with third-party verifiers and ensure ongoing compliance with ISEAL requirements.

In April, the Verification Committee finalized the Measurement Claims Protocol, which includes new, standardized forms for registering and reporting for Fieldprint Projects, providing clear guidance on developing plans for grower engagement and risk mitigation as well as a framework for reporting engagement to enable claims verification. Measurement Claims enable Field to Market members to make claims on their engagement of farmers and enrolled acreage in a journey of continuous improvement in their Fieldprint Projects as well as report out on a static, one-year snapshot of aggregate performance of those farmers on specific environmental outcomes.

The Committee is now actively developing the methodology and protocol for Impact Claims, which quantify actual sustained improvements or reductions against Field to Market's outcomesbased metrics, demonstrating an improved trend line and assessing performance for a Fieldprint Project over a minimum of five years. The Impact Claims Protocol will be brought before the General Assembly for approval in 2017. Field to Market has committed to following ISEAL guidelines for transparency, stakeholder consultation, and demonstrated impact and will publish our claims protocol on the Field to Market website after final approval.

MEMBERSHIP STRUCTURE & GOVERNANCE

Fieldprint Project Administrators Network

The Fieldprint Project Administrator Network is made up of project leads from companies and organizations who are actively operating Fieldprint Projects with growers. The network regularly convenes to provide feedback to Field to Market staff; identify key tools and resources that could support implementation, identify and expand partnership opportunities; and share learnings about best practices for engaging growers and accelerating continuous improvement.

Science Advisory Council

The Science Advisory Council provides expert guidance to Field to Market's membership that will ensure best available science is used throughout our program when establishing metrics, as well as measuring, monitoring and reporting on sustainability outcomes. **Meet our Science Advisory Council members on page 28**

Technology Advisory Council

The Technology Advisory Council provides expert guidance to Field to Market's membership on its data and technology needs, with an emphasis on the current and future state of the Fieldprint® Platform. **Get** to know our Technology Advisory Council members on page 30





BUILDING OUR SUPPLY CHAIN SUSTAINABILITY PROGRAM

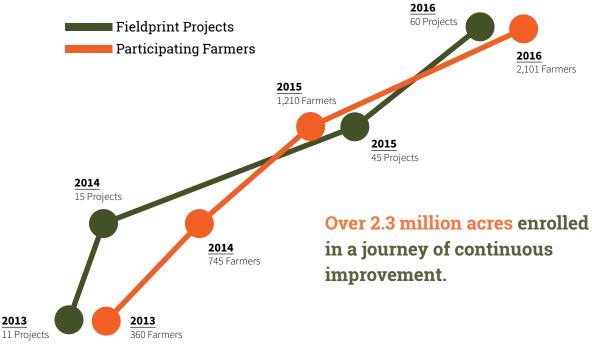
ield to Market's Supply Chain Sustainability Program offers America's farming, food and agriculture industries an essential tool for unlocking shared value for all stakeholder—a common framework for sustainability measurement that farmers and the supply chain can use to better understand and assess performance.

Our program provides an unparalleled platform that helps the food and agricultural supply chain benchmark sustainability performance, catalyze continuous improvement and enable brands and retailers to characterize the sustainability of key sourcing regions as well as measure and report out on progress against environmental goals.

Program Growth

Since the formation of pilot Fieldprint Projects in 2013 and the creation of our Supply Chain Sustainability Program in 2014, Field to Market has seen continued growth and convergence around our program as a trusted solution for helping farmers and the supply chain to measure sustainability performance and identify opportunities for continuous improvement.

To support these projects and help scale engagement in our Supply Chain Sustainability Program, Field to Market's Board of Directors formalized a permanent structure with four standing committees in June 2016 to produce key deliverables that are key to ensuring the program's success and ability to scale.





ENGAGING FARMERS ON A JOURNEY OF CONTINUOUS IMPROVEMENT

A Young Farmer Takes Up the Mantle of Sustainability

tewarding the health of the soil and surrounding environment is a legacy that has been passed down for generations in the Milligan family. While sustainability is not new to the farm, Mike Milligan, 23, — a fourth generation farmer with 4,000 acres of wheat, edible dry beans, corn, and soybeans—

> is committed to advancing his family's sustainability legacy. Like many young farmers, Mike recognizes his responsibility to continue the great sustainability work conceived by generations of farmers before him. He is focused on improving the conservation systems established by his father and grandfather using new technologies and agricultural techniques that enhance his stewardship of the land.

