

GROWING BETTER TOGETHER

MONSANTO 2016 SUSTAINABILITY REPORT



WORKING TOGETHER, it's well within our reach. A place where all people have access to balanced meals and better tomorrows. A healthy planet that can nourish and sustain all forms of life. But getting there means taking on major challenges that no one can overcome alone.

As we take decisive action and continue to embed sustainability into our business, we also work with collaborators and partners to cultivate meaningful change. From the planting of ideas to the harvesting of results, we're striving to make sustainable agriculture a positive force. Not just for today, but for generations to come.



FROM THE CHAIRMAN

No one knows better than farmers that the land that feeds us belongs to more than just our generation. We pass it along to future generations with the goal of leaving it in better shape than when we arrived.

The same holds true for the communities and relationships that root our many cultures and foster our common growth.

At Monsanto, that makes our mission simple: Provide tools for farmers to help nourish the growing global population and help preserve the Earth for all who share it – people, plants, wildlife and communities.

It's an understatement to say 2016 was a difficult year in the agriculture business. Long-term demand for crops continues to rise with the growing population. But our business faced significant economic headwinds and had to exercise an abundance of financial discipline last year to deliver the level of innovation our customers need.

That's one of the reasons I'm proud to bring you Monsanto's 2016 Sustainability Report. Despite those headwinds, the company did not let up on our long-term commitments to the environment, to human rights and to the communities where we live and work.

One of those commitments has been to help our industry mitigate and adapt to climate change with the goal of freezing or reducing agriculture's carbon footprint. In fiscal year 2016, we pledged to work with farmers on climate-smart agriculture systems and to make our own operations carbon neutral by 2021. I'm encouraged by the progress we've made, sharing information and data modeling with farmers and investing in a collaborative initiative to help provide tools that measure greenhouse gas reductions from carbon-smart farming practices.

No resource on Earth is more valuable than its people. That's why we've invested in a global approach to education, community health and on- and off-the-job safety. We also continue to encourage students in many of the communities where we do business to pursue careers in science, technology, engineering and math in order to build a strong pipeline of talented innovators for the future.

In the area of food and nutrition security, Monsanto continues to participate in multi-stakeholder initiatives like Water Efficient Maize for Africa (WEMA), which is developing drought-resistant corn seeds, and regional efforts like Grow Asia and Grow Africa, established by the World Economic Forum. In the United States, we are a founding partner of Invest an Acre, which helps farmers donate a portion of their crop proceeds – matched by Monsanto – to fight hunger in their local communities.

To promote biodiversity, we finalized our position in 2016 on biodiversity and an accompanying strategy that aligned with the United Nations Convention on Biological Diversity, as well as with the needs of farmers. We continue to invest in understanding healthy soils and the farming practices that promote them through the Soil Health Partnership, and to play an active role in supporting organizations that seek to understand and promote the health of pollinators, including the Honey Bee Health Coalition.

All of these efforts are aimed at sustainable intensification – using innovation to grow the

food our world demands with more efficient use of land, water and other resources.

We were pleased to be recognized again in 2016 as one of the world's most sustainable companies in *Newsweek's* Green Rankings. But sustainability is a matter of continuous effort and improvement, as reflected in the United Nations 2030 Agenda and the Sustainable Development Goals. As a signatory to the United Nations Global Compact, we look to the Compact's principles on human rights, labor, the environment and anti-corruption practices to inform our decisions and guide our actions. Our United Nations Global Compact Communication on Progress is in accordance with the Global Reporting Initiative and reflects our work to contribute to the attainment of the Sustainable Development Goals.

Most importantly, we approach sustainability as a long-term, collaborative effort. In 2016, we entered into an agreement to be acquired by Bayer. My enthusiasm for this combination rests in part on the belief that Bayer shares our understanding of the world's

sustainability challenges and agriculture's unique position to help address them.

No single company or industry can tackle these challenges alone. Working together, however, we can create sustainable solutions for the world's future generations. We saw measurable progress and a renewed commitment to our goals in 2016, and we look forward to continuing to provide sustainable solutions that help farmers feed our growing world.

Sincerely,



Hugh Grant
Chairman of the Board
and Chief Executive Officer



EXECUTIVE SUMMARY

MONSANTO'S APPROACH TO SUSTAINABILITY

Sustainability is firmly embedded in our core business strategy, operations and products as evidenced by our continued progress against our goals and commitments and alignment with the United Nations Sustainable Development Goals. We will continue to develop best in class innovations and demonstrate our commitment to sustainability through our products, processes and partnerships that advance sustainable agriculture.

We embrace continuous improvement as the path forward to become a more sustainable company.

As we look back on our progress over the last year, our efforts can be categorized in three broad areas:

PEOPLE, **PLANET** and our **COMPANY**, as summarized in the following pages.

Our approach encompasses these key principles:

- Act Ethically and Responsibly
- Advocate for Biodiversity
- Advance Product Stewardship
- Create a Great Work Environment
- Drive Modern Agricultural Innovation
- Engage Communities and Society
- Foster Collaboration and Transparency
- Improve Global Food and Nutrition Security
- Reduce Our Environmental Impact

TRACKING WITH THE SUSTAINABLE DEVELOPMENT GOALS

Monsanto recognizes the critical role that business must play in reaching the UN Sustainable Development Goals (SDGs). As a company focused on agriculture and feeding the world, our work contributes in some way to each of the 17 goals. We have mapped our material topics against the SDGs and determined our alignment. See Page 20 for more details, as well as the table on Page 107.



PEOPLE

Helping make balanced meals more accessible for everyone on the planet and improving lives for farmers, employees, consumers and communities.

Helping to Ensure Food and Nutrition Security

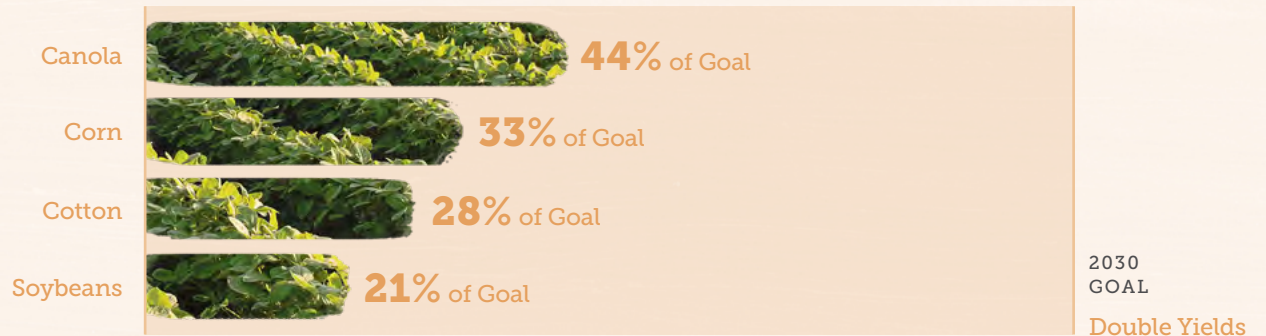
- Between 2013 and 2016, more than 70 conventional DroughtTEGO™ hybrids were approved for commercial release in a number of African countries as part of the Water Efficient Maize for Africa (WEMA) initiative, a multi-stakeholder partnership that aims to improve food security and livelihoods among smallholder farmers.
- In Vietnam, Monsanto collaborated with the government to train 5,000 rice farmers on corn planting techniques to improve their livelihoods; participating farmers converted 2,200 hectares from rice to corn within three months.
- The Monsanto Fund pledged to fund a series of global initiatives to help fight malnutrition among women and children.

FOOD SECURITY GOAL: IMPROVE HARVESTS

Help farmers double yields by 2030 from 2000 levels for canola, corn, cotton and soybeans.

Based on population growth predictions, Monsanto made a commitment in 2008 to develop improved seeds and agronomic practices to help farmers double yields by 2030 from 2000 levels for canola, corn, cotton and soybeans in countries where farmers have access to the full complement of tools for these crops, including plant breeding, biotechnology and agronomic management.

According to the United States Department of Agriculture Foreign Agricultural Service, significant progress has been made against these aggressive goals, especially in countries of high technology adoption.



Yield-gain percentages are based on a three-year rolling average. Data source: USDA Production, Supply and Distribution View and analysis by Monsanto. Note: Progress against the cotton goal dropped somewhat from the previous three-year rolling average due to less water availability for irrigation in two key growing regions. For more information on this goal, see [Our Commitments to Sustainable Agriculture](#) white paper.

FARMER LIVELIHOODS GOALS

Improve the lives of 5 million resource-poor farm families by 2020.

4.2M Smallholder Farmers Adopting Biotech

\$50B in Additional Net Income Since 2008 as a Result of Technology Adoption*

Based on global meta-analysis data compiled by ISAAA.

**Past Monsanto reports included annual income increases, which fluctuate year over year. We have now moved to reporting on a cumulative basis.*



Reaching out to Communities

- We are encouraging students to learn more about and pursue careers in science, technology, engineering and math (STEM) by supporting student groups and initiatives like Planet Forward, Net Impact and *FIRST* Robotics.
- The Monsanto Fund continues to make a positive impact in rural America through the America's Farmers community outreach programs, awarding mostly education-related funding in excess of \$36 million across the United States since 2010.
- Over the last several years, our Off-the-Job-Safety efforts around the world have reached nearly 2.1 million people through in-person safety events. In 2016, we reached millions more through new social media efforts in India and the United States, including a new partnership with the Red Cross.

Improving Lives for Our People

- We've built leadership exchange programs that empower selected employees across our global business to accelerate their professional development. In 2016, 299 hand-selected leaders from our company around the world participated at local, regional or global levels.
- As a company, we continue to leverage the power of inclusion and diversity. In 2016, we added inclusion as a metric in our leadership assessment tool.
- We continue to maintain an excellent employee safety record and, in 2016, we reduced our injury severity index by 48 percent since 2011.
- In 2016 our Technology group started the Women in Science Exchange. The vision of this initiative is equal presence, leadership impact and recognition of women and men throughout technology.

Forging the Way in Human Rights

- We celebrated the 10th anniversary of the adoption of our formal Human Rights Policy in 2016.
- In 2016, we conducted more than 21,000 assessments of our global business partners on human rights.
- Consistent with our Water, Sanitation and Hygiene (WASH) Pledge, we have begun to improve sanitation conditions in our facilities and nearby communities.
- We joined the Human Rights Campaign Business Coalition for Equality in 2016, a group of leading U.S. employers supporting the Equality Act.

EXECUTIVE SUMMARY

PLANET

Balancing agricultural productivity with societal demands for food, fuel and fiber and with the optimal use of environmental resources through solutions that help farmers grow crops more efficiently.

Mitigating and Adapting to Climate Change

- Monsanto is pursuing a multi-pronged approach to carbon neutrality. We're striving to improve the greenhouse gas (GHG) intensity of our crop protection business, investing in technologies that help us use energy more efficiently. We've established an internal carbon price, and we're developing approaches to increase farmer adoption of carbon neutral crop production.

CARBON NEUTRALITY



Achieve a carbon neutral operational footprint by 2021 and drive carbon neutral practices.

Commissioned third-party expert to quantify potential GHG emission reductions of key on-farm mitigation strategies for agricultural practices; this information and modeling were shared publicly.

Carbon-Neutral Collaborative assembled and commissioned to help develop carbon accounting framework for specific agricultural practices and systems.

RESOURCE CONSERVATION GOAL

Help farmers use one-third fewer key resources per unit of output to grow crops.

Monsanto made a commitment in 2008 to develop improved seeds and agronomic practices that by 2030 would help farmers use one-third fewer key resources than in 2000 per unit of output to grow corn, soybeans and cotton. We recognize these improvements will be made by farmers who utilize new technologies and better management practices provided from a diverse set of collaborators, one of which is Monsanto. Progress against these goals are impacted by weather conditions and revised calculations and data from the USDA's Agricultural Resource Management survey and Natural Resources Inventory.



2000
BASELINE

Source: Monsanto internal estimates. Reflects U.S. results only due to limitations on reliable data elsewhere. Key resources include land use, irrigation water, energy, soil loss and greenhouse gas emissions. For more information on this goal, see [Our Commitments to Sustainable Agriculture white paper](#).

2030
GOAL

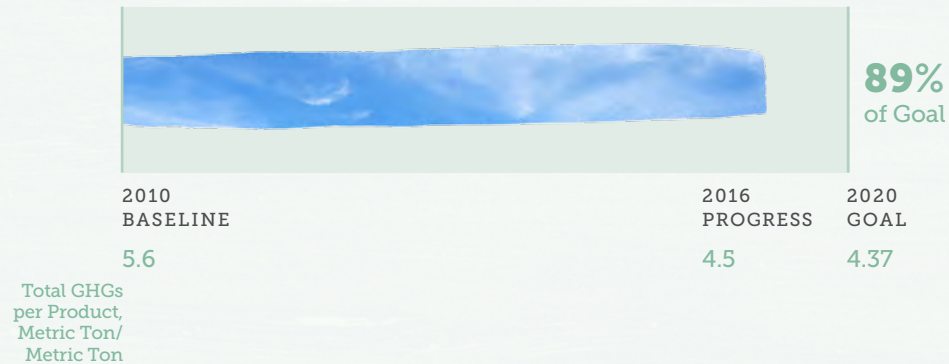
One-third Fewer Key Resources

PLANET

- We're developing a scalable and verifiable carbon accounting framework by assembling and mobilizing the Carbon-Neutral Collaborative, a group with wide-ranging expertise in agricultural greenhouse gases.
- We identified specific sustainable farm practices with the potential of reducing more than 100 million metric tons of carbon dioxide emissions in the United States. This was publicly shared in a commissioned third-party report and concurs directly with the USDA's "10 Building Blocks for Climate Smart Agriculture" plan.
- As a co-chair of the World Business Council for Sustainable Development (WBCSD) Climate Smart Agriculture Working Group, we've moved from planning stages to on-the-ground implementation in several road-test countries to increase the understanding and adoption of climate-smart agricultural practices.

GREENHOUSE GAS INTENSITY

Reduce greenhouse gas emissions from our crop protection operations by 22 percent (per pound of active ingredient) by 2020, relative to our 2010 baseline.



USE NUTRIENTS MORE EFFICIENTLY

Help farmers use nutrients more efficiently and curb greenhouse gas emissions on 1 million acres in the United States by 2020.



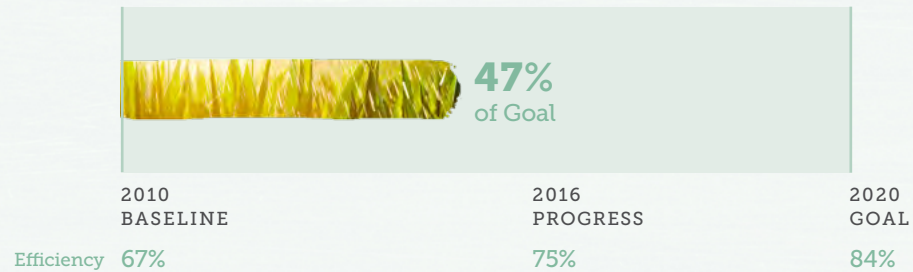
PLANET

Ensuring Access to Fresh Water

- Monsanto is a member of the [UN Global Compact CEO Water Mandate](#) and participated on the Mandate's 2015-16 Steering Committee.
- To enhance the efficiency of our research activities, we are moving certain research activities from the field into state-of-the art greenhouses, which enables us to capture and reuse the water used in irrigating research crops.
- Our commitment to using water more efficiently in our field irrigation operations, as well as on the contract farms that grow seed for our company around the world, has the potential to save an estimated 30 to 80 billion gallons of water each year.
- We share best practices in water management as members of the WBCSD Water Leadership Working Group.

IRRIGATION WATER APPLICATION EFFICIENCY

Increase irrigation water application efficiency across our global seed production operation by 25 percent by 2020, compared to our 2010 baseline.



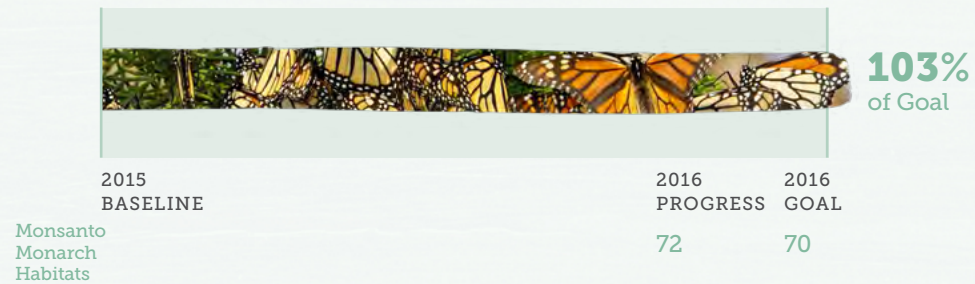
PLANET

Advocating for Biodiversity

- We codified our biodiversity strategy and position in 2016 to better align with the United Nations Convention on Biological Diversity, our business goals and the needs of farmers and society now and in the years to come.
- We continued to protect beneficial species by supporting and contributing to honey bee health research and continuing our commitment of \$3.6 million over three years to the National Fish and Wildlife Foundation's Monarch Butterfly Conservation Fund.
- We continued our work with Conservation International to protect and restore forests, with 17,000 combined hectares* completed. Our multi-year commitment in Indonesia was completed in 2016 and our work in Brazil continues.
- We joined the [Midwest Row Crop Collaborative](#), which committed to raising \$4 million to accelerate the work of the Soil Health Partnership with farmers across the Midwestern United States.

*1 hectare = 2.47 acres

MONARCH HABITAT



100K
Milkweed Plants for Planting Where Quality Habitat is Needed

100K
Farmers Reached with Best Management Practices for Monarch Habitat

Both monarch goals were achieved in fiscal year 2016, and we released funding to supply another 100,000 milkweed plants.

HONEY BEE HEALTH



Establish multi-stakeholder coalition to address declining honey bee health (completed and ongoing). Includes more than 40 organizations across the value chain.

Invest \$3 million in research and development for controlling varroa destructor mites (ongoing; \$4 million invested to date, exceeding original commitment).

COMPANY

Placing high ethical standards, effective corporate governance, responsible product stewardship and transparent reporting at the center of the way we operate our global business.

Corporate Governance

- Our commitment to sustainability starts at the top. The Sustainability and Corporate Responsibility Committee of our board of directors reviews the company's sustainability goals and reporting, and meets periodically with stakeholders.
- In 2016, Dwight M. (Mitch) Barns joined the Monsanto board as part of the People and Compensation and Sustainability and Corporate Responsibility Committees.
- The Center for Political Accountability ranked Monsanto as a tier one company out of 500 companies included on the CPA-Zicklin Index, indicating a high level of transparency regarding political contributions.

Addressing Critical Issues

- In 2016, 22 product and technology stewardship reviews and 253 field trial compliance and trait quality corporate audits were performed globally with corrective action taken where needed.
- We supported the passage of the U.S. federal approach to food labeling that became effective in July 2016.
- We supported the conclusions of numerous regulatory authorities and other organizations that counter the International Agency for Research on Cancer (IARC) classification of glyphosate as a probable human carcinogen and retained an independent consultant to convene an expert panel to review IARC's assessment. The panel's peer-reviewed findings are published in *Critical Reviews in Toxicology*.

Engaging with our Neighbors

- We have Community Advisory Panels at all our chemical manufacturing facilities

around the world to better understand the perspectives and address the concerns of our neighbors.

- Working from a 2015 assessment, in 2016 we established resources for all of our sites to create formal community engagement plans, and we implemented formal plans at 100 percent of our manufacturing sites around the globe.

Enhancing Supply Chain Effectiveness

- By expanding the scope of our assessment outreach to strategic suppliers, we realized a 37 percent increase in the number of responses to our Select Supplier Sustainability Assessment, which evaluates their economic, environmental and social profiles and behaviors.
- We were recognized by the Women's Business Enterprise National Council and highlighted by *Fortune Magazine* in November 2015 for our Supplier Diversity Mentoring Program in the United States.

14

WE ARE MONSANTO

Pursuing a broad range of sustainable agriculture solutions to help nourish our growing world.

31

PEOPLE

Helping make balanced meals more accessible for everyone on the planet and improving lives for farmers, employees, consumers and communities.

58

PLANET

Balancing agricultural productivity with societal demands for food, fuel and fiber and with the optimal use of environmental resources through solutions that help farmers grow crops more efficiently.

85

COMPANY

Placing high ethical standards, effective corporate governance, responsible product stewardship and transparent reporting at the center of the way we operate our global business.

GUEST CONTRIBUTORS AND COMMENTATORS

- 26 Rodney Irwin,
*Managing Director, Financial
Capital Focus Area, WBCSD*
- 38 Zhenie Velasco,
*Registered Nutritionist Dietitian &
Associate Professor, Philippines*
- 41 Keith and Sue of Richland County,
*Ohio (on Monsanto Fund donation
to local 4-H committee)*
- 47 Luke Visconti,
*Founder and CEO,
DiversityInc*
- 60 Debbie Reed,
*Executive Director,
Coalition on Agricultural
Greenhouse Gases*
- 63 Amy Braun,
*Sustainability Director,
Kellogg Company*

*Chris Brown,
Vice President, Environmental
Sustainability, Olam International*

*Jenny Bell,
Europe Sustainability Risk and
Impact Manager, PepsiCo Europe*
- 72 Todd Hogrefe,
*Director, Central Region,
National Fish and Wildlife Foundation*

WE ARE MONSANTO

We are more than 20,000 employees from around the world committed to pursuing a broad range of sustainable agriculture solutions to help nourish our growing world.

We produce seeds for fruits, vegetables and key crops – such as corn, soybeans and cotton – that help farmers have better harvests while using water and other important resources more efficiently. We work to find sustainable solutions for soil health, help farmers use data science to improve farming practices and conserve natural resources, and provide crop protection products to minimize damage in the field from pests and disease.

Through programs and partnerships, we collaborate with others to help tackle some of the world's biggest challenges. We are a diverse collection of food enthusiasts, moms and dads, innovators, botanists, farmers and problem solvers all striving for the same thing: helping to make balanced meals – of fruits, vegetables and protein – more accessible to all and doing it in a way that helps preserve the planet.

16 OUR PORTFOLIO OF PRODUCTS

- 16 Row Crop Seeds
- 17 Vegetable Seeds
- 18 Crop Protection
- 18 Data Science

19 AGRICULTURAL INNOVATION: OUR APPROACH TO SUSTAINABILITY

- 21 Governing and Managing Our Sustainability Commitment
- 21 Identifying Material Topics
- 26 Integrating Finance and Sustainability
- 27 Working Collaboratively and Transparently
- 28 External Charters and Principles
- 28 Inviting Conversation
- 29 Earning Recognition

2016 Revenue:

\$13.5B

See our [2016 Form 10-K](#) for Complete Financial Information

20K+

 Employees Globally

See our [2016 Form 10-K](#) for Details

ST. LOUIS,
MISSOURI, USA
Global Headquarters

Global Locations with Significant Operations:

350+ FACILITIES
in **62** COUNTRIES





OUR PORTFOLIO OF PRODUCTS

We are dedicated to providing farmers innovative, high-quality crop production products and services. Our seeds, crop protection products and data science offerings are most effective when used in combination as part of an integrated systems approach.

Row Crop Seeds

We develop and deliver systems to enable stronger, more resilient crops that can result in better harvests while using resources more efficiently.

Throughout the history of civilization, plant breeding innovations were made as solutions to problems. For as long as farmers have worked the fields, they understood that in order to survive, they needed plant varieties specifically adapted to their conditions. Plant selection that was initially done by farmers has evolved into the science of plant breeding. Today, plant breeders increasingly understand genetic characteristics and focus on developing plant varieties that have greater tolerance to adverse weather conditions and increased disease resistance over previous generations of crops.


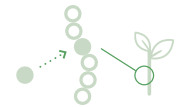




Through scientific development and high-technology applications, we can more quickly and effectively identify and select the seed traits that bring improved attributes to farmers.

The science of plant biotechnology and its products, commonly referred to as genetically modified organisms (GMOs), have helped develop highly effective solutions for farmers. Biotechnology when applied in agriculture and at Monsanto strengthens plant resistance to insects, adverse weather conditions and enables more effective weed control and farming practices that are more sustainable and better for the environment.

Our global row crop seed brands include DEKALB®, Asgrow®, Deltapine®, Agroeste®, Channel®, La Tijereta® and WestBred®, which are complemented by regional and local brands.

THE PLANT BIOTECHNOLOGY PROCESS

- 1  Desired trait of a living organism is identified
- 2  Beneficial trait is introduced into the target plant
- 3  Plant is tested for food and environmental safety and nutritional value
- 4  Plants with the new trait are better able to thrive



More than 98%
of our vegetable research
and development is
in plant breeding.

Vegetable Seeds

We combine plant breeding with modern scientific techniques to create more flavorful and attractive vegetables that can better withstand nature's challenges and provide consumers with visually-appealing, great-tasting vegetables on their plates.

Vegetables that look, feel and taste appealing encourage consumption of these nutritious foods. And vegetables that stay fresh longer can reduce food waste. Some of our seeds produce vegetables with enhanced nutritional profiles. Improved seed offerings are allowing increased opportunity for the farmer, the grocer and the consumer.

More than 98 percent of our vegetable seed research and development is in plant breeding. Currently, two of our vegetable crops include biotechnology innovations: sweet corn and squash. In both cases, these innovations were developed because traditional methods of pest and disease control were not as effective as a biotechnology solution. Our vegetable seed brands include Seminis® and De Ruiter®.



EXPLORING PRECISION BREEDING TECHNIQUES

Monsanto is exploring a wide range of precision breeding techniques, including gene editing, which we believe will offer new tools to drive crop improvements in agriculture through a broad range of solutions that help farmers deliver better harvests. These techniques will enable plant breeders to more effectively and efficiently deliver better seed products, as well as offer plant scientists additional resources to provide new plant biotechnology solutions.

Gene-editing techniques, including CRISPR-Cas, offer a way for scientists to develop targeted integration of specific genes, as well as the opportunity to enhance beneficial plant characteristics or remove undesirable ones. Simply put, the science effectively mirrors the search-and-replace function in word processing applications. We are currently exploring the potential application of this and similar innovative techniques in the development of seed products, which would complement the existing suite of research and development tools that we use today. Gene editing represents a promising application of science and is one of many enabling technologies that will help drive innovation for agriculture in the coming years.



Crop Protection

At any stage, seeds, plants and crops are at risk from insects, weather, poor soil conditions, weeds and disease. We work to create sustainable solutions to help protect plant health and minimize environmental impact.

Our current crop protection offerings include Roundup® branded agricultural herbicides, Warrant®, Harness® and Harness® Xtra branded herbicides and the Acceleron® family of seed applied solutions. Our Agricultural Biologicals platform includes understanding, applying and precisely deploying microbes and other products to enhance soil and plant health. As part of the BioAg Alliance with Novozymes and through our own BioDirect™ technology research pipeline, we use naturally occurring processes and microbes to help protect plants, increase nutrient uptake and to control weeds, insects and viruses.

Data Science

We offer an integrated operating system to support farmers' agronomic decisions with real-world data to help them optimize productivity, profitability and sustainability.

The Climate Corporation, a subsidiary of Monsanto, offers the Climate FieldView™ platform, an integrated platform that helps farmers sustainably increase productivity and efficiency with digital tools. The platform brings together data science, predictive analytics, integrated seed science, field science, local weather monitoring and data modeling to develop customized insights both by field and in specific locations within a given field. In addition to helping farmers have better harvests, these insights provided by Climate FieldView™ enable them to improve profitability by making better informed decisions and by using resources more efficiently. It's good for the farmer and the environment.





AGRICULTURAL INNOVATION: OUR APPROACH TO SUSTAINABILITY

Our commitment to sustainability is embedded in our core business strategies. Our continued improvement in operations and investment in innovative products is evidence of our progress against our sustainability commitments. We are focused on how Monsanto can contribute to the 2030 Development Agenda of the United Nations and advancement of the Sustainable Development Goals (see Page 20). Driving sustainable agriculture requires a wide range of systematic approaches and an understanding of how to optimally use resources. At Monsanto, we employ modern agriculture techniques and technologies to help farmers feed the world's growing population in a sustainable manner.

Monsanto is committed to sustainability. Our approach encompasses these key principles:

- **Act Ethically and Responsibly**
Ensure effective corporate governance, strive for ethical behavior from all of our employees and drive sustainable practices within our supply chain.



- **Advocate for Biodiversity**
Protect species, promote sustainable landscapes and preserve and improve plant varieties to increase genetic diversity and share benefits to advance sustainable agriculture and farmer livelihoods.
- **Advance Product Stewardship**
Work to ensure that our products are developed and used in a way that optimizes farmer productivity while minimizing risks and environmental impacts.
- **Create a Great Work Environment**
Provide employees with the skills, benefits and protections they need to move our company and industry forward while growing and developing professionally. Celebrate and leverage the benefits of inclusion and diversity.
- **Drive Modern Agricultural Innovation**
Provide farmers with the products, processes and data they need to reap the best possible harvests while using resources as efficiently as possible to combat the challenges they face like climate change and freshwater scarcity.
- **Engage Communities and Society**
Continue to grow positive relationships with the communities where we do business and with society at large. Invest in rural communities and provide support to smallholder and large commercial farmers alike. Preserve and respect human rights and dignity.



- **Foster Collaboration and Transparency**
Work with others to integrate and act on wide ranging expertise and perspectives. Elicit feedback and encourage questions about our company and its products.
- **Improve Global Food and Nutrition Security**
Spearhead and participate in initiatives that bring farmers the tools and skills they need to grow food sustainably. Engage food and nutrition leaders in ongoing dialogue.
- **Reduce Our Environmental Impact**
Identify opportunities to reduce greenhouse gas emissions, use water more efficiently and minimize waste throughout our business, including improvement in our own practices and processes and in partnerships with our contract seed production growers.

MAPPING TO THE SUSTAINABLE DEVELOPMENT GOALS

Adopted in September 2015, the United Nations Sustainable Development Goals (SDGs) comprise 17 goals and 169 associated targets that address the world’s most pressing economic, social and environmental challenges. The SDGs are the result of years of multi-stakeholder engagement among governments, NGOs and business.

The private sector plays an important role in achieving the SDGs and Monsanto’s work contributes in some way to each of the 17 goals. Based on our business and our unique place at the start of the food chain, we have identified six goals that are particularly relevant to our business, as well as three additional goals of significant importance to *how* we work. We identified these nine goals by looking at each of the 169 targets and mapping them to our material topics. As we continue strengthening our commitment to modern, sustainable agriculture, we will look to these SDGs in particular to inform our strategy and actions. We are also looking at how the SDGs apply on a regional basis and adapting our approach to the local or regional context, where applicable.

STRONGEST ALIGNMENT WITH SIX SDGs THAT ARE MOST RELEVANT TO MONSANTO’S BUSINESS AND REPRESENT THE AREAS WHERE WE CAN HAVE THE MOST IMPACT.

<p>2 ZERO HUNGER</p>	<p>1 NO POVERTY</p>	<p>8 DECENT WORK AND ECONOMIC GROWTH</p>	<p>6 CLEAN WATER AND SANITATION</p>	<p>13 CLIMATE ACTION</p>	<p>15 LIFE ON LAND</p>
<p>Helping make a balanced meal more accessible for everyone.</p>	<p>Improving lives for farmers, employees, consumers and communities.</p>		<p>Using resources more efficiently both on the farm and here at Monsanto.</p>		

THREE SDGs THAT REPRESENT HOW WE ARE WORKING TO IMPACT THE SIX GOALS THAT ARE MOST RELEVANT TO OUR BUSINESS.

<p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	<p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	<p>17 PARTNERSHIPS FOR THE GOALS</p>
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To quickly access information in this report that demonstrates how we’re supporting each of the 17 SDGs, please reference the table on Page 107.



Governing and Managing Our Sustainability Commitment

Our sustainability commitment starts with the Sustainability and Corporate Responsibility Committee of our board of directors, which reviews and monitors our overall corporate sustainability performance. Operationally, our Executive Sustainability and Product Stewardship Committee (ESPSC) assesses global challenges and opportunities, sets direction, reviews goals and commitments,

and aligns the resources needed to achieve them. Both of these committees have oversight of our sustainability efforts.

Our Office of Sustainability is a cross-functional team of leaders who have specific responsibilities in core areas of sustainability including stakeholder engagement, food and nutrition security, environmental management, health, safety, supply chain, global policy, business conduct and human rights. The Office is responsible for aligning and embedding

sustainability throughout the company's functions, operations and processes in all regions of the world. The Office is directly accountable to the ESPSC and works closely with our Global Business Operations and Executive Teams.

Identifying Material Topics

Monsanto worked with Business for Social Responsibility (BSR) to identify the sustainability topics that matter most to the success of our company and to our many stakeholders. This process, known as a materiality assessment, was conducted in 2015, and we expect the results to be relevant for several years to come, unless there are major changes to our business. The assessment is designed to inform our sustainability strategy, business actions and the content of this report. For a detailed description of the process and its outcomes, see Pages 102–106.



