FROM *the* INSIDE OUT

Monsanto 2014 Sustainability Report

MONSANTO

It takes introspection. Assessing where we are as a company, what's expected of us and how we can further embed sustainability into our business. And it's about engaging externally on new ideas and opportunities that positively impact agriculture, society and the environment. Through transparency and collaboration, we're helping to make balanced meals more accessible for everyone while using resources more efficiently.

FROM *the* INSIDE OUT

A Message from

CEO Hugh Grant

Dear Stakeholders,

In actively pursuing a more sustainable approach to doing business and helping to feed the world's growing population, we recognize that sustainability is a journey, not a destination. But even though there is no real finish line in the sustainability journey (since people and organizations can always do better), there are measurable outcomes to mark our progress. That is why it's important for Monsanto to continuously take an inside-out approach to assessing where we are as a company, what's expected of us and how we can further embed sustainability into our business.

Today, no single issue will impact the world and the success of our farmer customers, our partners and our company more than sustainability, which includes our ability to adapt to and mitigate the impacts of climate change. The sustainability journey is fully intertwined with the agriculture industry's ability to nourish a global population that's expected to grow from 7.1 billion people today to at least 9.6 billion by mid-century.

Monsanto participates in the Global Reporting Initiative (GRI), the principles on which this report is based. This is critical because it connects us to the public at large, our stakeholders and other companies working through some of the same issues and provides a structure through which to share our commitments, our goals and our progress toward them. GRI also provides a vehicle for us to continually evaluate ourselves against our internal commitments and goals and work to improve our performance. We also remain committed to the 10 Principles of the United Nations Global Compact and take affirmative actions to address these critical areas.

In this report, you'll see the wide-ranging approach we're taking to reducing our impact on the environment and get a sense for the degree to which sustainability is part of our business model and practices, our collaborations, and the products we offer farmers.

I'm proud of what we've accomplished so far, especially in the areas of water consumption and soil health, but I hope this report also helps you to see that we're not satisfied with our progress or impact and we're not standing still – and that everyone at Monsanto understands the importance of accelerating our efforts, quickly.

There's no set course on the sustainability journey and no corner on good ideas. We're still working through this – with a lot of learning and candid conversations along the way. But Monsanto is committed to this journey because we know that through transparency, collaboration and hard work, we can help make a balanced plate accessible to all while using fewer resources.

I hope you'll join with us and that you'll help hold us accountable. There's not a moment to lose.

Sincerely,

INSIDE THIS REPORT

HELLO.
We are Monsanto.

We are more than 20,000 employees 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 to improve farming practices and conserve natural resources, and provide crop protection products to minimize damage from pests and disease.

Through programs and partnerships, we collaborate with farmers, researchers, nonprofit organizations, universities and others to help tackle some of the world's biggest challenges. We are a collection of food enthusiasts, mothers and fathers, innovators, botanists, farmers and thinkers all striving for the same thing: helping to make balanced meals more accessible to all. And when we can help do it in a way that helps protect the environment, everyone wins.

2014 Revenue:

$15.8B

See our 2014 Annual Report for Complete Financial Information

20K+

Employees Globally

ST. LOUIS, MISSOURI

Headquarters

Global Locations with Significant Operations:

407 FACILITIES in 57 COUNTRIES

Products

KEY CROPS

We use traditional plant breeding and biotechnology to create seeds that grow into stronger, more resilient crops that use resources more efficiently.

Our seed brands include Agroeste, Agroceres, Asgrow, DEKALB, Deltapine, La Tijereta, WestBred and more.

CROP PROTECTION

At any stage, plants may be threatened by pests, weather, poor soil conditions, weeds and disease. We consider the issues that might affect future crop growth and create solutions to help protect plant health and minimize environmental impact.

This includes our work as part of the BioAg Alliance to research the benefits of soil microbes, as well as crop production systems that include Genuity trait brands and Roundup weed control.

VEGETABLES

We combine traditional plant breeding with modern techniques to create more vibrant and flavorful vegetables that can better withstand nature's challenges.

Our vegetable seed brands include *Seminis* and *De Ruiter*.

DATA

We're building digital tools that provide insights that help farmers make decisions throughout the growing season.

The Climate Corporation platform helps farmers have better harvests through data science, integrating seed science, field science, local weather monitoring, data modeling and precision equipment to develop customized insights field by field.

Our business revolves around delivering agriculture innovations that address some of our world's biggest challenges like climate change, resource conservation and, ultimately, how we will collectively feed a global population of more than 9.6 billion by the year 2050.

Everything we eat requires resources to produce: land, water, energy and people. Over the next 40 years, society will have to produce more food than it did in the past 10,000 years combined to meet the needs of people around the world. Not only does society need to grow enough food, but we also need to do it using resources more efficiently.

COLLABORATING WITH STAKEHOLDERS TO GROW ENOUGH FOOD

Making a balanced meal accessible to everyone in a sustainable way requires a wide range of ideas and resources.

At Monsanto, we collaborate with farmers, researchers, nonprofit organizations, universities and many others to develop a broad range of solutions to help nourish a growing world.

These key collaborators, along with our employees, investors, policymakers, media and consumers, are critical voices that help us better understand how we can positively impact the most important issues and opportunities facing society and a shared planet. Ongoing engagement with key stakeholder groups – via in-person meetings, robust dialogue at events, online conversations, and analyses of industry and societal issues – have been and will be critical to continuously help us define a set of material issues and impacts that inform our approach to sustainability.

Throughout this report, we provide examples of our engagement with key stakeholders, and in the section entitled, Reporting, we offer a description of the process we engaged with them to determine our material issues.

Identified Material Issues and Topics

This report was prepared in accordance with the Global Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines, which emphasizes that organizations report on their most material sustainability issues. For more information on our approach to reporting and determining materiality, please see the Reporting section.

Product Safety & Stewardship	Developing products and technologies that meet or exceed regulatory requirements relative to safety, the environment and use
Continuous Agriculture Innovations	Offering systems-based solutions for farmers
Global Food Security	Getting better harvests through a broad range of solutions to help nourish our growing world
Water	Protecting and conserving water resources so food and other crops can be grown more sustainably
Farmer Livelihoods	Improving the lives of our farmer customers and the economic vitality of farming communities
Ethical Business Operations	Operating in a compliant, ethical and socially responsible way
Dialogue, Transparency, Collaboration	Actively demonstrating transparency and engaging with diverse stakeholders for perspective and input
Nutrition	Providing access to affordable, safe and nutritious food

Environmentally Conscious Operations	Stewarding the environment throughout our operations so land, water and energy can be used to its greatest potential with the least environmental impact
Climate Change Management	Helping farmers mitigate and adapt to climate change
Local Communities	Enhancing the communities in which our employees and customers live and work
Talent Management	Attracting, developing and empowering our people while providing a safe and rewarding working environment that embraces diversity
Biodiversity	Protecting and restoring natural habitats, including forests near croplands, and supporting honey bee health and monarch butterfly habitats
Technology Innovation & Access	Safeguarding intellectual property while enabling adaptation to products and innovations
Youth in Agriculture & Science	Championing the next generation of agricultural innovators
Human Rights	Supporting the full realization of human rights of our employees and business partner employees
Sustainable Supply Chain	Promoting sustainable practices and policies in our supply chain
Legacy Matters	Fulfilling indemnification obligations related to certain historical business operations

PROMOTING DIALOGUE AND TAKING ACTION

While Monsanto has focused on working with and supporting our farmer customers for decades, they aren't the only ones interested in where food comes from and the safety and care that goes into growing it. As more and more people join the conversation about food, 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 gets from farm to table and the role we play along the way:

- *Hosting consumer and farmer listening sessions around the world to get a better understanding of their concerns and points of view about where food comes from.*
- *Creating* **The Conversation** *at discover.monsanto.com, an online forum where anyone can ask questions about our company and our contributions to the food system.*
- *Launching a global advertising campaign to raise awareness about Monsanto's role in agriculture.*
- *Engaging in climate change discussions to explore the potential role of plant sciences like biotechnology, data science, and agricultural biologicals during the World Economic Forum, Aspen Ideas Festival, Clinton Global Initiative and other forums.*
- *Partnering with industry leaders including Walmart, Coca-Cola, McDonald's and Conservation International to launch a Clinton Global Initiative Food Systems Track dedicated to designing approaches for empowering farmers, building sustainable supply chains and addressing the challenges of food security and hunger.*

We're listening. And the things we've heard from our business partners, global nonprofit leaders, policymakers, consumers, customers, suppliers, supporters and critics have had substantial impact on how we think and talk about our business.

More than just words, we are taking new action to more effectively collaborate with global and local leaders on the issues that matter most. We have significantly refined our approach to governing and managing sustainability. It starts at the top with the Sustainability and Corporate Responsibility Committee of our board of directors, which reviews and monitors our sustainability performance. Our Executive Sustainability and Product Stewardship Committee, established in 2014, assesses global challenges and opportunities, sets direction, reviews goals and commitments, and aligns the resources needed to achieve them. This new committee expands the scope of our long-standing Executive Product Stewardship Committee and will focus on the overall sustainability of our business, thus eliminating the redundancy of a separate Sustainability Strategy Council.