After graduating from Purdue University in 2015, Mike returned to his family's farm in Cass City, Michigan, equipped with skills to manage the production, financial, marketing, and management strategies for the farm. Mike has

been exploring new management practices that reduce the farm's overall environmental footprint, particularly in regard to improved soil health, decreased greenhouse gas emissions,

for Mike, the role of the modern farmer extends beyond his physical duties in the fields. Mike believes farmers have a responsibility to educate consumers about where their food is coming from and how it is being produced.

and efficient management of nutrients. Although

Conservation has always played an important role on the Milligan farm. For years, Mike and his father David Milligan, a farmer with more than 40 years of experience, have been practicing three



sustainability benefits to the farm, especially in the area of soil health. One of the most prevalent conservation practices across the Milligan farm is a rotation of frost seeding clover as a cover crop, which helps protect the productive capacity of the ecosystem.

"By building organic matter and helping the soil, we are securing our soil health for the rest of our

— MIKE MILLIGAN. 5th Generation Farmer Cass City, Michigan

"The Fieldprint

Platform is dual

and gives you an

easy way to look at

indicators like carbon

footprint. But I would

say the biggest benefit

is just having some

yourself against."

benchmark to gauge

purpose. First, it is a

good way to visualize

how you're performing,

lifetimes and down the line," explained Mike.

In 2015, Mike began to explore how he could advance the farm's sustainability practices even further and joined the Kellogg's Origins™ Great Lakes Wheat Fieldprint Project. As part of the program, Mike started using the Fieldprint® Platform to measure his sustainability performance in order to generate a more comprehensive assessment of his farm's environmental footprint. The data derived from the Fieldprint Platform has given Mike a way to track continuous improvement on sustainability indicators and monitor the efficiency of the sustainability practices he utilizes to assess what is working and where opportunities for advancement may exist.

"The Fieldprint Platform is dual purpose. First, it is a good way to visualize how you're performing, and gives you an easy way to look at indicators like carbon footprint. But I would say the biggest benefit is just having some benchmark to gauge yourself against. You can see how you're performing compared to other farmers and use the data to track your improvement," emphasized Mike.

Although Mike is early in his journey of stewarding the family farm's legacy, he is already providing a fresh take on how to improve the farm's environmental footprint. Learnings from the Fieldprint Platform have inspired Mike to

examine new conservation practices beyond the Milligan's conservation efforts with crop rotations and cover crops. He is currently exploring the use of conservation tillage to increase erosion resistance and organic matter inputs.

"Since I graduated college two years ago, I've started looking at switching the wetter fields to strip-tillage to save moisture in the summer," said Mike. "Strip-tillage means lower rates of refertilization and fertilization use efficiency for each crop. As long as you can incorporate strip-till with the path you were already making across the field, the result will be better fertilizer replacement, ultimately decreasing the carbon footprint and cutting back on tillage costs."

Mike encourages farmers to use their learnings from data measurement tools such as the Fieldprint Platform to demonstrate for consumers how innovation and technological advancements are helping improve the farm's efficiency and sustainability.

"The Fieldprint Platform gives us another way to look at benefits and explain your sustainability performance. See if you can improve your yield and your economic possibilities while you're increasing environmental benefits to the farm," emphasized Mike. "The consumer drives agriculture and what we do. This is one step towards giving ourselves some sort of feedback and interaction with the consumer at the farm level."





ENGAGING FARMERS ON A JOURNEY OF CONTINUOUS IMPROVEMENT

Two Brothers Invest in Sustainability by Pioneering New Technologies and **Conservation Practices**

n the Beske Farm in Fox Lake, Wisconsin, innovation and technology are driving sustainable agriculture and continuous improvement. Brothers David and Kevin Beske are third generation farmers with a shared passion for sustainability and farming their 1,000 acres of field corn, sweet corn, soybeans, wheat, peas, and lima beans.

"We grew up on the farm," explained Kevin. "Our dream was always to have our own farm. When a farm came up for sale and my dad had some of his land for rent, we got started farming together."