MATERIAL TOPIC/
DEFINITION

THE TOPICS LISTED HAVE BEEN IDENTIFIED AS MATERIAL TO MONSANTO OR OUR STAKEHOLDERS, RESPECTIVELY, BECAUSE THEY RELATE TO THE AREAS LISTED BELOW

MONSANTO

STAKEHOLDERS

<p>Product Safety and Stewardship – Developing and stewarding modern, innovative agricultural products and technologies that meet or exceed regulatory requirements relative to safety, human health and the environment and help farmers more effectively and sustainably feed the world.</p>	<ul style="list-style-type: none"> • Business conduct and ethics • Business continuity • Risk mitigation • Reputation • License to operate • Product durability 	<ul style="list-style-type: none"> • Human health • Environmental impacts • Community safety
<p>Modern, Innovative Agricultural Technologies and Products – Responsibly applying innovation to technologies, products and services that help farmers have better harvests and use resources efficiently.</p>	<ul style="list-style-type: none"> • Business success • License to operate • Integrated business solutions 	<ul style="list-style-type: none"> • Harvests • Farmer livelihoods • Environmental impacts
<p>Climate Change Mitigation and Adaptation – Developing technologies, systems and products that help farmers mitigate and adapt to climate change, help manage the impacts of climate change and reduce our operational greenhouse gas footprint.</p>	<ul style="list-style-type: none"> • Risk mitigation • Operational footprint • License to operate • Innovation • Business continuity 	<ul style="list-style-type: none"> • Environmental impacts • Human health • Food and nutrition security • Harvests • Larger societal impacts
<p>Sustainable Chemistry – Developing socially and environmentally responsible weed, insect and disease management solutions and agronomic practice improvements for use in crop production.</p>	<ul style="list-style-type: none"> • Business success • License to operate • Risk mitigation • Integrated business solutions 	<ul style="list-style-type: none"> • Harvests • Farmer livelihoods • Environmental impacts • Biodiversity
<p>Water Consumption and Management – Applying innovation and best practices to protect, conserve and manage water resources related to our operations, contract seed production and crop production.</p>	<ul style="list-style-type: none"> • Essential product input • Operational footprint • Sufficient water access • Energy/cost to move water • Climate change adaptation • Risk mitigation • Human rights 	<ul style="list-style-type: none"> • Water sufficiency and access • Human right to water • Sanitation and health • Impacts and risks of drought • Essential product input • Environmental impacts • Climate change adaptation



MATERIAL TOPIC/
DEFINITION

THE TOPICS LISTED HAVE BEEN IDENTIFIED AS MATERIAL TO MONSANTO OR OUR STAKEHOLDERS, RESPECTIVELY, BECAUSE THEY RELATE TO THE AREAS LISTED BELOW

MONSANTO

STAKEHOLDERS

<p>Business Practices and Competition – Following methods or processes to deliver products and services that meet the standards of customers based on value, quality, service and fair competitive market practices.</p>	<ul style="list-style-type: none"> • Reputation • Regulatory approvals • Business success • Customer development and retention 	<ul style="list-style-type: none"> • Customer choice • Fair competition • Innovation • Farmer livelihoods • Food and nutrition security • Community vitality • Responsible consumption and production
<p>Global Hunger and Nutrition Security – Helping farmers generate better harvests through a broad range of sustainable solutions and collaborations to help nourish a growing world population and increase farm efficiency.</p>	<ul style="list-style-type: none"> • Business success • License to operate • Innovation • Climate change adaptation 	<ul style="list-style-type: none"> • Harvests • Human health • Farmer livelihoods • Rural development • Climate change adaptation
<p>Business Ethics and Transparency – Operating in a transparent, compliant, ethical and socially responsible way.</p>	<ul style="list-style-type: none"> • Reputation • Human rights • License to operate • Risk mitigation • Employee retention and engagement • Corporate governance and citizenship 	<ul style="list-style-type: none"> • Fair competition • Knowledge of company practices • Corporate governance • Transparency
<p>Positive Relationships with Local Communities and Society – Enhancing the communities in which Monsanto operates and engaging in philanthropy, STEM education and employee volunteerism for the betterment of society.</p>	<ul style="list-style-type: none"> • License to operate • Facility management • Business continuity • Employee engagement • Future workforce • Corporate citizenship • Community engagement and support 	<ul style="list-style-type: none"> • Community safety, vitality and development • Human rights • Educated public • Humanitarian and disaster relief
<p>Regulatory Approval Systems – Executing robust product assessments to secure product approvals, ensuring compliance with regulations and managing conditions of registrations.</p>	<ul style="list-style-type: none"> • Product development • Business success • Business growth • Business continuity • License to operate 	<ul style="list-style-type: none"> • Consumer protection • Environmental protection • Economic development • Food and nutrition security



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MONSANTO

STAKEHOLDERS

<p>Smallholder Farmers – Engaging with smallholder farmers to help them overcome challenges, leading to better harvests, improved livelihoods and resource access.</p>	<ul style="list-style-type: none"> • Business success • Reputation • Market opportunity 	<ul style="list-style-type: none"> • Farmer livelihoods • Product access • Food and nutrition security • Poverty eradication • Community development
<p>Land Use and Deforestation – Ensuring soils and forests thrive by utilizing, encouraging and enabling the use of best management practices, products and services by farmers and engaging in partnerships to protect and restore forests.</p>	<ul style="list-style-type: none"> • Reputation • Ecosystem services • Climate change mitigation • Biodiversity • Sustainable intensification 	<ul style="list-style-type: none"> • Climate change mitigation • Environmental impacts • Biodiversity • Water quality and access • Land use change
<p>Soil Health – Promoting land stewardship through the application of effective and innovative farm practices to enhance crop production today and ensure its viability for future generations.</p>	<ul style="list-style-type: none"> • Harvests • Climate change mitigation and adaptation • Environmental impacts • Sustainable intensification 	<ul style="list-style-type: none"> • Harvests • Climate change mitigation and adaptation • Environmental impacts • Farmer livelihoods
<p>Human Rights – Supporting the full realization of human rights of our employees and business partner employees throughout our value chain.</p>	<ul style="list-style-type: none"> • Business conduct and ethics • License to operate • Reputation • Risk mitigation 	<ul style="list-style-type: none"> • Fair conditions and pay • Eliminating child labor • Eliminating forced labor • Gender equality
<p>Patents and Plant Variety Rights – Preserving and improving plant varieties with intellectual property protection to increase genetic diversity, and share benefits to advance sustainable agriculture and farmer livelihoods.</p>	<ul style="list-style-type: none"> • Business success • Innovation • Risk mitigation • Collaboration • License to operate • Market development 	<ul style="list-style-type: none"> • Access to products • Economic growth • Morality of patenting life • Farmer choice
<p>Talent Management, Diversity and Benefits – Attracting, retaining, developing, incenting and empowering Monsanto employees, promoting professional growth, leveraging the power of inclusion and diversity, and creating a great work environment.</p>	<ul style="list-style-type: none"> • Business success and continuity • Innovation • Diverse perspectives • Employee engagement, development and well-being • Human rights 	<ul style="list-style-type: none"> • Economic growth • Increased skilled workforce • Inclusion and diversity



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MONSANTO

STAKEHOLDERS

<p>GMO (genetically modified organism) Labeling – Commitment to a consistent U.S. federal labeling law for food products that contain ingredients derived from crops grown with GMO seeds.</p>	<ul style="list-style-type: none"> • License to operate • Reputation • Business continuity 	<ul style="list-style-type: none"> • Heightened societal interest • Health and safety perceptions
<p>Biodiversity – Safeguarding ecosystems where Monsanto and its farmer customers operate by protecting species, promoting sustainable landscapes, and preserving and improving plant varieties and sharing benefits.</p>	<ul style="list-style-type: none"> • Business success • License to operate • Reputation • Soil and water quality • Pollinators 	<ul style="list-style-type: none"> • Environmental impacts • Community vitality • Health and conservation of species • Soil and water quality
<p>Occupational Health, Safety and Wellness – Ensuring a healthy, safe and secure workplace that promotes well-being.</p>	<ul style="list-style-type: none"> • Business success • License to operate • Recruiting and retention • Employee engagement, development and well-being • Risk mitigation • Cost savings 	<ul style="list-style-type: none"> • Individual and community health and wellness • Health system burdens • Education • Livelihoods
<p>Data Security, Management and Access – Ensuring responsible management, privacy and security of farmer, business partner, employee and company data while expanding farmer access to digital agriculture solutions.</p>	<ul style="list-style-type: none"> • Innovation • Business success • Risk mitigation • Customer relationships 	<ul style="list-style-type: none"> • Data ownership and privacy • Access to digital services • Farmer livelihoods
<p>Political Spending – Managing political actions and contributions responsibly, transparently and in alignment with Monsanto’s policies.</p>	<ul style="list-style-type: none"> • Business conduct and ethics • Business success • Reputation 	<ul style="list-style-type: none"> • Transparency • Fair competition • Anti-corruption



Integrating Finance and Sustainability

by Rodney Irwin
Managing Director, World Business
Council for Sustainable Development

There is mounting pressure on the planet to provide for a growing number of people with less space and resources than ever before. At the [WBCSD](#), we aim to provide current and future business leaders with an in-depth understanding of sustainability challenges and opportunities that will feed into their strategic decision-making. Through our [Leadership Program](#), we help all professionals think about sustainability and corporate resources in a broader way.

From my background in accounting and economics, I have come to believe that the finance and accounting community is uniquely qualified to address the challenges that our planet and society face. Companies must account for more than their financial transactions, and the skill set of the finance and accounting profession is a natural fit for accounting for external resources that companies have not measured in the past.

They also have the ability to identify decision-useful information to ensure that the company is optimizing its approach to sustainability.

For the past several years, Monsanto has enrolled their emerging leaders in the WBCSD Leadership Program. The company's most recent participant, Cyeria, Director of Internal Audit, credits the program for guiding her understanding of the linkage between sustainability and enterprise risk.

To integrate sustainability and finance for the long term, companies must be willing to encourage their finance professionals to expand their traditional view of finance and create change that goes beyond their current job descriptions. At Monsanto, I've witnessed a culture where people can make a difference, supported by their senior leadership team.

"Incorporating conversations about sustainability into our decision-making process was a direct outcome of the WBCSD Leadership Program," according to Nanci, VP of Finance and General Auditor at Monsanto. "We saw it as a wonderful opportunity for us to understand how sustainability and our business strategy are connected. Our finance function is involved in many different projects throughout our company,

making our team critical to information sharing. We help ensure that sustainability is included in conversations across the company."

"Creating a sustainable future for the world is extremely important to us here at Monsanto," says Cyeria. "The finance community has the opportunity to make an impactful and lasting change in this regard."

Monsanto is truly focused on making the world's farmers more productive using less resources. Integrating sustainability and finance has furthered this effort and helped us align our business goals with our sustainability focus.

Cyeria
Director of Internal Audit,
Monsanto



Working Collaboratively and Transparently

As more people join the conversation about food, what ingredients it includes and how it is produced, we have a responsibility to help make relevant information available to them. Based on feedback from stakeholders, we've taken significant steps to engage in conversations about how food is grown and gets from farm to table, as well as the role we play along the way.

We interact in a transparent way with organizations and individuals on an ongoing basis as part of regularly planned visits, technical seminars, conferences and updates. Although the frequency and types of our engagement vary, the intent to stay engaged in areas of mutual interest is foremost in our minds. The groups identified throughout the report provide insight into how they see our role in society.

We have also developed and co-sponsored online forums where consumers can ask questions about where their food comes from and other topics of interest. These include [A Conversa](#), [GMO Answers](#), [Hablemos Claro](#), [La Conversación](#), and [The Conversation](#).

Stakeholders

We engage with stakeholders that have interests in: agriculture production • water • soil health • human rights • climate change • food and nutrition security • biodiversity • food labeling • science and technology • business practices • innovation • inclusion and diversity • youth development • community health and other topics related to our business.

The table below provides just a sampling of the numerous stakeholders with whom we engage around the world.

Advocacy and Professional Groups	Academy for Nutrition and Dietetics • African Agricultural Technology Foundation (AATF) • American Society for Nutrition • Business for Social Responsibility (BSR) • Climate Leadership Group • Field to Market Alliance • Honey Bee Health Coalition • Institute for Sustainable Agriculture • Network USA of United Nations Global Compact • Soil Health Partnership • The Sustainability Consortium • World Business Council for Sustainable Development (WBCSD) • World Economic Forum (WEF) New Vision for Agriculture • World Food Programme USA
Industry Groups	American Production and Inventory Control Society (APICS) • Biotechnology Innovation Organization • Clean Cargo Working Group (CCWG) • Council of Supply Chain Management Professionals (CSCMP) • CropLife International • Food Marketing Institute • Global Sourcing Council • Grocery Manufacturers Association • International Seed Federation • National Confederation of Industry Brazil • National, Regional and Local Farmers' Associations • National and Regional Seed and Crop Industry Associations • US-ASEAN Business Council, Inc.
Diversity Groups	Asian-American Chamber of Commerce, St. Louis • Catalyst • Diversity Awareness Partnership (DAP) • Federacion Mexicana De Empresarios LGBT (FME LGBT) • Heartland Black Chamber of Commerce, St. Louis • Mid-States Minority Supplier Development Council • Minority Business Development Agency (MBDA) • National Gay and Lesbian Chamber of Commerce (NGLCC) • National Minority Supplier Development Council (NMSDC) • St. Louis Hispanic Chamber of Commerce • St. Louis Minority Business Council • Southern Regional Minority Supplier Development Council • United States Business Leaders Network (USBLN) • Veteran Business Resource Center • WEConnect International • Women's Business Development Center (WBDC) • Women's Business Enterprise Council South • Women's Business Enterprise National Council • Women's Minority Business Development Agency Business Center Chicago



External Charters and Principles

Monsanto’s policies and business activities are informed by a variety of external charters and principles. Some of these include, but are not limited to:

- American Business Act on Climate Pledge
- Customs-Trade Partnership Against Terrorism (C-TPAT)
- International Labour Organization’s Fundamental Principles and Rights at Work
- Privacy and Security Principles for Farm Data
- Sustainable Development Goals
- United Nations Global Compact (UNGC)
- UNGC CEO Water Mandate
- Universal Declaration of Human Rights
- U.S. Green Building Council’s Leadership in Energy & Environmental Design (LEED) Principles
- WBCSD WASH Pledge

Inviting Conversation

Monsanto operates online discussion forums in multiple languages including A Conversa (Brazil), La Conversación (Latin America) and The Conversation (North America and India). These forums are dedicated to addressing questions raised by anyone. Here are 10 of the actual questions asked and answered on these sites, along with where you can find information on these topics in this report.

“How can you ensure that your products are safe for us?”

Pages 72; 92–94; 95–96; 97

“Why sue farmers?”

Page 99

“What are you doing to make a legitimate impact in your carbon emissions?”

Pages 59–62; 64

“What steps are you actually taking toward solving world hunger besides producing GMOs?”

Pages 32–36

“Why don’t we ever hear anything positive about GMOs?”

Pages 16; 97

“What are the environmental benefits of GMOs?”

Pages 16; 64; 73

“Does Monsanto support mandatory labeling of GMO foods? If no, why?”

Pages 96–97

“If studies show that exposure to glyphosate can cause serious health problems, why is it still used?”

Pages 95–96

“Will you expand your corporate social responsibility action to mitigate the agricultural crisis?”

Pages 19–20; 32–36

“Many of my friends say that Monsanto is contributing to monoculture. What is your opinion?”

Pages 69; 79



Earning Recognition

The people of Monsanto work hard to advance the company's sustainability efforts. And while we don't do it for the external recognition, we appreciate it when received. Following are some of the recent honors we've received from third-party organizations.

People

- **DiversityInc**
For the ninth consecutive year, Monsanto was recognized as one of the Top 50 Companies for Diversity. Monsanto ranked number 7 on the DiversityInc Top 12 Companies for Employee Resource Groups list and number 8 on the DiversityInc Top 9 Companies for People with Disabilities list.
- **Human Rights Campaign**
Corporate Equality Index score of 100.
- **Hispanic Network and Black EOE Journal**
Monsanto was recognized as a Top Diversity Employer by *HISPANIC Network Magazine* and *Black EOE Journal*. Monsanto was recognized as a Top Employer for Hispanics, African-Americans and the LGBTQ community.

- **Canada's Best Diversity Employers**
Monsanto Canada was selected as one of Canada's Best Diversity Employers in 2016.
- **Military Friendly**
Monsanto was named a military friendly employer.
- **Women's Business Enterprise National Council (WBENC)**
Monsanto has been recognized as one of America's Top Corporations for Women's Business Enterprises due to our inclusive supply chain.
- **Dream Company for Young People**
Monsanto was recognized as a most desired company among young people in Argentina starting their careers.
- **STEM Jobs**
Monsanto participated in a benchmark study of effective practices in STEM employment and was recognized as number 11 on the STEM Jobs Approved Employer list.
- **Community Enrichment Award**
Clarion, Iowa
- **Occupational Safety Merit Award**
West Fargo, N.D.
- **Governor's Workplace Safety Awards**
Remington, Ind.



Planet

- **Newsweek Green Rankings**
The *Newsweek* Green Rankings are one of the world's most recognized assessments of corporate environmental performance. Monsanto saw significant progress, moving from number 84 to number 22 in the global rankings and from number 52 to number 12 in the U.S. rankings.
- **EcoVadis CSR**
Monsanto Europe (Antwerp site) has been granted a Gold Recognition Level in 2016.



- **Costa Rica Blue Flag Program**
Deltapine Site in Costa Rica was recognized for its exemplary environmental practices.
- **National Green Industry Award**
Monsanto Thailand was recognized for excellence in environmental sustainability.
- **Advanced Certificate of Health and Safety Management System (Gold Flag)**
Monsanto Indonesia was recognized by the Ministry of Manpower of the Republic of Indonesia for excellence in environmental, safety and health standards.
- **CICM Responsible Care Award**
Monsanto Malaysia was recognized for excellence in employee health and safety,

process safety and pollution prevention by the National Chemical Industries Council.

- **CII Safety Health & Environment (SHE) Award**
Monsanto India ranked third in the Manufacturing Category.
- **Environmental Leadership Award**
Bogotá, Colombia, site was recognized by Responsible Care®.
- **Clean Company and Industry**
Two Monsanto Mexico sites (Culiacan and Nextipac) were recognized by the Jalisco State Environmental Agency and Mexican Environmental Federal Agency.

Company

- **World's Most Admired Companies**
For the fourth consecutive year, *Fortune* named Monsanto one of the World's Most Admired Companies, ranking Monsanto number 1 in our industry.
- **Great Place to Work**
Monsanto has been recognized as an employer of choice in virtually every region where we operate. In 2016, Monsanto was recognized as a Great Place to Work in four new locations: the Caribbean, Central America, Costa Rica and Guatemala.

- **Great Place to Work's 50 Best Workplaces for Flexibility**
Monsanto placed number 11.
- **Hawaii's Most Charitable Companies**
In 2016, *Hawaii Business* magazine ranked Monsanto Hawaii number 13 on a list of Hawaii's Most Charitable Companies.



Helping make balanced meals more accessible for everyone on the planet and improving lives for farmers, employees, consumers and communities.

At Monsanto, we're passionate about people. Our goal is to improve lives everywhere: for our employees, the farmers with whom we work and in the communities we touch around the world. In collaboration with a diverse group of public, private and nonprofit stakeholders, we're improving global food security and striving to eliminate hunger, malnutrition and poverty. We offer our employees a work environment that is safe and inclusive. And we're educating the next generation of leaders and investing in causes that make a genuine difference in people's lives.

32 HELPING TO ENSURE FOOD AND NUTRITION SECURITY

- 32 Promoting Food Security in Africa
- 34 Grow Asia: Improving Farmer Livelihoods
- 35 Providing Critical Information to Smallholder Farmers: FarmRise
- 35 Training Smallholder Farmers
- 37 Fighting Malnutrition, Impacting Children: Monsanto Fund
- 38 L.E.A.D.ing Globally

39 REACHING OUT TO COMMUNITIES

- 39 Staking the Future on STEM
- 39 Engaging University Students
- 40 Inspiring Future Science and Technology Leaders
- 41 Supporting America's Farmers and Rural Communities
- 41 Taking a Global Approach to Community Health and Safety
- 43 Volunteering for the Greater Good: Monsanto Together

44 IMPROVING LIVES FOR OUR PEOPLE

- 44 Developing Our Employees
- 46 Embracing the Power of Inclusion and Diversity
- 47 Fostering Innovation Through Inclusion
- 48 Rewarding Great Work
- 49 Employee Composition Data
- 51 Promoting Employee Health, Safety and Well-Being
- 53 Health and Safety Data

54 FORGING THE WAY IN HUMAN RIGHTS

- 54 Upholding Our Human Rights Standards
- 55 Tracking Our Progress
- 56 Respecting Human Rights in High-Risk Areas
- 56 Helping Eradicate Child Labor



HELPING TO ENSURE FOOD AND NUTRITION SECURITY

Helping make balanced meals more accessible to all is a complex undertaking that encompasses interdependent factors including crop production, access to inputs, distribution systems, agronomic knowledge, technology, access to capital and local customs.

Many of our activities focus on areas of the world where the need is the greatest and most urgent, including Africa and Asia. We play an active role in the World Economic Forum's (WEF) New Vision for Agriculture and have done so since its inception. This includes, but is not limited to, WEF's [Grow Africa](#) and [Grow Asia](#) initiatives.

Promoting Food Security in Africa

We are involved in several multi-stakeholder collaborations in Africa to help introduce new technologies and practices and develop viable markets.



Expanding Water Efficient Maize for Africa (WEMA)

In Africa, maize (or corn) is the main source of food for more than 300 million people. The production of corn in this area is extremely challenged by the lack of rainfall, ineffective seed varieties and often devastating levels of drought and pestilence. The WEMA project, a multi-stakeholder partnership, strives to improve food security and livelihoods among smallholder farmers in sub-Saharan Africa by developing hybrid maize seed that uses water more efficiently and resists insect pests.

The WEMA partnership works to develop a pipeline of conventional and biotech maize seeds for African farmers under the DroughtTEGO™ and TELA™ brands, respectively. The partnership makes the seed variety licenses available to seed

companies of all sizes, royalty free, to deliver these hybrid seeds to smallholder farmers.

Between 2013 and 2016, more than 70 conventional DroughtTEGO™ hybrids have been approved for commercial release in Kenya, Mozambique, South Africa, Tanzania and Uganda, and 23 seed companies now license new hybrids and make them commercially available to African farmers – without paying a royalty to Monsanto. Farmers using DroughtTEGO™ hybrids have harvested 20 to 35 percent more grain under moderate drought conditions as compared to the seeds they had historically planted.

While only conventional seeds have been available through the WEMA partnership thus far, WEMA plans to introduce white maize biotech hybrids in South Africa and Kenya



(pending approval) in 2017 to address insect-pest challenges. Insect-protected maize has been grown widely in other areas of the world for nearly 20 years, but in Africa it took time to establish regulatory processes to approve its use.

Since the inception of the WEMA program, DroughtTEGO™ hybrids have positively impacted the lives of approximately 250,000 sub-Saharan African farming families, or more than 1.5 million people.

Seed-company licensing is ongoing, and a pipeline of additional conventional hybrids are being approved for commercial release as part of WEMA's continued work toward improving food security and livelihoods for more than 25 million people in sub-Saharan Africa.

WEMA COLLABORATORS

Led by	<ul style="list-style-type: none"> African Agricultural Technology Foundation (AATF)
Funded by	<ul style="list-style-type: none"> Bill and Melinda Gates Foundation Howard G. Buffett Foundation United States Agency for International Development (USAID)
Key Partners	<ul style="list-style-type: none"> National Agricultural Research Institutes in Kenya, Mozambique, South Africa, Tanzania and Uganda International Maize and Wheat Improvement Center (CIMMYT) Monsanto

Grow Africa: Supporting the Southern Agricultural Growth Corridor of Tanzania (SAGCOT)

As part of our WEF Grow Africa commitment, we are helping to advance the goals of SAGCOT.

The vast majority of farmers in sub-Saharan Africa are women tending crops on small areas of land to provide for their families. These smallholder farmers face many challenges, like insects, disease and drought, which can mean the difference between having enough food for their children and village or not.

In Tanzania, the economy is highly dependent on agriculture, and the government has made it a national priority by establishing Kilimo Kwanza (Agriculture First), a program to achieve food security, poverty reduction and increased economic growth.

The government designated SAGCOT as the focus of new partnerships that aim to enable agricultural growth in this region. We have been a partner in SAGCOT since its start in 2010. Working with NGOs, farmer organizations, researchers and the Ministry of Agriculture, we're helping improve crop production systems and the maize value chains in the region. The aim is to improve food security by providing improved maize seed for farmer demonstrations, training village based advisors and working with agro-dealers to improve their business acumen.

Helping Cowpea Become Insect-Resistant

Cowpea is an important food grain legume in Africa's dry conditions. Nearly 200 million people consume this crop due to its quality protein content, and it is grown on more than 12.5 million hectares of land. Monsanto is continuing to support the efforts of the AATF, a not-for-profit organization working to help improve cowpea productivity.

A pest known as the Maruca pod borer can reduce harvests by 80 percent. Because most cowpea farmers lack access to effective insecticides, AATF has accessed specific genes from Monsanto to protect cowpea against the Maruca pod borer and is facilitating license agreements and educating farmers on sustainable use of the insect-protected seeds.

In 2016, cowpea trials were planted in Burkina Faso, Ghana, Malawi and Nigeria. Additionally, AATF made progress toward commercialization with the filing of regulatory applications in Ghana, Malawi and Nigeria. Moving forward, AATF hopes to expand field trials to additional countries and to continue working with others to bring insect-resistant cowpea to the African marketplace.



Helping Make Cassava Virus-Resistant

We continue to support the Virus Resistant Cassava for Africa (VIRCA) project with funding and technical advice. Cassava is a nutrient-rich root vegetable that serves as a dietary staple for 130 million people in East Africa. Unfortunately, the plant is highly susceptible to diseases like cassava brown streak disease (CBSD) and cassava mosaic disease (CMD).

Working with varieties that already provide some protection against CMD, the VIRCA project is using biotechnology to improve cassava's resistance to CBSD because native resistance hasn't been found in the cassava genome. Resistance to CBSD would help increase the chance that farmers have abundant harvests. Field trials are currently underway, and the VIRCA team continues to work with government regulators who will review improvements in, and the safety of, the new cassava varieties before they are made available to smallholder farmers.

VIRCA COLLABORATORS

- Donald Danforth Plant Science Center
- Kenya Agricultural Livestock and Research Organization
- National Crops Resources Research Institute in Uganda
- Monsanto (funding and technical advice)

Grow Asia: Improving Farmer Livelihoods

The Association of Southeast Asian Nations (ASEAN) region is home to 625 million people who face food and nutrition insecurity as a constant threat. The ASEAN goal is to feed one of the world's youngest and fastest-growing populations through sustainable and efficient use of land and water resources by minimizing the impacts of, and the contributions to, climate change. We're engaged in several related initiatives as part of our WEF Grow Asia commitment.

Vietnam

In recent years, demand for Vietnamese-grown rice has dropped dramatically, impacting the livelihoods of Vietnamese farmers in the Mekong Delta. The Vietnamese government began helping farmers transition their rice paddy fields to corn and soybean fields, while preserving the rice-growing ecosystem that is still important to Vietnam.

Working alongside the government, Monsanto trained 5,000 rice farmers on corn planting techniques. Within three months, farmers in two regions converted 2,200 hectares from rice to corn, increasing their income by up to 400 percent. The new crop rotation process also



improved water efficiency and reduced the use of pesticides, fungicides, labor and other costs by as much as 80 percent.

VIETNAM RICE-TO-CORN ROTATION TIMELINE

2014	Monsanto Vietnam team introduced a rice-to-corn crop rotation concept to assist farmers in growing both crops, while minimizing the impact to the environment.
2015	Our DEKALB® Cultivation Rice-to-Corn Rotation Protocol was selected as a preferred cropping system by the Vietnamese Ministry of Agriculture and Rural Development.
2016	The Vietnamese government issued Decree 195 to encourage farmers to convert low yield rice areas to corn. Participating households who convert will receive a cash support of US \$150 each, accompanied by technical training in planting corn.



Indonesia

The WEF Partnership for Indonesia Sustainable Agriculture (PISAgr) addresses food security by increasing agricultural production and improving the welfare of smallholder farmers. The decade long initiative aims to increase agriculture productivity by 20 percent, increase farmer incomes by 20 percent and decrease greenhouse gas emissions by 20 percent.

Together with Indonesian farmers, Bank Rakyat Indonesia, Cargill and the Regional Government of East Java, Monsanto participated in a pilot project in 2016, which focused on maximizing corn crop productivity and providing farmers with access to financing and credit. Due to

a change by the Indonesian government in interest rates and loan policies, the program participants, including Monsanto, are looking for alternative ways to help smallholder farmers secure the credit they need.

Philippines

The Philippines Partnership for Sustainable Agriculture (PPSA) secretariat was formed in November 2015 to support the WEF Grow Asia initiative. A working group was convened to support corn production and has started a value chain initiative in the Zamboanga Peninsula supporting 10,000 yellow corn smallholder farmers that can potentially supply feed to 7,100 hog farmers. We are part of the initiative, poised to provide technical assessment support and education on best agronomic practices and to supply hybrid seed best suited to the area.

Providing Critical Information to Smallholder Farmers: FarmRise™

Smallholder farmers, who make up about 90 percent of all farmers globally, are often challenged with rural isolation and limited agronomic resources. Since 2010, we have helped to empower smallholder farmers in India through a free mobile platform called

Monsanto Farm AgVisory® Services. This service was renamed FarmRise™ - Mobile Farm Care in 2016 and integrated into [The Climate Corporation's](#) portfolio of services.

Knowing that 70 percent of smallholder farmers globally have access to cellular telephones, we combined agronomic knowledge and mobile technology to bring free, relevant information and advice directly to farmers in the field to help them make decisions for a successful harvest.





The number of registered farmers using the platform has grown from 10,000 to more than 4 million, with more than half of the growth occurring in the last couple of years. Monsanto teams in Asia and Africa will work together with The Climate Corporation to further expand FarmRise for smallholder farmers around the world. As part of The Climate Corporation portfolio, FarmRise subscribers will benefit from the expertise and focus of a leader in digital agriculture and data science.

Training Smallholder Farmers

Another way we strive to make a real difference in the lives of farmers and farming communities is by offering training to smallholder farmers, both through sustainability partnerships and as part of our standard business practices.



SOME EXAMPLES OF MONSANTO SMALLHOLDER FARMER TRAINING IN FISCAL YEAR 2016

COUNTRY	TYPE OF TRAINING	NUMBER OF SMALLHOLDER FARMERS
<p><i>Philippines</i></p> 	Farmers received productivity training on overall best agronomic practices – from insect resistance management to choosing the best hybrid for their land.	57,000
<p><i>Indonesia</i></p> 	Through a partnership with PISAgro, farmers received training on good agriculture practices to improve productivity, including irrigation, planting and harvesting. Farmers learned sustainable practices such as reduced tillage and composting to produce natural fertilizer.	115,000
<p><i>Vietnam</i></p> 	Farmers received training on the overall best agronomic practices for productivity and sustainability through DEKALB® conventional field days and meetings. In addition, they were educated on DEKALB® corn with Genuity® stacked trait technology before the product's launch using online resources and field tours.	340,000
<p><i>India</i></p> 	As part of Project SHARE 2, farmers learned how to increase productivity in a sustainable way through demonstration plots, irrigation infrastructure and partnerships.	71,000 (projected three-year goal)
<p><i>India</i></p> 	Farm trials and Indian Cotton Farmer Network	17,243



BRAZILIANS RECEIVE COURSES ON BAKING, FOOD PREPARATION AND GASTRONOMY

Monsanto Fund projects in São Paulo, Brazil, focus on food and nutrition. One initiative provides baking, food preparation and gastronomy education to low-income populations through nonprofit organizations [Hope Unlimited](#) and [Casa do Zezinho](#). The courses teach better eating habits and food safety best practices and help participants find alternative sources of employment, resulting in better incomes and quality of life. Hope Unlimited and Casa do Zezinho taught 250 Brazilians about baking, food preparation and gastronomy.

Fighting Malnutrition, Impacting Children: Monsanto Fund

Monsanto Fund, the philanthropic arm of our company, is a U.S.-based 501(c)(3) nonprofit funded by Monsanto (*see Page 91 for more information*). Many of the Fund's activities align with or complement company efforts to assist rural residents and the communities where Monsanto employees live and work.

To address malnutrition and food insecurity impacting young children

globally, Monsanto Fund has put in place a series of initiatives that will leverage the expertise and regional partnerships of key organizations around the world. Monsanto Fund aims to help fight malnutrition by improving access and encouraging healthy behaviors toward food, with a focus on the needs of women and children.

Healthy Food Alliance for Early Education, United States

In October 2016, Monsanto Fund, the [American Heart Association](#) (AHA) and [Nemours](#) (a nonprofit children's health system) announced a five-year, \$3.9 million pilot program in St. Louis to increase access to healthy food, assess challenges related to food deserts and promote healthy eating in both center-based childcare settings and home environments. The Healthy Food Alliance for Early Education pilot program is part of [Healthy Way to Grow](#), a joint initiative of AHA and Nemours, which is expanding in the St. Louis region to include more than 120 early care centers and aims to improve the nutritional health of more than 18,000 young children from birth to age five. If successful, the approach could be applied to projects in other communities.

INMED Partnerships for Children, Brazil

Through a partnership with [INMED](#) in Brazil, Monsanto Fund has committed \$3 million over three years to improve nutrition for mothers and children ages six months to five years in Petrolina. Monsanto's operations in Petrolina are relatively new and when we began working there we recognized the need to help the children in this remote and impoverished area.

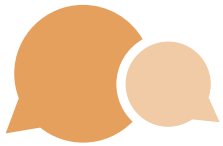
Leveraging INMED's experience as a successful convener of local government and nongovernment agencies, and a local public policy applicable to the preschools, the program will involve mothers and young children through community events, workshops and health agents who will provide training in early childhood nutrition and related concepts. The project will also increase access to fresh foods through vegetable gardens in preschools. Over three years, the initiative is expected to benefit over 150 preschools and 32,000 children.

Monsanto Fund is currently reviewing potential partners with whom to launch a high-impact, nutrition-focused program in Kenya, similar to those announced in Brazil and the United States.



Monsanto helps us educate Registered Nutritionist Dietitians on the intersection between food, modern agriculture and nutrition.

Zhenie Velasco
Registered Nutritionist
Dietitian & Associate Professor,
Philippines



L.E.A.D. expanded internationally
in 2016 to Indonesia,
the Philippines, Spain
and Vietnam.

L.E.A.D.ing Globally

Consumers are increasingly interested in learning where their food comes from. Through our Leaders Engaged in Advancing Dialogue (L.E.A.D.) initiative, we're learning from and sharing information with dietitians, nutritionists and others involved in conversations about the intersection of food, nutrition and agriculture.

Originally launched in the United States, L.E.A.D. expanded internationally in 2016 to Indonesia, the Philippines, Spain and Vietnam. Through one-on-one meetings and conferences with local dietitians, academics and regulators, we're sharing information and building relationships globally. We've already visited several universities and had in-depth discussions with students and academics in public health, nutrition, business and marketing.

This international expansion builds upon the L.E.A.D. Network: a group of 15 experts in the United States with diverse backgrounds, including food service, healthcare, media and retail. Our network engages with food and nutrition professionals, like culinary specialists,



dietitians and academics and provides them with answers to their questions about our company and our role in the food value chain. By having an open dialogue, we hope to empower others to have conversations with today's farmers, whether a smallholder farmer in Africa or a row crop farmer in Iowa, the media and even their friends and family. By clearing up misinformation about food, L.E.A.D. benefits our company, farmers and society as a whole.



REACHING OUT TO COMMUNITIES

Having a positive impact in communities is a key priority at Monsanto. Our support of STEM education and community health and safety are investments in our collective future.

Staking the Future on STEM

As technology increasingly becomes a bigger part of people's daily lives, it's more important than ever for individuals to be equipped with science and engineering skills. We aim to partner and create tools for students that will encourage them to be curious, think critically and ask questions in an effort to make better evidence-based decisions. Working collaboratively, we provide funding to prepare the next generation of leaders by encouraging students to learn more about and pursue careers in STEM, particularly in the food and agricultural industries.

Engaging University Students

We believe in the importance of working with college students to address the pressing needs of today and tomorrow, especially as it relates



to technology and agriculture. These emerging leaders will be critical in solving environmental and societal challenges.