Our newly formed Office of Sustainability is a cross-functional team of employees who have day-to-day responsibilities in core areas of sustainability including stakeholder engagement, food and nutrition security, environmental management, safety, health, supply chain, global policy, business conduct and human rights.

The Office is responsible for aligning and embedding sustainability in the company across functions, operations and processes in all regions of the world, and serves as the working arm of the Executive Sustainability and Product Stewardship Committee.

Sustainability Governance at Monsanto

EVOLVING OUR SUSTAINABILITY COMMITMENT

Since announcing our first sustainability commitment framework in 2008, we've strived to advance Monsanto's three sustainability principles:

- **Producing** *enough food to make a balanced meal accessible to all*
- **Conserving** *the earth's resources and preserving the natural environment*
- **Improving** *the lives of farmers, workers and communities*

We've pledged to improve our resource efficiency and continue to participate in landmark collaborations. We've helped improve crop tolerance to drought and insect pests. We've engaged with consumers in new ways and contributed to discussions at global sustainability forums. We continue to innovate with products and services that help farmers grow food sustainably. We've come a long way, but we know there's more to do. This sentiment is echoed by stakeholders who have suggested that we more fully integrate sustainable business practices across our footprint and establish clear goals and commitments for our products and our operations.

We understand that the vision for sustainable agriculture is more expansive than what is included in our current framework.

That's why we are actively charting a course that further aligns our sustainability framework and commitments with the role we play at the start of the food value chain. In support of this transition, we've structured our 2014 Sustainability Report around a much broader interpretation of our original **Producing, Conserving, Improving** framework to share our progress as well as set the table for the next phase of our journey.

We are actively charting a course that further aligns our sustainability framework and commitments with the role we play at the start of the food value chain.

Food Value Chain

Agricultural Input Providers

Farmers & Growers

Wholesale Buyers & Sellers

Food Processors & Preparers

Distributors

Retail & Foodservice Providers

Consumers

CONFRONTING TOUGH ISSUES HEAD-ON

In engaging with stakeholders about the importance of crop production, resource conservation and improving the lives of people, we have found common ground.

But it has required us to address some contentious issues along the way that relate to our material impacts – directly and transparently. In this report we:

- *Outline why we support voluntary labeling approaches and oppose initiatives to mandate labeling of ingredients developed from genetically modified (GM) seeds.*
- *Offer perspectives from both within and outside of our company on the need for biotech seeds to help feed a growing population.*
- *Spotlight concerns about honey bee and monarch butterfly populations and ways we're partnering with others to better understand and ultimately expand habitat and populations beyond historic levels.*
- *Explain how we're working with farmers to control resistant, tough-to-manage weeds.*
- *Acknowledge the particular challenges that come with providing technology platforms, including data security and ownership and intellectual property rights.*
- *Share steps we've taken to have frank discussions regarding the impacts and opportunities that arise from modern agriculture and what we're hoping to do alongside farmers, researchers, nonprofit organizations, universities, governments and others to develop and provide sustainable solutions.*

MAKING SUSTAINABLE AGRICULTURE WORK

We believe sustainable agriculture means growing the right amount of food on less land using resources in an efficient manner that preserves natural ecosystems, addresses water scarcity and climate change, improves farmer livelihoods and benefits society. This approach is often referred to as sustainable intensification.

Making sustainable intensification work is anything but simple. At Monsanto, we're working with partners around the world to provide farmers with the tools they need to help nourish the world's growing population.

Using Biotech Seeds and No-till Farming in Argentina

"Biotech crops are helping us to heal our soils and get better harvests. For the first time in farming history, thanks to a no-till farming system, we will be able to look into our sons' eyes knowing that we will give them better soils than the ones that we received from our parents."

- Pedro, Farmer, Buenos Aires Province, Argentina

Pedro is a fifth-generation farmer who grows corn, sorghum, soybeans, sunflowers and wheat on 3,500

acres of land in Argentina. Working on his family farm that was established in 1892, Pedro has firsthand experience with the positive effects of biotech crops and their role in sustainable agriculture. Utilizing biotech seeds in a no-till farming system helps farmers like Pedro increase the organic matter in their soil, reduce the amount of water needed for irrigation, and find success in producing stable harvests year over year. *(Read more about the benefits of biotech seeds on Page 22).*

Planting Cover Crops in the United States

"One piece of sustainable agriculture is the use of cover crops. Cover crops are a win-win for both farmers and the environment – we get better soil to benefit future crops and the world sees a reduction in greenhouse gas emissions."

- Bill, Farmer, Nevada, Iowa

Fifth generation farmer Bill is passionate about making agriculture more sustainable through the use of cover crops and other methods. Recognized by *TIME® Magazine* as one of "100 People That Matter," Bill is a contract grower for Monsanto, as well as a customer, who operates a 5,000 acre farm in Iowa. Since 2008 Bill has conducted sustainability field trials targeted at developing crop residue management and cover crop systems. *(Read more about cover crops on Page 30).*

Using Hybrid Seeds and Better Techniques in India

"By adopting hybrid seeds and improved farming techniques, as well as reducing the cost of inputs, I was able to increase my earnings by 66 percent – all thanks to my association with Project SHARE."

- Khushiram, Farmer, Rajasthan State, India

Khushiram, a smallholder maize farmer, employed improved agronomics and adopted hybrid seeds to enhance his harvest and his family's livelihood. Khushiram credits his participation in Project SHARE with providing the training and tools he needed. He learned about soil testing, hybrid corn varieties and better sowing techniques. Prior to Project SHARE, Khushiram struggled to feed his family, let alone earn a living, off his two hectare farm. Now, he's expanding his operations to grow other vegetables. *(Read about Project SHARE on Page 46).*

PRODUCING
enough food to make a balanced meal accessible to all

Monsanto is tapping into expertise both inside our organization and across society to develop a broad range of solutions to help farmers have better harvests. We're collaborating to develop solutions – from traditional plant breeding and biotechnology to data science and agricultural biologicals – that help to overcome the unique challenges facing regions around the world. By sharing knowledge, new ideas and best practices with our partners, farmers everywhere can ***produce more of the foods needed to maintain a balanced diet****.*

Commitments and Guiding Principles

- *We are committed to helping farmers double yields by 2030 from 2000 levels for corn, soybeans, cotton and canola.*
- *We are committed to providing farmers with the tools they need to feed a growing population while using resources as efficiently as possible.*
- *We are committed to proactively engaging with society through in-person and online forums.*
- *We are committed to helping smallholder farmers in developing nations grow more food to nourish and support their families.*

OUR WORK GOES BEYOND SIMPLY GROWING *ENOUGH*.

It's about developing a broad spectrum of tools that allows farmers of all sizes in all regions to grow crops in smarter ways: using resources more efficiently while still getting the highest percentage of their crop to harvest. In fact, **sustainable intensification** is key to meeting food security needs for our growing planet while also reducing agriculture's impact on the environment.

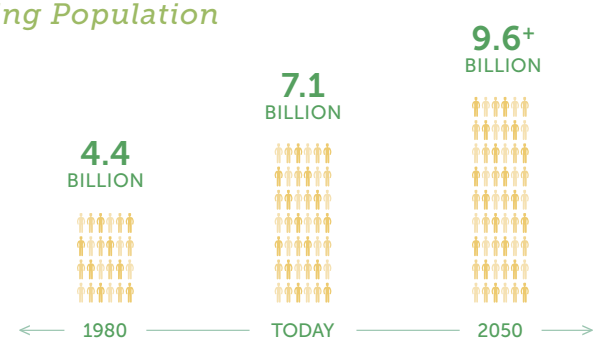
Dr. Robb Fraley, Monsanto Chief Technology Officer

GROWING THE RIGHT AMOUNT MORE EFFICIENTLY

One acre of farmland supported the food needs of one person in 1960. By 2050, those same food needs will have to be met using about one-third of an acre per person due to an increasing population, dietary shifts of a growing global middle class and the implications of climate change on agriculture. This will take a wide variety of agricultural innovations and practices. Some of these include:

- **Data science:** *Advances in data science and information technology help farmers track the amount of fertilizer in their soil throughout the year and identify and address problems in their fields before they impact their crop production.*

Rising Population



Source: United Nations Department of Economic and Social Affairs

Declining Arable Land

1 ACRE
PER PERSON
IN 1960

LESS THAN
1/3 ACRE
PER PERSON
IN 2050

- **Agricultural biologicals:** *Products that are based on or derived from natural materials like plant extracts or beneficial microbes that can complement or replace agricultural chemical products for weed, insect and disease control.*
- **Conservation farming practices:** *Cover crops and other practices that conserve water and improve soil quality to ensure the land can produce food for generations to come.*
- **Advanced plant breeding:** *New plant breeding methods that use sophisticated computer analyses and other high-tech applications to bring new seeds to farmers.*
- **Biotechnology:** *Use of technology to take a beneficial trait that helps a living thing thrive in nature, like an ability to use water efficiently, and adapt that trait to a new plant so that it can better survive in its environment.*

Applying Advanced Plant Breeding and Biotechnology

Plant breeding has been a part of everyday life since the dawn of agriculture. Most plant species have improved dramatically from agricultural breeding, and a good number of the fruits, vegetables and grains we enjoy today did not exist in their current state prior to selective and cross breeding.