Twenty-five years later, the Beskes are carrying on their family's farming tradition and

collaborating with their customers downstream on sustainability initiatives that will preserve their land for future generations.

"Sustainability isn't something new. Being the third generation on our farm, we want to sustain the farm and we care about the past, present, and the future," said Kevin. "Our land is our bread and butter, and it's not all about profit, of course we must remain economically viable to stay in business, but we certainly care for the farm's ecological health in the long-term."

In October of 2014, the Beskes embarked on a journey to advance their path towards sustainability and continuous improvement by







enrolling in the inaugural Central Wisconsin Fieldprint® Project in collaboration with a downstream customer: General Mills.

The majority of the dry-milled corn General Mills uses in their popular breakfast cereals comes from Midwestern farmers like David and Kevin. To secure a sustainable corn supply for consumers, several farmers in this region are working to document and demonstrate continuous improvement utilizing Field to Market's Fieldprint® Calculator.

"The Fieldprint Calculator has been very valuable for us," described Kevin. "I would say it is like having another helpful tool in your tool box."

After their first year of participation in the Central Wisconsin Fieldprint Project, the Beskes gained valuable insight from their experience working with partners downstream and the analysis generated by the Fieldprint Calculator. By assessing areas for improvement, the Beskes discovered there was an opportunity for technological advancement on the farm.

The brothers decided to take a big step towards reducing their impact on environmental indicators by investing in precision agriculture. The new

innovations on the Beske farm included a John Deere Greenstar GPS system and an upgrade to their corn/soybean planter from an 8-row planer to a 24-row planter. The John Deere technology helps the Beskes precisely target specific locations when tilling, planting, and applying fertilizer, ultimately reducing overall management use.

"By supplementing data from the Fieldprint Calculator with the John Deere program technology we can get a look at the bigger picture of our sustainability efficiency and make better decisions on inputs like fertilizer and seed," Kevin emphasized.

The implementation of the 24-row planter has reduced the amount of fuel needed to plant crops by half, and the amount of time and number of trips across the field by two-thirds. As a result, the Beskes have reduced their energy use and carbon footprint when compared with their previous management practices.

David and Kevin recognize
agricultural sustainability as a
spectrum of continuous improvement, and
that there is always more they can learn not
only in terms of innovative technology, but also
different conservation practices. They have
applied learnings from the Fieldprint Calculator to
measure the impact of oats and winter wheat as
cover crops on mitigating soil erosion.

"Cover crops are something we are still learning about and how they are influencing our operations, but I think the use of cover crops and crop rotation has helped a lot with soil health on our farm," said Kevin.

"The Fieldprint®
Calculator has been
very valuable for us.
I would say it is like
having another helpful
tool in your tool box."

— **KEVIN BESKE**3rd Generation Farmer
Fox Lake, Wisconsin





INFORMING FIELD TO MARKET'S SCIENCE-BASED AND DATA DRIVEN APPROACH

The Role of Commodity Crop Supply Chains in Maintaining and Improving the Health of Our Nation's Soil

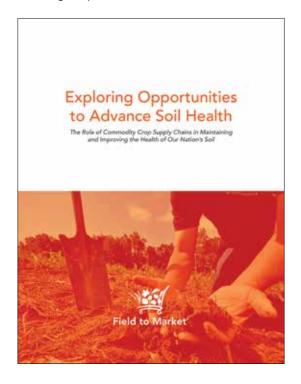
n November 2014, Field to Market's membership adopted programmatic goals that directed the Metrics Committee to conduct an assessment of what the Alliance can do in order to further overall maintenance and improvements to soil health. Field to Market members have since engaged with ongoing soil health efforts to identify opportunities for

Field to Market members have since engaged with ongoing soil health efforts to identify opportunities for collaboration in development of consistent and complementary efforts to achieve this goal.

collaboration in development of consistent and complementary efforts to achieve this goal. A key outcome of this work resulted in the culmination of a white paper released in June 2016 to assess the current situation of the science of soil health; better under the efforts of the conservation community and related research; and explore the relationship to Field to Market's ongoing efforts.