Agriculture Programs

Our partnerships with collegiate organizations help us attract and educate top undergraduate talent and increase the gender, racial and ethnic diversity of students participating in agriculture programs. [Sigma Alpha](#), a professional agricultural sorority in the United States, participated in a year-long [National Ag Education Challenge](#) with Monsanto. More than 20 percent of its chapters wrote lesson plans on key topics in modern agriculture to present to elementary and middle school students. Five winning chapters were selected to train all Sigma Alpha chapters on their exemplary lesson plans in 2017.

Monsanto also provided grants and coaching to [Agriculture Future of America](#) and the [Alpha Gamma Rho](#) and [FarmHouse](#) fraternities.

Planet Forward

Monsanto sponsors [Planet Forward](#), a student organization founded at George Washington University that encourages students to search for innovative solutions to the biggest challenges facing our planet. Through storytelling, media and convening, Planet Forward empowers new voices and elevates compelling ideas. Our employees engage with Planet Forward members from around the globe in multiple venues annually, including the annual Planet Forward Summit. More than 200 students and faculty from 33 colleges and universities attended the 2016 Summit.



THINKING ABOUT FOOD SECURITY

Thought For Food (TFF) is an organization dedicated to tackling the global challenge of feeding a future population of more than 9 billion people. The organization hosts an annual competition to empower university students to learn more about food security and inspire them to make a difference. In 2016, Monsanto sponsored a team from Brazil that designed a new approach to prevent grain from falling off of trucks on their way to storage facilities, which contributes to significant food loss in South America.



Net Impact

As a sponsor of [Net Impact](#) – an organization of student and professional leaders interested in addressing global challenges – Monsanto has helped design solution labs that engage emerging

leaders on topics such as food security and the effects of climate change. In April 2016, 73 participants from a variety of disciplines and nine universities attended a solution lab at Washington University in St. Louis, Mo. The lab focused on how we can move closer to a carbon neutral or carbon positive food supply chain and featured four expert speakers from Missouri Botanical Gardens, Monsanto, Soil Health Partnership and USDA. We strive to help members understand how modern agriculture is and must be a part of the solution for these challenges. In November 2016, we sponsored a breakout session and interacted with more than 1,000 students at the annual Net Impact Conference.

PRIME

In Brazil, Monsanto forms mentoring relationships with undergraduate students at local universities in a program known as [Monsanto PRIME](#). Our employees interact with students through career workshops, career fairs, lectures, field days and internships. The objective of PRIME is to strengthen Monsanto’s relationship with students taking relevant coursework and help provide knowledge and professional opportunities. In 2016, PRIME targeted 30 universities and impacted approximately 7,000 students in-person, as well as an additional 2,000 after the launch of an online platform called Monsanto Universidades.

Inspiring Future Science and Technology Leaders

The Monsanto Fund supports [FIRST Robotics Competition](#) teams in United States communities to nurture student interest in STEM. The organization’s mission is to inspire young people to be science and technology leaders by engaging them in exciting mentor-based programs.

The 2016 [FIRST Robotics Championship](#) was held in April 2016 and nearly 20,000 youth, 900 teams and 1,300 volunteers participated. Over 40,000 people from 39 countries attended. The Monsanto Fund sponsored 97 student teams with \$288,600 in funding across 30 Monsanto communities in 14 states. In the Monsanto booth, students were challenged to create “BrushBots” made from toothbrushes, a motor, a battery and other materials. The BrushBots raced on a multi-lane race track, competing for the fastest time. Over the course of the four-day event, 30 Monsanto engineers volunteered their time, encouraging creativity and innovation by the students and providing technical assistance.



HELPING IMPROVE MATH SCORES AMONG FIRST GRADERS

Among the grant recipients under the America's Farmers Grow Rural Education program was the Breckenridge Public School District in Breckenridge, Minn., which received \$10,000 to enhance their math curriculum. The school used most of the funds to purchase LearnPad tablets with the intention of increasing first grade student math achievement on the STAR Math assessment. When the first grade students of Breckenridge took the STAR Math assessment in September 2014, only three students scored at grade level. After integration of the LearnPads into the curriculum, 31 of 41 first grade students achieved second grade level scores on their STAR Math assessment.

Supporting America's Farmers and Rural Communities

Sponsored by the Monsanto Fund, the following America's Farmers community outreach programs work to make a positive impact in rural America through the support of communities, schools and youth. The programs have awarded more than \$36 million across the United States since 2010.

America's Farmers Grow Rural Education encourages eligible farmers to nominate their local public school districts to apply for \$10,000 or \$25,000 grants to enhance math and science education. In 2016, the Monsanto Fund awarded \$2.3 million to 175 rural public school districts.

America's Farmers Grow Ag Leaders provides students an opportunity to earn \$1,500 scholarships to help fund their education in an ag-related field of study. In 2016, in partnership with the National FFA Organization, the Monsanto Fund awarded \$528,000 to 352 deserving students.

America's Farmers Grow Communities, while not strictly an educational initiative, provides an opportunity for eligible farmers to win a \$2,500 donation to direct to a rural nonprofit of their choice. In 2016, the Monsanto Fund awarded more than \$3 million to nonprofits in 1,324 counties across 40 states, with more than \$922,000 going toward schools and educational programs.

Groups like America's Farmers are very important for communities like ours. There have been a lot of cuts in our 4-H program over the past few years. This funding will allow them to continue programs that had to be put on hold.

Keith and Sue
Richland County, Ohio, who directed a \$2,500 donation to Richland County 4-H Committee.

Taking a Global Approach to Community Health and Safety

Community Health

Our sites implement vital programs to tackle pressing issues impacting the health, safety and well-being of our employees, their families and our neighbors. These programs range from health fairs and blood drives to educational initiatives about healthy nutrition and how to protect oneself against insect bites, sun exposure and contagious diseases.

Africa. Access to sufficient food remains a challenge in many parts of Africa. In response to this need and in addition to their pay, we provide maize to our seasonal workers and their families through the Maize Meal Project. Providing this supplemental food source has resulted in notably increased energy and improved health among our seasonal workforce and has benefited other community members as well.

MAIZE MEAL PROJECT HIGHLIGHTS

Established: 2015

Each seasonal worker receives 22 pounds of maize per month

Enough to feed a family of three for one month

Meals distributed since inception: nearly 130,000



India. Venomous snake bites are a significant hazard on the farms and in the villages of rural India. We continue to make anti-snake venom kits available across seed production villages in multiple Indian states either by proactively placing the kits with rural hospitals at strategic locations or transporting the kit directly to rural clinics in response to snake bites. Our leadership has prompted other seed companies in India to replicate this program, providing the larger rural community with access to anti-snake venom kits.

**ANTI-SNAKE VENOM KIT
PROGRAM HIGHLIGHTS**

Established: 2008

Total people treated: 86

People treated FY16: 22

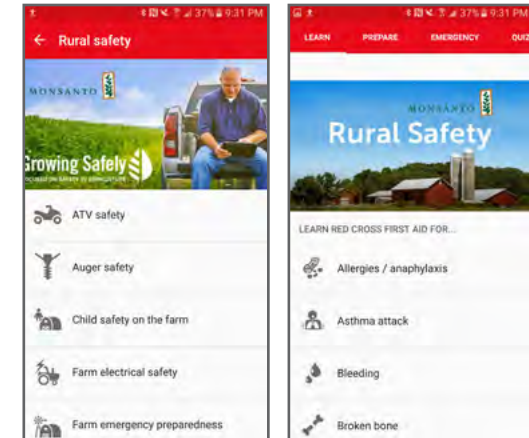
Tropical and Subtropical Regions. When the Zika virus created significant concerns for pregnant women because of the potentially serious consequences for their unborn children, we reinforced our education on mosquito bite prevention for travelers and workers. Mosquitoes can transmit a wide variety of diseases (e.g., Chikungunya, Dengue, West Nile) and are present in many places people live or work. We further work to reduce the risk of employees being bitten

by providing mosquito bite prevention education, encouraging the wearing of long pants and sleeves, and offering insect repellent and hats with insect net mesh. Our sites also maintain mosquito control measures, such as eliminating standing water and spraying to reduce mosquito populations around the perimeter of our buildings and plots.

Community Safety

Monsanto’s focus on safety extends beyond the job site. Throughout the last several years, our Off-the-Job Safety (OTJS) efforts focused on in-person safety events, reaching over 2.1 million people around the world. In order to reach an even larger audience, we decided to incorporate the use of social media in our community safety outreach efforts. As such, we reached approximately 7 million people globally in fiscal year 2016.

United States. In March 2016, Monsanto and the American Red Cross announced a three-year partnership, with Monsanto as the exclusive sponsor of the American Red Cross First Aid App. The app includes videos, fact sheets, Red Cross first aid tips, a quiz and an opportunity to receive a social media badge. As part of this sponsorship, we are providing content for the app’s new rural safety section, which incorporates our Growing Safely video series and covers more than a dozen safety topics, ranging from ATV safety to child safety



**GETTING YOUR OWN AMERICAN
RED CROSS FIRST AID APP**

Text “GETFIRST” to 90999 to download the app, or search “American Red Cross” in the Apple App Store, Google Play or Amazon Marketplace or go to redcross.org/apps. Once downloaded, the app content is available without an internet connection and most app components are also available in Spanish.

on the farm. When the sponsorship was activated, our content was pushed out to the more than 3 million people who had already downloaded the app. Together, the American Red Cross and Monsanto, through its connection with farmers, seek to increase app download penetration among rural communities. This potentially life-saving app is a vital preparedness tool that may serve as the first line of support for communities remote from emergency medical services.



A DAY OF GIVING BACK

Monsanto Gives Back is a day of volunteering in communities across the United States and Puerto Rico organized by our Row Crops Manufacturing Women’s Network. It is closely associated with the Monsanto Together program in that participants are able to count time volunteered for Monsanto Together service grants. In its second year, the 2016 event was expanded to include our Crop Protection, Breeding, and Technology Development and Agronomy functions. Volunteer projects included the planting of a pollinator habitat for continued educational purposes at a local school, harvesting vegetables for a local food pantry and general beautification of the community.

MONSANTO GIVES BACK 2016 HIGHLIGHTS

1,375 employees participated at 77 sites

5,695 hours donated, surpassing target by 126 percent

India. In an effort to share important safety messages with the people of this large country, the Monsanto India team turned to two social media platforms: the [Monsanto India Facebook®](#) page and the safety blog, [Safety Bigul](#). The various safety, corporate social responsibility and human rights initiatives featured on the Monsanto India

Facebook page have reached nearly 3.8 million individuals. These posts primarily highlighted our rural drinking water infrastructure and rural sanitation improvements, anti-child-labor initiatives and vehicle safety awareness efforts. Within the past two years, Monsanto employees created nearly 500 Safety Bigul blog posts. These blog posts received more than 3,300 views from 106 countries in fiscal year 2016.

Volunteering for the Greater Good: Monsanto Together

The Monsanto Together Volunteer Program encourages our employees around the world to volunteer for causes that matter to them and rewards them for their time and effort by offering service grants that support the organizations they support.

Service grants range from \$250 for individual volunteer efforts and up to \$5,000 for team-based volunteer events. For every 20 hours of service an employee volunteers at an eligible nonprofit, he or she can earn \$250 for that organization. In calendar year 2015 (the most recent year for which totals are available),



more than 5,000 employees volunteered more than 105,000 hours across many countries. Since its launch in 2010, the Monsanto Together Volunteer Program has recorded more than 400,000 volunteer hours and has granted more than \$2 million to nonprofit organizations focused on such causes as food and nutrition, STEM education and veterans.



IMPROVING LIVES FOR OUR PEOPLE

To ensure the success of our employees, we invest in world-class training and development, foster inclusion and diversity, and work to provide a healthy and safe work environment around the world.

Developing Our Employees

Development, Performance and Rewards (DPR)

Under the 70/20/10 principle, the most impactful professional development and growth (70 percent) occurs in the context of an individual's job performance in their current job, while 20 percent impact is achieved through coaching and 10 percent impact comes through formal training. Monsanto is uniquely positioned to leverage the 70/20/10 principle through its continued focus on maximizing an individual's daily work with support and coaching from their manager.

The DPR process integrates an individual's performance on the job and professional development with financial rewards. Monsanto also provides excellent training opportunities for its employees around the world.



MONSANTO'S LEADERSHIP EXCHANGE PROGRAMS SUMMARY

We've built nine-month programs that empower selected employees to accelerate their professional development and help the company identify and nurture strong leadership candidates at three key career milestones.

PROGRAM	PARTICIPANTS	PURPOSE	2016 MEMBERS GLOBALLY
<i>Global Leadership Exchange</i>	<ul style="list-style-type: none"> Leaders who manage other leaders Have demonstrated high levels of potential and performance 	<ul style="list-style-type: none"> Engage in dialogue with Executive Team members about Monsanto's global businesses Expand skills in business planning processes and strategy Enhance capabilities as senior leaders 	33
<i>Regional Leadership Exchange</i>	<ul style="list-style-type: none"> Leaders of projects or teams Have demonstrated high levels of potential and performance 	<ul style="list-style-type: none"> Discuss challenges and opportunities facing Monsanto's businesses within region Expand business acumen Improve ability to influence and lead effectively 	159
<i>Local Leadership Exchange</i>	<ul style="list-style-type: none"> Future leaders typically early in career Have already shown high potential 	<ul style="list-style-type: none"> Gain deeper understanding of Monsanto's businesses and leadership expectations Hone critical and strategic thinking skills 	107



People Leader Learning Series (PLLS)

As part of our efforts to help employees bring out the best in each other, we created the PLLS – a classroom training program that focuses on enabling and further developing leadership skills critical for managers. In 2016, 350 people leaders completed a PLLS workshop.

Empowering Employees with Learning Opportunities

To support the growing needs of our diverse global workforce, we've invested in a number of specialized learning resources that allow our employees to take ownership of their professional development.

- **Monsanto's Apprenticeship Program**
Designed primarily to promote skilled labor opportunities for women in the region around our Soda Springs, Idaho, location, this 55-week paid program gives apprentices specialized mechanical and on-the-job training in preparation for a full-time position at Monsanto upon successful completion of the program.

AVERAGE HOURS OF TRAINING PER YEAR PER EMPLOYEE

PERCENTAGE OF EMPLOYEES RECEIVING REGULAR PERFORMANCE REVIEWS

PERCENTAGE OF ELIGIBLE EMPLOYEES RECEIVING CAREER DEVELOPMENT REVIEWS

- **English for Leaders Program**
Monsanto offers the opportunity for employees – for whom English is not their native language – to improve their English skills to help them in their current leadership role and develop them for future opportunities.
- **Skillsoft**
This online content portal hosts a variety of courses, e-books, videos and more, giving global employees the power to access professional development content when it is convenient for them and through their preferred device.

	NON-MANAGERIAL	MANAGERIAL
TOTAL	20	10
Male	99	97
Female	97	96
TOTAL	98	97
Male	99	97
Female	97	96
TOTAL	98	97

- **Tuition Assistance**
Eligible employees can receive reimbursement for tuition expenses as established by their region. In the United States, for example, Monsanto will reimburse up to \$7,500 per calendar year for eligible full-time employees or \$3,750 per calendar year for eligible part-time employees. In calendar year 2016, Monsanto reimbursed over \$1.1 million in tuition to employees in the United States.



Embracing the Power of Inclusion and Diversity

Honoring and leveraging inclusion and diversity drives employee engagement, innovation and business success. While diversity reflects a person's background and culture, including race, religion, veteran status, disability, gender identity, sexual orientation and other attributes, inclusion references our ability to achieve outstanding performance by embracing these differences. Our Management Advisory Committee (MAC) Inclusion and Diversity Council (MIDC) of 22 global leaders provides direction and oversight regarding our inclusion efforts to build trust, promote innovation and maintain our competitive advantage.

Just as data and analytics are shaping the future of agriculture, we're using measurements to improve people outcomes. Through research, we found that our best leaders build trust by developing their teams, exercising managerial acumen and creating an inclusive environment. We've since added inclusion as a global metric in our leadership assessment tool to determine how effectively our leaders engage their teams. Measuring inclusion is critical to tracking progress and building accountability.

Sponsoring Diversity

The Executive Sponsorship program includes senior leaders who leverage their position and

networks to help their diverse protégés grow their careers within Monsanto and gain significant leadership roles.

Tackling Unconscious Bias

Through face-to-face and virtual workshops, we're training employees how to overcome unconscious bias to counteract implicit attitudes that can have potentially negative effects on business decisions and people's actions.

Women in STEM

We support women in leadership and in STEM fields worldwide through grassroots initiatives, including [Lean-In Circles](#) and professional networks. These groups support women as they balance personal responsibilities and corporate leadership. Monsanto women who work as scientists and engineers have also formed networks to enhance female leadership in STEM fields.

Fiscal year 2016 also marked the inaugural graduates of our Women in Science and Engineering (WiSE) class of women leaders, who were trained at Washington University in St. Louis. WiSE, active on college campuses in the United States, inspires women to study and build careers in STEM fields.

Business Resource Networks (BRNs)

Our employee-led resource groups enhance and diversify Monsanto through member-focused initiatives, such as professional growth and connecting with customers and communities. In 2016, our BRNs included:

- Access – For employees, their families and our customers with visible and non-visible disabilities.
- African-Americans in Monsanto
- Encompass – For employees and their families to foster support and communication among lesbian, gay, bisexual and transgender employees.
- The Family Network – For employees and their families to help them balance work and family responsibilities.
- Monsanto Asian Connection
- Monsanto Latin Network
- VanGuard – For employees and their families who are current or prior members of the military.
- Young Professionals Network
- Women's Network – U.S. and global chapters
- IamMonsanto (Iam) Networks – At locations where there's no critical mass of a particular demographic, these site-based groups channel many BRNs into one group.



Fostering Innovation Through Inclusion

by Luke Visconti
Founder and CEO,
DiversityInc

DiversityInc is dedicated to helping corporations understand the business benefits of diversity. Since 2001, we've quantified corporations' commitment to inclusion through our List of Top 50 Companies for Diversity. Companies that embrace diversity and look for top talent – regardless of background or ethnicity – are the most successful. Our list of top 50 companies regularly outperforms the U.S. stock market.

Monsanto, which was included among DiversityInc's Top 50 companies for Diversity in 2016, understands that in a globally competitive environment, innovation is what sustains growth and success. A diverse workforce is the key to innovation and means that more ideas and perspectives are driving toward the best business solutions.

As the world's population grows, the global demand for food is increasing at staggering rates, and companies like Monsanto must understand and communicate with farmers from varying backgrounds. Monsanto's commitment to

diversity through its culture of inclusion and global employee base has been a critical component of the company's success.

The company's mission to create an inclusive culture starts at the top. For example, its Management Advisory Committee Inclusion and Diversity Council of top global leaders provides strategic direction around inclusion to promote innovation, build trust and impact the bottom line. It's not uncommon to see Hugh Grant, Monsanto's CEO, in the room during diversity discussions, which says to me that at Monsanto, there's no such thing as trickle-up diversity.

Monsanto is a data-driven company and measures all aspects of employee management, including recruitment, talent advancement and the effectiveness of its inclusion and diversity initiatives. The company has also implemented programs that accelerate inclusion such as sponsorship, unconscious bias workshops and the Business Resource Networks (BRNs) that are covered in this report.

Monsanto is also strongly committed to diversity among its suppliers. It recently took its business acumen to its global network of diverse suppliers and offered mentoring from senior leaders. The results were win-win for both parties: suppliers are more efficient and profitable, which translates to lower procurement costs for Monsanto.

Monsanto's senior management is doing a remarkable job at fostering inclusion and talent that impacts the bottom line. Through its many initiatives, Monsanto has created an environment where leaders and employees are motivated to achieve more.

INCLUSION AND DIVERSITY AT MONSANTO

Employees participating in MIDC Executive Sponsors Programs (ongoing)	51
Global Business Resource Networks	21
Percentage of global workforce that participate in Inclusion and Diversity BRNs	15%
Leaders who graduated from the inaugural Women in Science and Engineering (WiSE) Leadership Series in 2016	30
Leaders and employees who have participated in Unconscious Bias Training	3,000+
Percentage toward goal of 5,000 leaders expected to participate in Unconscious Bias Training	~ 50%
Total spend with Diverse Suppliers in 2016 (see Page 101)	~ \$182 Million



Rewarding Great Work

Monsanto provides employees with a comprehensive total rewards package including compensation, retirement benefits, healthcare benefits and much more. Compensation plans are aligned with local markets and are competitive and equitable and in accordance with local laws. They include a common short-term incentive plan for non-sales direct regular employees; in addition, direct management employees receive annual long-term incentive grants.

Monsanto's benefits are designed to attract and retain the best employees. In the United States and in our businesses around the world, we provide a suite of benefits to regular full-time and part-time employees who work 20 hours per week or more. Individuals that are employed directly by Monsanto on a temporary basis may become eligible for medical plan benefits and paid holidays based upon the length of their employment and retirement benefits based on the number of hours worked.

Employee classification, benefit plans and Great Place to Work policies differ by country and location due to hiring practices, statutory requirements, market practice and cultural norms.

EMPLOYEE BENEFITS BY AREAS OF SIGNIFICANT OPERATION (LOCATIONS WITH 300+ EMPLOYEES)

Location	LIFE INSURANCE		HEALTHCARE		DISABILITY		PARENTAL LEAVE		RETIREMENT		OUTPLACEMENT	
	R*	T**	R	T	R	T	R	T	R	T	R	T
St. Louis, USA	●		●	●	●		●		●	●	●	
Sao Paulo, Brazil	●	●	●	●	●	●	●	●	●	●	●	
Antwerp, Belgium	●	●	●	●	●	●	●	●	●	●	●	
Luling, USA	●		●	●	●		●		●	●	●	
Muscatine, USA	●		●	●	●		●		●	●	●	
Maipu, Argentina	●		●	●	●		●	●	●		●	
Soda Springs, USA	●		●	●	●		●		●	●	●	
Bergschenhoek, Neth.	●	●	●	●	●	●	●	●	●	●	●	
Ahura Ctr, India	●		●		●		●		●		●	

*R = Regular Employee – An individual hired and employed by Monsanto who is actively working full- or part-time with no expected end date.

**T = Monsanto Temporary Employee – An individual hired for certain periods of time during the year(s) (full- or part-time) and is a direct Monsanto employee.



Employee Composition Data

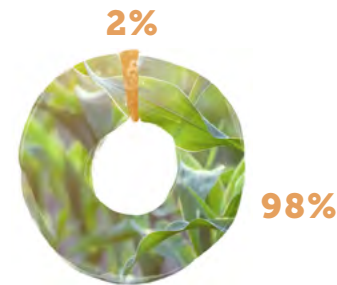
Total Workforce



Employees

Note: We do not centrally track contract workers. Our Environmental, Safety & Health Group applies an algorithm to the total number of hours worked by contract workers to derive a Full Time Employee equivalent for OSHA reporting purposes in the United States.

Employees by Employment Type



Full Time Part Time

Workforce by Region



Asia/Africa Europe
North America South America

New Hires by Gender



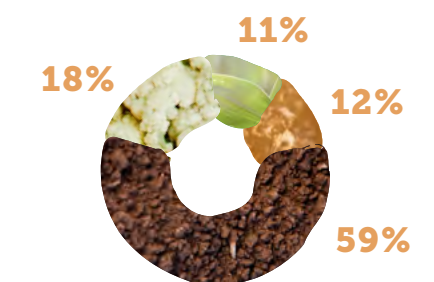
Female Male

New Hires by Age Group



Under 30 30-50 Over 50

New Hires by Region

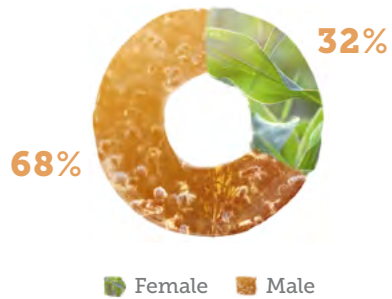


Asia/Africa Europe
North America South America



Employee Composition Data

Employees by Gender

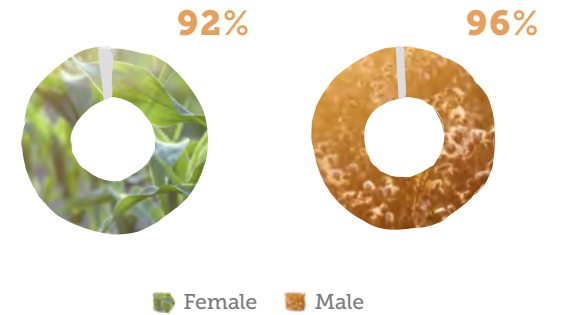


Employees in Minority Groups*

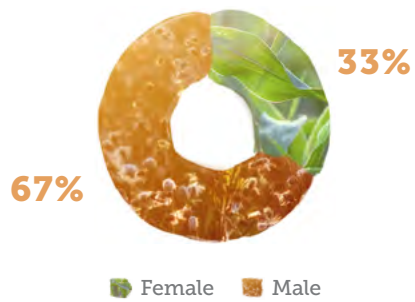


*United States only. Excludes Caucasian males and Caucasian females.

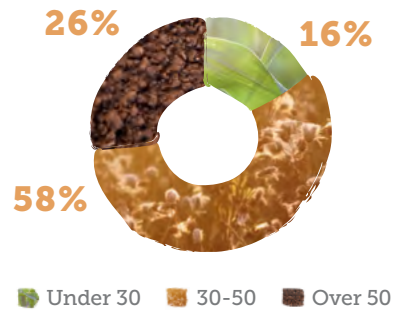
Return to Work and Retention Rate After Parental Leave by Gender



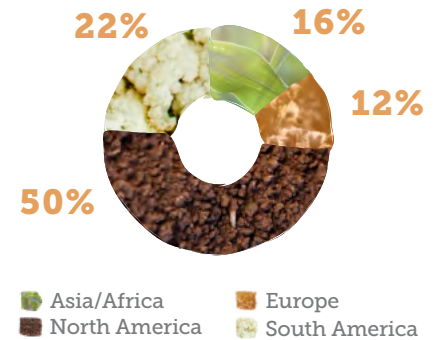
Employees Leaving Employment by Gender



Employees Leaving Employment by Age Group



Employees Leaving Employment by Region





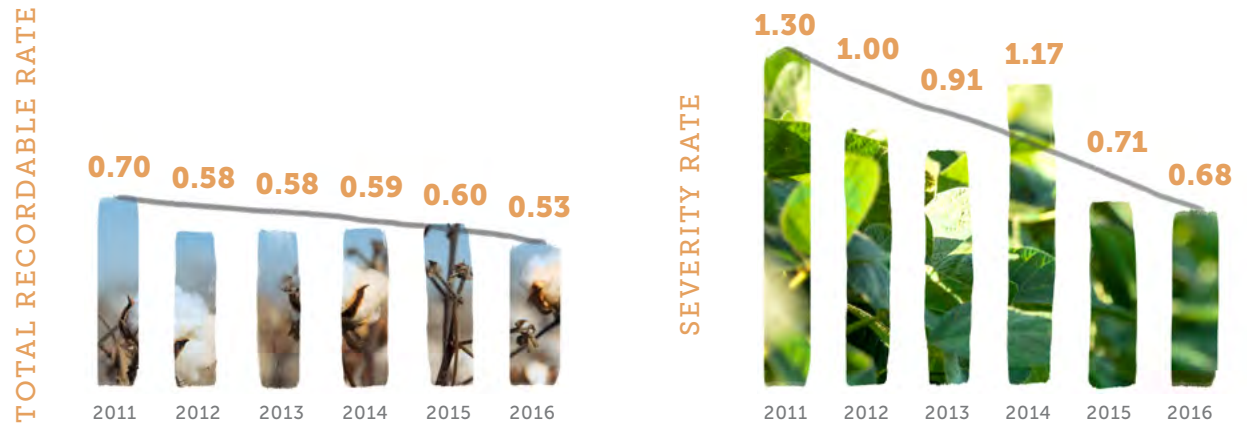
Promoting Employee Health, Safety and Well-Being

Our employees are our greatest assets, and their health and safety are of the highest priority. To this end, we've invested in a number of world-class health, safety and wellness initiatives.

All of our sites are governed under our environment, safety and health (ESH) policies, which encourage the active involvement and representation of employees through ESH councils or committees. Approximately 95 percent of our workforce is represented on ESH committees. As we progress, we recognize the opportunity to create more efficiency and consistency in our occupational health and safety programs.

In 2016, we designed a management system framework that will enable us to better control risks, ensure compliance and leverage resources across our global operations. The Monsanto ESH Management System is designed with enhancements to align with international management system standards while integrating Monsanto specific business process requirements and hazard specific requirements. We are on track to launch an enterprise information technology solution in fiscal year 2017, that will enable sites to develop, maintain and continuously improve their local ESH Management Systems.

SEVERE INJURY RATE DOWN 48 PERCENT SINCE 2011 AND 4 PERCENT IN 2016



Our TRR has decreased 29 percent relative to fiscal year 2011 and 15 percent relative to the 2012-to-2015 average of 0.59. In addition, injury severity has decreased by 48 percent relative to fiscal year 2011, 28 percent relative to the 2012-to-2015 average of 0.95 and 4 percent relative to a prior best of 0.71.

Making an Impact on Injury Severity

A common measure of occupational health and safety is Total Recordable Rate (TRR). However, in 2011, we expanded our focus to measure and track the relative severity of all work-related injuries and illnesses to evaluate where we can have the greatest impact. Our efforts are resulting in significant declines in both injury and illness frequency and severity.

Through a comprehensive risk evaluation process and predictive safety data analysis, we identified activities that likely lead to more

severe injuries and illnesses. Armed with that information, we now emphasize efforts aimed at eliminating or correcting those identified activities or introduce new approaches to prevent injuries or illnesses, such as:

- Commitment by senior leadership to reduce overall injury severity, while ensuring well-being and achieving business success.
- Emergence of a world-class management system to help identify and anticipate risk priorities, perform risk-based audits and conduct process safety benchmarking.



- Standardized assessment of and safety protocols developed for more than 6,000 machines currently used in the field.
- Expansion of in-vehicle technology to more than 30 percent of fleet to improve management feedback, improve driving behaviors and reduce collisions and rollovers.
- Automation of laboratory and field planting to reduce ergonomic-related injuries.
- Multi-site application of best practices in food vendor management, which achieved a 100 percent reduction in food poisoning incidents.

Supporting Wellness in the Workplace

In 2016, we designed a management system framework that enables us to better control risks, ensure compliance and leverage resources across our global operations to prevent injuries and illnesses. In certain types of work, employees may encounter hazards that could potentially impact their health. We strive to protect our employees with world-class safety protocols and, where risk is not fully eliminated, ensure that everyone is equipped with and trained for the use of the proper protective gear. In the past two years, we have focused specifically on reducing our employees' exposure to organophosphate or

carbamate insecticides. We have eliminated the use of these substances at nearly 60 percent of sites or otherwise changed work procedures to limit worker exposure. Regular medical screenings, where still needed, continue to validate that our employees work safely with these insecticides.

In addition, we continue to bolster employee well-being across the globe with initiatives such as:

- Our Africa Health Initiative, which benefited all employees in the region through preventative screenings for HIV and health conditions such as elevated blood pressure or glucose levels. Some of our larger sites also offer on-site HIV treatment and counseling.
- At our site in Petit, South Africa, we installed high-tech noise reduction material in the production area so that employees are no longer at risk for noise-induced hearing loss. They can now perform their work without the need to wear hearing protection.
- In the Netherlands, we developed a program to help employees manage stress and improve work-life balance. The program included issuing new policies, educating employees, creating an environment for employee-management dialogue and taking steps to improve conditions to lower stress.

Protecting Our Guests

Monsanto's Contractor Guest Program has worked for decades to provide a safe work environment for everyone who works at or visits our facilities. This program applies to all of our suppliers who work in our facilities, production fields and sites around the globe. The Contractor Guest Program is a formal system that identifies work risks, provides risk-based targeted safety guidelines, ensures proper safety oversight and safety auditing and, most importantly, protects our contractors' personal safety.

Through a formal prequalification process, we ensure that only suppliers compliant with our safety standards support us for site-specific, regional and global level projects. Through these processes we get closer to our aspiration of an injury-free and incident-free work environment at all of our sites. This approach not only provides all of us with a safe working environment, but the safety culture carries over to our supplier companies' workforce and to the communities where Monsanto and our suppliers live and operate.



MONSANTO STAR PROGRAM

The Monsanto Star designation recognizes site commitment to safety and health leadership, employee engagement and personal well-being. To achieve Star status, a site must receive third-party certification of its safety and health management system, demonstrate industry-leading safety and health performance, and strive to continuously improve. As sites strive to reach or maintain Star status, occupational incident rates and injury severity are reduced while fostering engagement and a shared safety culture. There are a total of 148 Monsanto Star sites.

Tracking Health and Safety Performance

Health and safety data are included for both employees and contract workers by region in the charts that follow. For injury data, minor injuries that require only on-site first-aid treatment are not included in the reported rates.

The "Lost Days Rate" is based on calendar days and begins one day after the injury or illness occurred. Injury Rate (IR), Occupational Disease Rate (ODR), Lost Days Rate (LDR) and Total Recordable Rate (TRR) are calculated using the following formula and are based on U.S. Occupational Safety and Health Administration (OSHA) Recordkeeping and Reporting Requirements:

$$IR = \text{Total Number of Injuries} / \text{Total Hours Worked} \times 200,000$$

$$ODR = \text{Total Number of Occupational Disease Cases} / \text{Total Hours Worked} \times 200,000$$

$$LDR = \text{Total Number of Lost Days} / \text{Total Hours Worked} \times 200,000$$

$$TRR = (\text{Total Number of Injuries} + \text{Occupational Diseases}) / \text{Total Hours Worked} \times 200,000$$

The factor 200,000 is derived from 50 working weeks at 40 hours per 100 employees. By using this factor, the resulting rates are related to the number of workers, rather than the number of hours.

OCC = Occupational

HEALTH AND SAFETY DATA

	EMPLOYEES AND SUPERVISED CONTRACTORS*		CONTRACTORS NOT SUPERVISED BY MONSANTO EMPLOYEES	
	INJURY AND OCC DISEASES Total Recordable Rate (TRR)	DAYS AWAY Lost Days Rate (LDR)	INJURY AND OCC DISEASES Total Recordable Rate (TRR)	DAYS AWAY Lost Days Rate (LDR)
By Region				
Asia Pacific (China & Taiwan, India, Asia Pacific)	0.18	1.26	0.00	0.00
EMEA (Europe, Middle East, Africa)	0.61	3.88	0.66	9.71
Latin America North	0.28	4.61	0.10	0.38
Latin America South	0.60	4.90	0.07	0.33
North America (Canada, Puerto Rico, United States)	0.99	5.74	0.86	4.50
By Gender**				
Female	0.34	2.39	0.48	3.92
Male	0.83	8.73	0.25	1.72
Totals				
Employees and Supervised Contractors* (2016)	0.60	0.06	0.66	4.68
Contractors not Supervised by Monsanto Employees (2016)	0.24	0.06	0.30	2.23
2016	0.47	0.06	0.53	3.75
2015	0.54	0.06	0.60	4.31
2014	0.50	0.08	0.59	6.76

* Contract workers supervised by Monsanto employees.