Increasing Crop Productivity

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 corn, soybeans, cotton and canola 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. Due to factors such as weather and individual country policies, worldwide crop yields are not currently on pace at this point to double yields by 2030 to meet the anticipated demand for food.

Yield-gain percentages are based on a three-year rolling average. To be considered on pace, yields needed to reach the shaded area at the time this data was documented. Data source: USDA Production, Supply and Distribution View; analysis by Monsanto. For more information on this goal see Our Commitments to Sustainable Agriculture white paper.

For hundreds of years, plant breeding was a relatively straightforward process. For example, a maize farmer would choose the biggest, healthiest ears and replant some of those seeds the following season. Largely through this basic selection process, farmers bred plants with a variety of desirable traits to better their harvests including resistance to disease and improved flavor, texture or shelf life.

Today, plant breeders increasingly understand the genetic traits that will deliver a desirable impact and can select those traits much more quickly and effectively. This knowledge is accelerated by a better understanding of plant genomics.

Biotechnology and its products, commonly referred to as genetically modified organisms (GMOs), have helped us develop highly effective solutions for farmers that would not be possible through plant breeding alone. Over the past 30 years, biotechnology has been applied in agriculture and at Monsanto to strengthen plant resistance to disease, insects and adverse weather conditions.

Since biotech crops were commercially introduced in 1996, farmers around the world have rapidly adopted the products and realized a broad range of benefits. Between 1996 and 2014, acres planted with biotech seeds increased from 4 million acres in 1996 to more than 448 million acres in 2014. In 2014, 18 million farmers grew biotech crops in 28 countries throughout the world and 90 percent of these were smallholder farmers in developing nations.

The Biotechnology Process

1 Desired trait of a living thing is identified

2 Beneficial trait is adapted to a new plant

3 Plant is tested for food and environmental safety and nutritional value

4 New plant is better able to thrive

A 2014 analysis of 147 studies published reported on average that biotech crop technology adoption has reduced chemical pesticide use by 37 percent, increased crop yields by 22 percent, and increased farmer profits by 68 percent from 1996 to 2013.

Researching New Sustainable Solutions for Increasing Productivity and Managing Pests: Agricultural Biologicals

Ongoing innovation holds great promise for addressing global challenges that farmers face. Monsanto's agricultural biologicals research focuses on creating products derived from nature to support plant health and protection from pests. We believe that agricultural biologicals have the potential to offer farmers new ways to grow food in a sustainable way while managing natural resources more effectively *(see related story on the BioAg Alliance on Page 69).*

Our BioDirect technology research pipeline is an important part of our agricultural biologicals platform. It focuses on using a naturally occurring process to create very specific reactions in plants or pests. Through BioDirect technology, researchers are using their knowledge of plant and pest genetics to develop new topical solutions for controlling weeds, insects and viruses as well as protecting honey bee health. Specific applications include:

- **Colorado potato beetle control:** *Protect crops from damaging Colorado potato beetle infestations.*
- **Honey bee health:** *Control varroa mites and multiple viruses to improve health and survival in honey bees.*
- **Glyphosate-resistant weed control:** *Target glyphosate-resistant weeds and enable more effective weed control.*
- **Tospovirus control:** *Protect tomatoes and peppers from tospoviruses such as the tomato spotted wilt virus.*

BioDirect technology is based on a naturally occurring process in a specific plant or pest to limit the production of a particular protein using a technique called Ribonucleic Acid (RNA) interference, or RNAi. Because it can be so precisely targeted, BioDirect technology has the potential to be very effective in small quantities and with fewer applications, leading to the maintenance of beneficial insect populations and protecting birds, fish, bees and other wildlife. Like other agriculture biological solutions, it could complement or replace agricultural chemical products.

RNA occurs naturally in the environment. People, animals and insects have been exposed to RNA for millennia, both through consumption and by being in contact with other living things.

Visit our website to learn more about BioDirect technology and our pipeline.

Sustainable Yield Pledge Awards

We strive to embed sustainability and innovation into the culture of our company. Our annual Sustainable Yield Pledge Awards promote, recognize and reward Monsanto employees for their efforts in advancing sustainable agriculture around the world.

From 130 nominations in 2014, an external panel of judges selected a Judges' Choice Award winner and six category winners. An online vote among Monsanto employees selected the People's Choice Award winner.

Highlights from some of these awards can be found throughout this report, as indicated by the following icon:

Bringing a Food and Nutrition Perspective to our Sustainable Yield Pledge Awards

Collaborating with diet and nutrition experts helps us better understand the connections between nutrition, health and agriculture. That's why we're engaging with professionals like Amber Pankonin.

An award-winning registered dietitian and adjunct instructor at the University of Nebraska-Lincoln, Amber was one of the judges for our 2014 Sustainable Yield Pledge Awards.

Amber is a board certified specialist in pediatric nutrition that is passionate about teaching nutritionists and farmers how to effectively use social media to share healthy practices. In addition to being the founder of *Stirlist.com*, a website where farmers, ranchers and companies can connect with everyday cooks, she also is part of our Leaders Engaged in Advancing Dialogue (or L.E.A.D.) initiative, a Monsanto program aimed at engaging food and nutrition professionals *(see related story on Page 89).*

> ***Being a judge at Monsanto's Sustainable Yield Pledge Awards was truly life changing. I had no idea what the company was doing all over the world. My favorite project was from the team in India who is working with farmers to not only produce vegetables for kids but also teaching them about nutrition. When I went home, I was able to share that story with my network of people and really get excited about what Monsanto is doing.*** – Amber Pankonin, R.D.

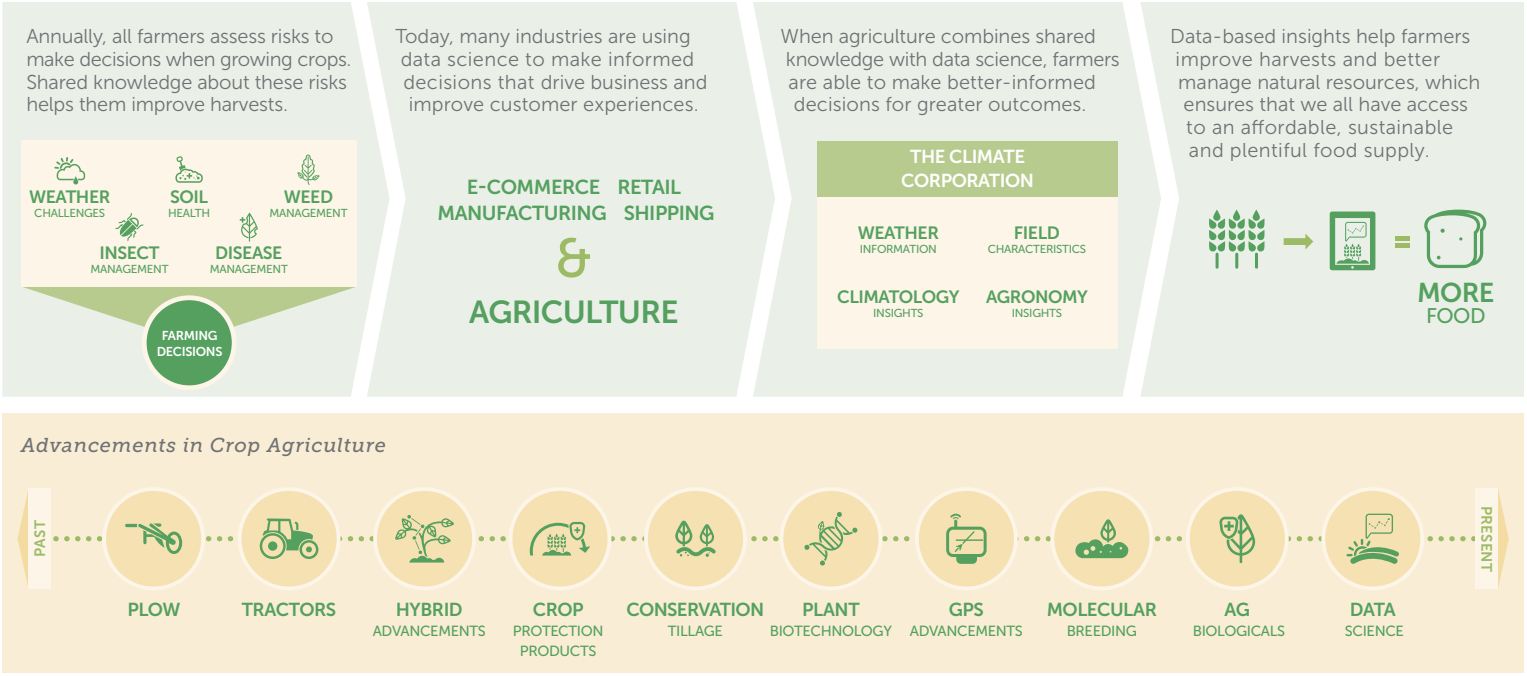
Heralding the Green Data Revolution: The Climate Corporation

There have been various inflection points in agriculture over time that have proven instrumental in nourishing our planet's growing population. During the 1940s to 1960s – a period known as the "Green Revolution" – advancements in plant breeding drove better harvests.