Exploring Opportunities to Advance Soil Health reviews the current sustainability metrics in use by Field to Market and assesses how they are related to key soil health measures and indicators. The current Fieldprint® Platform contains soil specific metrics (Soil Conservation

and Soil Carbon) that can be used to begin a conversation within supply-chain partnerships about the importance of maintaining soil and reducing the potential for soil carbon losses.



Appropriate interpretation and guidance on practices related to these metrics can begin to improve the understanding of soils in specific farms and fields, and encourage soil health enhancing practices.

The findings of this review highlight how the science of soil health and sustainability is a vibrant area of research, which holds great promise for changes in agricultural land management that can improve, restore and protect our nation's soil resources for longterm sustainable agricultural production. The opportunity presented by improved soil health is a promising development for advancing sustainable agriculture, and we are in a dynamic time of exploration and understanding of how to develop the science and testing of soil health that can lead to practical recommendations for agricultural management. What is clear is that recommendations need to be carefully constructed, taking into account scientific understanding of inherent soil properties, fieldspecific characteristics and soil health goals.

For Field to Market, the existing set of sustainability metrics measured in the Fieldprint® Platform can be applied with a focus toward soil health by building better interpretation of the outcomes and guidance on how specific soil health practices may be manifested in Fieldprint® Analyses. In addition, we are exploring further refinement of the Soil Carbon Metric to reflect the best available science and modeling approaches



for measuring this key soil health indicator. The Alliance will continue to engage with the soil health research, testing and implementation efforts underway and monitor scientific developments for opportunities to improve existing metrics and develop new metrics.

Field to Market is committed to working to advance our understanding of soil health and sustainability interactions, while also collaborating with aligned efforts where our program can assist in furthering the science, measurement and understanding of soil health. Similarly, we encourage our membership and supporters to engage in efforts to advance soil health research, promote soil health testing efforts, and support research on the connections between soil health, conservation practices, and sustainability outcomes.





INFORMING FIELD TO MARKET'S SCIENCE-BASED AND DATA DRIVEN APPROACH

Twelve Scientific Experts Form New Advisory Council with Field to Market to Shape the Future of Sustainability Measurement

ield to Market launched a Science Advisory Council in June 2016 to inform our sciencebased approach to delivering sustainable outcomes at the field and landscape levels. Twelve leading experts from the scientific community have agreed to lend their knowledge and expertise to guide Field to Market's staff and diverse membership as they continue to develop the sustainability standard for U.S. commodity crop production that catalyzes continuous improvement in environmental outcomes.

Field to Market's Science Advisory Council is comprised of the following members:

- Ed Barnes, senior director, Agriculture and Environmental Research, Cotton Incorporated;
- Bruno Basso, professor, Department of Earth and Environmental Sciences, Michigan State University;
- Marlen Eve, national program leader, U.S. Department of Agriculture Agricultural Research Service;
- Sasha Gennet, senior scientist, The Nature Conservancy;
- Patricio Grassini, assistant professor,

University of Nebraska-Lincoln;

- Marty Matlock, executive director, Office for Sustainability, University of Arkansas;
- Eileen McLellan, senior scientist, Ecosystems Program, Environmental Defense Fund;





- **Cliff Snyder**, nitrogen program director, International Plant Nutrition Institute;
- Ed Spevak, curator of invertebrates, St. Louis Zoo:
- Mark Tomer, research soil scientist, USDA's National Laboratory for Agriculture and the Environment;
- Chris van Kessel, distinguished professor,
 Department of Plant Sciences, University of California – Davis; and
- **Tristram West**, senior technical advisor, U.S. Department of Energy

"As Field to Market continues to refine and expand our Supply Chain Sustainability Program in the U.S., we are committed to developing greater involvement from and connections with the scientific community," said Rod Snyder,

president of Field to Market. "This Council strengthens Field to Market's science-based approach by providing expert guidance on complex sustainability issues of importance to the entire food and agricultural supply chain."

A core principle for Field to Market's multi-stakeholder membership is to ensure its approach to measuring, monitoring and reporting on environmental outcomes is grounded in the best available science.

"These Council members bring together a wide range of expertise, leadership and experience in academic disciplines and research topics most relevant to Field to Market's sustainability metrics," said Allison Thomson, Field to Market's science and research director.