** U.S. gender information for non-employees (contractors) is not reported to ensure compliance with data and labor regulations.



FORGING THE WAY IN HUMAN RIGHTS

Respecting and protecting the dignity of every person is a long-held commitment of Monsanto. To this end, we have policies and practices in place to ensure that fundamental human rights are respected and advanced. We've accomplished a lot in the decade since our [Human Rights Policy](#) was adopted. Throughout 2016, we celebrated several significant milestones and enhanced our efforts to improve working conditions for all.

Upholding Our Human Rights Standards

Our commitment to human rights is formalized in our Human Rights Policy and informed by the United Nations' Universal Declaration of Human Rights and the International Labour Organization's Fundamental Principles and Rights at Work. Our Policy respects and advances the rights of our more than 20,000 employees and those of our business partners around the world. To maintain the high standards of our Policy, we monitor our sites and our business partners across several key areas.



Training

In 2016, 96 percent of new employees completed computer-based training on Monsanto's Human Rights Policy. Beginning in 2015, we also required full-time employees in our research and development business functions to complete a more in-depth computer-based training focused on issues where field laborers may be particularly vulnerable. Some of this training carried over to 2016 and is included in the training hours in the table on the following page.

We employ security professionals around the world to safeguard our sites and our workers. All of our security employees and individual security contractors have been trained on our Human Rights Policy. In certain areas of the world where we contract with security companies, our [Human Rights Champions](#) provide training to groups of employees from these companies.

Collective Bargaining

Twenty four percent of Monsanto's regular employees are covered by a collective bargaining agreement. In 2016, we did not experience any situations with our unions that resulted in a work stoppage.

Supplier Contracts

We view our seed supply and labor provider contracts as areas of significant investment where human rights have the potential to be impacted negatively. In 2016 we had contracts with 22,831 such entities and all of the contracts included human rights clauses.



CELEBRATING 10 YEARS SINCE THE IMPLEMENTATION OF OUR HUMAN RIGHTS POLICY

- 2006: Board of directors adopts the Monsanto Human Rights Policy.
- 2007: Employees chosen as Human Rights Champions.
- 2008: Mandatory human rights training for all employees established.
- 2009: Monsanto joins the United Nations Global Compact.
- 2010: Monsanto receives its first 100 percent score on the Human Rights Campaign's Corporate Equality Index.
- 2011: Monsanto joins BSR's Human Rights Working Group as a charter member.
- 2012: Human rights clauses incorporated in 100 percent of seed supply contracts.
- 2013: Monsanto again receives a score of 100 percent on Corporate Equality Index; convenes supplier summits on regional basis throughout the world.
- 2014: Monsanto signs on to the UN Global Compact CEO Water Mandate and WBCSD's WASH Pledge.
- 2015: 25,000+ business partner assessments conducted globally. Monsanto elected as inaugural chair of the board of Network USA of the UN Global Compact.
- 2016: Monsanto receives fourth consecutive 100 percent score on the Corporate Equality Index and joins the Human Rights Campaign's Business Coalition for the Equality Act.

HUMAN RIGHTS AT MONSANTO: 2016 HIGHLIGHTS

New Employees Trained on our Human Rights Policy	96%
Hours of Human Rights Training by Monsanto Employees in 2016	886
Security Employees and Individual Security Contractors Trained on our Human Rights Policy	438
Percentage of Contracts with Seed and Labor Suppliers with Human Rights Clauses	100%
Human Rights Assessments of Business Partners Globally	21,520
Labor Providers Audited at our U.S. Corn Manufacturing and Breeding Sites	93
Workers Covered Under Audits at U.S. Corn Manufacturing and Breeding Sites	8,825
Contracts not Renewed with Business Partners for Acting Inconsistently with our Human Rights Standards, Including Child Labor (126), Working Hours (2) and Safety (1)	129

Tracking Our Progress

Working with Our Business Partners

We strive to identify and do business with partners who share our commitment to human rights and ethical business practices. For the business partners with whom we contract directly, their contracts bind them to uphold the elements of our Human Rights Policy. We're also phasing in a purchasing system that asks all business partners to complete a questionnaire about their employment practices and policies.

In certain countries, a significant number of the partners with whom we work are contracted indirectly, but the party that contracts with those business partners is obligated to cascade the contract language to advance our standards and Human Rights Policy.

We also conduct periodic audits of our suppliers to ensure they are acting consistently with our Human Rights Policy. When violations are identified, our first choice is to work with our business partner to improve their practices in compliance with our standards. Sometimes, however, business relationships need to be terminated.



SUPPORTING EQUALITY

Monsanto joined the Human Rights Campaign [Business Coalition for the Equality Act](#) in 2016, a group of leading U.S. employers supporting the Equality Act. The [Equality Act](#) is federal legislation in the United States that would provide the same basic protections to lesbian, gay, bisexual, transgender or questioning (LGBTQ) people as are provided to other protected groups under federal law. Monsanto has a long history of employing a diverse workforce and creating an inclusive environment for its employees, including recruiting, hiring, retaining and promoting employees from all dimensions of diversity. We are committed to ensuring that every voice is heard and every person is treated equally.

Making a Difference with Our Standards

Our employees play a pivotal role in heightening awareness of human rights and creating better working conditions in their respective regions. One prime example is Monsanto Foundation seed manager and production research scientist, Kasonde. Based in Zambia, Kasonde helps monitor human rights issues with our growers throughout the region. As a result of Kasonde's efforts, we notified one of our Zambian contract growers that his contract would be terminated for failing to meet our standards for working conditions. This action prompted the grower to make significant changes, including building new housing with access to clean

water and sanitation. After visiting this farm and seeing the dramatic improvements made, we reinstated a contract with the grower in 2016.

Ensuring Our House is in Order

In our owned global operations, we have several methods for assessing human rights impacts. Our Human Rights Champions assess the operations in the geographies they cover, with priority on the highest risk countries and report any concerns.

The Environmental Safety and Health Corporate Audit team conducts human rights assessments when they visit high- and medium-risk country sites on a rotating basis that may not have been recently assessed. The findings from these audits are tracked in our recently implemented management system to ensure more consistent reporting and implementation of corrective measures and actions across our global operations.

In 2016, we marked our third consecutive year of audits at our U.S. corn seed manufacturing sites. The 2016 audits identified several opportunities for improvement in our manufacturing sites, and corrective actions are being instituted.

Where indigenous peoples live near or work in our facilities, we do our best to accommodate any special needs they have. We did not discover any

significant issues from our operations involving the rights of indigenous peoples in fiscal year 2016.

Respecting Human Rights in High-Risk Areas

We conduct a global risk assessment of our field operations every three years. In our most recent assessment in 2014, we identified 10 countries with the greatest human rights risks and have concentrated our efforts on assessing and improving conditions in these areas. In fact, in 2016, we were able to audit 98 percent of our business partners located in high-risk countries.

Helping Eradicate Child Labor

The use of child labor is a systemic problem throughout India. Our Child Care Program (CCP) Steering Committee oversees efforts to monitor our business partners' fields in India, remove any child laborers younger than the legal age limit of 14 and encourage parents to enroll these children in school.

One of the ways Monsanto minimizes instances of child labor in India is through our Model Village designation, a title awarded to communities with at least 50 farmers or 16 production hectares



that have had no child labor observed by the CCP monitoring teams during the season. As an incentive and in recognition, Monsanto provides in-kind donations to schools in every Model Village. In 2016, 12 out of 17 eligible villages earned Model Village status.

Another way we work to eliminate child labor in India is through our Social Mobilizer program. Social Mobilizers are women trained in social work who we hire to follow reported instances of child labor and meet with farmers, families, women’s groups, school officials and local leaders to promote the benefits of sending children to school rather than the fields.

In 2016, our child labor monitoring program recorded 0.29 percent child labor in our business partners’ hybrid cotton seed fields in India. This amounted to 159 children in total. In 2016, we had significant challenges in recruiting growers, which resulted in the need to grow seeds in some areas that were considered tribal and employed significant amounts of migrant labor. This contributed to the increased child labor percentage in 2016, as children traveled and worked with their parents. For next season, we have put additional measures in place to encourage migrant workers to find schooling for their children, whether at home or in their work location.

In our business partners’ vegetable and corn fields in India, no children were found working in 2016.

Navigating New Legal Provisions in India

Late in fiscal year 2016, India passed the Child Labour Prohibition and Regulation Act. Among other provisions, this new law allows children to work in family enterprises, including farms, as long as they are also able to attend school. Prior to this law, we counted any child working in our business partners’ fields – regardless of family status or school enrollment – as a child laborer in our monitoring. Now, when children are found in the field, we will verify whether they are members of the farmer’s family, whether they are enrolled in school and whether school was in session during the time the child was found working.

We anticipate there could be a change in the percentage of children in the workforce due to the Child Labour Prohibition and Regulation Act. While we will not be able to implement a tighter child labor standard than this new law provides, we will continue our education and awareness campaigns in production areas to attempt to minimize the use of child labor.



HELPING TO ENSURE THE HUMAN RIGHT TO WATER

In April 2014, Monsanto became the first agriculture company to sign the [WBCSD WASH Pledge](#), formalizing our commitment to ensuring that all Monsanto employees and contractors under our direct control have access to safe water, sanitation and hygiene at the workplace.

In 2016, we evaluated the results of our site-wide WASH Pledge assessment to identify and address any gaps associated with the WASH principles. Out of nearly 250 global sites surveyed, less than 25 had validated concerns. Corrective actions have been made or are in the process of being implemented to address those issues.

Over the past year, Monsanto’s efforts in the area of water and sanitation have helped 250,000 rural community members in India adopt healthy and hygienic lifestyles that will have positive long-term health impacts.

Under this project, Monsanto has a target of building more than 2,500 toilets in 85 villages in the states of Andhra Pradesh, Bihar, Karnataka, Maharashtra, Silvassa and Telangana over the next three years. Extensive hygiene awareness training has been undertaken with a focus on influencing behavioral change in the communities to help them manage cultural barriers. The completion of the first year of the program saw construction of more than 600 household units and 15 school sanitation units for communities.

Hygiene kits containing basic toiletries were distributed to more than 37,000 children, including near our corn seed production facility in Eluru. WASH and hygiene training sessions were held across more than 200 schools to promote awareness.

PLANET

Balancing agricultural productivity with societal demands for food, fuel and fiber and with the optimal use of environmental resources through solutions that help farmers grow crops more efficiently.

We only have one Earth to provide for our needs today and tomorrow. We're focused on pursuing agricultural solutions that can help produce what's needed to feed a growing global population while preserving our natural environment. This starts with identifying solutions that help us use resources more efficiently within our own facilities and out in the fields. We're working to adapt to and mitigate climate change by improving our operations and collaborating with others. And we're continuing to protect freshwater sources, preserve biodiversity and improve soil health.

59	MITIGATING AND ADAPTING TO CLIMATE CHANGE
60	Pursuing Carbon Neutrality
61	Sharing Data Modeling for Carbon Neutral Crop Production
62	Collaborating on Climate Action: the Carbon-Neutral Collaborative
62	Collaborating to Drive Nutrient Efficiency
63	Moving From Planning to Action on Climate-Smart Agriculture
65	Applying Data Science to Feed a Growing Population
66	ENSURING ACCESS TO FRESH WATER
66	Using Water More Efficiently
67	Addressing Water Risks
68	ADVOCATING FOR BIODIVERSITY
68	Connecting Biodiversity and Agriculture
70	Protecting Species
72	Enabling Responsible Pest Control
74	Promoting Sustainable Landscapes
75	Digging into Soil Health
77	Researching Ag Biological Solutions for Plant and Soil Health and Pest Control
78	Preserving and Improving Plant Varieties and Sharing Benefits
80	GUIDING AND AUDITING OUR ENVIRONMENTAL PERFORMANCE
81	Environmental Data



MITIGATING AND ADAPTING TO CLIMATE CHANGE

Climate change is already directly impacting agriculture and continues to be one of the most pressing challenges facing humanity. As company entirely devoted to agriculture, we are particularly attuned to the potential effects of climate change including drought, extreme heat, severe weather events, shifting climatic trends, rising sea levels, shifting pest infestations, compromised harvests and flooding.

Agriculture, forestry and other changes in land usage account for approximately 24 percent of human-related greenhouse gas (GHG) emissions like carbon dioxide. Mitigating climate change is a daunting challenge, but the urgency for taking action is real – the severity of climate change will depend on the amount of GHG reductions that can be accomplished in the next 25 years. Simultaneously, expected population growth indicates that food security is at risk unless we accelerate production while reducing food waste – all without continuing to expand farmland into forests and other natural areas.



Global farmland expanded from 4,429 to 4,930 million hectares, an 11 percent increase from 1961 to 2012. Since this 500 million hectare farmland expansion into forest or grasslands has released roughly 3 billion metric tons of carbon dioxide per year, it is imperative that farmland expansion be slowed or halted to minimize future GHG emissions. The good news is that wider use of modern farming technologies can accelerate productivity improvements so that tomorrow's food demands could be met with existing farmland, eliminating the need for further deforestation or other land conversions to agriculture.

Monsanto develops sustainable agronomic systems that include highly productive hybrids and varieties that enable farmers to produce

more crops from existing farmland while reducing GHG emissions per acre of land and per bushel produced. These production systems often include weed control solutions that can reduce the need for tillage, thus decreasing tillage passes over the field. Reducing or eliminating tillage allows less disruption of the soil, which increases the ability of the soil to store and maintain carbon. Data analytics and precision agriculture techniques enable farmers to more precisely apply fertilizer, use fuel and water more efficiently, and maximize productivity from existing land. These are all components of carbon neutral farming, and they concur directly with the USDA's "10 Building Blocks for Climate Smart Agriculture" plan. But in order to combat climate change, we must collectively do even more.



Pursuing Carbon Neutrality

In December 2015, we announced a goal to become carbon neutral across our company's operations by 2021. We are pursuing a multi-pronged strategy for achieving this important milestone:

- We strive to improve the GHG intensity of our crop protection business, which is the largest contributor to our carbon footprint.
- We are focused on reductions and invest in technologies at our facilities and sites around the world in order to use energy more efficiently and access cleaner energy sources.
- We have established an internal price for carbon, which we use when making strategic decisions and investments.
- We work with our contract seed growers to encourage and help them adopt carbon neutral crop production methods. We consider our contract growers to be part of our carbon footprint.
- We are developing an approach to quantify and verify carbon that is sequestered through the use of carbon neutral farming practices. We will work with farmer customers to increase the adoption of these carbon

neutral crop production methods in exchange for their carbon reduction value to offset our remaining carbon footprint.

The practice of offsetting carbon has grown in popularity in recent years and typically entails companies funding or investing in projects aimed at balancing carbon emissions with carbon sequestration efforts that are not directly associated with their core business. Our approach, known as carbon insetting, is different because it generates and retires carbon offsets entirely within our direct agricultural supply chain, partnering within our immediate scope of influence and working specifically with our farmer customers as partners in helping achieve carbon neutrality.

Carbon neutral crop production methods, including precision nutrient management, reduction of tillage and expansion of cover crops, allow large-acreage crops like corn and soybeans to be grown more sustainably. This approach builds soil carbon in amounts equal to or greater than the total amount emitted to grow and harvest those crops. Widespread adoption of these methods could result in carbon neutral crop production on millions of acres of farmland, well beyond Monsanto's carbon footprint.

In order to make progress against our carbon neutrality goal, we have commissioned life-cycle

Monsanto's leadership in focusing on soil health as a means to achieve companywide carbon neutrality, and by incentivizing the engagement of their value chain and customers to improve soil health, is brilliant. We can't feed 9.7 billion people in 2050 without improving soil health and restoring lost carbon to soils.

Debbie Reed

Executive Director, Coalition on Agricultural Greenhouse Gases

assessment (LCA) studies at the national and farm levels to better understand which crop-based strategies have the greatest potential to reduce carbon emissions (see Page 61). These studies have indicated that systematic carbon neutral practices could allow agriculture to become a key solution to slowing climate change. We've convened the Carbon-Neutral Collaborative (see Page 62) to serve as a forum of industry-leading technical experts to collaborate, advise and help build a framework to account for the positive impacts that carbon neutral farming can deliver.



APPLYING RIGOR TO OUR CARBON NEUTRAL COMMITMENT

In working toward our goal of carbon neutrality and encouraging farmers to adopt carbon neutral crop production methods, we are working with others to ensure a credible and scientific approach, which includes:

- Peer-reviewed validation of GHG reduction models
- Development of a transparent GHG accounting and computation framework
- Third-party verification of Monsanto's corporate emissions
- Third-party verification of adoption of mitigation practices
- Ongoing research into soil health and soil carbon stocks
- On-farm demonstrations and testing of best practices

GREENHOUSE GAS EMISSIONS INTENSITY

Goal	Reduce greenhouse gas emissions in our crop protection operations by 22% per pound of active ingredient by 2020, relative to our baseline in 2010.
FY 2016 Progress	In fiscal year 2016, we continued our strong progress toward our 2020 goal, achieving 89% of goal in fiscal year 2016 (up from 73% in fiscal year 2015).

Sharing Data Modeling for Carbon Neutral Crop Production

As part of our commitment to make our own operations carbon neutral, we commissioned third-party expert [ICF International](#) to examine the potential for reducing carbon emissions through agriculture in the United States. The resulting report, titled [Charting a Path to Carbon Neutral Agriculture: Mitigation Potential for Crop Based Strategies](#), shows that widespread adoption of recommended practices could potentially result in more than 100 million metric tons of annual greenhouse gas emissions reductions in the United States alone. That's equal to the carbon absorption potential of more than 2.5 billion tree seedlings grown for 10 years.

Carbon-smart practices, coupled with innovations like biotechnology and advanced breeding, are vital tools that can help farmers adapt to and mitigate climate change. We are committed to encouraging the use of innovative farming techniques and carbon-smart practices that will help reduce emissions. Part of this commitment includes the sharing of data and modeling results with the broader agriculture community, which we have begun to do with the public release of the ICF report in June 2016. See Page 64 to learn more about carbon neutral crop production.



INVESTING IN GREENHOUSE GAS REDUCTIONS

We are investing millions of dollars around the world to improve our crop protection and other facilities to make them more energy efficient. Some examples include:

- A new cogeneration plant was installed at our Antwerp, Belgium, crop protection plant to ensure sustainable steam and electricity production and reduce carbon emissions by about 12,000 metric tons annually.
- We will be converting our boiler at our Muscatine, Iowa, crop protection plant from using coal to natural gas in 2017, resulting in an expected reduction of 42,000 metric tons of carbon emissions annually.
- We have installed an array of solar panels at one of our sites in Shameerpet, Hyderabad, India, which will avoid 70 metric tons of carbon emissions annually.
- At many of our production sites in Brazil, we are converting from conventional light bulbs to high-efficiency, long-lasting LED bulbs. This has reduced close to 800 metric tons of carbon emissions and saved more than \$1.6 million between 2013 and 2016.



Collaborating on Climate Action: the Carbon-Neutral Collaborative

Among the most critical tasks for encouraging carbon neutral crop production and for achieving our goal of carbon neutrality is a scalable and verifiable carbon accounting framework that will provide a transparent system for measuring and reporting carbon reductions from the adoption of specific agricultural practices and systems.

Such a framework requires wide ranging expertise and collaboration among many stakeholders. We have assembled and commissioned the Carbon-Neutral Collaborative, a group of experts and leading scientists in agricultural greenhouse gases, to help develop this framework. While initially conceived as a means to lend scientific rigor to our carbon neutral aspirations and to help in the building of an accounting framework to quantify soil carbon sequestration, the collaborative approach and efforts of the team were recognized in early September 2016 by the USDA. The USDA awarded a \$1 million Conservation Innovation Grant (CIG) to our partner, the [National Corn Growers Association](#) (NCGA), to help advance the framework research and development. This recognizes that this soil carbon accounting framework can serve in the future as a model for corporations and other entities to encourage conservation adoption and

achieve greenhouse gas reductions and water quality benefits. Monsanto is also investing \$1.6 million in matching funds to the CIG to help fund the work of the Carbon-Neutral Collaborative.

Carbon-Neutral Collaborative members:

- The [Soil Health Partnership](#), a joint effort of NCGA, the [Walton Family Foundation](#) and Monsanto to work with growers to use more than 100 test sites to demonstrate the highest-impact cropping rotations and systems.
- [AgSolver, Inc.](#), responsible for developing the data and computation platform to support field monitoring.
- [Applied GeoSolutions LLC](#) performing the validation of the DeNitrification-DeComposition (DNDC) model.
- [Colorado State University](#) performing model comparisons with the COMET-Farm model.
- [Kansas State University](#) performing soil carbon modeling research.
- [Climate Smart Group Inc.](#) creating the GHG accounting framework.
- [University of Illinois at Chicago](#) and [Crop Growers, LLC](#) will use satellite technology to verify that carbon offset practices were executed in order to accurately report mitigation.

- [Coalition on Agricultural Greenhouse Gases](#) (C-AGG) will provide a forum for wider engagement with GHG experts.

Collaborating to Drive Nutrient Efficiency

In partnership with [Cargill](#), [General Mills](#), [Kellogg](#), [PepsiCo](#) and [Walmart](#), we have introduced the Midwest Row Crop Collaborative through which we're engaging with farmers, consumers, supply chain partners and NGOs like the [Environmental Defense Fund](#), [The Nature Conservancy](#) and [World Wildlife Fund-U.S.](#) to find ways to manage nutrient applications more efficiently and curb greenhouse gas emissions on 20 million acres of U.S. crop land by 2020.

As part of this initiative, we collaborated with [GROWMARK](#) to focus on working with individual farmers to develop customized nutrient action plans by using data science, in-field sensors and other tools. Currently, 200,000 acres of farmland have been enrolled in year one of the initiative, which promotes efficient and innovative use of fertilizer. GROWMARK is a regional agricultural supply cooperative serving farmers in more than 40 U.S. states and Ontario, Canada.



Moving From Planning to Action on Climate-Smart Agriculture

Leading food and agri-business companies Kellogg Company, PepsiCo, Monsanto and Olam co-chair the Climate Smart Agriculture (CSA) Working Group, which is part of WBCSD's Low Carbon Technology Partnerships initiative (LCTPi).

Climate risks threaten crop production, food security and agriculture's pivotal role in rural livelihoods and broad-based development. The WBCSD CSA Working Group fosters and expands collective action in order to promote adoption of climate-smart agricultural systems worldwide.

The CSA Working Group co-chairs offer insights into their companies' roles in this important initiative.



AMY BRAUN

Sustainability Director, Kellogg Company

Kellogg has robust commitments around sourcing sustainable ingredients, so we hope to focus on shifting global supply chains by focusing on resiliency and mitigation. The CSA Working Group is examining how we can tap into the farmer-led North American Climate Smart Agriculture Alliance to replicate its work with family and owner-operated farms, and leverage that with public-private partnerships, NGOs and other stakeholders.



GABRIELA BURIAN

Global Lead Sustainable Agriculture, Monsanto

The CSA Working Group is now in its second year. Our first year was one of planning and bringing people to the table. Now we're taking action in road-test regions where CSA members are engaged in pilot programs on the ground. Monsanto will apply lessons learned through our sustainable landscape partnership with Conservation International and our research into carbon neutral crop production.



CHRIS BROWN

Vice President, Environmental Sustainability, Olam International

Rather than creating systems from scratch, we are expanding on proven programs and adapting them for regional needs. Olam, a vertically integrated global ag business, is building upon its experience with more than 4 million smallholder farmers and sharing best practices. We're all large companies doing good work in our own ways, but not one of us is going to be able to solve the challenges we face independently.



JENNY BELL

Europe Sustainability Risk and Impact Manager, PepsiCo Europe

We chose to embark on the regional pilots based on the Working Group's action areas and the expertise of the members. PepsiCo is a significant commodities purchaser, so we know that end of the business very well. Others have direct relationships with farmers. By representing all sides of the supply chain, the CSA Working Group members will learn from each other to scale climate smart agriculture globally.

WBCSD CLIMATE SMART AGRICULTURE WORKING GROUP

Co-Chairs	Kellogg Company, PepsiCo, Monsanto, Olam
Members	Banamex, Coca-Cola, Diageo, DuPont, Novozymes, PwC, Starbucks, Tyson Foods, Unilever, Walmart, Yara International
Goals	By 2030: <ul style="list-style-type: none"> • Make 50% more food available • Reduce agricultural and land-use change emissions from commercial agriculture by at least 50% percent (65% by 2050) • Strengthen the climate resilience of farming communities
Pillars	Food Availability, Resilience and Emissions Reductions
Action Areas	Scaling-up Investment in Climate Smart Agriculture, Improving Businesses' Ability to Measure and Monitor Progress, Implement Agriculture-Driven Zero Deforestation and Sustainable Land-use Commitments
Road-Test Regions	Brazil (no deforestation), Ghana (smallholder farmers), India (water challenges), North America* (family and owner-operated farms), Southeast Asia (no deforestation)

* The United States is considered a priority country for this initiative, but not a road-test country.



CARBON NEUTRAL CROP PRODUCTION

BENEFITS

DESCRIPTION OF TOOLS



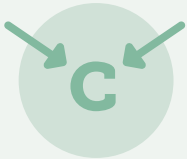
*Uses energy, fertilizer
and other inputs
more efficiently*

Data-Enabled Precision Agriculture

Using data science and information technology to make better informed decisions about applying inputs like fertilizer, pesticides and irrigation water.

Microbial Inoculants

Microbial products that are made from naturally-occurring microbes that offer real benefits to growers, like improving crop nutrient uptake and promoting growth and yield.



*Absorbs
more carbon*

Highly Productive Crops

Crops that produce more grain and plant material while absorbing more carbon per acre of land.

Cover Crops

Crops grown to provide cover to farmland and prevent soil erosion while absorbing carbon between primary crop seasons.



*Enables carbon
neutral practices and
improves harvests*

Biotech Plants

Enables carbon neutral crop production by allowing weeds to be more easily controlled while reducing tillage.

Improved Plant Breeding

Rapid development of advanced plant varieties, which enable better harvests and more plant productivity. New plant varieties may absorb and store more carbon per acre, while providing pest and drought tolerance.



*Returns
carbon to soil*

Crop Residue

Parts of the plant that are left on the field after harvest to return carbon to the soil while enhancing soil quality.



*Helps keep carbon
stored in soil;
fights erosion*

Cover Crops

Crops grown to provide cover to farmland and prevent soil erosion while absorbing carbon between primary crop seasons.

Reduced Tillage

Tilling disturbs the soil and releases carbon in the soil to the atmosphere. Minimal or no tillage helps protect soil structure and keeps carbon in the soil.



Applying Data Science to Feed a Growing Population

The Climate Corporation, a subsidiary of Monsanto, aims to help all the world's farmers sustainably increase their productivity through the use of digital tools. The integrated Climate FieldView™ digital agriculture platform brings together seamless field data collection, in-depth analysis, advanced agronomic modeling and local weather monitoring into simple mobile and web software solutions. Climate FieldView gives farmers a deeper understanding of their fields so they can make more informed operating decisions to optimize yields, maximize efficiency and farm more sustainably.

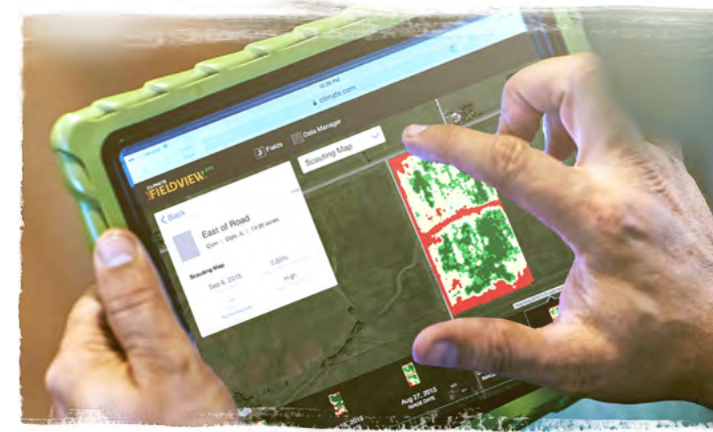
Nutrient management is among the most critical, and sometimes costly, decisions farmers must make. In many crops, like corn, nitrogen fertilizer improves harvests by adding more of a necessary nutrient to the soil, but it can present some environmental challenges. When nitrogen fertilizers metabolize and oxidate, they emit nitrous oxide, a potent greenhouse gas that can contribute to climate change. Also, heavy precipitation can release recently applied nitrogen to waterways where it may impact aquatic life. Knowing when, where and how much to apply is a key

element of a farmer's success and a powerful tool in advancing sustainable agriculture.

As part of the Climate FieldView platform, The Climate Corporation is developing the agriculture industry's first in-field sensor network, including a state-of-the-art soil nitrate sensor. These nitrate sensors will feed information into the agronomic models used to power the Climate FieldView nitrogen monitoring tools, which help farmers optimize the amount of nitrogen used on their fields. These tools also allow farmers to input fertility management practices they've used in order to provide fertility insights customized to each farmer.

The nitrate sensor is the first in the Climate research pipeline of sensor technologies that will create a true digital agriculture ecosystem to support the important agronomic decisions farmers make each season to protect and increase yield sustainably.

Climate FieldView technology also enables farmers to identify zones within their fields that may require different planting and management practices, helping them use their land efficiently and sustainably. Then, through the collection of their own performance data, farmers can compare results of different seed systems and planting practices to determine the best practices for their land.



“Our sensor network will collect an unprecedented amount of field and environmental data, at a more frequent and granular level, to drive insights that can help farmers unlock untapped yield potential while optimizing their use of key resources.”

Sam Eathington
The Climate Corporation, Chief Scientist



ENSURING ACCESS TO FRESH WATER

Nearly 70 percent of all fresh water use by humans is in agriculture. Water is a critical resource for all life, including the crops that help feed, fuel and clothe us. In many areas of the world, fresh water is becoming increasingly scarce due to greater demand, growing populations and the impacts of climate change. As the world's population rises, it's increasingly important to optimize our water use and provide farmers with tools to increase water use efficiency, while also helping them adapt in times of water scarcity.

Monsanto is a member of the UN Global Compact CEO Water Mandate and sat on the Mandate's 2015-16 Steering Committee – the initiative's main governance entity charged with strategic, administrative and financial arrangements. The CEO Water Mandate is a public-private initiative designed to assist organizations in the development, implementation and disclosure of water sustainability policies and practices.



Using Water More Efficiently

Monsanto is committed to increasing irrigation water application efficiency across our global seed production process by 25 percent by 2020, compared to our 2010 baseline. This commitment, which includes our operations, as well as on the contract farms that grow seed for our company's products, presents an opportunity to save an estimated 30 to 80 billion gallons of water each year, depending upon precipitation.

In 2016 we increased our irrigation water application efficiency by 12 percent, compared to our 2010 baseline. That means our overall irrigation water application efficiency reached 75 percent in 2016.



Our overall irrigation water application efficiency reached **75 percent in 2016.**



Addressing Water Risks

Working in 62 countries, some of our facilities are located in water-stressed areas. To better understand how water availability might impact our operations and the surrounding communities and landscapes, in 2015 we mapped water risks at all of our facilities across the globe, including the areas where contracted growers produce seed for us. The mapping utilized the [World Resources Institute Aqueduct Map](#). We identified 14 facilities in high-risk areas (see [Page 59 of our 2015 Sustainability Report](#)). These sites developed action plans to mitigate our water risks. Tracking progress against these action plans has enabled best practice sharing among our site teams and suppliers.

Our global sites are also engaged in water reduction activities in addition to our irrigation water application efficiency initiative. These activities include:

- Moving Research Operations from Fields into Greenhouses**
 To enhance the effectiveness and efficiency of our research activities, we are moving certain field testing activities from the farm field into greenhouses. Greenhouse farming enables more crops per square acre by stacking crops vertically and allows us to reduce, capture and reuse the water used to irrigate our crops. For our research operations, the smaller footprint combined with a comprehensive water-recapture and recycle system will mean that our new greenhouses use one-fifth of the water normally used on an open cornfield.
- Installation of Pressure Regulated Valves**
 Water pressure can build up in irrigation systems and potentially damage the system. At our facility in Juana Diaz, Puerto Rico, it was necessary to routinely discharge irrigation water to prevent the pressure from building, which resulted in some of the water not being used for irrigation. By fitting the system with new pressure regulated valves, we were able largely to avoid this practice, increasing water efficiency by approximately 23,000 cubic meters a year.

- Cooling Tower Efficiencies in Brazil**
 For cooling towers to work properly, a portion of the water within the system must be periodically replaced with fresh water to remove mineral and salt deposits. With a focus on reducing water usage, our São José dos Campos facility successfully completed a project that decreased the amount of fresh water needed for operating the cooling towers, saving 24,000 cubic meters of water at no cost.



THE LEARNING CENTER AT GOTHENBURG

Gothenburg, Neb., is home to Monsanto's [Water Utilization Learning Center](#), which focuses on better understanding water and its role in growing food. The Learning Center is located on one of the most important water resources for agriculture in the United States – the Ogallala Aquifer. This location is ideal for studying water issues, irrigation systems, water use efficiency and overall irrigation management. Scientists at the Learning Center conduct research and demonstrations year-round to provide farmers with information about how to increase their annual crop yields through better, more efficient water management.



ADVOCATING FOR BIODIVERSITY

Biodiversity is defined as the variability of life on Earth. Millions of plant, animal and microorganism species form ecosystems that are essential for life and for feeding a growing population in a changing climate. We are committed to actions that protect, preserve and restore biodiversity and the natural environment while benefiting farmers, our business and society – now and for generations to come. Not only is biodiversity necessary to sustain life, address climate change and protect our waterways, it is also critical to agriculture and our ability to discover and develop new products for farmers.

MONSANTO'S BIODIVERSITY STRATEGY

Protect species from challenges associated with farming to sustain and improve the viability of plant, animal and insect life, including pollinators.

Promote sustainable landscapes by conserving and restoring habitats to protect agricultural and natural resources.

Preserve and improve plant varieties to increase genetic diversity and share benefits to advance sustainable agriculture and farmer livelihoods.



In 2016, we codified our biodiversity strategy to better align with the United Nations Convention on Biological Diversity, our business goals and the needs of farmers and society. The strategy provides both a structure for decision-making and a way to organize the many initiatives and collaborations we're already undertaking.

Connecting Biodiversity and Agriculture

The relationship between biodiversity and agriculture is a two-way street. All farms are part of a larger natural landscape that provides essential resources for successful farming: fresh water, healthy soil, beneficial pollinators and a stable climate that's conducive to crop growth. As stewards of the land, farmers understand that agriculture and biodiversity intersect and interact in complementary ways.