In the late 1990s, the introduction of new innovations in plant breeding and biotechnology drove further progress.

Today, we stand at the cusp of another great sea change in agricultural productivity: The Green Data Revolution. Monsanto's 2013 acquisition of The Climate Corporation demonstrates our level of passion and commitment to this belief.

The Role of Data Science in Agriculture



The Climate Corporation uses data science to help farmers make more informed decisions about their operations that can improve harvests and help them use resources more efficiently. That's important because over the last five years or so the demand for more food crops has largely been met by devoting additional acres of arable land to farming, which is simply not a sustainable solution. The world needs to grow enough food on the same number of acres we have in production today.

Data science starts with the collection of information from the environment. We measure the soil, the field and the atmosphere. Understanding the composition of the soil is critical to developing insights and realizing better outcomes on the farm. During the growing season, remote sensing systems in equipment can enable real-time monitoring of field conditions. More accurate and precise weather observations, such as temperature, wind speed and rainfall – gathered from radar, satellites and local weather stations – allow us to build a deeper understanding of atmospheric conditions in relation to crop production.

The Climate Corporation uses all these data sources to build models that predict potential outcomes for farmers and provide insights they can use to make important crop management decisions throughout the season. This helps reduce the effects of field variability, improve harvests and decrease risk. It also helps farmers be more

Farm AgVisory Service

Illiteracy and rural isolation can be huge challenges when it comes to helping farmers in India with solutions to their crop challenges. In 2010, recognizing cell phone adoption is quite high in rural areas and that cell phones would be an ideal platform for delivering information, Monsanto launched a free service now known as the Monsanto Farm AgVisory Service (MFAS), which offered a toll-free number for farmers to speak with an advisor. Available 365 days a year, MFAS is a customized approach to providing useful information directly to farmers on a variety of topics that help them have better harvests.

Today, there are 2.7 million farmers enrolled in the service and more than 90 percent of them say they are very satisfied with it.

precise about when, where and how much fertilizer, water and crop protection products to apply to their fields. This not only lowers costs for farmers, but it can also help conserve natural resources, curb greenhouse gas emissions and guard against runoff.

Farmers have told us they want to know how their agriculture technology provider will use their data. In early 2014, we directly addressed these concerns with The Climate Corporation's Guiding Principles on Data and Privacy. Those principles, and our privacy policy, include the following commitments:

- *The data created by a farmer, or generated from equipment the farmer owns or leases, is owned by that farmer.*
- *Basic data services should be free.*
- *A farmer's data should be easily shared across systems.*
- *The Climate Corporation will regularly utilize third-party audits to ensure adherence to the Guiding Principles on Data and Privacy.*

The Climate Corporation also has worked with the American Farm Bureau Federation, National Corn Growers Association and other companies to develop a set of principles for industrywide data use and privacy: Privacy and Security Principles for Farm Data.

We believe the Green Data Revolution will change agriculture as we know it today, helping farmers grow enough food on the same acre of land while using resources more efficiently.

SOIL HEALTH: VITAL TO FARMERS, CONSUMERS AND THE ENVIRONMENT

Many factors go into nourishing our growing world. Among the most important is right under our feet: soil health. In pursuing a productive harvest, a farmer must consider a broad range of soil-related factors including fertility, water retention, nutrient runoff, weeds and pests. But healthy soil does more than just help grow food – it also plays a critical role in protecting water quality and lessening other environmental impacts.

Monsanto is committed to helping farmers realize the benefits of sound soil management. In 2014, we took important steps to further this commitment by partnering with others to support the adoption of innovative farming practices.

Partnering to Improve Soil Health

In early 2014, the National Corn Growers Association formed the Soil Health Partnership, a five-year initiative to measure and communicate the economic and environmental benefits of different soil management strategies. Supported by Monsanto and the Walton Family Foundation with scientific advising from environmental groups, U.S. Department of Agriculture (USDA) Agriculture Research Service (ARS) and several soil university experts, the partnership will provide a set of regionally specific, data driven recommendations that farmers can use to improve the productivity and sustainability of their farms.

The Soil Health Partnership has established a network of demonstration farms to help identify, test and measure management practices that improve soil health and benefit farmers' operations. These farms will showcase innovative approaches, including reduced tillage, cover

crops and advanced nutrient management. A total of 20 demonstration farms participated in 2014 and another 20 farms will join in 2015, with a goal of 100 farms by 2019 to give local farmers firsthand knowledge of which soil health practices can help them have a better harvest year after year.

One of the ways the Soil Health Partnership is helping to educate farmers and encourage them to try these practices is through a series of Soil Health Field Days. Held in five states in 2014, these events featured hands-on field demonstrations and provided farmers with information about soil health and the local resources available to them. By 2019, these live demonstrations are intended to reach thousands of farmers and their agronomic advisors in the Midwest.

Cover Crops: Supporting Healthy Soil, Protecting Natural Resources

When a centuries-old technique is integrated into modern agriculture, the results can be quite remarkable ... and sustainable. One of the most promising options for improving soil quality while protecting the environment is the planting of cover crops – a practice growing in popularity among farmers and gardening enthusiasts alike. In addition to supporting the work of the Soil Health Partnership, Monsanto has co-sponsored cover crop education conferences for farmers and hosted our own workshops to help farmers better understand how they might use cover crops – what to do and what not to do.

How Cover Crops Benefit Farmers. After farmers harvest their main crop, such as corn, they plant a crop such as a grass or a legume, which will cover the field until the next corn growing season. Having a cover crop in place instead of an open or bare field increases organic matter in the soil, enhances its water holding capacity and combats the erosion of fertile topsoil. These effects set the stage for a bountiful harvest and enable farmers to apply nutrients and water more efficiently during the growing season, saving time and money.

How Cover Crops Benefit Nature. By enabling greater efficiency in the use of inputs needed to grow our food, cover crops advance sustainable agriculture in two important ways: less nutrient runoff and lower greenhouse gas emissions. When nitrogen fertilizer is applied to crops, most of the nutrients are absorbed by the plant. Inevitably, though, some amount is washed away by rain and irrigation, entering waterways and impacting aquatic life. Fertilizer also releases a certain amount of greenhouse gases and this effect is magnified as it breaks down in water. So, more efficient use of nutrients means lower environmental impact. Cover crops also create habitat for wildlife and can attract honey bees and other beneficial insects.

"Soil erosion and losses in organic matter may significantly affect our ability to increase soil productivity and a safe, stable food supply. Losses in topsoil, organic matter or other areas of soil health take time to fix, but we have several tools available to help protect our soil resources. Cover crops have proven to be one of the most effective tools for farmers to improve soil health."

- Nick Goeser, Ph.D., Manager of Soil Health and Sustainability, National Corn Growers Association

Aiding Critical Soil Research

Monsanto is supporting soil research beyond the Soil Health Partnership. In 2014, we became involved in two key initiatives to advance new soil research and help fill key technical and funding gaps in critical long-term programs.

We partnered with the Agronomic Science Foundation. Together, we formed the Sustainability Research Program to fund new university research. The research will initially focus on the function and effects of cover crops on soil and crop productivity, input use efficiency and environmental quality. We've pledged grant dollars to provide cover crop seed, corn and soybean seeds and other inputs required to manage the plots for the next three years. Additionally, Monsanto will support the soil analysis of all fields involved in the research. Our goal is to help these universities clearly identify the benefits cover crops may have in improving a farmer's harvest and resilience to drought and other environmental stress.

We're also collaborating to help close a critical funding gap in USDA soil research. When federal budget cuts threatened to end its long-term soil research program, the USDA turned to the nonprofit group, Agricultural Technology Innovation Partnership Foundation (ATIP), for help. Working with ATIP, Monsanto and six other organizations founded the Resilient Economic Agricultural Practices (REAP) Public-Private Partnership. REAP is focused on continuing sustained research on land management practices across the varied U.S. landscape.

Applying Science to Soil

A big part of our strategy to cultivate a more sustainable food system is helping farmers access data to aid them in their operations. In early 2014, we acquired the soil analysis business line of Solum, Inc., an agriculture technology company.

Solum's soil testing intellectual property, test lab and *No-Wait Nitrate* platform will help provide a deeper understanding of soil variability and nutrient profiles that is essential to making effective agriculture decisions. High quality, consistent soil analysis enables us to dramatically increase our ability to deliver better soil measurement solutions to farmers as well as to the retailers and agronomists who serve them.