"We're thrilled to have these experts provide independent, science-based guidance to our team and our more than 100 members as we continue to refine our science."

members as we continue to refine our sciencebased approach and scale our program."

Field to Market's program centers around

science-based metrics for environmental sustainability that focus on outcomes within a grower's control: Biodiversity; Energy Use Efficiency; Greenhouse Gas Emissions; Land Use Efficiency; Soil Carbon; Soil Conservation; Water Quality; and Water Use Efficiency.

"We're thrilled to have these experts provide independent, science-based guidance to our team and our more than 100 members as we continue to refine our science-based approach and scale our program."

ALLISON THOMSON
 Field to Market's science
 and research director





INFORMING FIELD TO MARKET'S SCIENCE-BASED AND DATA DRIVEN APPROACH

Harnessing Big Data & Science-Driven Technologies to Take Field to Market's Program to the Next Level

n August, nine experts in big data and sciencedriven technologies agreed to join Field to Market's Technology Advisory Council to provide important guidance and counsel to Field to Market's Board of Directors and staff as we consider the future of the Fieldprint® Platform, moving beyond an educational tool to evolve Field to Market's computational capability up to a standard that can accomplish the ambitious goals set by our membership. In November, two additional experts joined the Council, adding to the wide array of expertise in disciplines and topics such as: agronomic models, data management, data privacy, data security, precision agriculture, software architecture, software development, technical infrastructure, and sector-specific insights.

Field to Market's Technology Advisory Council is comprised of the following members:

- Brian Buege, technology manager, Cool
- Jack Carlson, director, Object Modeling System Lab, Colorado State University;
- Aaron Hunt, VP of product management, Agrian;
- Harley Janssen, services application manager, DuPont Pioneer;

- Kevin Krieg, software business segment manager, John Deere;
- Ananth Krishnan, senior manager, business architecture, Land O'Lakes, Inc.;
- Robert Parkhurst, director of agriculture greenhouse gas markets, Environmental Defense Fund;





- **Jeff Peters**, director of sustainability and partnerships, Agrible;
- **Brandon Sharp**, senior software developer, AgConnections;
- Randy Stauffer, sustainable agriculture consultant, Illinois Corn Growers Association; and
- Matt Waits, CEO, SST Software

"Ensuring that the Fieldprint Platform, the cornerstone of our Supply Chain Sustainability Program, continues to evolve with the constantly evolving technology landscape is vital to our success," said Rod Snyder, president of Field to Market. "This Council brings guidance and expertise on a range of important issues including best practices for platform integration with other

tools and software; development of new features and functionality for the Fieldprint Platform; usability improvements; and best practices related to data storage, aggregation,

Field to Market's Board of Directors has approved the development of the next generation of the Fieldprint Platform (Version 3.0) in 2017 to include cross-cutting improvements in areas like visual design, usability, architecture, extensibility, reliability, data quality, performance, interoperability and integration.

reporting and privacy."

"These Council members will help Field to Market embark on the next generation of our technology platform, which will provide a versatile, advanced architecture that supports multiple modes of data entry; integrates fluidly with other software and modeling tools; and provides data analysis to support the assessment of sustainability trends and verification of claims," said Paul Hishmeh, data and technology director of Field to Market. "We are excited to collaborate with these experts to harness the power of big data and science-driven technologies to take

"These Council members will help Field to Market embark on the next generation of our technology platform, which will provide a versatile, advanced architecture that supports multiple modes of data entry; integrates fluidly with other software and modeling tools; and provides data analysis to support the assessment of sustainability trends and verification of claims."

PAUL HISHMEH
 Data and technology director of Field to Market.





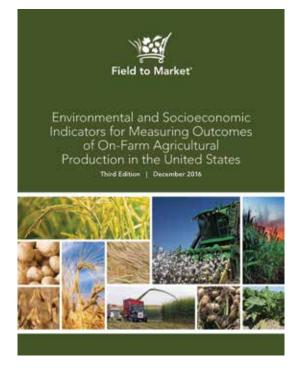
INFORMING FIELD TO MARKET'S SCIENCE-BASED AND DATA DRIVEN APPROACH

Report Highlights Sustainability Trends in U.S. **Commodity Crop Production** and Calls for Collective Action from Farmers and the Supply Chain to Drive Continued

Improvements

ommodity crop production in the United States continues to demonstrate improved environmental outcomes in energy use efficiency, irrigation water use efficiency, greenhouse gas emissions, land use efficiency, and soil conservation, while opportunities exist for key advancements into the future finds the third edition of Field to Market's National Indicators Report. Publishing in December 2016, the report analyzes eight environmental indicators and five socioeconomic indicators for ten crops (barley, corn for grain, corn for silage, cotton, peanuts, potatoes, rice, soybeans, sugar beets, and wheat) over a 36-year period at a national level.