MONSANTO POSITION STATEMENT ON BIODIVERSITY

Earth is home to millions of species of plants, animals and microorganisms that inhabit the ecosystems responsible for providing food and other essentials for life. The well-being of agriculture and of communities around the world depends on biodiversity and the landscapes and ecosystems it supports. The United Nations Convention on Biological Diversity (CBD) defines "biological diversity" as the variability among living organisms from all sources including, terrestrial and aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

At Monsanto, we understand and value the importance of biodiversity for agriculture and society at large. We work to conserve and promote the sustainable use of biodiversity within species, between species, and of ecosystems as it relates to our research, products and practices. Our position is informed and guided by the CBD and its objectives, which include the conservation and sustainable use of biological diversity and landscapes, and the fair and equitable sharing of the benefits arising from the utilization of genetic resources.

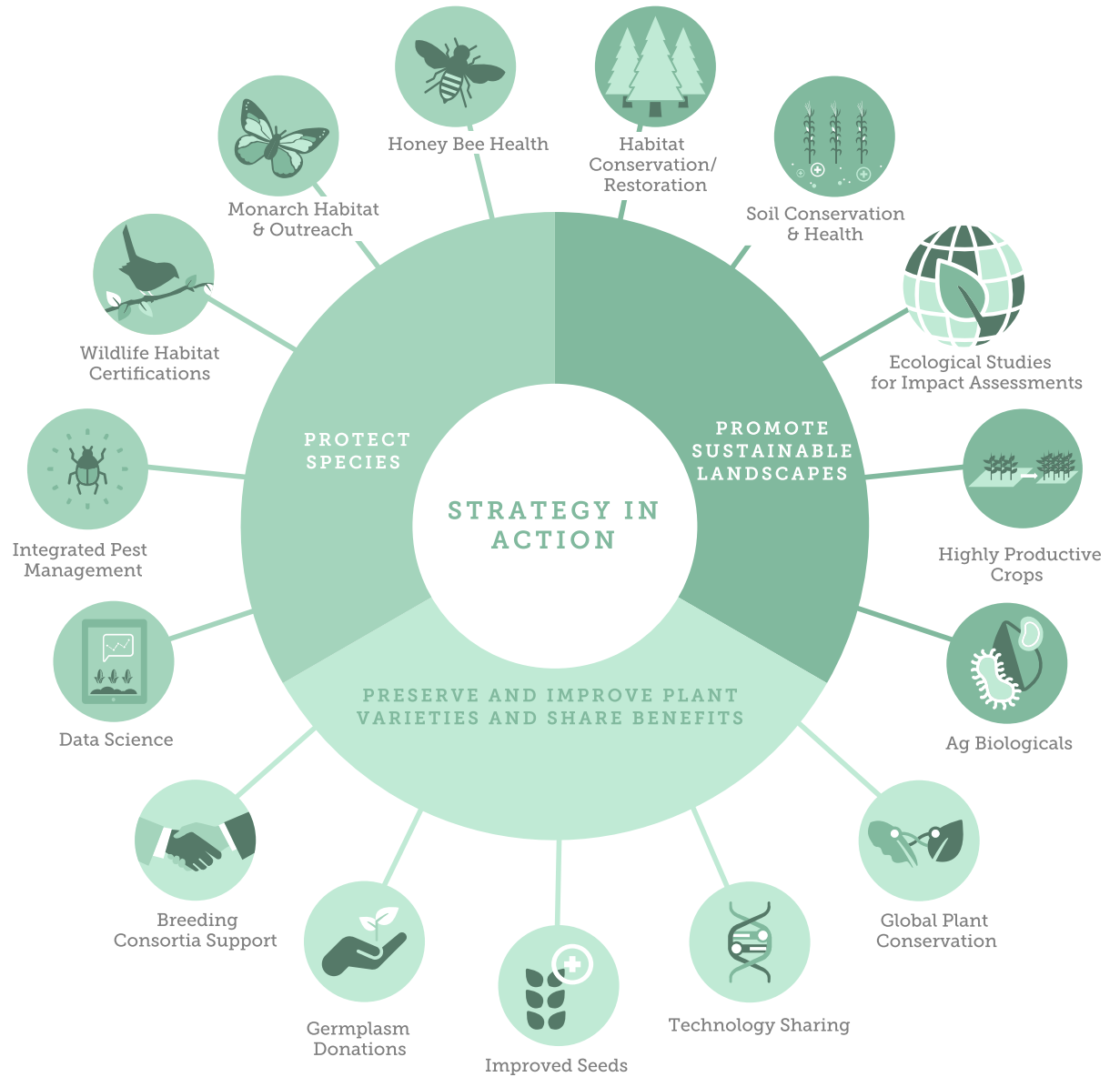


By taking a sustainable approach to farming – which includes promoting the use of best practices in production, planning and local decision-making processes – those who work in agriculture can protect, conserve and restore the biodiversity that’s so vital to healthy landscapes.



UNDERSTANDING THE MONOCULTURE DEBATE

Some critics of modern agriculture question the wisdom of growing a single crop on a large swath of land – which they refer to as monoculture production. Their concern is that this is not ecologically sound and poses greater risks to food security and the environment. We acknowledge these concerns and actively broaden the genetic diversity of the crops on which we work to address the risks and ensure an optimal harvest in a sustainable manner.





Protecting Species

We collaborate with stakeholders on a range of initiatives aimed at better understanding honey bee health and restoring and expanding monarch butterfly and other habitats. And we offer products and services that enable farmers to grow more food on less land using fewer resources, reducing the impact of farming on the natural environment.

Addressing Honey Bee Health

Honey bees help produce one in three bites of our food, but face many challenges to their health. Scientists and researchers are striving to better understand why this is happening and have identified the parasitic varroa mite as one of the major causes. As part of our commitment to protect the species, we are working hard, alongside others, to find solutions to this complex challenge.

We are active in collaborative efforts that drive honey bee health awareness. Some of the collaborations we have engaged in as part of our commitment include:

Honey Bee Health Coalition. We have invested our resources and continue to play an active role in the Honey Bee Health Coalition (HBHC)

convened by the Keystone Policy Center. The HBHC represents more than 40 members from nonprofits, government, academia and business. The Bee Healthy Roadmap, unveiled in 2014, guides how we can improve the health of pollinators while still meeting the needs of farmers and preserving nature. Some of the recent progress made by the HBHC includes:

- **Improving Honey Bee Nutrition**
Our help organizing the HBHC's Forage & Nutrition Working Group led to an important dialogue with the U.S. President's Pollinator Health Task Force and the potential for collaboration on pollinator issues. We also awarded a grant to Project Apis m. to establish 2,000 forage acres, aimed at educating California landowners and almond growers of the production benefits of planting early blooming plants on their unused grove areas and adjacent lands to benefit honey bees nutritionally during pollination periods.
- **Bee Understanding Project**
Incidental pesticide exposure often results from a lack of understanding, coordination and communication between farmers and beekeepers. To address this issue, we worked with the HBHC in developing the Bee Understanding Project, which has beekeepers, farmers, entomologists and crop advisors swap jobs to see honey bees

from another expert's perspective. Launched in early 2015, the project's first job swap is featured in a documentary video.

- Monsanto also helped develop the Tools for Varroa Management guidebook, which has been downloaded by more than 5,000 people around the world.

Monsanto has also invested in honey bee health initiatives on our own. These include:

- Since 2013, Monsanto invested more than \$4 million in research and development related to varroa mites – the single largest factor in the decline of honey bees.
- We formed the Monsanto Honey Bee Advisory Council (HBAC) to engage outside experts for guidance on our honey bee health research and programs. HBAC members include:
 - David Mendes, commercial beekeeper and past president of American Beekeeping Federation
 - Gus Rouse, honey bee queen breeder and owner of Kona Queen Hawaii, Inc.
 - Larry Johnson, row crops farmer and commercial beekeeper
 - Dr. Gene Robinson, University of Illinois at Urbana-Champaign
 - Dr. Dennis vanEngelsdorp, Entomology, University of Maryland



Learning about Natural Behaviors:

The Honey Bee Challenge. The [4-H Ag Innovators Experience](#) is a partnership between Monsanto, the National 4-H Council and Land Grant Universities that helps more than 10,000 young people annually develop the professional, leadership and STEM skills needed to support the future of the ag industry and feed a growing world population. The program, which targets youth in states with a strong agricultural industry, focused on honey bees this year with the Honey Bee Challenge.

The Honey Bee Challenge was developed by the 4-H Extension at The Ohio State University, and delivered a hands-on opportunity for kids to learn about honey bee habitats, the role of honey bees in modern agriculture and challenges faced by bees and beekeepers. This activity helped participants learn more about the importance of honey bees and the contribution they make in helping pollinate a third of our food, while developing their teamwork, communication and leadership skills.

Supporting Monarch Habitat Expansion Through Leadership and Collaboration

The annual two-way migration of the monarch butterfly is one of nature's greatest

spectacles. Each year, a migration of monarch butterflies takes place from parts of the United States and Canada to a winter site in Mexico.

Restoring habitat for monarch butterflies is an important part of our commitment to [foster biodiversity](#) and protect species while promoting productive and sustainable agricultural areas.

Each year, monarchs suffer losses from extremes of weather, predators, pathogens, parasites and even climate change. A resilient monarch population has to be large enough to absorb big losses in bad years and have sufficient breeding habitat to recover in good years. We are leading by example and working with others to foster collaborative action among federal, state and local entities.

The cornerstone of this support is a \$3.6 million contribution from Monsanto Fund over three years to the National Fish and Wildlife Foundation's [Monarch Butterfly Conservation Fund](#). This partnership funds priority conservation needs to achieve a more robust and healthy migrating monarch population. We also completed our promise to establish monarch breeding habitats at our managed facilities to help support outreach to farmers. With support from Pheasants Forever, we added 22 sites in 2016 bringing the total number of breeding habitats on Monsanto sites to 72.



Farmers and ranchers are traditional stewards of the land across much of the historical monarch habitat, putting them in a unique position to help support a sustainable monarch population. Importantly, they can implement practices to expand, enhance and protect habitat sites in noncrop landscapes adjacent to productive crop land. Restoring monarch habitat and increasing farmers' harvests are compatible goals.

Monsanto continues to promote agriculture's role in monarch conservation and foster collaboration at the state, regional and national levels through our participation in the [Monarch Collaborative](#). This summer, more than 70 participants from conservation groups, federal agencies, the research community, farmer organizations, crop associations and the private sector exhibited their strong support for monarch conservation and willingness to continue collaborative efforts to make needed progress.



“The National Fish and Wildlife Foundation received \$6 million from USDA Natural Resources Conservation Service (NRCS), Regional Conservation Partnership Program, for technical and financial assistance that will help farmers restore monarch butterfly habitat across a nine-state region. This NRCS program provides funding only for partnerships that can demonstrate significant leverage with other funding sources. As our major corporate partner in monarch conservation, Monsanto was key to securing this additional \$6 million.”

Todd Hogrefe
 Director, Central Region,
 National Fish and Wildlife Foundation



GAINING CERTIFICATIONS FOR WILDLIFE HABITATS

Monsanto has multiple sites recognized by the [Wildlife Habitat Council](#) under its Conservation Certification program. In 2016, we increased the number of our certified sites from 15 to 31, with special focus on establishing new pollinator habitat sites. These certifications recognize outstanding wildlife habitat management and environmental education efforts at our sites.

2016 NATIONAL FISH AND WILDLIFE FOUNDATION (NFWF) MONARCH SUPPORT*

Grants Awarded	\$1.2 million (\$2.4 million cumulative since 2014)
Projects Funded	22: habitat restoration, milkweeds and other nectar-producing plants seed supply, coordination and capacity building at state and regional levels
Expected Impact	16,000 acres of habitat created, 600 pounds of native plant seeds produced, 453,000 milkweed seedlings planted, 176,000 persons reached

2016 MONSANTO MONARCH SUPPORT IN ADDITION TO NFWF FUNDING

Grants Awarded	\$270,000 (\$770,000 cumulative since 2014)
Organizations Funded	Missourians for Monarchs, Monarch Collaborative, Monarch Watch at the University of Kansas, Sand County Foundation, University of Guelph
Expected Impact (from 2015-2016 Support)	Make 200,000 milkweed plants available free of charge
Impact as of September 2016	100,000 milkweeds have been distributed and planted across 77 sites in 23 states

* Monsanto is the primary corporate funder of the NFWF Monarch Butterfly Conservation Fund.

Enabling Responsible Pest Control

There’s no single right way for every farmer to protect their fields from weeds, insects and diseases. It is not a best practice to use any one solution exclusively or in excess. Monsanto is committed to developing and partnering with others on a diverse range of crop protection solutions to support an integrated pest management (IPM) system, offering farmers more precise ways to apply the right protection in a more targeted way.

Modern advances in equipment and application tools powered by data science and global positioning systems, as well as site-specific application methods, can help farmers use pesticides more precisely and efficiently. With innovative advances, farmers can protect their crops as safely and precisely as possible. These advances increasingly allow farmers to apply the right protection, in the right amount, in the right place and at the right time.



Weed Resistance

Weed control is a primary challenge for farmers and resistance to various crop protection products has complicated that challenge over the years. Herbicides play an important role in helping farmers control weeds and reduce tillage. But if a weed control program is not sufficiently diverse, there is potential for the development of resistant weed populations.

While it's impossible to prevent resistance, a systematic IPM approach to establishing durable weed control in fields can deliver successful solutions. Following label recommendations, using the correct rate and using multiple herbicides with diverse modes of action can delay the onset of resistance and help control resistant weeds. Proper management of weeds requires that we develop and share best farming practices, such as IPM systems and crop rotation, and that we use more advanced information tools to maximize efficient and effective weed control.

Our Roundup Ready PLUS® Crop Management Solutions and other similar regional programs provide and promote cost-effective and proactive weed management recommendations, education and training supported by academics and industry partners. Roundup Ready PLUS is the established, industry-leading platform providing incentives to farmers for the use of

MORE PRECISION FOR BETTER HARVESTS

Glyphosate-based pesticides work best when they're used in the right place, at the right time and in the right amounts. This precision helps farmers use resources more efficiently when growing safe, healthy food.



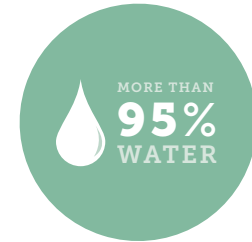
RIGHT PLACE

Modern tools like GPS guidance on sprayers and site-specific nozzles help farmers target pesticide applications.



RIGHT TIME

Pest and weed levels change every season, so farmers adapt to use only what's necessary.



RIGHT AMOUNT

It doesn't take much pesticide to be effective. In fact, pesticide sprays are more than 95% water.

multiple herbicides from Monsanto and other companies to guard against weed resistance. It is the foundation for the introduction of new technologies and system durability. Each year Monsanto provides more than \$100 million in financial incentives to an average of 70,000 U.S. farmers to encourage the adoption of the platform and use of multiple herbicides. This platform has also become the standard by which we have launched similar approaches to promoting best practices in weed control in Argentina, Brazil, Canada, Paraguay and Uruguay.

Pending regulatory approval, our herbicide biotech trait pipeline will enable a diverse and

complementary pipeline of herbicide tolerances in corn, soybeans and cotton to provide farmers additional approaches to overcome tough-to-control weeds. These integrated solutions create effective weed control and durable weed resistance management systems, all while sustainably protecting the farmer's harvests and enabling profitability.

Learn more about Roundup® branded non-selective herbicides and their active ingredient, glyphosate, on our website. Read more about studies on the safety profile of glyphosate on Page 95.



Promoting Sustainable Landscapes

Together with Conservation International (CI) and local communities, we're working to improve, protect and restore forests while preventing illegal deforestation. We're promoting soil health on multiple fronts, supporting research and collaborating on projects and demonstration farms with the Soil Health Partnership (SHP) across the United States and South America and with smallholders farmers in Africa and Asia. And we continue to develop products and technologies that help farmers gain better harvests on less land while reducing environmental impacts and the conversion of forests to farmland.

Reforestation Biodiversity Hot Spots

Monsanto has been working with CI on its Sustainable Agriculture Landscape initiative since 2008 in Brazil and since 2013 in Indonesia.

Brazil. The Cerrado Plains Region of Brazil is home to an astonishing array of plant and animal species. However, the region has undergone significant deforestation, which has impacted soil health, water levels and habitat for beneficial species. We have worked with CI, local communities and farmers to increase harvests while conserving existing natural areas in agricultural landscapes and restoring 10,000

hectares to natural vegetation. In the process, this collaboration provided new jobs for local women, creating economic value in the community.

With the help of 50 area families, 10,000 hectares have been restored in the Cerrado Plains Region of Brazil.

We are now focused on building awareness and fostering debate about what constitutes sustainable agriculture in a landscape-scale context. To this end, we have collaborated on a series of roundtable discussions in various regions of Brazil that emphasize the need to see landscapes from an integrated, multi-sectoral and multi-functional perspective. The goal is to identify opportunities that maximize synergies and minimize conflicts between agricultural production and the sustainable use of natural capital in rural areas.

To support these efforts, we're working with CI and WBCSD on a white paper that will be published and made available to all in 2017. The paper will include:

- An overview of the three pillars of landscape-scale agricultural sustainability (protecting natural capital, sustainable production and governance)
- An overview on sustainable landscapes in Brazil
- Proposed sustainable agriculture guidelines for owners and decision-makers in government and the private sector

SUSTAINABLE AGRICULTURE LANDSCAPE INITIATIVE, INDONESIA: FAST FACTS

Duration	2013-2016
Monsanto Investment	\$1.2 million
Participating Households	1,500
Farmers Trained on Best Practices	275
Hectares Protected	7,000
Corn Crop Productivity Increase	30%-100%
Farmer Monthly Income Increase	34%
Seedlings for Reforestation	19,900
Children and Women Participating in Education Sessions	405
Government Officers Trained	51
Reductions in Agriculture Expenses	50%

Indonesia. Pakpak Bharat, North Sumatra, Indonesia, is a mountainous region with dense forests and rivers, on which villagers depend for their livelihoods. Monsanto worked with CI and local stakeholders to improve agricultural production, protect biodiversity and enhance the livelihood of smallholder farmers. Efforts targeted critical watersheds and degraded buffer zones – those spaces between the farmland



and the forest. Outreach focused on helping smallholder farmers increase productivity on their existing land, rather than expanding their farm footprint. A key element of this initiative included education and outreach on environmental topics, especially targeting knowledge transfer to women and children.

Digging into Soil Health

When it comes to delivering a robust harvest, the soil beneath our feet plays an incredibly important role; it is critical to farmers and to securing our food supply. Soil is a complex ecosystem with a vast world of microorganisms that make it possible for plants to grow. Monsanto has invested significantly in better understanding healthy soils and the farming practices that promote them, both through our purchase of the soil analysis business of Solum, Inc., in 2014, and through key research partnerships.

One of the flagship research efforts we support in the United States is the Soil Health Partnership, established in 2013. SHP is an initiative of the National Corn Growers Association that is supported by the Walton Family Foundation and Monsanto with scientific advising from environmental groups like Environmental Defense Fund and The Nature Conservancy,

SOIL HEALTH RESEARCH SUPPORTED BY MONSANTO

Soil Health Partnership	See adjacent article.
Intelligent Landscape Design Project	A five-year initiative led by the U.S. Department of Energy and USDA Agricultural Research Service that applies data science modeling tools to local soil health data.
Sustainability Research Program	This program funds new university research into the role cover crops play in soil health, crop productivity and sustainable agriculture practices. Monsanto provides funds for seeds and other inputs, as well as soil analysis of all fields involved in the research.

SOIL HEALTH PARTNERSHIP AT A GLANCE

Primary Goals	<ul style="list-style-type: none"> Recruit a network of demonstration farms to investigate innovative soil management practices. Establish research protocols that will allow farmers and others to measure the connection between a diverse range of soil management practices and soil health. Publish findings and recommendations that highlight the economic and environmental benefits of healthy soil.
Demonstration Farm Goal	100 farms by 2017
Demonstration Farms to Date	65 farms
Reached Through SHP Field Days	More than 1,000 farmers and students



U.S. Department of Agriculture’s Agricultural Research Service and several university soil experts. SHP was originally slated as a five-year program, but in 2016, the Midwest Row Crop Collaborative (see Page 62) committed to raising an additional \$4 million, and Monsanto has committed to an additional \$1 million between 2017-2020 to continue SHP efforts. In part due to this support, the NCGA’s board of directors voted to expand the project from its original five-year time frame to 10 years.

SHP is identifying, testing and measuring management practices to improve soil health and benefit farmers’ operations. Many farmers are implementing innovative management practices that result in economic and environmental benefits. SHP is building upon the work of these farmers to provide connections between on-farm practices and improving soil health. The focus of the work includes planting cover crops, reducing tillage, improving water quality practices and giving closer consideration to precise nutrient applications. Farmer cooperators and agronomists are coming together to help guide and share the work of the SHP. The results of this farmer-led project are expected to provide a platform for sharing

COVER CROPS

HOW DO THEY WORK?



Cover crops are planted after the harvest of a primary crop.

information among farmers, with the support and resources to benefit farmers’ bottom lines and advance more sustainable agriculture.

Learnings from the SHP and collaboration with academic leaders in soil carbon may contribute to the development of a scalable and verifiable carbon accounting framework that could provide a transparent system for measuring and reporting carbon in agricultural production. While still under development, a framework and agreed upon standard of carbon accounting in agriculture could help establish an approach to be shared and could support the path to Monsanto’s goal of becoming carbon neutral by 2021.

KEY BENEFITS

- Absorbs Carbon from the Atmosphere
- Combats Soil Erosion and Helps Keep Carbon in the Soil
- Enriches Soil Health





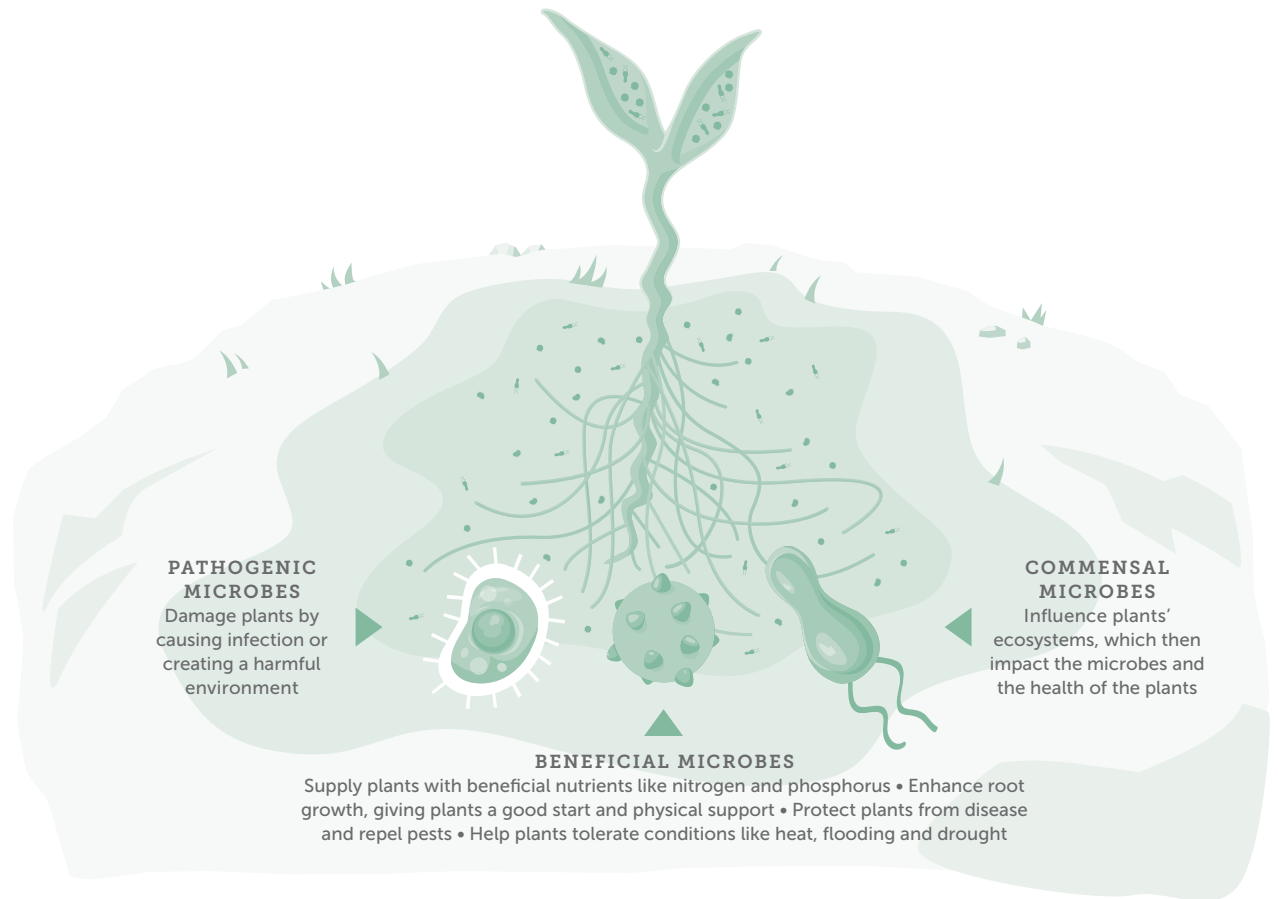
Researching Ag Biological Solutions for Plant and Soil Health and Pest Control

Our Agricultural Biologicals platform includes the work we're doing as part of The [BioAg Alliance](#), which uses microbes to improve plant and soil health and protect against pests, and the research we're conducting as part of our [BioDirect™](#) technology product pipeline, which taps into natural processes for pest control. These products are designed to complement or replace other chemical options to help farmers improve their harvests while stewarding the environment.

The BioAg Alliance

This unique partnership between Monsanto and [Novozymes](#) is focused on research and development of products based on enzyme technologies and beneficial microorganisms like certain bacteria and fungi to provide farmers with sustainable agricultural solutions. There are as many as 5 billion microbes in a tablespoon of soil, and they can have a significant impact on plant and soil health, improve nutrient uptake and efficiency, promote growth and increase productivity. They may also protect against destructive insects and provide disease protection.

THE PLANT MICROBIOME





The BioAg Alliance combines Novozymes' industry leading expertise in the discovery, formulation and fermentation of microbes with Monsanto's extensive field testing experience, precision data science, understanding of the challenges of crop production and our established commercial distribution network. These collective strengths bring an unmatched level of research and development to the creation of new microbial products and a path to deliver these sustainable innovations to the farmer. The BioAg Alliance is focused on bringing solutions to meet the farmer's agronomic needs of today and tomorrow.

The BioAg Alliance is currently running the world's largest microbial research program to develop the next generation of these products.

The BioAg Alliance has conducted microbial field tests in over 20 countries in North and South America, Europe and Asia in our effort to discover new transformational microbial solutions for farmers. Testing continued in 2016, with the top new microbes increasing corn yields in U.S. field trials by an average of more than three bushels per acre. Today, the BioAg Alliance's products are used on around 65 million acres, but Monsanto and Novozymes envision that its products will be used on 250 to 500 million acres globally by 2025.

BIOAG ALLIANCE U.S. FIELD TRIAL PROGRAM RESULTS



Results from the U.S. field trial program showed that the top new microbes increased corn yields by an average of more than three bushels per acre



Results from the U.S. field trial program showed that the top new microbes increased soy yields by an average of more than two bushels per acre

BioDirect™ Technology

Using our understanding of pest and plant genomes, we're able to precisely focus on a natural process to protect plants and beneficial species from pests and disease.

Our BioDirect™ technology uses a process called Ribonucleic Acid (RNA) interference, or RNAi, to manage the production of a specific protein in its target. RNAi is a natural process cells use to turn down, or suppress the activity of specific genes. The accuracy and specificity of this biological solution allows a farmer to protect crops from insects, disease and weeds while sustaining a good environment for beneficial insects and wildlife.

Our BioDirect™ research focuses on key challenges farmers face today. Our lead project

aims to target varroa mites that adversely affect honey bee health. Other research projects could help safeguard crops from insect infestations and improve plant health with protection from viruses.

Visit our website to learn more about our [Ag Biologicals](#) pipeline, including The BioAg Alliance and BioDirect™.

Preserving and Improving Plant Varieties and Sharing Benefits

Monsanto recognizes and respects that plant materials are a resource for the common good. Sustainable agriculture is dependent upon their conservation, improvement and global exchange.



Preserving Plant Varieties

Like all living things, seeds eventually expire and lose their ability to germinate and grow into plants. To ensure an ample supply of plant varieties, seeds must be collected, preserved and regenerated – a process called conservation.

We have participated in and provided financial support for numerous seed collection missions for hundreds of varieties of particular plant species. Once the seeds are collected, they must be stored in facilities known as seed or gene banks to keep them viable for agriculture. Most seed companies like Monsanto have specifically designed facilities to help store viable seeds. But at any given time, the world needs to keep tens of millions of seed samples viable, far more than any one entity could manage. So, we also support efforts of public gene banks to effectively store these samples and make them available to breeders around the world.

An important part of this process of conservation is the regeneration of the seeds by growing plants from them and then harvesting the new seeds. We do this for our own seed, and we also donate excess capacity in our facilities and provide personnel to help gene banks worldwide regenerate their seeds. This helps ensure the viability of stored seed, which can then be used by farmers and breeders within private companies, public institutions or nonprofit organizations.

PRESERVING AND IMPROVING PLANT VARIETIES AND SHARING BENEFITS: EXAMPLES

Seed Collection Missions	Working with other companies and the Centre for Genetic Resources, of the Netherlands (CGN), to collect and screen wild relatives of spinach and lettuce.
Seed Increases	For crops including cucumber, lettuce, maize, pepper, spinach and tomato, we have conducted hundreds of seed increases each year for CGN, INRA (France) and the United States Department of Agriculture National Plant Germplasm System.
In-Kind Donations and Technology Sharing	<p>For 20 years, we have provided support to the USDA Germplasm Enhancement of Maize (GEM) program.</p> <p>We donated breeding rights to four cotton lines to Institut de L'Environnement et de Recherches Agricoles, which is the national research organization operating the national cotton breeding program in Burkina Faso.</p> <p>We have been involved in Water Efficient Maize for Africa initiative since 2008 and donated valuable corn germplasm to this project (<i>see Page 32</i>).</p> <p>We have provided scientific and technological support to combat disease in cassava crops, a dietary staple in East Africa (<i>see Page 33</i>).</p>

Improving Plant Varieties

Improving plant varieties is at the core of our seed business. Through conventional breeding, advanced breeding techniques and biotechnology, we broaden the range of biodiversity in plants to improve agriculture, help farmers earn better livelihoods and contribute to global food and nutrition security. See Pages 32–34 for more information.

Sharing Benefits

Monsanto shares the benefits of improved plant varieties and other technologies through in-kind donations of germplasm, or seeds, and knowledge transfer of plant characteristics and best practices pertaining to the use of these seeds. We also provide financial support to public-private breeding consortia and other organizations aimed at improving the availability of high-quality seeds and technologies to farmers and others.



GUIDING AND AUDITING OUR ENVIRONMENTAL PERFORMANCE

Our [Environmental Management Guidelines](#) highlight our commitment to environmental management systems like [ISO 14001](#). Notably, 100 percent of our global crop protection chemical production sites are externally validated through the ISO 14001 or RC14001® certification program. This requires formal processes in identification of environmental impacts, routine internal auditing and corrective actions, and management review. Additionally, all of our seed production locations have comprehensive environmental management systems. These management systems have been developed and implemented by teams of environmental professionals, based at headquarters and at our global sites, who are focused on compliance with legal requirements, company policy and continuous improvement.

Monsanto's auditing program is another important tool for driving environment, safety and health (ESH) excellence. All of our manufacturing and research and development



locations are periodically audited to ensure compliance with ESH legal requirements, as well as company ESH policies.

Each audit is conducted by ESH professionals specifically trained on auditing, and entails thousands of questions designed to discern compliance and identify findings. For every finding, a team of ESH professionals from the audited site and headquarters develops a corrective action plan with a specified due date. This team works to address any issues or concerns associated with the findings. In addition to reviewing and overseeing the entire audit process, management also commissions an external review of our program to ensure it incorporates industry best practices.

We regularly report the progress of our corporate audit program and completion status of corrective action plans to the highest levels of management and our board of directors. We review our audit findings collectively to identify opportunities for improvement, both at our sites regionally and globally. Beyond the corporate audit program, sites conduct more frequent self-audits (with corrective action tracking and reporting to management) as part of our ESH management system. This robust approach to ESH auditing gives a high degree of assurance that Monsanto's operations comply with legal requirements and company policy.



ENVIRONMENTAL DATA: ENERGY USE AND EMISSIONS

	CROP PROTECTION			SEEDS & TRAITS			COMPANY VEHICLES			COMPANY TOTAL		
	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16

Direct Energy Consumption (1000 GJ)

Natural Gas and Other Gaseous Fuels	5,430	6,230	5,460	2,960	2,800	1,900	-	-	-	8,390	9,030	7,360
Oil (including Diesel)	526	423	444	1,050	891	797	1,760	2,210	2,080	3,330	3,530	3,320
Coal, Coke and other Solid Fuels	1,010	1,360	1,300	3.9	0.2	0.4	-	-	-	1,010	1,360	1,300
Waste Fuel	2,190	2,590	2,440	-	-	--	-	-	-	2,190	2,590	2,440
TOTAL	9,150	10,600	9,640	4,010	3,690	2,700	1,760	2,210	2,080	14,900	16,500	14,400
Biomass Fuels Used in Direct Energy Generation	200	133	131	811	704	739	-	-	-	1,010	837	870
Biomass Fuels Shipped Off-Site for Energy Generation	1.4	1.6	0.0	*1,740	1,990	1,820	-	-	-	*1,740	1,990	1,820

Indirect Energy Consumption (1000 GJ)

Purchased Electricity	6,940	6,910	6,780	1,850	1,880	1,650	-	-	-	8,790	8,780	8,420
Purchased Steam	1,980	2,070	2,080	7.1	-	-	-	-	-	1,980	2,070	2,080
TOTAL	8,920	8,980	8,860	1,860	1,880	1,650	-	-	-	10,800	10,900	10,500

Consumed Primary Sources in Electricity Generation
(percent of total Indirect Energy) - Location Based

• Hydro, Biomass, Geothermal, Nuclear, Solar, Wind	50%	49%	57%	35%	37%	36%	-	-	-	46%	46%	53%
• Natural Gas and other Gaseous Fuels	18%	18%	16%	18%	19%	18%	-	-	-	18%	18%	16%
• Coal, Coke and other Solid Fuels	32%	31%	26%	41%	38%	42%	-	-	-	34%	33%	29%
• Oil (including Diesel)	1%	1%	1%	7%	6%	4%	-	-	-	3%	3%	2%

Energy Consumption Summary (1000 GJ)

Total Energy Consumption (Direct and Indirect)	18,100	19,600	18,500	5,870	5,560	4,340	1,760	2,210	2,080	25,700	27,400	24,900
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KEY FOR ENVIRONMENTAL DATA TABLES

GJ = gigajoules • MT = metric tons • ML = 1,000 cubic meters • m³ = cubic meters • CO₂ = carbon dioxide • CO₂e = carbon dioxide equivalent • NO_x = nitrous oxide
PO₄ = phosphate • SO_x = sulfur oxide • VOC = volatile organic compound • POTW = Publicly Owned Treatment Works • - = Not Applicable or Data Not Collected

Reported data in the environmental tables are rounded to three significant digits or, for small values, presented as no less than one-tenth the indicator reporting unit.
This approach enhances data usability while providing sufficient detail without becoming numerically cumbersome.