DRIVING WATER INNOVATION

Helping farmers adapt to climate and weather conditions is a big part of what Monsanto does. From water research to drought-tolerant seed traits, we're working to bring a broad range of solutions to help nourish our growing world while using resources, like water, more efficiently.

Diving into Water Research

Gothenburg, Nebraska, 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. Its unique location in the middle of two diverse growing conditions – half of the land needs to be irrigated, and the other half does not – makes it ideal for studying water issues and 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 water management. In 2014, our team evaluated the effect of different irrigation regimes on corn hybrids and seeding rates. The research showed that optimum seeding rates varied across these irrigation regimes, which provides valuable information that can help farmers improve their harvests.

Introducing the World's First Biotech Drought Technology

Lack of rain can devastate farmers' crops. That's why we're using biotechnology to make one of the world's largest acreage crops – corn – more drought tolerant.

In 2013, we introduced the agriculture industry's first-ever biotech drought tolerant seed corn system: Genuity DroughtGard Hybrids. The Genuity DroughtGard Hybrids trait is part of a systems approach combining best agronomic recommendations, germplasm selected for yield potential and drought tolerance. This corn is designed to use water more efficiently, making it a good option for farmers grappling with ongoing drought issues.

By 2014, over 8,000 farmers planted Genuity DroughtGard Hybrids on more than 500,000 acres primarily in the Western Great Plains. With good growing conditions and adequate moisture in most of the United States in 2014, Genuity DroughtGard Hybrids still demonstrated strong performance showing an average yield advantage over competitive products of more than five bushels per acre. This is consistent with the results seen in 2012 and 2013.

Genuity DroughtGard Hybrids is the agriculture industry's first ever biotech drought tolerant seed corn system.

STEWARDING PRODUCT SAFETY

Monsanto is committed to helping nourish the growing number of people on our planet safely and transparently. Our seed and crop protection products are subject to our Life Cycle Stewardship Activities Management Process (LCStAMP). To support LCStAMP, we have created a web-based tool that enables us to monitor compliance and safety as products move through their respective life cycles. This ensures the safety and integrity of our products and processes, from gene discovery and plant development through seed production, marketing, distribution and discontinuation. The LCStAMP program was originally designed for use with our biotechnology products, and we have recently expanded its application to our crop protection products.

We work within the industry-leading Excellence Through Stewardship (ETS) program, which includes third-party audits of our stewardship programs and quality management systems. As of 2014, our ETS certification expanded to include our operations in two additional countries, bringing the total to nine: Argentina, Australia, Brazil, Canada, Chile, Costa Rica, India, Mexico and the United States.

We also openly share information about our stewardship and safety programs for products and business processes, as well as label all of our products with safety information. Please visit our website for a comprehensive overview of our stewardship and safety commitments.

Confirming the Safety of Biotech Crops

When using biotechnology, we take a beneficial trait that helps a living thing thrive in nature, like an ability to use

water efficiently, and adapt that trait to a new plant so that it can better survive in its environment. This process stems from the breakthroughs in genetics research we've seen over the past 50 years, and research on biotech crops has been ongoing for more than 30 years. It is an extension of plant breeding techniques that is also more precise.

Once traits are inserted into a seed through biotechnology, the plants that grow from the seed go through a much more rigorous testing and review process than seed developed through traditional plant breeding to ensure safety and performance. On average, it takes 13 years for a biotech seed to go through research, development and testing before it is grown commercially by farmers.

All U.S. and international food safety science-based authorities that have studied biotech crops have found that those on the market today are safe and no health effects attributable to their use have been found.

Since 1996, when the first biotech crops were widely commercialized, over 60 different countries have granted over 3,083 commercial use approvals on 357 different GM traits in 27 crops, according to the nonprofit organization, International Service for the Acquisition of Agri-biotech Applications. In many countries there are multiple regulatory authorities each with the responsibility of assessing a particular aspect of safety. Biotech crops are routinely subjected to review by literally hundreds of independent risk assessors and scientists across a wide range of disciplines.

Recognizing that people want to know more about where their food comes from, we are sharing studies from independent global experts from the business, academic and nongovernmental organization (NGO) communities. Visit our website to access many of these research studies and see the following for what some of the world's leading health-related organizations have to say about biotech crops:

> *"The production of more food, more sustainably, requires the development of crops that can make better use of limited resources. ... Sustainable agricultural production and food security must harness the potential of biotechnology in all its facets."*
>
> - European Academies Science Advisory Council, June 2013

"Bioengineered foods have been consumed for close to 20 years, and during that time, no overt consequences on human health have been reported and/or substantiated in the peer-reviewed literature."

- American Medical Association Council on Science and Public Health, June 2012

"GM foods currently available on the international market have passed risk assessments and are not likely to present risks for human health. In addition, no effects on human health have been shown as a result of the consumption of such foods by the general population in the countries where they have been approved."

- World Health Organization, February 2002

Targeted Control of Weeds and Insects

There's no single right way for every farmer to protect their fields. And it wouldn't be good for farms, food or the environment to use any one solution on its own, or in excess. That's why Monsanto is researching a diverse range of crop protection solutions, offering farmers more ways to apply the right protection in a more targeted way.

In some cases, this might mean moving away from traditional pesticide sprays. For example, farmers can plant seeds within a protective shell and spray the surrounding fields less, or not at all. Another interesting technology we are looking at triggers a natural process that already exists within plant cells, so plants can defend themselves against weeds, insects and diseases — requiring fewer chemical treatments than in the past. We're also exploring other agriculture biological solutions, like microbes, that can help crops stay healthy using nature's methods.

These advances should increasingly allow farmers to apply the right protection, in the right amount, in the right place, at the right time for their specific situation. In the future, Monsanto will continue to develop better ways

to target protection even more narrowly, so farmers can protect their crops as precisely as possible.

A key ingredient in our Roundup branded crop protection products is glyphosate, one of the most studied and widely used herbicide ingredients in the world. Farmers who grow certain biotech crops have been able to switch to Roundup branded crop protection products which have an excellent safety profile and have enabled farmers to have better harvests with less environmental impact. Scientists from around the globe have conducted safety studies on glyphosate and published their findings in peer-reviewed journals. The overwhelming scientific consensus is that when used properly, glyphosate poses no unreasonable adverse effects to people, animals, soil, water and plants. Therefore, we need to continue to educate our direct and indirect customers. Learn more about the safety of Roundup branded herbicides and glyphosate.

Communicating our Views on Food Labeling

Each country establishes its own food labeling laws. Within the United States, the federal government has established clear guidance with respect to labeling food products containing biotech ingredients. We support this approach. We also support food companies' choices to voluntarily label food products noting certain attributes based on their customers' preferences, provided the labeling is truthful and not misleading.

We oppose current initiatives to mandate labeling of ingredients developed from biotech seeds in the absence of any demonstrated risks. Such mandatory labeling could imply that food products containing these ingredients are somehow inferior to their conventional or organic counterparts.

Visit Monsanto's website for a more detailed discussion on food labeling.

Satisfying Peoples' Quest for Knowledge

Increasingly, people want to know more about where their food comes from and how it's made. They also have questions about us, our products and the decisions farmers make to manage their crops. Monsanto is committed to addressing and answering these questions openly and honestly. We have invested in online vehicles for doing this, including:

1 *The Conversation:*
This section on discover.monsanto.com enables anyone to ask us directly about who we are and what we do. The questions and responses fall into categories encompassing sustainability and the environment, collaboration and partnerships, food and nutrition, the growing population, and health and safety.

2 *GMO Answers:*
This industry-driven initiative is committed to responding to people's questions about how food is grown, with the goal of making information about GMOs in food and agriculture easier to access and understand. It is supported by Monsanto and other companies dedicated to the responsible development and application of plant biotechnology. More than 100 experts have contributed to this website, including independent authorities in leading academic institutions, industry groups and representatives from member companies.

3 *Hablemos Claro (roughly translated as "clear speaking"):*
This Spanish-language website serves people in Mexico and other parts of Latin America who seek science-based information on food and health. The site was developed by the Foundation of the International Food Information Council and Universidad Iberoamericana and is supported in part by Monsanto.

HEIGHTENING FOOD AND NUTRITION SECURITY

Making a balanced meal accessible to all is a complex undertaking. It means overcoming different challenges in different parts of the world. In developed countries, it often boils down to people having the financial and physical access to healthy meals. In developing nations it can hinge on an array of seemingly disparate but interrelated factors including production, infrastructure, distribution, agronomic knowledge, technology, access to capital and cultural customs.

At Monsanto, we view food security and the related problems of hunger, malnutrition and poverty through a multi-faceted lens. That's why we are working with global, regional and local partners to make a difference where it counts, on the ground, in communities and in the lives of people around the world.