"The sustainability of commodity crop production is a complex topic with a multidimensional set of environmental and



socioeconomic variables influencing outcomes," explained Allison Thomson, science and research director at Field to Market and lead author of the report. "By bringing together the best available data and science, in addition to input from a diverse group of experts, Field to Market seeks to provide a comprehensive picture of U.S. agriculture's sustainability performance over the past three and a half decades through a science-driven, outcomes-based approach."

Overall, the report finds promising results for the sustainability of commodity agriculture, with all crops demonstrating improved environmental outcomes with nearly every key indicator. This significant progress toward more sustainable food, feed, fiber, and fuel production is a result of a variety of factors including voluntary conservation efforts by farmers, public sector investments, and technological innovation across the agriculture industry.

However, the report also highlights that long-term improvements are plateauing for several crops within the past five to ten years, presenting both a challenge and opportunity for the food and agriculture industry. This underscores the critical need for continued conservation investments, research, technological development and collective action from farmers and the food and agricultural supply chain to ensure continued improvements on challenging and pressing sustainability concerns.

"At the core of these sustainability trends and improvements are millions of individual decisions made by farmers and land managers each day. By analyzing the aggregate impact of these

decisions, this report underscores the critical role that farmers play in achieving improvements and delivering sustainable outcomes for agriculture and the environment," shares Rod Snyder, president of Field to Market.

"But there is more to be done; we recognize that this national assessment provides an opportunity to focus the efforts of the food and agricultural value chain to drive improvements where they are needed most. Field to Market remains committed to providing practical tools and resources underpinned by science-based metrics to help farmers and the supply chain continue to identify opportunities for improvements at the field and landscape level," concluded Snyder.

In addition to assessing sustainability performance by crop, the 2016 National Indicators Report also includes for the first time a national trends analysis for Biodiversity, Soil Carbon, and Water Quality. Due to lack of sufficient data and the nature of these environmental outcomes, it is not possible to calculate a national trend line by respective crop. The report finds that while limited trends can be discerned from available reports and scientific literature, translating these trends into actionable insights would require additional data and advances in scientific research. This edition of the report also provides an update on socioeconomic trends analyzed in previous editions. For more information on the report's findings or to explore specific crops or indicators in greater detail, please visit: www.fieldtomarket.org/report.

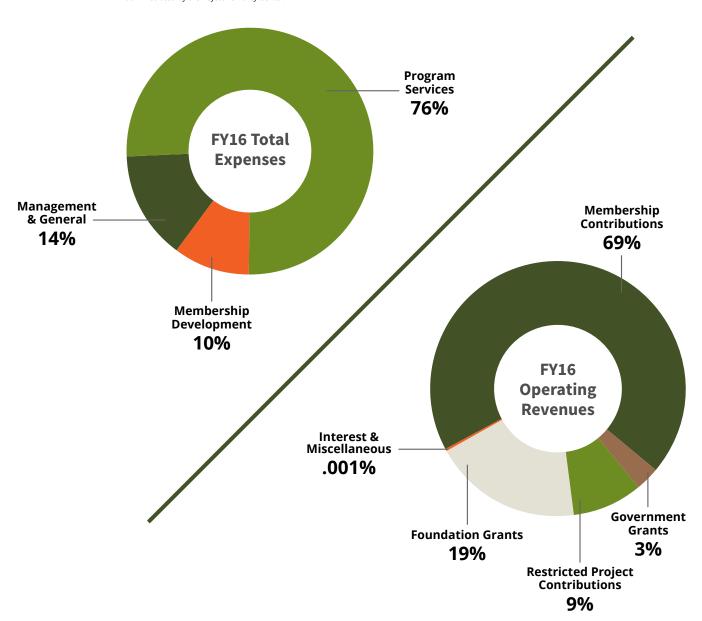


2016 FINANCIALS

he financial results depicted here are derived from Field to Market's audited December 31, 2016, consolidated financial statements, which contain an unqualified audit opinion. Field to Market's complete, audited financial statements can be obtained online at fieldtomarket.org/annualreport or by calling 202-540-8023.