*Fiscal years 2014 and 2015 items noted were updated from what was previously reported to reflect corrections and/or changes to the data or calculation methodology.



ENVIRONMENTAL DATA: ENERGY USE AND EMISSIONS

	CROP PROTECTION			SEEDS & TRAITS			COMPANY VEHICLES			COMPANY TOTAL		
	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16

Energy Consumption Outside the Organization - Scope 3 (1000 GJ)

Logistics and Business Travel	-	-	-	-	-	-	-	-	-	*6,270	4,990	5,070
Contracted Land	-	-	-	-	-	-	-	-	-	2,330	1,940	2,030

Energy Intensity (GJ per \$1,000 Revenue)

Total Direct and Indirect Energy Intensity (Scopes 1 & 2)	-	-	-	-	-	-	-	-	-	1.62	1.82	1.85
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Total Direct GHG Emissions - Scope 1 (1000 MT)

Direct GHG Emissions (CO ₂ e)	*1,400	*1,330	1,290	240	219	159	118	148	141	*1,760	*1,700	1,590
• CO ₂ e from Biomass Used (Consumed) On-Site	24.0	16.0	15.7	88.2	76.6	81.0	-	-	-	112	92.6	96.7
• CO ₂ e from Biomass Sold for Off-Site Energy Generation	0.2	0.2	0.0	194	222	204	-	-	-	194	222	204

Total Indirect GHG Emissions - Scope 2 (1000 MT)

Indirect GHG Emissions (CO ₂ e) - Location Based	959	964	827	288	277	246	-	-	-	1,250	1,240	1,070
Indirect GHG Emissions (CO ₂ e) - Market Based	-	-	837	-	-	249	-	-	-	-	-	1,090

Total Direct and Indirect GHG Emissions (1000 MT)

Total GHG Emissions (CO ₂ e) (Scopes 1 & 2) - Location Based	*2,360	*2,300	2,110	527	496	406	118	148	141	*3,000	*2,940	2,660
Total GHG Emissions (CO ₂ e) (Scopes 1 & 2) - Market Based	-	-	2,130	-	-	408	-	-	141	-	-	2,670

Other Indirect GHG Emissions Sources - Scope 3 (1000 MT)

Logistics and Business Travel	-	-	-	-	-	-	-	-	-	*466	371	379
Contracted Land	-	-	-	-	-	-	-	-	-	203	162	170

Energy and greenhouse gas intensity ratios using annual net revenue were up in fiscal years 2015 and 2016 due to lower annual revenue.

Starting with fiscal year 2016 in reporting for Scope 2 (Indirect) GHG Emissions, both "Location Based" and "Market Based" reporting are provided per the GHG Protocol Scope 2 Guidance. A location-based method reflects the average emissions intensity of grids on which energy consumption occurs, while a market-based method reflects emissions from electricity that sites have purposefully chosen (or their lack of choice). Please see [GHG Protocol Scope 2 Guidance](#) for additional details.



ENVIRONMENTAL DATA: ENERGY USE AND EMISSIONS

	CROP PROTECTION			SEEDS & TRAITS			COMPANY VEHICLES			COMPANY TOTAL		
	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16

GHG Emissions Intensity (MT per \$1,000 Revenue)

Total Direct and Indirect Emissions (CO ₂ e) (Scopes 1 & 2) - Location Based	-	-	-	-	-	-	-	-	-	*0.190	*0.196	0.197
Total Direct and Indirect Emissions (CO ₂ e) (Scopes 1 & 2) - Market Based	-	-	-	-	-	-	-	-	-	-	-	0.198

Other Emissions (MT)

Sulfur Oxide (SO _x) Emissions, Combustion and Process	1,560	1,520	1,410	43.0	38.2	38.2	-	-	-	1,610	1,560	1,450
Nitrogen Oxides (NO _x) Emissions, Combustion and Process	3,110	3,280	3,030	653	693	568	-	-	-	3,770	3,970	3,600
Volatile Organic Compound (VOC) Emissions	92.8	93.0	88.6	0.9	*0.9	0.9	-	-	-	93.7	*93.9	89.5

Greenhouse Gas emissions (GHGs) are calculated using various standardized emissions calculation methodology and factors, including the World Resources Institute and World Business Council on Sustainable Development Greenhouse Gas Protocol, USEPA GHG Reporting Program and Emission Factors, and location-based factors: USEPA eGRID, IEA Country Specific factors, and other site or case specific factors and calculations as reviewed by our third-party assurance auditors. "Market Based" values based on residual emission factors from the 2014 Reliable Disclosure Systems for Europe – Phase II for European sites, plus location-based values for all other sites.

ENVIRONMENTAL DATA: WATER USE

	CROP PROTECTION			SEEDS & TRAITS			CONTRACTED LAND			COMPANY TOTAL		
	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16

Fresh Water Withdrawal (ML - 1000 m³)

Surface Water	*5,280	*5,750	5,720	8,260	8,130	6,180	451,000	382,000	350,000	*465,000	*396,000	362,000
Ground Water	19,100	19,000	19,500	10,800	10,600	13,700	433,000	272,000	242,000	463,000	301,000	276,000
Municipal Water	1,370	1,340	1,180	*6,950	6,000	3,790	37,800	23,000	23,400	*46,100	30,300	28,400
Collected Rainwater	110	87.2	39.1	279	275	168	58.7	4.0	95.7	448	366	303
Purchased Wastewater for Reuse (R1)	0.0	0.0	0.0	212	186	396	681	675	0.0	893	861	396
Misc. Water Purchases (bulk, deionized, and bottled)	0.7	0.6	180	3.2	3.6	4.6	0.9	0.8	0.8	4.8	5.1	185
TOTAL	*25,900	*26,200	26,600	*26,500	25,200	24,200	921,000	676,000	616,000	*975,000	*729,000	667,000

Water Reuse and Recycling (ML - 1000 m³)

Volume of Condensate/Cooling Tower Water Recycled/Reused	345,000	334,000	332,000	31,800	2,820	2,560	-	-	-	376,000	337,000	334,000
Volume of On-Site Process Wastewater Recycled/Reused	3,700	3,390	4,860	85.3	52.4	36.0	-	-	-	3,790	3,450	4,900
TOTAL	348,000	337,000	336,000	31,900	2,870	2,600				380,000	340,000	339,000



ENVIRONMENTAL DATA: WATER USE

	CROP PROTECTION			SEEDS & TRAITS			CONTRACTED LAND			COMPANY TOTAL		
	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16

Process Wastewater Discharged (ML - 1000 m³)

(Process wastewater only; does not include domestic sewage, per GRI Guidelines)

Discharged to Off-Site Treatment (e.g. publicly owned treatment works)	635	720	594	469	409	400	-	-	-	1,100	1,130	995
Permitted Discharges to the Environment - Subsurface (e.g. deepwell/leachfield)	1,980	2,020	2,150	-	-	-	-	-	-	1,980	2,020	2,150
Permitted Discharges to the Environment - Surface Water (e.g. river)	*16,800	*16,700	14,700	259	255	230	-	-	-	*17,100	*17,000	14,900
TOTAL	*19,500	*19,400	17,400	728	664	630				*20,200	*20,100	18,000

Process Wastewater Quality Data for Direct Surface Water Discharges (MT)

• Biological Oxygen Demand	54.0	52.3	60.0	-	-	-	-	-	-	54.0	52.3	60.0
• Nitrates/Nitrogen to Surface Water (as N)	*45.9	*44.8	65.9	-	-	-	-	-	-	*45.9	*44.8	65.9
• Phosphates (as PO ₄)	217	216	364	-	-	-	-	-	-	217	216	364
• Total Suspended Solids	63.5	37.6	92.0	-	-	-	-	-	-	63.5	37.6	92.0

ENVIRONMENTAL DATA: WASTE

	CROP PROTECTION			SEEDS & TRAITS			CONTRACTED LAND			COMPANY TOTAL		
	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16	FY'14	FY'15	FY'16

Total Waste (MT)

Energy recovery	203	608	665	36,200	7,520	28,000	1.2	1.2	2.1	36,400	8,120	28,600
Incineration	3,580	3,500	5,200	12,100	9,460	10,900	6.8	3.4	21.8	15,700	13,000	16,100
Landfill	8,600	7,060	7,200	21,000	17,600	17,700	966	460	167	30,500	25,100	25,100
Other	73.3	17.8	-	4,080	303	-	3,000	-	-	7,160	*321	-
Reuse/Recycle/Composting	7,940	7,300	7,190	146,000	84,800	130,000	70,200	25,500	20,100	224,000	118,000	157,000

Total Hazardous Waste	2,680	2,930	4,370	8,260	6,320	8,030	10.8	7.1	23.8	10,900	9,250	12,400
Total Non-Hazardous Waste	17,700	15,500	15,900	211,000	113,000	178,000	74,200	26,000	20,300	303,000	155,000	215,000
TOTAL	20,400	18,500	20,300	219,000	120,000	186,000	74,200	26,000	20,300	314,000	164,000	227,000

Waste Shipped Off-Site or Composted

The total waste shipped off-site or composted in fiscal year 2016 was 227,000 metric tons. The increase from 2015 was mainly driven by our Seeds and Traits operations in waste seeds and biomass being utilized for energy recovery. Hazardous waste was not exported or imported by Monsanto across country borders.



Placing high ethical standards, effective corporate governance, responsible product stewardship and transparent reporting at the center of the way we operate our global business.

As a global, publicly traded company, we hold ourselves to the highest of standards. Our governance framework and policies serve as checks and balances as we set and pursue our goals, monitor our progress and continue to improve. We're committed to being a force for good in our work with individuals, organizations and communities and to have a positive impact on society while returning value to our shareowners.

86 OUR CORPORATE GOVERNANCE FRAMEWORK

- 86 Sustainability and Corporate Responsibility Committee
- 87 Engaging with Shareowners
- 89 Driving Ethical Conduct and Corporate Citizenship Throughout Our Business
- 90 Political Contributions
- 90 Engaging with Our Neighbors
- 91 The Monsanto Fund

92 ADDRESSING CRITICAL ISSUES

- 92 Stewarding Product Safety
- 95 Supporting the Science on Glyphosate
- 96 Transparently Summarizing Our View on Food Labeling
- 98 Supporting Transparency in Academic Partnerships
- 99 Protecting Intellectual Property
- 99 Pursuing Effective Regulatory Approval

100 WORKING WITH OUR SUPPLIERS

- 101 Excelling in Trade Compliance
- 101 Supporting Diverse Businesses

102 REPORTING OUR PROGRESS

- 102 Gathering Stakeholders' Perspectives
- 103 Where Impacts Occur
- 107 UN Sustainable Development Goals Table
- 109 GRI Index
- 120 UN Global Compact Table



OUR CORPORATE GOVERNANCE FRAMEWORK

Monsanto is committed to high ethical standards and the values of effective corporate governance. Corporate governance touches all aspects of our company and is an important part of both who we are and how we conduct ourselves every day. Our governance framework gives our highly experienced board of directors the structure necessary to provide appropriate oversight to the company.

This section focuses on the responsibilities and actions of the Sustainability and Corporate Responsibility Committee (SCRC) of our board of directors and provides a high-level overview of our corporate governance structure, as well as key corporate governance activities undertaken since the beginning of 2016. Additional information can be found in the governance sections of our [2016 Proxy Statement](#) and website. Links to specific information are included in the GRI G4 Index of this report, beginning on Page 109.



Sustainability and Corporate Responsibility Committee

Central to Monsanto's commitment to sustainability is oversight from our board of directors, particularly its SCRC, which is charged with reviewing and monitoring the company's sustainability performance and risks. In this capacity, the SCRC represents and reports back to the full board of directors.

The experience and expertise of SCRC members span multiple industries and disciplines including food, energy, agriculture, academia, technology, healthcare, consumer goods and performance management. These diverse backgrounds help ensure that the committee has a comprehensive view of the sustainability topics that impact our company, the environment, communities, customers and other key stakeholders.

RECENT KEY CORPORATE GOVERNANCE DEVELOPMENTS

- We added Mitch Barns, of Nielsen Holdings plc, to our board of directors.
- We adopted a proxy access bylaw amendment to enable eligible Monsanto shareowners to have their own director nominee included in the company's proxy materials, along with candidates nominated by our board of directors. As a result of the continued evolution of practice regarding proxy access implementation, we amended the provision in a manner that eliminates certain restrictions and conditions on use of the provision by eligible shareowners.
- We enhanced public disclosures regarding political spending and lobbying activities in 2016.



The SCRC reviews the company’s sustainability goals and reporting and meets periodically with stakeholders to hear external perspectives and to identify and investigate significant emerging issues. The committee members also receive and discuss periodic reports on our business conduct program, progress related to our Human Rights Policy, charitable donations and commitments, and political contributions and lobbying activities.

The SCRC considers and approves funding for our corporate political activities and appoints members of our senior management to our Good Government Fund Advisory Panel to ensure that our corporate political spending consistently operates and complies with applicable laws and supports our overall goals and strategic objectives. The committee is also responsible for reviewing and considering such topics as biotechnology approvals and product launches, GMO labeling and the company’s reputation.

In fiscal year 2016, the SCRC met five times and reviewed and discussed many of the topics covered throughout this report and other Monsanto sustainability efforts. The committee approved this report, which included the sustainability materiality assessment conducted in fiscal year 2015 and early fiscal year 2016.

Some of the specific matters discussed by the SCRC in 2016 included climate action, consumer food and nutrition, human rights, biodiversity, external stakeholder engagement, collaboration and input from a farmer panel. For more information, see the [Sustainability and Corporate Responsibility Committee charter](#).

Engaging with Shareowners

We engage in dialogue with our major shareowners throughout the year about various corporate governance topics, including executive compensation and sustainability. We encourage shareowners to contact our board, independent lead director or corporate secretary through our [website](#) or regular mail at the following address:

Monsanto
c/o David F. Snively, Corporate Secretary
(for our lead independent director use:
c/o Office of the Lead Director)
800 North Lindbergh Boulevard
Mail Stop A3NA
St. Louis, MO 63167



NEW BOARD MEMBER JOINS SUSTAINABILITY AND CORPORATE RESPONSIBILITY COMMITTEE

As we continue to effectively leverage data and insights to help meet the needs of our customers, we also look at ways to incorporate this experience and approach among our board of directors. In 2016, Dwight M. (Mitch) Barns joined the Monsanto board. Mr. Barns serves on the People and Compensation and Sustainability and Corporate Responsibility Committees. Since January 2014, Barns has served as the chief executive officer of Nielsen Holdings plc, a global performance management company. Since joining Nielsen in 1997, Barns has lived and worked on three continents and has held leadership roles across all major parts of Nielsen’s business.



CORPORATE GOVERNANCE AT A GLANCE

Board Independence

- 12 out of 13 of our directors are independent.
- Our CEO is the only management director.

Board Composition

- The board is composed of 10 men and three women, including one African-American member and one member who resides outside the United States.
- The board is composed of one member under the age of 50, and 12 members over the age of 50.
- The board regularly assesses its performance through board and committee self-evaluation.
- The Nominating and Corporate Governance Committee leads the full board in considering board competencies and refreshment in light of company strategy.

Board Committees

- We have six board committees – Audit and Finance, Executive, Nominating and Corporate Governance, People and Compensation, Science and Technology, and Sustainability and Corporate Responsibility.
- All committees are composed entirely of independent directors with the exception of the Executive Committee (our chairman and CEO serves on this committee).

Leadership Structure

- Our chairman is CEO of our company. He interacts closely with our independent lead director.
- The independent board members elect our lead director annually. Among other duties, our lead director chairs executive sessions of the independent directors to discuss certain matters without management present.

Risk Oversight

- Our full board is responsible for risk oversight and has designated committees to have particular oversight of certain key risks. Our board oversees management as management fulfills its responsibilities for the assessment and mitigation of risks and for taking appropriate risks.



Driving Ethical Conduct and Corporate Citizenship Throughout Our Business

Open communication with our employees and business partners is critical. We work together to address difficult workplace situations and concerns. Through our board-chartered global Business Conduct Office (BCO), we implement ethics and compliance initiatives and directives. As allowed by local law, employees may submit questions or voice concerns to the BCO via an internal toll-free telephone number, an email address or through a third-party provider to ensure anonymity.

In 2016, we addressed a total of 500 inquiries, 283 of which were requests for guidance regarding compliance and business ethics, and 217 were comments about work environments, stewardship of corporate assets and observed behaviors that might be inconsistent with our policies or codes of conduct. Of these inquiries, four were allegations of discrimination. All four were investigated, and none required intervention or further remediation. During the fiscal year,

14 allegations related to our Human Rights Policy were made in categories other than discrimination. Two of these were resolved, and 12 were found to be unsubstantiated upon investigation. Resolutions ranged from compensation settlement to coaching and process remediation.

Our annual compliance certification provides an additional opportunity to ensure we are in compliance with our policies and codes of conduct. In 2015, 100 percent of our global employees completed the certification process.

Leading With Integrity

Ethical business conduct is the responsibility of every employee, and it is up to management to lead by example. That's why in 2016 we continued our training series aimed at emerging leaders within the company, but available to all employees. The Monsanto Ethical Leadership Professional Development Series is designed to promote a culture of ethics and provide opportunities for career enhancement. In 2016 we trained more than 500 employees through this process in numerous locations across Honduras,



India and the United States. We refreshed and deployed the anti-corruption training course for employees who were identified as having the potential to interact with government officials.

Preventing Corruption

Anti-corruption policies and procedures have been communicated to all 13 members of our board of directors, 100 percent of our employees and 100 percent of our business partners with procurement origination or renewal in the last 24 months through our Supplier Code of Conduct. Anti-corruption training has been provided to 100 percent of our employees who may represent our company to government officials.



Political Contributions

Participating constructively and transparently in the political process is essential to our company's long-term success. We contribute to U.S. political candidates and industry and trade groups in a manner compliant with all applicable laws and reporting requirements. The Sustainability and Corporate Responsibility Committee of our board of directors oversees political contributions.

In 2016, the Center for Political Accountability (CPA), a nonpartisan, nonprofit organization that brings transparency and accountability to corporate political spending, ranked Monsanto in the first (best) of five tiers out of a universe of 500 companies included on the CPA-Zicklin Index. The 2016 ranking recognizes our efforts to increase and clarify the information we share on the [political disclosures](#) portion of our website.

Engaging with Our Neighbors

With more than 350 production, manufacturing, R&D and office facilities around the world, we are part of many local cultures, communities and villages. Being a good community citizen has always been a priority, and we have a long

record of collaborating with our neighbors. Two of the primary ways we approach this is through Community Advisory Panels (CAPs) and formal site community engagement plans.

CAPs include local residents and community leaders who meet regularly with representatives from our facility management team to discuss Monsanto's operations in the community, environmental concerns, safety, emergency preparedness, community involvement and any other issues or concerns raised. Each group solicits feedback and counsel from neighbors and works to build meaningful relationships within the communities surrounding our facilities, helping us inform our operational decision-making.

We have formal CAPs at all our chemical manufacturing facilities, and new groups are launched based on local stakeholder needs and interests. We have established CAPs in Argentina, Belgium, Brazil, Puerto Rico and the United States.

While CAPs work well in some areas, we want to make sure we are tailoring our engagement to meet the needs of the local communities. In 2015, we assessed our current community efforts, hosted town hall listening sessions and talked with our neighbors one



on one through door-to-door contact. As a result of this assessment process, in 2016 we established an internal community engagement portal with resources and guidelines for all sites to develop formal plans.

We have implemented formal community engagement plans at 100 percent of our manufacturing sites around the globe. Plus, in connection with our 2015 assessment, these efforts have expanded to the Research and Development organization in order to reach more communities across the globe. Our goal is to implement a community engagement plan at 100 percent of our plant breeding sites by fiscal year 2018. As of fiscal year 2016, 20 percent of our global plant breeding sites have implemented a community engagement plan.



COMMUNITY ENGAGEMENT PLANNING PROCESS



The community engagement assessments identified best practices that many of our facilities had already implemented, such as safety training, initiating community health programs and engaging with many community members.

Engagement topics included education, religion, law enforcement, personal safety and environmental conservation. Some sites shifted their engagement plans based on assessment results; for instance, one site historically focused on safety efforts, but turned their attention to working with local retailers and stakeholders as a result of their community assessment.

Moving forward, several regions have made their way through the community engagement planning process (see accompanying graphic) with the hopes of building even more meaningful relationships within the communities surrounding our plants.

The Monsanto Fund

As the philanthropic arm of our company, the Monsanto Fund, a U.S.-based 501(c)(3) nonprofit funded by Monsanto, seeks to make a positive sustainable difference in the communities where

we live and work around the world, with an emphasis on farming communities, ensuring access to a balanced meal and STEM education. We collaborate locally to prioritize the most pressing issues and implement lasting solutions.

As part of Monsanto's commitment to inclusion and diversity, the Fund maintains a nondiscrimination policy. In 2015, the Fund determined that the nondiscrimination policy would apply to all donations in the United States. Previously, the nondiscrimination policy had applied only to donations made directly by the Fund. Now, the same nondiscrimination policy is applied to the Monsanto Fund Matching Gifts Program, the America's Farmers Grow Communities grant program and any other donations by the Fund regardless of whether the Fund selects the donations or if donations are selected by others.

Monsanto Company applies similar standards to Monsanto Together Volunteer Program grants and other initiatives.



ADDRESSING CRITICAL ISSUES

At Monsanto, we are dedicated to facing the tough issues head-on and working through them collaboratively. Through stakeholder engagements, the development of our materiality assessment and the monitoring of what's being said about the company in the media, we are developing a better understanding of what society and key stakeholders want to know about Monsanto and its products and business practices.

Stewarding Product Safety

Monsanto is firmly committed to ensuring that our products and technologies are safe and environmentally responsible. Our dedication to product stewardship encompasses responsible management of technologies and products across our seed, traits and crop protection businesses from concept to discontinuation.

Product stewardship efforts at Monsanto are supported by the industry-wide Excellence Through Stewardship (ETS) initiative. This



program includes third-party auditing of members' biotechnology stewardship policies and practices. In 2016, ETS certification was achieved by Monsanto in Europe and South Africa for biotechnology-derived plant products, and ETS certification was achieved for insect-resistance management (IRM) in Argentina, Australia and Canada. By 2018, we expect that all of our operations globally for biotechnology-derived plant products will be ETS certified. We engage in product stewardship initiatives through other organizations as well, including the [American Seed Trade Association](#), [CropLife International](#), [EuropaBio](#) and the [International Seed Federation](#).

Biotech and crop protection products are some of the most studied products in the world. Before any of these products ever reach the market, they undergo an extensive and thorough process to ensure their safety and effectiveness. This starts in our own labs and facilities and ultimately involves years of review by multiple regulatory agencies. Some of the internal product stewardship processes we have in place are outlined on the following page.



LCStAMP

Our seed and crop protection products are subject to our Life Cycle Stewardship Activities Management Process (LCStAMP) to ensure their safety and integrity from discovery and development through production, marketing, distribution and discontinuation. In 2016, 22 product and technology stewardship reviews were completed.

Field Trials and Trait Quality Program

Field trials are an important component of the development of all new seed varieties. Testing GMO products in regulated field trials is vital to develop important scientific information, assess the performance of a new trait and generate the necessary environmental safety

data required by regulatory authorities that evaluate products for commercial approval. Monsanto implements field trial procedures that go beyond what is required to achieve the highest level of compliance and identifies ongoing process improvements. We have embraced preventive auditing and self-reporting to encourage employees and field cooperators to identify and immediately report potential concerns and incidents.

Monsanto's Trait Quality Program focuses on delivering the intended biotech trait at each phase of development and commercialization and is managed through rigorous internal policies, procedures, training and audits. The Trait Quality Program aims to ensure that our customers experience consistent product performance globally with maximum benefit.

In 2016, a total of 253 corporate audits across all functions were performed to assess field trial compliance and trait quality, with 87 percent closed satisfactorily and the remaining 13 percent on track to be resolved through corrective action. While we believe that our compliance program is among the most comprehensive and successful compliance programs in the industry, we continually review and strengthen our practices.

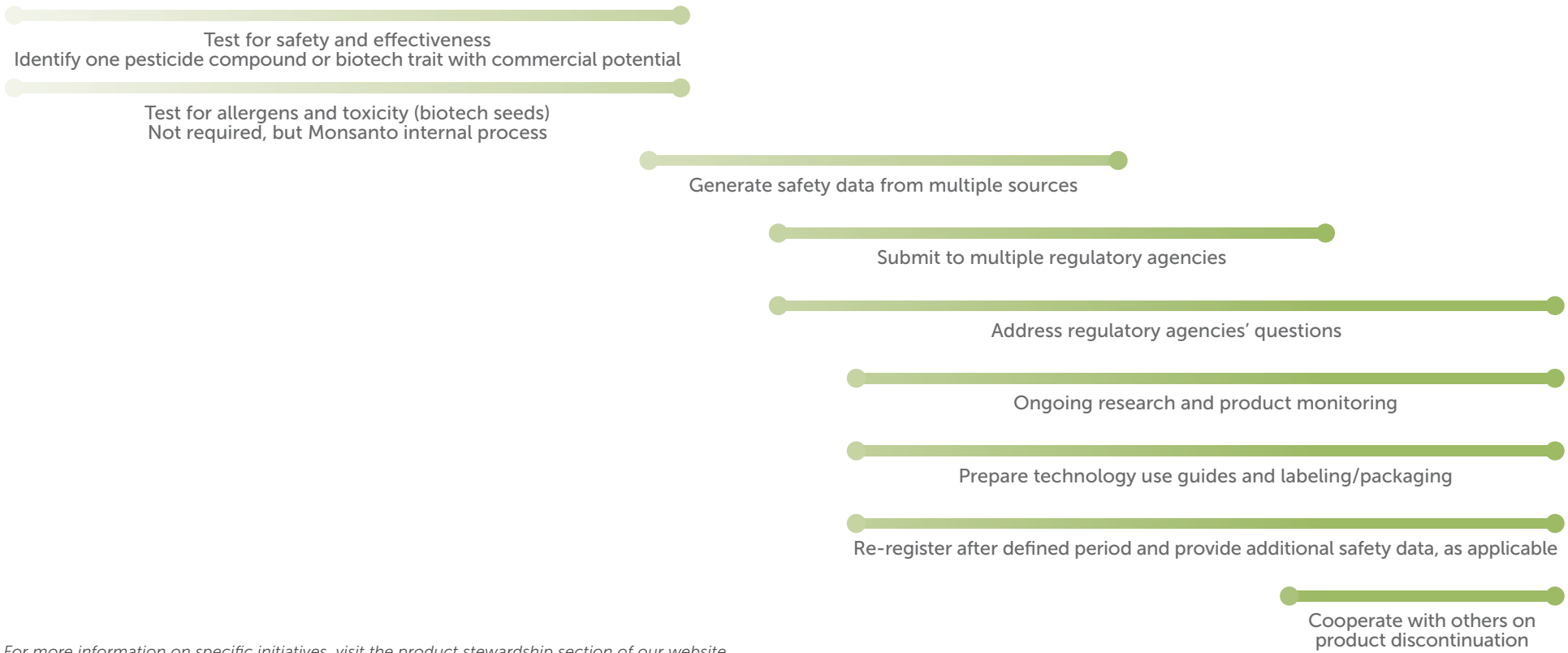
Product Development

The processes to gain approvals for both biotech and crop protection products include rigorous regulatory reviews to ensure product safety and determine effective stewardship plans. For an overview of the regulatory oversight during these complex development processes, see the diagram on the following page.

For a biotech seed product, the research and development process takes about 13 years and costs on average \$136 million, with more than a quarter of that cost incurred as part of the regulatory testing and approval process. In fact, the longest phase of biotech product development occurs during regulatory science and registration activities, which takes more than five years. The research and development process for a new crop protection product takes about 10 years and can cost as much as \$250 million.



REGULATORY STEPS FOR DEVELOPING BIOTECH AND CROP PROTECTION PRODUCTS



For more information on specific initiatives, visit the [product stewardship](#) section of our website.



HANDLING PESTICIDE WASTE

Monsanto participates in industry-led container management and disposal projects around the world, and in the CropLife International Obsolete Stocks project, which addresses pesticide waste globally with a focus in Africa. In Brazil, we support the National Institute for Processing Empty Containers (InpEV), a nonprofit organization that represents the crop protection industry to provide proper disposal of agrochemical containers. In calendar year 2015 (the most recent year for which this data is available), more than 45,000 tons of empty packages were disposed of in an environmentally proper way. This volume represents 94 percent of primary packaged products commercialized during the preceding year.

We also create our own initiatives when we identify an unfulfilled need, like we found in Indonesia. All of our crop protection product packaging contains guidelines for proper disposal of the containers after use. However, for some farmers, leaving spent pesticide containers in the field is still a common practice. As part of our commitment to product stewardship, Monsanto initiated pesticide waste collection programs. For instance, in the first year of this effort in Indonesia, the program led to the proper recycling and disposal of over 1,100 containers. This initiative helps to ensure pesticide residue doesn't end up in the land or waterways. The program is also intended to further educate growers about the importance of proper waste disposal.

Supporting the Science on Glyphosate

Glyphosate, the active ingredient in Roundup® brand herbicides, has a long history of safe use as an essential tool that spans more than 40 years. During that time, glyphosate has proven to be a breakthrough for farming. In fact, glyphosate has been described as a once-in-a-century herbicide. Not only do glyphosate products work really well on weeds, but they also help farmers grow crops more sustainably. For example, glyphosate has helped farmers adopt what is called conservation tillage, which helps enable farmers to disturb less soil with tillage and drive their tractors across the field less. As a result, farmers can reduce soil erosion and carbon emissions, which is good for soil health and the environment.

When it comes to safety, glyphosate has been extensively tested. The overwhelming conclusion of experts worldwide, including the U.S. Environmental Protection Agency (EPA) and European Food Safety Authority (EFSA), is that glyphosate can be used safely according to label instructions.

In March 2015, the International Agency for Research on Cancer (IARC) created unwarranted confusion and concern by highlighting only selected data and erroneously classifying

glyphosate as a probable carcinogen. IARC subsequently made the same determination about red meat. In fact, a [special report by Reuters](#) found that, "Over four decades, [IARC] has assessed 989 substances and activities, ranging from arsenic to hairdressing, and found only one was 'probably not' likely to cause cancer in humans."

Based on the overwhelming weight of evidence, Monsanto strongly disagrees with IARC's classification of glyphosate. Importantly, independent experts have concluded that IARC overlooked decades of thorough science-based analysis by regulatory agencies around the world and selectively interpreted data to arrive at its classification of glyphosate.

Regulatory agencies have reviewed all the key studies examined by IARC – and many more – and arrived at the overwhelming consensus that glyphosate poses no unreasonable risks to humans or the environment when used according to label instructions. To be clear: No regulatory agency in the world considers glyphosate to be a carcinogen.

In fact, since IARC classified glyphosate, regulatory authorities in Australia, Canada, Europe, Japan, New Zealand and the United States have publicly reaffirmed that glyphosate does not cause cancer. In May 2016, the Joint



Food and Agriculture Organization of the United Nations and World Health Organization Meeting on Pesticide Residues again concluded that “glyphosate is unlikely to pose a carcinogenic risk to humans from exposure through the diet.”

To better understand how IARC arrived at such an inconsistent conclusion, Monsanto retained a scientific consultant to convene an expert panel to review IARC’s assessment. The charge to the experts was to take a thorough look at the data in the monograph, assess the scope of the research included or excluded, and publish their conclusions. The experts concluded that “the data do not support IARC’s conclusion that glyphosate is a ‘probable human carcinogen’ and, consistent with previous regulatory assessments, further concluded that glyphosate is unlikely to pose a carcinogenic risk to humans.” The expert panel’s peer-reviewed findings are published in *Critical Reviews in Toxicology*. For more information about the expert panel and its members, please visit our [website](#).

Even so, IARC’s inconsistent classification of glyphosate continues to receive attention and cause confusion. For example, the California Office of Environmental Health Hazard Assessment has proposed that glyphosate

be listed under California’s Proposition 65 (Prop 65), which requires the state to maintain a “list of chemicals known to the state of California to cause cancer.” The proposed listing is based solely on IARC’s classification of glyphosate. Monsanto has taken legal action to prevent what would be a flawed listing.

Recent delays in the European Union and United States regulatory processes may also be attributed in part to the unwarranted concern generated by IARC’s classification of glyphosate. The European Commission’s decision in June 2016 to defer for another 18 months the renewal of the market authorization for glyphosate pending further research is a clear example. Indeed, while glyphosate meets or exceeds all requirements for a full renewal under European law and regulation, the political debate around glyphosate became highly emotional because of the IARC classification. In the United States, the EPA has also announced plans to convene a Scientific Advisory Panel and identified the IARC classification as a motivating factor.

After IARC classified glyphosate in March 2015, plaintiffs’ attorneys in the United States have begun soliciting plaintiffs for personal injury lawsuits. These attorneys are attempting to tie

the IARC classification to individual cases of cancer, and they’re running advertisements to recruit plaintiffs. These claims are baseless and without merit. The scientific evidence clearly shows that glyphosate is not a carcinogen. For more information on glyphosate, read this article from our [Beyond the Rows](#) blog.

Transparently Summarizing Our View on Food Labeling

What we put on our tables reflects our history, family and culture. It’s how we provide for our loved ones and hungry generations to come. So it’s no surprise that all over the world, people are having spirited conversations about food and how it’s grown.

As a company involved in one of the first steps of food production, we know how important that conversation is. We have the conversation every day with growers, consumers, family members and the thousands of people who have toured our sites and asked us questions. That’s why, in the United States, Monsanto was a part of the [Coalition for Safe Affordable Food](#) – a group of more than 1,100 associations, groups and businesses across food and



agriculture, from farm to fork, with very diverse views on how food should be produced and sold, but united on one important goal: the passage of a national labeling standard on GMOs that provides transparency and information to consumers, farmers and businesses alike. Through the tireless work of the Coalition with representatives from food and agriculture, a new law was passed to create a national framework for food companies to provide the public with information about GMO ingredients. This effort is an example of how people with diverse perspectives were able to sit down in healthy dialogue and deliver a workable national solution.

Supporting the farmers we serve – from family farmers in Iowa to village growers in Africa – has been our priority for many years. Farmers will always be a priority focus for us, and we recognize the importance of finding common ground and collaborating for the coexistence of all types of farming practices.