One area that may not seem obvious is the work we do to prevent food loss, which is akin to another challenge, food waste. Food loss is typically thought of as a problem in production when any of the crop is left in the field and cannot be harvested. Our research and development pipeline contains many projects related to insect and disease control that contribute to reducing food loss in the field.

In 2009, Monsanto played an active role in the formation of the World Economic Forum's (WEF) New Vision for Agriculture, which engages leaders of business, government, civil society, farmers and development partners to achieve sustainable agricultural growth in the face of a growing world population. The initiative supports partnerships engaging 16 countries across Africa, Asia and Latin America, including two regional partnerships which comprise much of our participation:

- Grow Africa. *The vast majority of farmers in Sub-Saharan Africa are women tending crops on small areas of land to provide for their families. With 90 percent of farmers relying on rainfall to water their crops, a period of drought can mean the difference between having enough food for their children and village or not. Insects and disease also present challenges to African farmers who often have few resources to manage them. Unfortunately we are seeing drought more often due to the changing climate patterns worldwide.*
- Grow Asia. *The Association of Southeast Asian Nations (ASEAN) region is home to 625 million people across ten countries in Southeast Asia (Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam). A third of the population lives on less than $2 a day and food and nutrition security remains a constant threat. The ASEAN goal is to achieve food and nutrition security 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 also involved in unique multi-stakeholder partnerships in Kenya and India *(see stories that follow in this section)*.

Dealing with Drought and Insects in Africa: WEMA

The food supply crisis in Africa is well documented. But forecasters think it could get more grim. As the population increases and the effects of climate change on farmers' ability to grow food worsen, the risk of hunger in Africa could rise by up to 20 percent by 2050, according to a study published by the World Food Programme.

To help tackle this daunting problem, we started working in 2008 to form the Water Efficient Maize for Africa (WEMA) project, a public-private partnership that aims to improve food security and livelihoods among smallholder farmers in Sub-Saharan Africa by developing hybrid maize (corn) seed that uses water more efficiently and resists insect pests. This is important because maize is the main source of food for more than 300 million Africans.

Water Efficient Maize in Africa (WEMA) is led by the African Agricultural Technology Foundation (AATF), and funded by the Bill and Melinda Gates Foundation, the Howard G. Buffett Foundation and the United States Agency for International Development (USAID). Key WEMA partners include the National Agricultural Research Institutes in Kenya, Mozambique, South Africa, Tanzania and Uganda, the International Maize and Wheat Improvement Center (CIMMYT) and Monsanto.

The project has exceeded original expectations. The WEMA partnership successfully delivered its first drought-tolerant conventional white hybrid seed to farmers in Kenya a year ahead of schedule with the first WEMA seed harvest completed in February 2014. Farmers experienced improved grain yield under both optimal and drought stress conditions, harvesting 4.5 tons per hectare compared to 1.8 tons per hectare harvested in the first farmer-managed demonstration trials.

Working with project leaders, Monsanto shared 600 elite parental lines of maize seed, our technical plant breeding know-how and our biotech drought-tolerant and insect protection traits. We also leveraged the expertise of our partners to develop locally adapted hybrids.

The WEMA partnership seeks to develop an accessible pipeline of conventional and biotech seeds for African farmers under the brand DroughtTEGO™. As part of our commitment, the WEMA partnership has made DroughtTEGO seed variety licenses available to all seed companies of any size to deliver these hybrid seeds to farmers royalty free. In 2014, 27 new DroughtTEGO hybrids were approved for commercial release, far exceeding the original targets and timelines. New and even better hybrids are in the development pipeline and more than 15 seed companies have licensed new hybrids royalty free to make them commercially available to African farmers.

The WEMA project is now the largest tropical white maize breeding program in Sub-Saharan Africa, and DroughtTEGO branded hybrids could enable farmers to harvest 20-35 percent more grain under moderate drought conditions compared to the seed they have historically planted. WEMA's goal is for these seeds to improve food security and livelihoods for more than 25 million people in Sub-Saharan Africa.

WEMA's successful management approach enabled the project partners to move quickly to address an unforeseen issue: the Maize Lethal Necrosis (MLN) Virus, which spread quickly across Kenya, Tanzania and Uganda in 2012. Infected plants are stunted and the leaves lose their green color and die around flowering time.

Meet Bertha and Victor

Meet Bertha and Victor, some of the first Kenyan family farmers to plant the DroughtTEGO seed developed by the WEMA project. Check out this short video and see firsthand the dramatic difference it's made in their lives.

The combined WEMA team of researchers planted nurseries in Chile, Kenya and the United States to identify sources of resistance and selected new entries for the National Performance Trials for the WEMA project. Due to the quick response of the technical team, promising parental lines showing improved tolerance were developed and incorporated into the WEMA breeding program.

Increasing Smallholder Productivity: Grow Africa

WEF's Grow Africa regional initiative is an African-led, multistakeholder public-private partnership that helps smallholder farmers have better harvests. Smallholders in Sub-Saharan Africa don't always have access to markets, information, agro-dealer networks, crop inputs or grain buyers to assist them. We're working within the Grow Africa commitment to build a supportive infrastructure for farmers to assist them in being more productive and help them get their crops to market.

Monsanto has committed $50 million over 10 years to support Grow Africa and sustained agricultural development in Sub-Saharan Africa. We believe we can help fuel the development of systems that increase productivity while strengthening the African agricultural value chain.

Taking a Holistic Approach in Tanzania. Agriculture is central to Tanzania's economy, 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.

In support of this vision, in 2010, Tanzanian President Jakaya Kikwete designated the Southern Agricultural Growth Corridor of Tanzania (SAGCOT) as the focus of new partnerships that aim to enable agricultural growth in this region. Monsanto has been a partner in SAGCOT since the beginning, working with local partners to help improve the maize and vegetable value chains in the region.

In partnership with NGOs, farmer organizations, researchers and the Ministry of Agriculture, Monsanto is focusing its resources and efforts on the following in order to improve crop production systems in the region:

- **Supporting the Tanzania Agro-dealer Strengthening Program** *to train 600 agricultural input dealers.*
- **Expanding access to affordable financial services** *for farmers.*
- **Providing innovative tools and training** *to agriculture extension workers to enhance soil health.*
- **Supporting farmer outreach days** *to reach approximately 200,000 farmers with demonstrations and training opportunities of agricultural best practices.*

- **Working with a network of Village Advisors** *to train farmers on using improved hybrid seed; about 20,000 packets of hybrid seed have been distributed and used by smallholder farmers in field demonstrations.*
- **Supporting tomato farmer groups** *to collectively purchase inputs, receive training and market their products.*

Because it takes markets to make an agricultural system work, Monsanto is exploring collaborations with grain handlers and companies interested in value-added products. We intend for these collaborations to help raise productivity and grain quality, reduce waste through better storage, and support mechanisms that improve grain price predictability and enhance economic opportunity for Tanzanian farmers.

Transferring Knowledge to the Developing World. Innovations that we've applied to our core crops of corn, cotton, canola and soybeans can help protect critical food sources in other parts of the world. Prime examples are the partnerships we've formed to safeguard two important food sources in Sub-Saharan Africa.

Virus Resistant Cassava. For 130 million people in East Africa, cassava is a dietary staple due to its natural drought tolerance and ability to flourish on marginal lands. However, this nutrient-rich root vegetable is susceptible to disease. One popular variety has been virtually eliminated from use by farmers due to cassava brown streak disease (CBSD) and cassava mosaic disease (CMD).

Monsanto is partnering with St. Louis-based Donald Danforth Plant Science Center, the National Crops Resources Research Institute in Uganda and the Kenya Agricultural and Livestock Research Organization on the Virus Resistant Cassava for Africa (VIRCA) project. VIRCA aims to apply biotechnology to develop cassava varieties with increased resistance to CBSD and CMD. To date, no conventional sources of resistance to CBSD have been identified, so biotechnology may provide the best solution for preventing the spread of this devastating disease. This initiative is supported by nearly $13 million from the Monsanto Fund, along with funding from the Bill and Melinda Gates Foundation, the Howard G. Buffett Foundation and USAID.

Confined field trials of the genetically engineered virus resistant cassava have shown promising results and researchers have made significant progress toward making these ready for widespread use by smallholder farmers in Uganda and Kenya. The cassavas created by the VIRCA project will be readily available to farmers in the same way traditional cassava is currently being offered. That means farmers will be able to freely multiply, save and share their planting materials.

Insect Resistant Cowpea. In the dry savannas of Africa, cowpea is considered the most important food grain legume because it's rich in protein and it tolerates hot, dry conditions. This crop is grown on more than 12.5 million hectares of land in Africa. It's a good source of food for livestock and provides farmers with good incomes.

Unfortunately, infestation by the *Maruca vitrata* pod borer can reduce harvests by 80 percent and most cowpea farmers lack access to effective insecticides. To address this urgent problem, the not-for-profit African Agricultural Technology Foundation (AATF) is pursuing the following strategies:

- *Accessing specific genes to protect cowpea against the Maruca pod borer.*
- *Facilitating licensing agreements and regulatory compliance for development.*
- *Providing product stewardship for responsible and sustainable use of the seeds.*

To support the efforts of AATF, Monsanto is working with multiple partners to promote solutions designed to help improve cowpea productivity. Monsanto has donated intellectual property to the project under a royalty-free license and is supplying testing materials and information to advance the project toward commercialization.