The total revenue in 2016 was \$2,714,543 The total expenses in 2016 amounted to \$2,983,8451 At the end of 2016, total cash in the bank account was \$847,960

¹The Audited Accounts show an operating deficit that is attributable to the divestiture of the Midwest Row Crop Collaborative program, which is now being administrated by the Keystone Policy Center.



Combined Statement Of Activities And Changes In Net Assets

FOR THE YEAR ENDED IN DECEMBER 31, 2016

REVENUE AND SUPPORT:	Unrestricted	Temporarily Restricted	Total
Membership Contributions	\$1,870,000	\$-	\$1,870,000
Grants and Sponsorships	13,745	497,800	511,545
Contributions from Midwest Row Crop Collaborative	-	250,000	250,000
Government Grants	79,990	-	79,990
Interest	508	-	508
Miscellaneous	2,500	-	2,500
Net Assets Released from Restrictions	1,312,621	(1,312,621)	-
TOTAL REVENUE AND SUPPORT	\$3,279,364	\$(564,821)	\$2,714,543
EXPENSES:			
Program Services:			
Membership and Communications	\$331,589	\$-	\$331,589
Information, Communications and Engagement	318,016	-	318,016
Metrics	403,079	-	403,079
Midwest Row Crop Collaborative	765,818	-	765,818
NRCS Metrics Alignment	159,979	-	159,979
Technology	369,937	-	369,937
Verification	173,918	-	173,918
Total Program Services	2,522,336	-	2,522,336
Management and General	461,509	-	461,509
TOTAL EXPENSES	\$2,983,845	\$-	\$2,983,845
CHANGE IN NET ASSETS	\$295,519	\$(564,821)	\$269,302
	250 201	0.47.071	1 117 202
NET ASSETS: BEGINNING OF YEAR	269,291	847,971	1,117,262

LOOKING AHEAD



ith all that we accomplished in 2016, we look forward to what is sure to be another watershed year for Field to Market as we transition from designing our Supply Chain Sustainability Program to scaling and implementation.

- Finalizing verification protocols for Impact Claims that will help to enable and support the measurement and reporting of sustained improvements in key sustainability outcomes
- Creating a new Fieldprint Platform to deliver sustainability metrics and algorithms at a larger scale than ever before while offering improved analysis and user experience
- Announcing formal agreements with qualified data management partners who have integrated the Fieldprint Platform into existing farm management and precision agriculture software
- Achieving greater harmonization and alignment with other sustainability standards to continue movement toward a coordinated and comprehensive approach to sustainable agriculture in the U.S.
- Advancing updated sustainability metrics for greenhouse gas emissions and water quality that incorporate best available science
- Launching an annual awards program to highlight farmers and supply chain partners that are playing a leadership role in advancing sustainability
- Launching a benchmark database tool to help identify baseline performance by crop and state, helping inform continuous improvement strategies for both farmers and the supply chain
- Forging partnerships with certified crop advisors, ag retailers, state extension agents, conservation districts, USDA Natural Resources Conservation Service and other farmer facing advisors to provide relevant information and support to drive continuous improvement at the landscape level
- Doubling engagement in Field to Market's Supply Chain Sustainability Program With the continued support of our members and partners, we are confident that we can accomplish these initiatives and so much more. Together, we are shaping the future of supply chain sustainability for agriculture in the U.S.

Board Of Directors

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JENNIFER SHAW

Head of Sustainable Solutions in North America Syngenta Agribusiness

JUN ZHU

Director of Waste Management Center for Agricultural and Rural Sustainability, University of Arkansas **Affiliate**

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Thank You

Field to Market would like to express our sincere thanks to our members and funding partners who have generously invested in our work over the past year. Through their support, we continue to advance and scale sustainable outcomes for U.S. agriculture.