In a world that is getting warmer, thirstier and more crowded every day, it's critically important that farmers have access to all types of agriculture solutions, from better seeds that help keep bugs and weeds out of crops to data apps that help track soil health. We know our work helps farmers produce safe, sustainable harvests.

Simultaneously, consumers demand and deserve consistent, transparent information about what's in their food. We believe a uniform framework establishing consistent requirements for companies helps accomplish this goal.

While this national standard may not be perfect, it's better than the alternative: a patchwork of state regulations with no across-the-board standards, which could cause a can of soup or pasta to have as many as 50 different labels based on each state's standards. We support one system that provides clear, consistent information to help people make decisions about the foods they eat. This framework provides that, and what's more, it means that food companies could use these tools to share information about more than just GMO ingredients, including sustainability, sourcing and more.

We know the conversation about food will continue – around dinner tables, within families, and in the aisles of food markets all over the country. We look forward to participating in that conversation, and we welcome a collaborative discussion.



GMO SAFETY

The safety of our products is our first priority. After 30 years of research and assessments, the science and safety behind GM crops has been well established and strongly supported by the scientific community that includes multiple health societies, hundreds of independent scientific experts and dozens of governments around the world.

A recent study from the National Academies of Sciences, Engineering, and Medicine underscored this conclusion. Following a two-year, evidence-based approach involving the analysis of more than 1,000 research publications and broad transparency through public meetings, presentations and comments, the May 2016 report found no persuasive evidence of adverse health effects attributable to consumption of foods derived from genetically engineered (GE) crops or a causal relationship between GE crops and environmental problems.

Additionally, the American Medical Association, National Academy of Sciences, World Health Organization and Food and Drug Administration have all concluded after reviews of decades of extensive studies that GMO ingredients are as safe and nutritious as other ingredients.



Supporting Transparency in Academic Partnerships

Our society is facing some big challenges, like combating climate change, utilizing water and other resources more efficiently and making a more balanced meal accessible for everyone. No single organization or company can do it alone, and Monsanto is certainly not an expert in all areas, so we partner with others like scholars and researchers at major universities to tackle some of these big challenges.

Within agriculture, the relationships between the public and private sector are critical and have existed for decades. Like many companies, across sectors, we communicate, collaborate and exchange ideas with dozens of public sector scientists on matters of common interest. We see public-private collaborations as essential to the advancement of science, as well as to educating and sometimes correcting misinformation the public has about science, innovation and the related conversation of food and agriculture production.

A professor may be the world's leading expert in a particular field, and we need their insight to help us address a tough problem or to verify our own work. Sometimes we want an outside perspective on a product or idea on which we are working. No matter what the reason, these

HOW WE COLLABORATE WITH ACADEMICS AND UNIVERSITIES



Exchange information through academic and industry conferences



Product testing for review by regulatory agencies



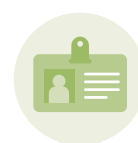
Invite academics to conduct field trials on our products



Seek advice on the safety and performance of our products



Co-author peer-reviewed research in academic journals



Recruit the best and brightest to work in agriculture



Provide information and resources to the general public



Advise decision-makers on sound agricultural policy

partnerships play an important role in our research and often produce outcomes that benefit society. Many products we use every day are the result of multi-stakeholder partnerships.

Like many companies, we sometimes fund a professor's research program or help them carry out public education and outreach, but Monsanto doesn't offer professors direct compensation. This is not unusual. Scientific research at universities is very often funded by outside sources, including the government, foundations and companies.

We have continued our efforts to be transparent in describing our working relationships with academics to the public through our own website, [Beyond the Rows](#) blog and through guest posts in third-party publications like *Forbes*.

We do not have all of the answers or expertise. We see public-private collaborations as essential to the advancement of science, innovation and agriculture to help bring the best products and services to our farmer customers.



Protecting Intellectual Property

Our world faces big challenges. Among them, population growth, water limitations and climate change are creating increased demand on resources ranging from arable land to water and energy.

Daunting as they may be, at Monsanto we believe these challenges are not insurmountable. We are the industry leader when it comes to research and development to bring forward new innovations that drive long-term agricultural productivity. And our R&D investment has resulted in remarkable advances across plant breeding, biotechnology and data-driven agriculture tools that help farmers everywhere grow more with less.

As a company dedicated to bringing – and sharing across our industry – new innovative solutions for farmers, we are supportive of the development and enforcement of national policies concerning intellectual property rights that are complemented by other development-oriented policies to ensure optimal societal benefit. Intellectual property protections such as patents provide incentives to disclose and share information related to an innovative advancement that enables other third parties to work with and further improve upon prior inventions. In exchange for their disclosure, the holder of a patent is provided a limited period

of market exclusivity during which the market will determine whether the invention has value.

As one member of the agriculture industry striving to meet the needs of farmers and our growing population in a sustainable manner, we recognize the importance of encouraging investment in innovation. Sustainable agricultural products will help meet the needs of farmers and society today and in the future. We believe that innovation works hand in hand with effective national systems that respect and protect the intellectual property rights of innovators. Intellectual property rights help enable innovation since they provide a mechanism for the sharing of new innovations and recognition of the value of those innovations.

Pursuing Effective Regulatory Approval

This content is adapted from an interview by Bloomberg BNA with Dr. Phil Miller, Monsanto's Vice President, Global Corporate Affairs.

What Monsanto looks for in regulations is effectiveness, predictability and robustness. That's what gives consumers confidence in the decisions that are made by regulators. Monsanto has had biotech products that have been well studied and understood for more than 20 years.

As consumers ourselves, the safety of our products is paramount to each of us who work at Monsanto. Our company is built on a foundation of science.

Dr. Phil Miller,
Vice President, Global Corporate Affairs

There's not been a single substantiated incident of harm to human health associated with biotech products.

Both the agriculture industry and regulatory bodies could be more effective at helping consumers understand the way regulators do their assessments. There's a significant gap in people's knowledge about science, safety and the benefits of all the agriculture technologies that are used, whether it's chemistry or biotech.

From a business perspective, it's also crucial that regulatory systems are funded appropriately so they can conduct their thorough assessments in a timely fashion. In Monsanto's case, our product introduction cycles are seasonal. We get an opportunity to introduce a new innovation to farmers only once a year. Timing is critical. If we receive required approvals late, farmers may have to wait another whole year to get the opportunity to leverage that innovation.



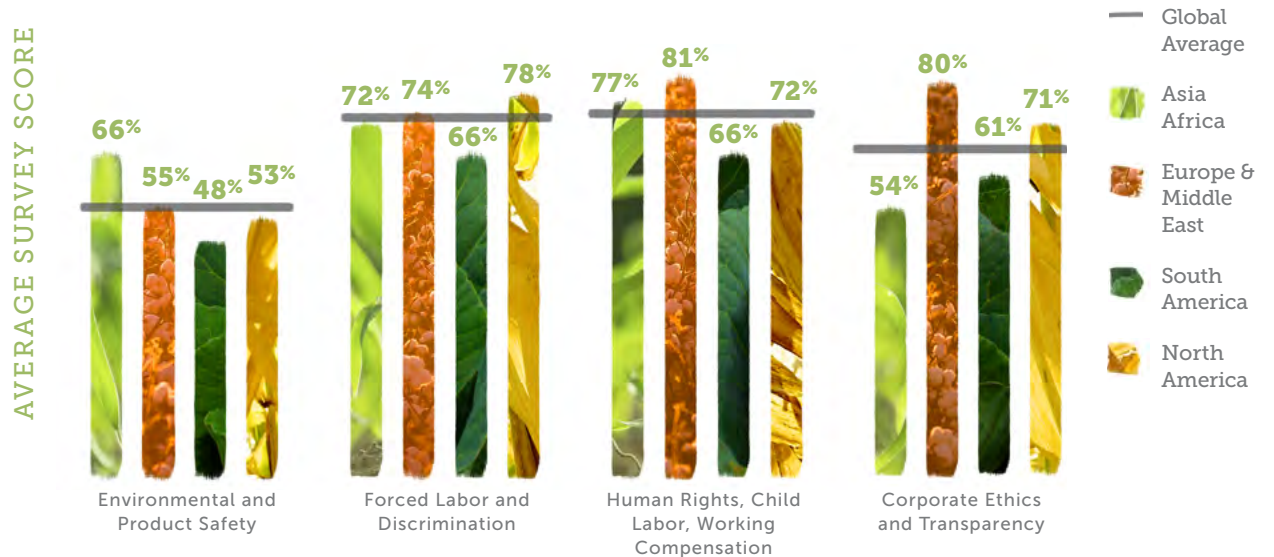
WORKING WITH OUR SUPPLIERS

Monsanto relies on a vast network of suppliers across 19 primary categories including services, equipment and raw materials, as well as our network of seed production partners. Our procurement function is committed to doing our part to bring a broad range of solutions to help nourish our growing world. We support purchasing approaches that promote environmental, ethical and social principles.

We expect to conduct business with suppliers who comply with our global [Supplier Code of Conduct](#) and demonstrate a commitment to ethical, environmental and economic sustainability. All current and new suppliers invited to engage in business with Monsanto must complete a computer-based profile that covers a range of sustainability topics. Monsanto requires its suppliers to conform to our Supplier Code of Conduct through the establishment of new contracts and at the time of contract renewal. The [global procurement](#) section of our website provides prospective and existing suppliers easy access to information about what is expected of them, including access to the Supplier Code of Conduct in 29 languages.



AVERAGE SUPPLIER SUSTAINABILITY SURVEY SCORE BY CATEGORY BY REGION - 2016



The chart shows the average scores of participating suppliers across categories by geographic hub compared to the Global Average. Suppliers that completed the 2016 survey are included in the graph.



In 2015, we completed our first Select Supplier Sustainability Assessment to weigh the economic, environmental and social profiles and behaviors of strategic suppliers. In 2016, we expanded the number of suppliers receiving the survey by 58 percent. Collectively, these suppliers represent \$1.12 billion or 16.6 percent of our global annual procurement addressable spend. We use these comprehensive supplier performance profiles to enhance supplier relationship management efforts, assess opportunities and risks, and develop supplier specific plans that incorporate best practices.

Excelling in Trade Compliance

Monsanto is committed to compliance with all export laws and regulations that govern the transportation of our products across international borders. We are certified under several voluntary trade compliance programs in the United States, such as the Customs-Trade Partnership Against Terrorism (C-TPAT) and the Importer Self-Assessment (ISA) program. C-TPAT establishes measures to add security to trade in order to safeguard the world's industry from terrorists. The ISA program is an initiative

of U.S. Customs and Border Protection that partners with importers who can demonstrate their readiness to manage and monitor their trade compliance through self-assessment.

Supporting Diverse Businesses

Monsanto values a diverse and inclusive environment and extends this to all suppliers in our global supply chain. As we strive to be the leading provider of agricultural products and solutions worldwide, we recognize the value of a diverse supplier base.

Monsanto consistently ranks in DiversityInc's Top 50 list, ranked No. 43 in 2016. During our second year of the Monsanto Supplier Diversity Mentor Program in the United States, we were recognized by Women's Business Enterprise National Council and highlighted by *Fortune Magazine* in November 2015. Monsanto began extending this program to other global regions in December 2016, starting with Brazil.

As we expand our supplier diversity platform, we've placed a heightened focus on doing business with women's business enterprises



in our global supply chain. Our strong efforts to include women-owned businesses in global sourcing opportunities, along with the high level of engagement from our Global Supplier Diversity Network Leads in each region, earned Monsanto the prestigious [WEConnect International](#) Best Progress Award during our first year of membership.



REPORTING OUR PROGRESS

This report does more than simply relay our commitment to sustainability; it highlights our challenges and opportunities. It sparks conversations that help us more acutely understand what matters to our company and shareowners, farmers, policymakers, communities and consumers. Those insights guide the content of this report, as well as inform where we may focus our future efforts. For us, sustainability reporting is a communications, engagement and strategic management tool. We are dedicated and committed to continued improvement, and the discipline of reporting allows us to identify and assess our opportunities for advancement.

Each year, we publish a sustainability report that includes our United Nations Global Compact Communication on Progress. This report is prepared in accordance with the Global Reporting Initiative (GRI) G4 voluntary Sustainability Reporting Guidelines "Core" option and incorporates many aspects of the "Comprehensive" option. We are also tracking how our efforts align with the United Nations Sustainable Development Goals.



Gathering Stakeholders' Perspectives

We seek a broad range of perspectives to learn more about what's important to all of the people and organizations touched by our business. In 2015, we worked with Business for Social Responsibility (BSR), a global nonprofit business network and sustainability consultancy, to conduct a formal materiality assessment to better understand what is important to both stakeholders and the continued success of our company. Materiality assessments are typically updated every several years or when there is a major, fundamental change to the organization being assessed.

DRAWING BOUNDARIES

The scope of information covered in this report varies based on the type of content provided. Footnotes to data tables designate the scope and reporting period covered by the applicable data. Unless otherwise noted, the information pertains to our global Seeds and Genomics and Ag Productivity segments and corporate functions including consolidated subsidiaries, but excluding joint ventures. Environmental, health and safety data and human rights data are based on fiscal year 2016, which ran from September 1, 2015, to August 31, 2016. We do not distinguish between fiscal and calendar years for anecdotal information, and as a result, some information may be noted from other calendar years. Locations referenced throughout this report without a country name are within the United States.



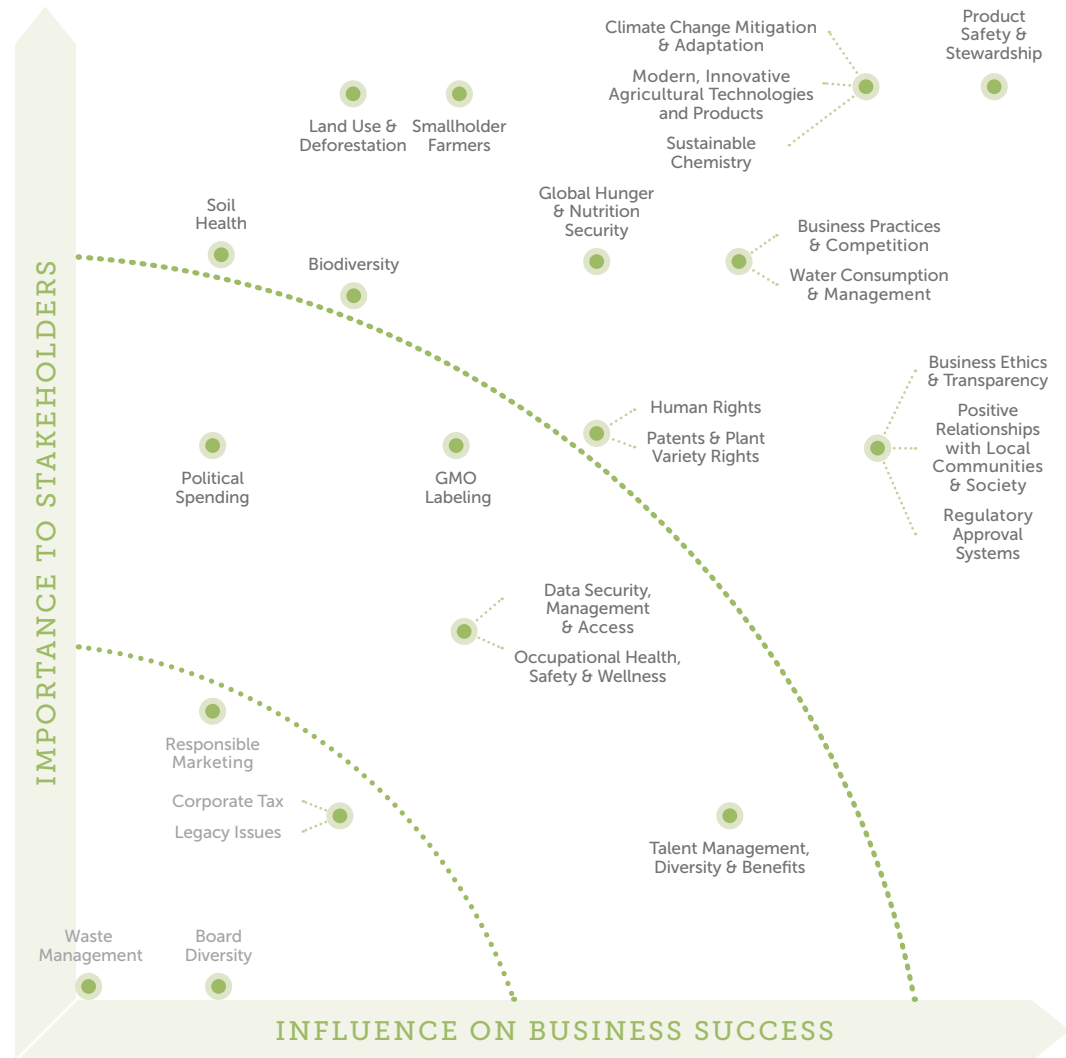
Together with BSR, we explored a broad list of topics. BSR interviewed Monsanto employees from different areas of our business around the world and 20 external stakeholders. They spoke with representatives from NGOs, academia, research institutions, public health organizations, government, the food industry, consumers, community neighbors and our farmer customers.

A scoring system was applied to the results of these interviews, which enabled us to plot the topics on a matrix that visually represents where each falls relative to its importance to our company and our stakeholders. With the matrix developed, BSR hosted an in-person workshop and virtual review sessions to gather feedback from key Monsanto leaders and identified any needed adjustments.

Where Impacts Occur

A key principle of the GRI G4 Guidelines is to determine and report where a company's material topics impact the business, key stakeholders and society at large. An impact can be positive or negative. The tables on the following pages summarize the topics that both external stakeholders and Monsanto business regions identified as most important. We also indicate where we believe these impacts occur relative to our business, suppliers, farmers and consumers.

MATERIAL TOPICS MATRIX



Note: Topics that appear in the lower third segment of the Material Topics Matrix are not included in the tables in this report.



Mapping External Stakeholder Views on Material Sustainability Topics

The table at the right maps the most important sustainability topics for Monsanto from an external stakeholder perspective. The green circles indicate that the particular stakeholder viewed the material issue as high in importance.

Topic	FOOD/GRAIN INDUSTRY	NGOs	FARMERS	ACADEMIA	GOVERNMENT
<i>Product Safety and Stewardship</i>	●	●	●		
<i>Modern, Innovative Agricultural Technologies and Products</i>	●	●	●	●	●
<i>Climate Change Mitigation and Adaptation</i>	●	●	●	●	●
<i>Sustainable Chemistry</i>	●	●	●	●	●
<i>Water Consumption and Management</i>	●	●		●	●
<i>Business Practices and Competition</i>	●	●	●	●	●
<i>Global Hunger and Nutrition Security</i>		●	●	●	●
<i>Business Ethics and Transparency</i>	●	●	●		●
<i>Positive Relationships with Local Communities and Society</i>		●	●		●
<i>Regulatory Approval Systems</i>		●	●		●
<i>Serving Smallholder Farmers</i>		●	●		●
<i>Land Use and Deforestation</i>	●	●	●	●	●
<i>Soil Health</i>		●	●	●	●
<i>Human Rights</i>	●	●	●	●	●
<i>Seed Patents and Plant Variety Rights</i>		●	●	●	●
<i>Talent Management, Diversity and Benefits</i>		●			
<i>GMO Labeling</i>	●	●	●	●	●
<i>Biodiversity and Ecosystems</i>		●	●	●	●
<i>Occupational Health, Safety and Wellness</i>	●	●			●
<i>Data Security, Management and Access</i>		●	●		
<i>Political Spending</i>		●	●		●



Mapping Monsanto Views on Material Sustainability Topics by Regions of the World

The table at the right maps the most important sustainability topics for Monsanto from an internal perspective for each region of the world in which we operate, as indicated by the green circles.

Topic	SOUTH AMERICA	NORTH AMERICA (U.S., Canada, Mexico)	ASIA/AFRICA	EUROPE
Product Safety and Stewardship	●	●	●	●
Modern, Innovative Agricultural Technologies and Products	●	●	●	
Climate Change Mitigation and Adaptation	●	●	●	
Sustainable Chemistry	●	●		●
Water Consumption and Management	●	●	●	
Business Practices and Competition	●	●		●
Global Hunger and Nutrition Security	●	●	●	●
Business Ethics and Transparency		●		●
Positive Relationships with Local Communities and Society	●	●	●	●
Regulatory Approval Systems		●	●	●
Serving Smallholder Farmers			●	
Land Use and Deforestation	●		●	
Soil Health	●	●	●	●
Human Rights	●		●	●
Seed Patents and Plant Variety Rights	●	●	●	●
Talent Management, Diversity and Benefits	●	●	●	●
GMO Labeling		●		
Biodiversity and Ecosystems	●	●	●	●
Occupational Health, Safety and Wellness	●			
Data Security, Management and Access	●	●		●
Political Spending		●		



Mapping Where Sustainability Impacts Occur







The table at the right maps where impacts occur along Monsanto's business value chain, as indicated by the green circles.

Topic	MONSANTO	SUPPLIERS	FARMERS	CONSUMERS
Product Safety and Stewardship	●		●	●
Modern, Innovative Agricultural Technologies and Products	●	●	●	
Climate Change Mitigation and Adaptation	●	●	●	●
Sustainable Chemistry	●		●	●
Water Consumption and Management	●	●	●	●
Business Practices and Competition	●		●	
Global Hunger and Nutrition Security	●		●	●
Business Ethics and Transparency	●	●	●	●
Positive Relationships with Local Communities and Society	●		●	●
Regulatory Approval Systems	●		●	
Serving Smallholder Farmers	●		●	●
Land Use and Deforestation	●	●	●	●
Soil Health	●	●	●	
Human Rights	●	●	●	●
Seed Patents and Plant Variety Rights	●		●	
Talent Management, Diversity and Benefits	●			
GMO Labeling	●		●	●
Biodiversity and Ecosystems	●		●	●
Occupational Health, Safety and Wellness	●	●		
Data Security, Management and Access	●		●	
Political Spending	●		●	●












United Nations Sustainable Development Goals

Monsanto's work contributes to all 17 Sustainable Development Goals. Goals highlighted in **bold green** are core to Monsanto's business and represent the areas where we can have the most impact. Goals highlighted in *italic green* represent how we are working to impact the goals that are core to our business. For more information, see Page 20.

GOAL	LOCATION/DESCRIPTION
 1 No poverty – end poverty in all its forms everywhere.	People, Page 32 (Promoting Food Security in Africa), 34 (Grow Asia: Improving Farmer Livelihoods), 35 (Providing Critical Information to Smallholder Farmers: FarmRise), 35 (Training Smallholder Farmers), 41 (Supporting America's Farmers and Rural Communities), 43 (Volunteering for the Greater Good: Monsanto Together); Planet, Page 59 (Mitigating and Adapting to Climate Change)
 2 Zero hunger – end hunger, achieve food security and improved nutrition and promote sustainable agriculture.	Executive Summary, Page 6; We Are Monsanto, Page 16 (Our Portfolio of Products), 19 (Agricultural Innovation: Our Approach to Sustainability); People, Page 32 (Helping to Ensure Food and Nutrition Security); Planet, Page 59 (Mitigating and Adapting to Climate Change), 78 (Preserving and Improving Plant Varieties and Sharing Benefits)
 3 Good health and well-being – ensure healthy lives and promote well-being for all at all ages.	People, Page 32 (Helping to Ensure Food and Nutrition Security), 41 (Taking a Global Approach to Community Health and Safety), 51 (Promoting Employee Health, Safety and Well-Being), 52 (Protecting Our Guests); Planet, Page 66 (Ensuring Access to Fresh Water)
 4 Quality education – ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.	People, Page 35 (Providing Critical Information to Smallholder Farmers: FarmRise), 35 (Training Smallholder Farmers), 39 (Staking the Future on STEM), 39 (Engaging University Students), 40 (Inspiring Future Science and Technology Leaders), 41 (Supporting America's Farmers and Rural Communities), 44 (Developing Our Employees)
 5 Gender equality – achieve gender equality and empower all women and girls.	People, Page 46 (Embracing the Power of Inclusion and Diversity); 54 (Forging the Way in Human Rights); Company, Page 88 (Corporate Governance At A Glance)
 6 Clean water and sanitation – ensure availability and sustainable management of water and sanitation for all.	People, Page 57 (Helping to Ensure the Human Right to Water); Planet, Page 62 (Collaborating to Drive Nutrient Efficiency), 65 (Applying Data Science to Feed a Growing Population), 66 (Ensuring Access to Fresh Water), 74 (Promoting Sustainable Landscapes), 72 (Enabling Responsible Pest Control), 77 (Researching Ag Biological Solutions for Plant and Soil Health and Pest Control)
 7 Affordable and clean energy – ensure access to affordable, reliable, sustainable and modern energy for all.	Planet, Page 60 (Pursuing Carbon Neutrality), 61 (Investing in Greenhouse Gas Reductions)
 8 Decent work and economic growth – promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.	People, Page 32 (Promoting Food Security in Africa), 34 (Grow Asia: Improving Farmer Livelihoods), 35 (Providing Critical Information to Smallholder Farmers: FarmRise), 35 (Training Smallholder Farmers), 39 (Staking the Future on STEM), 39 (Engaging University Students), 40 (Inspiring Future Science and Technology Leaders), 41 (Supporting America's Farmers and Rural Communities), 44 (Developing Our Employees), 46 (Embracing the Power of Inclusion and Diversity), 48 (Rewarding Great Work), 54 (Forging the Way in Human Rights)



GOAL	LOCATION/DESCRIPTION
 <p>Industry, innovation and infrastructure – build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.</p>	<p>We Are Monsanto, Page 18 (Data Science), 19 (Agricultural Innovation: Our Approach to Sustainability); People, Page 32 (Promoting Food Security in Africa), 34 (Grow Asia: Improving Farmer Livelihoods), 35 (Providing Critical Information to Smallholder Farmers: FarmRise), 35 (Training Smallholder Farmers); Planet, Page 59 (Mitigating and Adapting to Climate Change), 65 (Applying Data Science to Feed a Growing Population); Company, Page 100 (Working with Our Suppliers)</p>
 <p>Reduced inequalities – reduce inequality within and among countries.</p>	<p>People, Page 32 (Helping to Ensure Food and Nutrition Security), 41 (Taking a Global Approach to Community Health and Safety)</p>
 <p>Sustainable cities and communities – make cities and human settlements inclusive, safe, resilient and sustainable.</p>	<p>People, Page 32 (Helping to Ensure Food and Nutrition Security), 41 (Taking a Global Approach to Community Health and Safety), 43 (Volunteering for the Greater Good: Monsanto Together)</p>
 <p>Responsible consumption and production – ensure sustainable consumption and production patterns.</p>	<p>We are Monsanto, Page 16 (Our Portfolio of Products); Planet, Page 59 (Mitigating and Adapting to Climate Change), 66 (Using Water More Efficiently), 72 (Enabling Responsible Pest Control), 75 (Digging into Soil Health), 77 (Researching Ag Biological Solutions for Plant and Soil Health and Pest Control); Company, 92 (Stewarding Product Safety)</p>
 <p>Climate action – take urgent action to combat climate change and its impacts.</p>	<p>We Are Monsanto, Page 18 (Data Science), 19 (Agricultural Innovation: Our Approach to Sustainability); Planet, Page 59 (Mitigating and Adapting to Climate Change), 65 (Applying Data Science to Feed a Growing Population)</p>
 <p>Life below water – conserve and sustainably use the oceans, seas and marine resources for sustainable development.</p>	<p>Planet, Page 66 (Ensuring Access to Fresh Water), 72 (Enabling Responsible Pest Control), 77 (Researching Ag Biological Solutions for Plant and Soil Health and Pest Control); Company, Page 92 (Stewarding Product Safety)</p>
 <p>Life on land – protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.</p>	<p>Planet, Page 62 (Collaborating to Drive Nutrient Efficiency), 63 (Moving From Planning to Action on Climate-Smart Agriculture), 68 (Connecting Biodiversity and Agriculture), 70 (Protecting Species), 72 (Enabling Responsible Pest Control), 74 (Promoting Sustainable Landscapes), 75 (Digging into Soil Health), 77 (Researching Ag Biological Solutions for Plant and Soil Health and Pest Control), 78 (Preserving and Improving Plant Varieties and Sharing Benefits)</p>
 <p>Peace, justice and strong institutions – promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.</p>	<p>People, Page 54 (Forging the Way in Human Rights); Company, Page 89 (Driving Ethical Conduct and Corporate Citizenship Throughout Our Business), 90 (Political Contributions)</p>
 <p>Partnerships for the goals – strengthen the means of implementation and revitalize the global partnership for sustainable development.</p>	<p>We Are Monsanto, Page 27 (Working Collaboratively and Transparently), 28 (External Charters and Principles); Planet, Page 62 (Collaborating on Climate Action: the Carbon-Neutral Collaborative); Company, Page 102 (Gathering Stakeholders' Perspectives) Also stories throughout this report.</p>



GRI G4 Index



GENERAL STANDARD DISCLOSURES

GRI INDICATOR

LOCATION/DESCRIPTION

G4-1	CEO Letter, Page 3
G4-2	CEO Letter, Page 3; Executive Summary, Pages 5-12; We Are Monsanto, Page 19 (Agricultural Innovation: Our Approach to Sustainability); Monsanto 2016 Form 10-K: Item 1, 1A, 7A

Organizational Profile

G4-3	Monsanto Company
G4-4	We Are Monsanto, Pages 16-18
G4-5	St. Louis, Missouri, United States
G4-6	We Are Monsanto, Page 15; Monsanto 2016 Form 10-K: Item 2, Note 25
G4-7	Certificate of Incorporation
G4-8	We Are Monsanto, Pages 15-18; Monsanto 2016 Form 10-K: Item 1, Note 25
G4-9	We Are Monsanto, Page 15; People, Page 49 (Employee Composition Data); Monsanto 2016 Form 10-K: Item 1 (Employee Relations), Item 8
G4-10	People, Page 49 (Employee Composition Data); Monsanto 2016 Form 10-K: Item 1 (Employee Relations), Item 8
G4-11	People, Page 54 (Forging the Way in Human Rights)
G4-12	Company, Page 100 (Working with Our Suppliers)
G4-13	On Jan. 5, 2016, we approved additional actions which together with our Oct. 6, 2015, actions comprise Monsanto's 2015 Restructuring Plan. For details, please see Monsanto 2016 Form 10-K: Note 5 Restructuring . See also, People, Page 55 (Human Rights at Monsanto: 2016 Highlights)
G4-14	Company, Pages 92-97 (Stewarding Product Safety)
G4-15	We Are Monsanto, Page 27 (Working Collaboratively and Transparently), 28 (External Charters and Principles)
G4-16	

Identified Material Aspects and Boundaries

G4-17	All entities included in our Consolidated Financial Statements are covered in this report. See Monsanto 2016 Form 10-K: Note 21
G4-18	Company, Page 102 (Reporting Our Progress)
G4-19	We Are Monsanto, Page 21 (Identifying Material Topics)



GENERAL STANDARD DISCLOSURES

GRI INDICATOR	LOCATION/DESCRIPTION
G4-20 G4-21	People, Page 49 (Employee Composition Data), 53 (Health and Safety Data); Planet, Page 81 (Environmental Data); Company, Page 102 (Reporting Our Progress)
G4-22	Greenhouse gas reporting data, including the 2010 baseline for our GHG intensity goal, was revised to include additional CO ₂ sources identified during our most current validation process.
G4-23	Report scope and aspect boundaries remain the same as 2015.
<i>Stakeholder Engagement</i>	
G4-24	We Are Monsanto, Page 27 (Working Collaboratively and Transparently); Planet, Page 62 (Collaborating on Climate Action: the Carbon-Neutral Collaborative); Company, Page 86 (Our Corporate Governance Framework), 102 (Reporting Our Progress); also discussed throughout this report.
G4-25 G4-26	We Are Monsanto, Page 27 (Working Collaboratively and Transparently); Company, Page 102 (Reporting Our Progress)
G4-27	We Are Monsanto, Page 28 (Inviting Conversation); Company, Page 102 (Reporting Our Progress); also discussed throughout this report.
<i>Report Profile</i>	
G4-28	Fiscal year 2016; See also Company, Page 102 (Drawing Boundaries)
G4-29	Fiscal year 2015
G4-30	We plan to report on our sustainability commitments annually on a fiscal year basis.
G4-31	fiona.l.woody@monsanto.com
G4-32	This report was prepared in accordance with the GRI G4 "Core" option and contains many elements of the "Comprehensive" option. See G4-33 for our approach to external assurance and assessment of key sustainability data.
G4-33	We have sought and received an external assessment of our Child Care Program in India from SGS India Pvt. Ltd. See Independent Assessment Statement on Page 121. We have sought and received external assurance from Bureau Veritas of data reported for environmental indicators (see Assurance Letter on Page 123) and the section of the report entitled Working with Our Suppliers (see Assurance Letter on Page 127).