Enhancing Farmer Opportunities: Grow Asia

Grow Asia is a multistakeholder partnership within the WEF New Vision for Agriculture to contribute to food and nutrition security by working across agricultural value chains. Grow Asia supports scalable, market-based initiatives to encourage sustainable economic growth through agriculture with a focus on smallholder farmers.

Monsanto joined the Grow Asia partnership in 2013 and has committed to initiatives that support national and regional agriculture development priorities of the Association of South East Asian Nations (ASEAN), with a focus on Vietnam, Indonesia and the Philippines, where country populations are estimated to grow 32 to 49 percent by 2050.

Through public-private partnerships, new sustainable and scalable models are being developed to provide smallholder farmers' greater access to inputs, financing and training on improved farming practices. Grow Asia's systems-based approach is designed to help countries achieve self-sufficiency, sustainability, and rural development; secure a supply of grain for the domestic food and feed industry; and identify opportunities for farmers to improve crop productivity and their livelihoods.

Vietnam Rice to Corn Project. The most mature Grow Asia project in which we participate is the rice-to-corn partnership under the leadership of the Government of Vietnam and other private sector partners to enable farmers to improve their harvests by choosing to introduce corn into their rice production rotation. Longer term, the desired outcome is food security and self-sufficiency for the country *(read about this initiative on Page 80).*

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

A pilot project, focused on improving farmer livelihoods by maximizing corn crop productivity and quality, has delivered important market-based results. The corn ecosystem pilot project was a partnership of Indonesian farmers, Bank Rakyat Indonesia (BRI), Cargill, Monsanto, and the Regional Government of East Jawa.

Farmers' access to affordable financing and credit has been a long-time challenge in Indonesia. The pilot project centers around helping farmers overcome the challenges of obtaining financing while growing corn, by making working capital available so they can procure good quality seeds, fertilizers and other inputs.

Core components of the project included:

- *Access to formal finance loans from BRI*
- *The use of improved farming practices and farm inputs such as **DEKALB** hybrid seed corn*
- *Post-harvest assistance and guaranteed corn grain procurement by Cargill*

The first corn planted in June 2014 delivered approximately $250 more income and 14 percent more grain per hectare by November 2014, when compared to previous harvests. Project partners are exploring options to extend the scope and scale of this initiative to additional corn farmers across Indonesia. Monsanto is also looking into opportunities to collaborate with others in the Philippines to enable farmers access to improved crop management practices and financing alternatives.

Helping Indian Farmers Deliver Better Harvests: Project SHARE

India is focused on finding solutions to feed its rapidly growing population. If India continues to produce food at its current rate, it will fall far short in feeding all its country's people, projected to reach 1.3 billion by 2017.

To meet this rising demand, Monsanto India teamed up with the Indian Society of Agribusiness Professionals (ISAP) on a five-year partnership called Project SHARE (Sustainable Harvest - Agriculture, Resources, Environment) to improve the lives of Indian farmers by giving them access to tools, technology and knowledge to improve cotton and corn crop harvests, income and ultimately, their quality of life.

Completed in June 2014, Project SHARE reached more than 16,000 farmers directly and 100,000 farmers indirectly from 1,050 villages across three states in India — Andhra Pradesh, Maharashtra and Rajasthan. The results were extremely encouraging. During the project tenure from 2009 to 2014, cotton farmers increased their annual incomes by 36 percent ($686) and corn farmers by 59 percent ($309).

Farmers received training on sowing, soil health and management, crop and integrated nutrient management, water conservation and irrigation, and pest management. Project SHARE hosted over 2,000 training events, both before and after harvest season. The project also set up 1,000 crop demonstrations of cotton and corn where approximately 50,000 farmers saw best agronomic practices.

The positive impacts aren't limited to just the project farmers – local communities have benefited from Project SHARE compost units, micro-irrigation demonstrations and water harvest and recycling demonstrations. The team also engaged and helped establish about 330 self-help groups for women, which provided skills training to help them find profitable work in their local area. These self-help groups have helped enable local communities to be more accepting of women's employment and recognize the important role they play in their communities.

Supporting Rice and Wheat Research: Monsanto's Beachell-Borlaug International Scholars Program

More than half of the world's population depends on rice and wheat for food. But productivity has been stagnant for decades, as research and investment in both crops has stalled.

Recognizing the need to reinvigorate rice and wheat research, we established the Monsanto Beachell-Borlaug International Scholars Program (MBBISP) in 2009 to support the next generation of plant breeders for these crops. With oversight from a distinguished panel of judges, the program has welcomed 70 Ph.D. fellows from 25 countries and provided each scholar with two to three years of tuition, a living stipend and funding to conduct plant research in a developing nation.

Since the launch of MBBISP, we have provided $13 million to fund international students seeking their doctoral degrees in rice or wheat plant breeding.

In 2014, 17 recent fellows attended the annual World Food Prize event as part of the program. While there, they received leadership training, discussed their research and made valuable connections with experts in international development, food security and plant science.

The program is named in honor of Dr. Henry Beachell and Dr. Norman Borlaug, who devoted themselves to solving problems affecting rice and wheat farmers, particularly in the developing world. Together, they are credited with saving more than 1 billion people from famine in the middle of the 20th century.

Visit our website to learn more about MBBISP. Meet one of our scholars and learn about her experiences.

CONSERVING
the earth's resources and preserving the natural environment

Monsanto is focused on using resources more efficiently both inside our own facilities and out on the farm. That includes working together with others to find sustainable solutions that encourage harmony between agriculture and the natural habitats that enrich our work and our world. By finding ways to help farmers manage the challenges that impact our environment, we can help ***conserve the earth's resources and preserve the natural ecosystem****.*

Commitments and Guiding Principles

- *We pledge to increase irrigation water application efficiency across our global seed production operations by 25 percent by 2020.*
- *We pledge to reduce our operational greenhouse gas emissions intensity in our crop protection operations by 22 percent by 2020.*
- *We pledge to help farmers use nutrients more efficiently and curb greenhouse gas emissions on 1 million acres in the United States by 2020.*
- *We are committed to developing seeds and agronomic practices that by 2030 will help farmers use one-third fewer key resources than in 2000 per unit of output to grow crops.*
- *We work with NGOs and other collaborators to protect natural species and habitats near areas of crop production.*
- *We engage society, farmers and sustainability leaders in dialogue about sustainable agriculture.*

THE BUSINESS OF AGRICULTURE

depends on maintaining and improving the health of natural ecosystems. A key component of our strategy is to find new ways to help farmers use resources more efficiently to create consistently strong harvests, including harnessing the power of data to inform decisions in the field.

Kerry Preete,
Executive Vice President,
Global Strategy

PROTECTING AND CONSERVING WATER

Water is a critical lifeline. It sustains our families, our communities and our planet.

Today, nearly 70 percent of all freshwater in the world is used by agriculture. By 2050, however, it's predicted that we'll need to double our food supply to meet the growing demands of the world's population – all while optimizing water use and preserving ecosystems. As the world's population grows and quality of life standards rise, the strain on freshwater supplies will likely increase. That's why it's so important to use this precious resource more efficiently and recycle it whenever possible.

We're committed to making a difference in the best way we can: *by helping farmers grow food while using water more efficiently*. Working together with farmers, researchers, nonprofit organizations, universities and others, we're making real progress on a broad range of solutions:

- *Our teams are working hard to create seeds that can thrive in water-stressed areas through both traditional breeding and biotechnology.*
- *We're researching and testing different irrigation methods to help farmers water their fields more efficiently.*
- *We're identifying and implementing creative ways to recycle and reuse water throughout our operations to reduce our reliance on freshwater.*

But we all know there's a lot more to be done.

As part of our ongoing commitment to address the global water crisis, we joined the CEO Water Mandate in April 2014. Launched in 2007, the UN Global Compact's

CEO Water Mandate is a unique public-private initiative designed to assist companies in the development, implementation and disclosure of water sustainability policies and practices. Endorsers of the CEO Water Mandate recognize that through individual and collective action they can contribute to the vision of the UN Global Compact. Our involvement with the CEO Water Mandate has guided our water strategy and spurred smart conversations about water management. Monsanto sits on the Mandate's 2015-16 Steering Committee – the initiative's main governance entity charged with strategic, administrative and financial arrangements.

Mapping Water Risks

Monsanto has recently completed a three-year journey of capturing our water footprint data. We now have the needed information to thoroughly analyze potential water risks to our facilities and surrounding communities around the world. We will be engaging with external stakeholders to ensure we are taking into account all the appropriate water stress factors including availability, quality and societal needs when conducting the analysis. We will document the risks, draw up plans to manage them and track our progress. Concurrent with this water risk mapping, we have already started conservation practices at various sites

Helping Farmers Conserve Resources

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, soybean 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 partners, including but not limited to Monsanto.