GENERAL STANDARD DISCLOSURES

GRI INDICATOR

LOCATION/DESCRIPTION

Governance

G4-34 G4-35 G4-36	We Are Monsanto, Page 21 (Governing and Managing Our Sustainability Commitment); Company, Page 86 (Our Corporate Governance Framework); Website: Corporate Governance ; 2016 Proxy Statement, Pages 25-26
G4-37	Company, Page 87 (Engaging with Shareowners); 2016 Proxy Statement, Page 28
G4-38	Company, Page 88 (Corporate Governance at a Glance); Website: Corporate Governance
G4-39	2016 Proxy Statement, Page 22
G4-40	2016 Proxy Statement, Page 20
G4-41	2016 Proxy Statement, Pages 29-31
G4-42	We Are Monsanto, Page 21 (Governing and Managing Our Sustainability Commitment); Company, Pages 86-87 (Our Corporate Governance Framework); Website: Corporate Governance ; 2016 Proxy Statement, Page 23
G4-43	Company, Pages 86-87 (Our Corporate Governance Framework); 2016 Proxy Statement, Page 23
G4-44	2016 Proxy Statement, Page 24
G4-45 G4-46	We Are Monsanto, Page 21 (Governing and Managing Our Sustainability Commitment); Company, Pages 86-87 (Our Corporate Governance Framework); Website: Corporate Governance ; 2016 Proxy Statement, Pages 26-28
G4-47	Company, Pages 86-87 (Our Corporate Governance Framework); Website: Corporate Governance
G4-48	The Board of Directors Sustainability and Corporate Responsibility Committee
G4-49	Company, Pages 86-87 (Our Corporate Governance Framework), 89 (Driving Ethical Conduct and Corporate Citizenship Throughout Our Business); 2016 Proxy Statement, Page 28
G4-50	We have various ways of gathering concerns across company functions and regions of the world including: customer product inquiries, employee and contractor inquiries, consumer online contacts via monsanto.com , discover.monsanto.com , and world areas' websites. Each concern has an established process and business owner for addressing the situation. Summary reports for each area flow to regional, functional or executive leaders; 2016 Proxy Statement, Pages 23; 29
G4-51 G4-52 G4-53	2016 Proxy Statement, Pages 33-38

Ethics and Integrity

G4-56	Website: Code of Ethics ; Website: Our Pledge
G4-57 G4-58	Company, Page 89 (Driving Ethical Conduct and Corporate Citizenship Throughout Our Business)



SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION/DESCRIPTION
<i>Aspect: Economic Performance</i>	
G4-EC1	Monsanto 2016 Form 10-K: Item 8
G4-EC2	Planet, Page 59 (Mitigating and Adapting to Climate Change)
G4-EC3	Monsanto 2016 Form 10-K: Note 16
<i>Aspect: Indirect Economic Impacts</i>	
G4-EC7	Monsanto supports a variety of infrastructure investments through its philanthropic arm, the Monsanto Fund, a U.S.-based 501(c)(3) nonprofit organization funded by Monsanto. For more information, see the Monsanto Fund Report .
G4-EC8	People, Page 32 (Helping to Ensure Food and Nutrition Security), 34 (Grow Asia: Improving Farmer Livelihoods), 35 (Training Smallholder Farmers), 39-41 (Reaching Out to Communities); Planet, Page 74 (Promoting Sustainable Landscapes)

Category: Environmental

Aspect: Energy/Greenhouse Gas Emissions

(Indicators highlighted in green have been externally assured)	
G4-EN3 G4-EN4 G4-EN5 G4-EN15 G4-EN16 G4-EN17 G4-EN18 G4-EN21	Planet, Pages 81-83 (Environmental Data: Energy Use and Emissions)
G4-EN6 G4-EN19	(Partially reported) Planet, Page 61 (Investing in Greenhouse Gas Reductions)
G4-EN7	We Are Monsanto, Page 16 (Our Portfolio of Products); Planet, Pages 59-60 (Mitigating and Adapting to Climate Change), 65 (Applying Data Science to Feed a Growing Population)

Aspect: Water

(Indicators highlighted in green have been externally assured)	
G4-EN8 G4-EN10 G4-EN22	Planet, Page 83 (Environmental Data: Water Use)
G4-EN9	(Partially reported) Planet, Pages 66-67 (Ensuring Access to Fresh Water)



SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION/DESCRIPTION
<i>Aspect: Biodiversity</i>	
G4-EN11	We Are Monsanto, Page 29 (Earning Recognition); Planet, Pages 68-79 (Advocating for Biodiversity). We continue analyzing our operations that are near or adjacent to areas of high biodiversity to ensure our operations do not affect sensitive habitat.
G4-EN12 G4-EN13	(Partially reported) Planet, Pages 68-79 (Advocating for Biodiversity)
<i>Aspect: Effluents and Waste</i>	
(Indicators highlighted in green have been externally assured)	
G4-EN23 G4-EN25	Planet, Page 84 (Environmental Data: Water Use/Waste)
G4-EN24 (Externally assured)	Our Luling, Louisiana, plant experienced an air emission release when a leak occurred in a reactor condenser, allowing methyl chloride to release to the air. An estimated 160 pounds methyl chloride was emitted, exceeding the U.S. Environmental Protection Agency's 100 pound reportable quantity. There were no injuries or community impact.
G4-EN26	Across the globe, Monsanto complies with a diverse set of regulatory programs designed to protect water bodies and related habitats and routinely audits against these requirements. Beyond these audits, Monsanto regularly performs self-assessments of all of our chemical manufacturing operations to confirm that we are not causing adverse impacts to groundwater or neighboring water resources. See also: Planet, Page 66 (Ensuring Access to Fresh Water)
<i>Aspect: Products and Services</i>	
G4-EN27	Planet, Pages 59-79
G4-EN28	Monsanto partners in agricultural container recycling programs globally, but does not currently collect this information centrally. In 2016, we estimate that approximately 92 percent of our U.S. crop protection product packaging was either refillable or recycled. With more than 85 percent of our products sold in refillable containers and the other 15 percent in single-use plastic jugs, as part of the Ag Container Recycling Council (ACRC) initiative, we are diligently working to reduce product packaging waste. See also: Company, Page 95 (Handling Pesticide Waste)
<i>Aspect: Compliance</i>	
G4-EN29 (Externally assured)	Monsanto regularly and routinely collects compliance information regarding its global operations. We did not identify any material fines or nonmonetary sanctions for noncompliance with environmental laws and regulations. Additional information is provided in Monsanto's Form 10-K for the fiscal year ending August 31, 2016, Item 3, Note 24—Management's Discussion and Analysis of Financial Condition and Results of Operations - Outlook, and the Legal Proceedings sections.
<i>Aspect: Transport</i>	
G4-EN30	Planet, Pages 81-82 (Environmental Data: Energy Use and Emissions)



SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION/DESCRIPTION
<i>Aspect: Overall</i>	
G4-EN31	(Partially reported) Planet, Page 61 (Investing in Greenhouse Gas Reductions), 70-72 (Protecting Species)
<i>Aspect: Supplier Environmental Assessment</i>	
G4-EN32 G4-EN33	Company, Pages 100-101 (Working with Our Suppliers)
<i>Aspect: Environmental Grievance Mechanisms</i>	
G4-EN34	We do not have a single formal mechanism in place to respond to all grievances Monsanto might receive regarding environmental issues. Rather, we respond on a case-by-case basis, working with relevant company functions and involving upper-level management as appropriate. Typically, this work involves our Environmental, Safety and Health organization or our Regulatory organization.

Category: Social

Subcategory: Labor Practices and Decent Work

Aspect: Employment

G4-LA1	People, Pages 49-50 (Employee Composition Data)
G4-LA2	People, Page 48 (Rewarding Great Work)
G4-LA3	People, Page 50 (Employee Composition Data)

Aspect: Labor/Management Relations

G4-LA4	(Partially reported) We comply with the notification periods required in the regions of the world where we work. When an area has no specified notification policy, we build our communication timeline in a way that accounts for the needs of our employees and their circumstances. Where collective bargaining agreements are in place, Monsanto follows the notification guidelines established in these agreements.
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Aspect: Occupational Health and Safety

G4-LA5	People, Page 51 (Promoting Employee Health, Safety and Well-Being)
G4-LA6	People, Page 51 (Making an Impact on Injury Severity), 53 (Tracking Health and Safety Performance). Note: We do not track absentee rates. In fiscal year 2016 there were no work-related fatalities.
G4-LA7	People, Pages 51-52 (Promoting Employee Health, Safety and Well-Being)

Aspect: Training and Education

G4-LA9 G4-LA10 G4-LA11	People, Pages 44-45 (Developing Our Employees)
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SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION/DESCRIPTION
<i>Aspect: Diversity and Equal Opportunity</i>	
G4-LA12	People, Page 49 (Employee Composition Data); Company, Page 88 (Corporate Governance at a Glance)
<i>Aspect: Supplier Assessment for Labor Practices</i>	
G4-LA14	Company, Page 100 (Working with Our Suppliers)
G4-LA15	People, Page 54 (Forging the Way in Human Rights); Company, Page 100 (Working with Our Suppliers)
<i>Aspect: Labor Practices Grievance Mechanisms</i>	
G4-LA16	Company, Page 89 (Driving Ethical Conduct and Corporate Citizenship Throughout Our Business)
 <i>Subcategory: Human Rights</i>	
<i>Aspect: Investment</i>	
G4-HR1	People, Pages 54-55 (Forging the Way in Human Rights); Company, Page 100 (Working with Our Suppliers)
G4-HR2	People, Pages 54-55 (Forging the Way in Human Rights)
<i>Aspect: Non-discrimination</i>	
G4-HR3	Company, Page 89 (Driving Ethical Conduct and Corporate Citizenship Throughout Our Business)
<i>Aspect: Freedom of Association and Collective Bargaining</i>	
G4-HR4	People, Page 54 (Forging the Way in Human Rights); Company, Page 100 (Working with Our Suppliers)
<i>Aspect: Child Labor</i>	
G4-HR5	People, Pages 56-57 (Helping Eradicate Child Labor); Company, Page 100 (Working with Our Suppliers)
<i>Aspect: Forced or Compulsory Labor</i>	
G4-HR6	Our assessments did not find any instances of forced labor in 2016. For information on our assessments, see: People, Pages 55-56 (Tracking Our Progress); Company, Page 100 (Working with Our Suppliers)
<i>Aspect: Security Practices</i>	
G4-HR7	People, Pages 54-55 (Forging the Way in Human Rights)
<i>Aspect: Indigenous Rights</i>	
G4-HR8	People, Page 56 (Tracking Our Progress)



SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION/DESCRIPTION
<i>Aspect: Assessment</i>	
G4-HR9	People, Pages 54-57 (Forging the Way in Human Rights)
<i>Aspect: Supplier Human Rights Assessment</i>	
G4-HR10	Company, Page 100 (Working with Our Suppliers)
G4-HR11	People, Page 54 (Forging the Way in Human Rights); Company, Page 100 (Working with Our Suppliers)
<i>Aspect: Human Rights Grievance Mechanisms</i>	
G4-HR12	People, Page 54 (Forging the Way in Human Rights); Company, Page 89 (Driving Ethical Conduct and Corporate Citizenship Throughout Our Business)
 <i>Subcategory: Society</i>	
<i>Aspect: Local Communities</i>	
G4-SO1	Company, Page 90 (Engaging with Our Neighbors)
G4-SO2	<p>(Partially reported) Monsanto locations include administrative and sales offices, manufacturing plants, seed production facilities, research centers and learning centers located in mainly rural communities around the world. Information about specific operations is not reported due to security reasons. We employ a variety of measures to keep employees, visitors and communities safe including process safety management, pollution prevention, community awareness and emergency response planning.</p> <p>While Monsanto manages the following areas to mitigate and minimize the local impact of its operations on local communities and neighbors, each site type deals with a different set of potential community impacts.</p> <ul style="list-style-type: none"> • All sites have the potential to affect a community via fire, traffic, waste disposal and water consumption. • Seed production, crop protection and research operations could impact a community through air emissions, noise, hazardous material release, light pollution and more. <p>Qualified audit teams conduct oversight compliance audits with attention to environmental, industrial hygiene, safety and property protection and occupational medicine at each Monsanto facility on a rotation with staff responsible for ongoing management of environmental, health and safety conditions.</p> <p>All of our sites have off-site consequence analysis for all highly hazardous materials (HHM) handled, including all credible scenarios (wind directions, etc.) to ensure proper community notification systems exist as needed; plant emergency response is sufficient; and drills with local authorities. Our global Crop Protection chemical production sites follow local Responsible Care programs and have externally validated environmental (ISO 14001 or RC14001®) management systems in place.</p> <p>See also: Planet, Page 80 (Guiding and Auditing Our Environmental Performance)</p>



SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION/DESCRIPTION
<i>Aspect: Anti-corruption</i>	
G4-SO3	(Partially reported) Company, Page 89 (Driving Ethical Conduct and Corporate Citizenship Throughout Our Business)
GR-SO4	Company, Page 89 (Driving Ethical Conduct and Corporate Citizenship Throughout Our Business)
<i>Aspect: Public Policy</i>	
G4-SO6	Company, Page 90 (Political Contributions); Website: Political Disclosures
<i>Aspect: Anti-competitive Behavior</i>	
G4-SO7	Monsanto 2016 Form 10-K, Note 24
<i>Aspect: Compliance</i>	
G4-SO8	Monsanto regularly and routinely collects compliance information regarding its global operations. We did not identify any material fines or nonmonetary sanctions for noncompliance with laws and regulations. Additional information is provided in Monsanto's Form 10-K for the fiscal year ending August 31, 2016, Item 3, Note 24–Management's Discussion and Analysis of Financial Condition and Results of Operations - Outlook, and the Legal Proceedings sections.
<i>Aspect: Supplier Assessment for Impacts on Society</i>	
G4-SO9	Company, Page 100 (Working with Our Suppliers)
G4-SO10	People, Page 54 (Forging the Way in Human Rights); Company, Page 100 (Working with Our Suppliers)
<i>Aspect: Grievance Mechanisms for Impacts on Society</i>	
G4-SO11	We do not have a single formal mechanism in place to respond to all grievances Monsanto might receive regarding impacts on society. Rather, we respond to grievances on a case-by-case basis, working with relevant company functions and involving upper-level management as appropriate. We address general concerns, for example those regarding our history, business and product lines, through various outreach programs, including our website and social media. We address more local concerns with outreach by our local and regional management and relevant personnel.
<i>Subcategory: Product Responsibility</i>	
<i>Aspect: Customer Health and Safety</i>	
G4-PR1	Company, Page 92 (Stewarding Product Safety), 95 (Supporting the Science on Glyphosate); Website: Product Stewardship ; Website: Safety and Technical Information
G4-PR2	Monsanto regularly and routinely collects compliance information regarding its global operations. We did not identify any material incidents of noncompliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle. Additional information is provided in Monsanto's Form 10-K for the fiscal year ending August 31, 2016, Item 3, Note 24–Management's Discussion and Analysis of Financial Condition and Results of Operations - Outlook, and the Legal Proceedings sections.



SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION/DESCRIPTION
<i>Aspect: Product and Service Labeling</i>	
G4-PR3	<ul style="list-style-type: none"> Sourcing of components of the product or service: no Content, particularly with regard to substances that might produce an environmental or social impact: yes Safe use of the product: yes Disposal of the product and environmental/social impacts: yes <p>Our crop and vegetable seeds and crop protection products are covered by and assessed for compliance with the procedures identified above.</p>
G4-PR4	Monsanto regularly and routinely collects compliance information regarding its global operations. We did not identify any material incidents of noncompliance with regulations and voluntary codes concerning product and service information and labeling. See also: Monsanto 2016 Form 10-K: Item 3, Note 24
G4-PR5	Based on a large survey of our farmer customers across a wide range of countries executed each year, both large and small acre farmers who raise row crops and vegetables report the following: high marks to our seed brand performance, strong satisfaction for biotech trait seed performance and a growing number respond that they would be willing to recommend Monsanto's products to a friend.
<i>Aspect: Marketing Communications</i>	
G4-PR6	We Are Monsanto, Page 27 (Working Collaboratively and Transparently), 28 (Inviting Conversation); Company, Page 92 (Stewarding Product Safety), 95 (Supporting the Science on Glyphosate), 96 (Transparently Summarizing Our View on Food Labeling); Website: Safety and Technical Information ; Website: Labeling Food and Ingredients Developed from GM Seed
G4-PR7	Monsanto regularly and routinely collects compliance information regarding its global operations. We did not identify any material incidents of noncompliance with regulations and voluntary codes concerning marketing communications. See also: Monsanto 2016 Form 10-K: Item 3, Note 24
<i>Aspect: Customer Privacy</i>	
G4-PR8	Monsanto did not experience breaches of customer privacy or loss of customer data in fiscal year 2016.
<i>Aspect: Compliance</i>	
G4-PR9	Monsanto regularly and routinely collects compliance information regarding its global operations. We did not identify any material incidents of noncompliance with regulations and voluntary codes concerning marketing communications. See also: Monsanto 2016 Form 10-K: Item 3, Note 24



GRI DISCLOSURES ON MANAGEMENT APPROACH OF MATERIAL TOPICS

See Pages 21-25 for definitions of each material topic listed below. LOCATION/DESCRIPTION

<i>Product Safety and Stewardship</i>	We Are Monsanto, Page 28 (External Charters and Principles); Planet, Page 72 (Enabling Responsible Pest Control), 77 (Researching Ag Biological Solutions for Plant and Soil Health and Pest Control); Company, Page 92 (Stewarding Product Safety), 95 (Supporting the Science on Glyphosate)
<i>Modern, Innovative Agricultural Technologies and Products</i>	We Are Monsanto, Page 16 (Our Portfolio of Products); Planet, Page 59 (Mitigating and Adapting to Climate Change), 65 (Applying Data Science to Feed a Growing Population), 72 (Enabling Responsible Pest Control), 77 (Researching Ag Biological Solutions for Plant and Soil Health and Pest Control)
<i>Climate Change Mitigation and Adaptation</i>	Planet, Page 59 (Mitigating and Adapting to Climate Change)
<i>Sustainable Chemistry</i>	Planet, Page 72 (Enabling Responsible Pest Control), 77 (Researching Ag Biological Solutions for Plant and Soil Health and Pest Control)
<i>Water Consumption and Management</i>	Planet, Page 66 (Ensuring Access to Fresh Water)
<i>Business Practices and Competition</i>	Company, Page 98 (Supporting Transparency in Academic Partnerships), 99 (Protecting Intellectual Property), 99 (Pursuing Effective Regulatory Approval)
<i>Global Hunger and Nutrition Security</i>	People, Page 32 (Helping to Ensure Food and Nutrition Security)
<i>Business Ethics and Transparency</i>	We Are Monsanto, Page 27 (Working Collaboratively and Transparently), 28 (External Charters and Principles), 28 (Inviting Conversation); Company, Pages 86-87 (Our Corporate Governance Framework), 89 (Driving Ethical Conduct and Corporate Citizenship Throughout Our Business), 98 (Supporting Transparency in Academic Partnerships)
<i>Positive Relationships with Local Communities and Society</i>	People, Page 39 (Reaching Out to Communities), 52 (Protecting Our Guests); Company, Page 90 (Engaging with Our Neighbors)
<i>Regulatory Approval Systems</i>	Company, Page 92 (Stewarding Product Safety), 95 (Supporting the Science on Glyphosate), 99 (Pursuing Effective Regulatory Approval)
<i>Serving Smallholder Farmers</i>	People, Page 32 (Promoting Food Security in Africa), 34 (Grow Asia: Improving Farmer Livelihoods), 35 (Providing Critical Information to Smallholder Farmers: FarmRise), 35 (Training Smallholder Farmers)
<i>Land Use and Deforestation</i>	Planet, Pages 68-69 (Advocating for Biodiversity), 74 (Promoting Sustainable Landscapes)
<i>Soil Health</i>	Planet, Page 75 (Digging Into Soil Health), 77 (Researching Ag Biological Solutions for Plant and Soil Health and Pest Control)
<i>Human Rights</i>	People, Page 54 (Forging the Way in Human Rights)
<i>Seed Patents and Plant Variety Rights</i>	Planet, Page 78 (Preserving and Improving Plant Varieties and Sharing Benefits); Company, Page 99 (Protecting Intellectual Property)
<i>Talent Management, Diversity and Benefits</i>	People, Page 44 (Improving Lives for Our People)
<i>GMO Labeling</i>	Company, Page 96 (Transparently Summarizing Our View on Food Labeling)
<i>Biodiversity and Ecosystems</i>	Planet, Page 68 (Advocating for Biodiversity)
<i>Occupational Health, Safety and Wellness</i>	People, Page 51 (Promoting Employee Health, Safety and Well-Being), 53 (Health and Safety Data)
<i>Data Security, Management and Access</i>	The Climate Corporation Website: Guiding Principles on Data and Privacy
<i>Political Spending</i>	Company, Page 90 (Political Contributions); Website: Political Disclosures



UN Global Compact Index

THE TEN PRINCIPLES

PRINCIPLE

LOCATION/DESCRIPTION

Human Rights

1	Businesses should support and respect the protection of internationally proclaimed human rights.	People, Page 54 (Forging the Way in Human Rights); Company, Page 100 (Working with Our Suppliers)
2	Businesses should make sure that they are not complicit in human rights abuses.	People, Page 54 (Forging the Way in Human Rights), 54 (Upholding Our Human Rights Standards), 55 (Tracking Our Progress), 56 (Respecting Human Rights in High-Risk Areas), 56 (Helping Eradicate Child Labor); Company, Page 100 (Working with Our Suppliers)

Labour

3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	People, Page 54 (Upholding Our Human Rights Standards); Company, Page 100 (Working with Our Suppliers)
4	Businesses should uphold the elimination of all forms of forced and compulsory labour.	People, Page 54 (Forging the Way in Human Rights), 55 (Human Rights at Monsanto: 2016 Highlights); Company, Page 100 (Working with Our Suppliers)
5	Businesses should uphold the effective abolition of child labour.	People, Page 54 (Forging the Way in Human Rights), 55 (Tracking Our Progress), 56 (Helping Eradicate Child Labor); Company, Page 100 (Working with Our Suppliers)
6	Businesses should uphold the elimination of discrimination in respect of employment and occupation.	People, Page 46 (Embracing the Power of Inclusion and Diversity), 47 (Fostering Innovation Through Inclusion); Company, Page 88 (Corporate Governance At A Glance); 100 (Working with Our Suppliers), 101 (Supporting Diverse Businesses)

Environment

7	Businesses should support a precautionary approach to environmental challenges.	Planet, Page 59 (Mitigating and Adapting to Climate Change), 66 (Ensuring Access to Fresh Water), 68 (Advocating For Biodiversity); Company, Page 92 (Stewarding Product Safety)
8	Businesses should undertake initiatives to promote greater environmental responsibility.	Planet, Page 59 (Mitigating and Adapting to Climate Change), 66 (Ensuring Access to Fresh Water), 68 (Advocating for Biodiversity), 74 (Promoting Sustainable Landscapes), 80 (Guiding and Auditing Our Environmental Performance); Company, Page 92 (Stewarding Product Safety)
9	Businesses should encourage the development and diffusion of environmentally friendly technologies.	We Are Monsanto, Page 16 (Our Portfolio of Products); People, Page 32 (Promoting Food Security in Africa); Planet, Page 59 (Mitigating and Adapting to Climate Change), 65 (Applying Data Science to Feed a Growing Population), 77 (Researching Ag Biological Solutions for Plant and Soil Health and Pest Control)

Anti-corruption

10	Businesses should work against corruption in all its forms, including extortion and bribery.	Company, Page 89 (Driving Ethical Conduct and Corporate Citizenship Throughout Our Business)
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INDEPENDENT ASSESSMENT STATEMENT

Introduction & Objective of work:

Monsanto company has engaged SGS India Pvt. Ltd., to conduct an independent random assessment to their CCP (Child Care Program) for Monsanto during fiscal year 2016 (November 2015 to May 2016).

The assessment statement applies to CCP within the scope of the work described in SOW (Statement of work), dated November 12, 2015 as part of an agreement by & between Monsanto Company and SGS, dated July 1, 2013.

Methodology: This independent assessment by SGS India Pvt. Ltd., has undertaken the following activities:

1. Witnessing of CCP auditors field assessments at different locations.
2. Witnessing of CCP auditors sensitizations 'program at different locations
3. Interviews with various stakeholders (seed coordinators, Farmers, Farm workers, etc) to collect the information related to CCP program.
4. Witnessing Other CCP related programs like bridge schools, Multi stakeholders meeting.
5. Review of document and reports shared by Monsanto.
6. 10 % Desk audit of CCP assessment reports.
7. Review of centralized HR data, relevant KPIs in Monsanto India office at Hyderabad (Shameerpet) in India.

Our work was conducted in accordance with SGS standard protocols/procedures and guidelines for external verification based on current best practice in independent assessment.

Our observations:

On the basis of our methodology and the activities described above

- We have not observed any points to indicate that the statements reviewed by us are inaccurate.
- In our opinion Monsanto has established appropriate systems on implementation of Child care program and collection of data for review and further action.
- Opportunities for further improvement on Child Care Program are recommended.



Excluded from the scope of our work is any verification of information relating to:

- Assessments of region not included by Monsanto in the scope of assessment.
- CCP process outside the defined period in the contract.
- Statements (Any expressions of opinions, belief, aim and or future plans by Monsanto) and statements of future commitments.

This independent assessment statement should not be relied upon to detect all errors, omissions or misstatements that may exist.

Statement of impartiality, independence and competence

SGS India Pvt. Ltd., is the world's leading Verification, Testing and Certification organization offering a wide range of quality related technical services with more than 60 years.

SGS India Pvt. Ltd has implemented a Code of Integrity across the business to maintain high ethical standards among staff in their day to day business activities.

We have conducted this assessment independently, and there has been no conflict of interests.

The assessment team has vast experience in conducting verification and assessment on social, ethical & health and safety information, systems and processes, over 15 years combined experience in this field with very good understanding of SGS India Pvt. Ltd., standard protocols for Assessment reports.

Attestation:

M V Suresh
Consumer and Retail
Operation Manger-SAS-South India

Savita Manjunath
Consumer and Retail
Head-SAS

Date: June 08, 2016



INDEPENDENT ASSURANCE STATEMENT



Introduction and objectives of work

Bureau Veritas North America, Inc. (BVNA) has been engaged by Monsanto to conduct an independent assurance of selected environmental indicators for Monsanto's Fiscal Year 2016 (September 1, 2015 to August 31, 2016) to be presented in Monsanto's 2016 Sustainability Report.

This Assurance Statement applies to the environmental indicators listed within the scope of work described below.

The determination of the environmental indicators and other information presented in Monsanto's 2016 Sustainability Report is the sole responsibility of the management of Monsanto. BVNA was not involved in the determination of environmental indicators included in the Report. Our sole responsibility was to provide independent verification of the accuracy of selected information as described below.

Scope of work

Monsanto requested BVNA to verify the accuracy of the following environmental metrics associated with GRI G4 Environmental Indicators for the Fiscal Year 2016 reporting period:

- G4-EN3: Energy consumption within the organization
- G4-EN4: Energy consumption outside of the organization associated with business travel and logistics
- G4-EN5: Energy Intensity
- G4-EN8: Total water withdrawal by source
- G4-EN10: Total volume of water reused and recycled
- G4-EN15: Direct (Scope 1) Greenhouse Gas (GHG) emissions
- G4-EN16: Energy indirect (Scope 2) GHG emissions
- G4-EN17: Other indirect (Scope 3) GHG emissions associated with business travel and logistics
- G4-EN18: GHG emissions intensity ratio
- G4-EN21: Other air emissions – NO_x, SO_x and VOCs
- G4-EN22: Total process water discharged by destination
- G4-EN22: Process waste water quality for direct surface water discharges
- G4-EN23: Total weight of waste by weight and disposal method
- G4-EN24: Total number and volume of significant spills
- G4-EN25: Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of Basel Convention Annex I, II, III and VIII, and percentage of transported waste shipped internationally
- G4-EN29: Significant fines for non-compliance with environmental laws and regulations.



Monsanto Assurance Statement

Page 2

Excluded from the scope of our work is any verification of information relating to:

- Other information (e.g., text and data) associated with Monsanto's 2016 Environmental Sustainability Report that is outside the scope of work described above
- Activities outside the defined verification period of Fiscal Year 2016

Methodology

As part of its independent verification, BVNA undertook the following activities:

1. Interviews with relevant personnel of Monsanto regarding data collection and reporting systems;
2. Review of Monsanto's data and information systems and methodology for collection, aggregation, analysis and internal audit of information used to determine the environmental data;
3. Review of documentary evidence produced by Monsanto;
4. Audit of environmental and energy data traced back to the source for Monsanto facilities located in Illiopolis, Illinois; Luling, Louisiana; St. Louis Creve Coeur, Missouri; Waterman, Illinois; and Woodland, California, USA during site visits;
5. Audit of select environmental and energy data traced back to the source for Monsanto facilities located in Bergschenhoek, Netherlands; Camacari, Brazil; Jerseyville, Illinois; and Kunia, Hawaii, based on information provided remotely and through telephone interviews; and
6. Review of the centralized data, methods for consolidation of site data and site data available in the centralized data management system during a visit to Monsanto's headquarters location in St. Louis, Missouri, USA.

Our assurance work was conducted in accordance with the International Standard on Assurance Engagements (ISAE) 3000 and ISO Standard 14064-3 Greenhouse Gases - Part 3: Specification with Guidance for the Validation and Verification of Greenhouse Gas Assertions. In accordance with our internal procedures for limited assurance, we use these as our reference standards.

The work was planned and carried out to provide data verification to a limited assurance level using a materiality threshold of $\pm 5\%$ and we believe it provides an appropriate basis for our conclusions.

Our findings

On the basis of our methodology and the activities described above:

- Nothing has come to our attention to indicate that the reviewed information within the scope of our verification as detailed above is not materially correct.
- Nothing has come to our attention to indicate that the reviewed information is not a fair representation of the actual environmental and energy data for Fiscal Year 2016.



Monsanto Assurance Statement

Page 3

- It is our opinion that Monsanto has established appropriate systems for the collection, aggregation and analysis of quantitative data within the scope of work specified herein.

A summary of data within the scope of assurance for Fiscal Year 2016 is attached.

Statement of independence, impartiality and competence

BVNA is part of The Bureau Veritas Group, an independent professional services company that specializes in Quality, Health, Safety, Social and Environmental management with almost 180 years of history in providing independent assurance services, and an annual 2015 revenue of 4.6 Billion Euros.

No member of the verification team has a business relationship with Monsanto, its Directors or Managers beyond that required of this assignment. We have conducted this verification independently, and there has been no conflict of interest.

BVNA has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day to day business activities.

Attestation:

John Rohde, Lead Verifier
Senior Project Manager
Bureau Veritas North America, Inc.

Trevor Donaghu, Project Reviewer
Senior Project Manager
Bureau Veritas North America, Inc.

Denver, Colorado
February 13, 2017



Monsanto Assurance Statement



Page 4

Environmental Metric Description	Value
G4-EN3: Energy Consumption within the organization (1000 GJ)	24,900
G4-EN4: Energy Consumption outside of the organization associated with business travel and logistics (1000 GJ)	5,070
G4-EN5 Energy Intensity Ratio (GJ per \$1,000 Revenue)	1.85
G4--EN8: Total water withdrawal by source (1000 M ³)	667,000
G4- EN10: Total volume of water reused and recycled (1000 M ³)	339,000
G4-EN15: Total Direct GHG Emissions Source (1000 MT of CO _{2e})	1,590
G4--EN16: Energy indirect GHG emissions (1000 MT of CO _{2e})	
Scope 2 – location-based	1,070
Scope 2 – market-based	1,090
G4-EN17: Other indirect (Scope 3) GHG emissions associated with logistics and business travel (1000 MT of CO _{2e})	379
G4-EN18: Scope 1 and Scope 2 (location-based) GHG emissions intensity ratio (MT CO _{2e} per \$1,000 revenue)	0.197
G4-EN18: Scope 1 and Scope 2 (market-based) GHG emissions intensity ratio (MT CO _{2e} per \$1,000 revenue)	0.198
G4-EN21: Other air emissions (MT)	
Sulfur Oxide (SOx) Emissions, combustion and process	1,450
Nitrous Oxide (NOx) Emissions, combustion and process	3,600
Volatile Organic Compound (VOC) Emissions	89.5
G4- EN22: Total process water discharged by destination (1000 M ³)	
Discharged to Off-site Treatment (e.g., POTW)	995
Permitted Discharges to the Environment - Subsurface (e.g., deep well injection, leach field)	2,150
Permitted Discharges to the Environment - Surface Water (e.g., river)	14,900
G4-EN22: Process waste water quality for direct surface water discharges (MT)	
BOD	60
Nitrate (as N)	65.9
Phosphates (as PO ₄)	364
Total Suspended Solids (TSS)	92
G4-EN23: Total weight of waste by weight and disposal method (MT)	
Energy Recovery	28,600
Incineration	16,100
Landfill	25,100
Reuse/Recycling/Composting (excluding used material (i.e. cardboard, metal) for which Monsanto received payment)	157,000
G4-EN24: Total number and volume of significant spills (agency reportable releases)	1 (70 kg)
G4-EN25: Weight of transported, imported, exported , or treated waste deemed hazardous under the terms of Basel Convention Annex I, II, III and VIII, and percentage of transported waste shipped internationally	0
G4-EN29: Significant fines for non-compliance with environmental laws and regulations (fines >=\$100,000)	0

GJ = gigajoule, MT = metric ton, M3 = cubic meters, CO_{2e} = carbon dioxide equivalent



BUREAU
VERITAS

INDEPENDENT VERIFICATION STATEMENT

To: The Stakeholders of Monsanto

Introduction and objectives of work

Bureau Veritas North America, Inc. (Bureau Veritas) has been engaged by Monsanto to conduct an independent verification of the introductory material of the *Working With Our Suppliers* subsection of the Monsanto 2016 Sustainability Report. This Verification Statement applies to the related information included within the scope of work described below.

This information and its presentation in the Monsanto 2016 Sustainability Report are the sole responsibility of the management of Monsanto. Bureau Veritas was not involved in the drafting of the Report. Our sole responsibility was to provide independent verification on the accuracy of information included. This is the second year in which we have provided verification over the introductory material of the *Working With Our Suppliers* section of the Monsanto Sustainability Report.

Scope of work

Monsanto requested Bureau Veritas to verify the accuracy of the following:

- Data and information included in the introductory section of *Working With Our Suppliers* subsection of the Monsanto 2016 Sustainability Report which includes the Select Supplier Sustainability Assessment for the Fiscal Year 2016 (September 1, 2015 through August 31, 2016).

Methodology

As part of its independent verification, Bureau Veritas undertook the following activities:

1. Interviews with relevant personnel of Monsanto;
2. Review of documentary evidence produced by Monsanto;
3. Review of Monsanto systems for quantitative data aggregation and analysis;

Our work was conducted against Bureau Veritas' standard procedures and guidelines for external Verification of Sustainability Reports, based on current best practice in independent assurance.

The work was planned and carried out to provide limited, rather than absolute assurance and we believe it provides an appropriate basis for our conclusions.

Our findings

On the basis of our methodology and the activities described above:

- Nothing has come to our attention to indicate that the reviewed statements within the scope of our verification are inaccurate and the information included therein is not fairly stated;



BUREAU
VERITAS

- It is our opinion that Monsanto has established appropriate systems for the collection, aggregation and analysis of quantitative data such as Select Supplier Sustainability Assessment data.

Limitations and Exclusions

Excluded from the scope of our work is any verification of information relating to:

- Activities outside the defined verification period;
- Positional statements (expressions of opinion, belief, aim or future intention by Monsanto) and statements of future commitment;
- Data from regions not included by Monsanto due to incomplete supplier response.
- Information presented outside the introductory material.

This independent statement should not be relied upon to detect all errors, omissions or misstatements that may exist.

Statement of independence, impartiality and competence

Bureau Veritas is an independent professional services company that specialises in Quality, Health, Safety, Social and Environmental management with more than 180 years history in providing independent assurance services, and an annual revenue in 2015 of 4.6 billion Euros.

Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day to day business activities. We are particularly vigilant in the prevention of conflicts of interest.

No member of the assurance team has a business relationship with Monsanto, its Directors or Managers beyond that required of this assignment. We have conducted this verification independently, and there has been no conflict of interest.

The assurance team has extensive experience in conducting verification and assurance over environmental, social, ethical and health and safety information, systems and processes, has over twenty years combined experience in this field and an excellent understanding of Bureau Veritas standard methodology for the Assurance of Sustainability Reports.

Attestation:

John Rohde, Lead Verifier
Senior Project Manager
Bureau Veritas North America, Inc.

Trevor A. Donaghu, Project Reviewer
Senior Project Manager
Bureau Veritas North America, Inc.

Denver, Colorado
December 7, 2016



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For more information regarding Monsanto's sustainability efforts, please contact fiona.l.woody@monsanto.com.