●	*Corn*	-6%
●	*Soybeans*	-15%
●	*Cotton*	-22%

● *Ahead of Pace* ● *On Pace* ● *Off Pace*

Resource reduction percentages are based on a three-year rolling average.

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.

worldwide targeting water efficiency strategies in water stressed regions as discussed in the following pages. The water risk mapping process will then help us focus on areas that may require additional attention.

Using Water More Efficiently at our Facilities and Farms

With the importance of water conservation so apparent, we believe our responsibility starts within our own global operations and is backed by the irrigation water application efficiency goal we established in 2014. By learning how to improve irrigation efficiency on our production acres, we will share this know-how with production growers and farmer customers alike.

Improving Our Irrigation Application Systems

Plants need water to grow, but often rain is not enough or in the right amount at the right time. Depending on geography and local weather, crops often need and can benefit from additional water provided through irrigation systems to reach their full growth potential. Providing plants with the water they need at the right time is critical. That's where advanced irrigation technology comes into play.

In April 2014, we pledged to *increase irrigation water application efficiency across our global seed production process by 25 percent by 2020, compared to our 2010 baseline* – a goal that could save an estimated 30 billion to 80 billion gallons of water each year, depending on the weather cycle. This industry-first water use efficiency commitment includes both our owned and leased operations, as well as the contract farms that grow seed for our company's products.

By expanding the use of drip irrigation systems in our operations in India, Mexico and Hawaii, and advanced irrigation management technology, we are already more than a quarter of the way toward reaching our goal. Drip irrigation applies water directly to a plant's root system and can deliver water application efficiency of up to 95 percent, compared to 50 percent for flood or furrow irrigation systems. We expect to introduce these methods to additional locations next year in Chile, Italy, Malawi and Turkey.

We also partnered with the USDA Agriculture Research Service and land grant university experts to develop a comprehensive irrigation handbook for farmers. The handbook addresses a wide variety of irrigation concepts and questions, including pre-season system checks, when and how much irrigation water to apply, and what types of irrigation equipment deliver water most efficiently. All of this information

is critical for farmers to understand in order to use irrigation water more effectively and efficiently.

Over the next five years, we'll continue to make our operations more water efficient, and we plan to share our efforts as a model to reach greater irrigation efficiencies in agriculture around the world. We have highlighted a few innovative programs below developed by our people in various parts of the world. These exemplify our approach of empowering our people to find locally relevant and adaptable ways to use water and other resources effectively. These and many other pilot projects are shared across the company, enabling other operations to adopt or retrofit the concepts to their local situation.

Reusing Water in Hawaii

Water is a precious resource in the state of Hawaii. Water that's recycled and cleaned in treatment plants, often referred to as "gray water," can be used for irrigation, industrial processing and other non-potable uses.

At our Piilani Farm on Maui, we use 100 percent recycled water for agricultural and landscape irrigation. Our Haleiwa facility also uses recycled water for irrigation. Together these facilities save nearly 250 million gallons of freshwater each year.

Collecting Rainwater in the Netherlands

In countries that have regular rainfall year-round, there is the great opportunity to make use of this water. In the Netherlands, our greenhouse facilities are built in such a way that rainwater can be collected and used. As rain hits the roof of our facility, the water is directed into various basins through gutters and drainpipes. Once the water is collected, it's processed for reuse and stored in large tanks, where it's mixed with fertilizers to carry nutrients to plants. Any water not used by the plants is captured, disinfected and reused in our greenhouses. In 2014, we used approximately 70,000 cubic meters of recycled rainwater in our production and research greenhouses.

Rethinking Seed Production in Peru

Located on the coastal side of Peru, the desert Ica Region is considered to be an agricultural paradise thanks to ideal weather conditions that allow crops to be grown year-round. Ica has one major issue, a severe lack of water. The region's already limited freshwater supply has been under pressure over the years due to the booming local agriculture industry.

Ica also is home to one of our vegetable seed production sites, Ica Home Farm, which produces more than half of the world's melon seeds and is one of our largest tomato seed production sites.

Concerned with constant water supply issues, our local team challenged themselves to identify innovative ways to use water more efficiently. The team began by creating an index that showed how much water was used per kilo of seed produced. Having this precise knowledge allows us to use less water by making sure nearly every drop is used effectively.

The team also made changes to various production processes that reduce the physical crop acreage required for seed production, resulting in less water needed for irrigation. These changes included moving melon production inside net houses to reduce evaporation and implementing new conduction and pruning systems.

The team's efforts in Ica saved approximately 17 million gallons of water in calendar year 2013 and an additional 5 million gallons in fiscal year 2014.

But their work isn't done yet. Ica's soil is extremely sandy, which requires constant irrigation throughout the day. Our local team is studying how they can switch from growing vegetables in soil to other mediums such as peat moss, which could save 30 to 40 percent more water.

Enhancing Vegetable Seed Irrigation and Production in India

Vegetables play a major role in our efforts toward nourishing a growing world. Each year, we provide farmers with vegetable seeds that help fill the shelves of grocery stores and markets with produce around the world.

In recent years, our Vegetable Seeds Division in India has conducted a comprehensive evaluation of their production processes in order to deliver more reliable harvests than in the past. The India production team identified several issues to address, notably, that seeds were being grown using less efficient agricultural techniques such as flood irrigation, which results in using more water than necessary.

In response, the production team launched an education campaign for field staff and farmers about the benefits of drip irrigation and other best management practices. As a result, Indian farms have increased yields substantially, improved seed quality and disease resistance, and experienced considerable water and electricity savings. Overall, seed production volumes for domestic products are expected to grow by 45 percent in the next five years while using energy and water more efficiently.

Our team in India is exploring ways to implement similar initiatives for our corn and cotton seed production in the country.

Finding Innovative Solutions, Together

As the impacts of climate change continue to be felt around the world, farms of all types are facing serious water challenges. To help preserve the availability of our planet's freshwater, we are collaborating with farmers to implement strategies to use water more efficiently and look for opportunities to use these strategies in our own fields as well.

AquaTEK: Sharing Best Practices

The combination of better technology and better techniques is powerful. In Italy, Monsanto, the University of Milan and irrigation technology company Netafim are collaborating on a project that provides local farmers with a systems-based approach to irrigation, combining different irrigation techniques with monitoring tools to help farmers apply the right amount of water at the right time to maximize the efficiency of every drop used.

The AquaTEK system is a public-private partnership that brings together key components of farm management: smart water management and farmer training and education. Improved seed corn genetics – specifically DEKALB hybrid corn – contribute to enhancing the AquaTEK system's results.

In 2013 and 2014, 16 field trial locations tested three water management systems – no irrigation, drip irrigation and sprinkler (drum) irrigation – on DEKALB corn to determine which management system produced the best harvest while using the least amount of water. The University of Milan's Department of Agricultural and Environmental Sciences analyzed the data and verified the reduction in the amount of resources used. Assessments carried out by Monsanto's own Technology Development team showed a 12 percent increase in crop yield despite a 30 percent reduction in irrigation water use, an 80 percent reduction in fuel use, and a 70 percent reduction in nutrient runoff versus traditional irrigation systems.

Given these positive environmental and economic results, our Technology Development teams in Spain and Portugal are looking for ways to utilize the AquaTEK irrigation approach to grow corn more sustainably in water-strained areas.

Visit our website for more information on AquaTEK.

Showing the Benefits of Drip Irrigation

Our Mexico seed production group has been working in the drought-riddled northern states to share the benefits of drip irrigation with farmers in the region. Based on extensive irrigation research started in 2012, the group has shown local growers the positive effect drip irrigation can have on their crops, their community and the planet. To date, 64 farmers have invested in drip irrigation systems to produce more than 2,600 hectares of corn seed. Monsanto has also invested capital in drip irrigation systems on another 1,225 hectares. Together, this use of drip irrigation has saved an estimated 57.4 million cubic meters of water since the program began.

Monitoring Irrigated Fields to Save Water

Water scarcity continues to be a major issue in Brazil. We have been partnering with local farmers and Irriger, a technology company that monitors irrigated areas, to raise awareness about the environmental and production benefits that can be achieved by using efficient irrigation techniques. Since the inception of this program, 99.7 percent of farms producing seed corn and sorghum for Monsanto in Brazil are now monitored, and have saved over 3 billion gallons of water a year by implementing better irrigation techniques as a result of the information they've received.

MITIGATING AND ADAPTING TO CLIMATE CHANGE

Our company is entirely devoted to agriculture and focused on working with others to develop a broad range of solutions to help nourish a growing world. We feel a deep responsibility to help ensure the world's current population as well as future generations have enough of the right foods to eat.

We are particularly attuned to changes in the world's climate and global weather patterns, which are challenging and will require significant effort to address. Together, the global food, agriculture and NGO communities can be leaders in adapting to climate change and mitigating its causes.

A benefit of producing crops is that they take in carbon dioxide, the most prevalent greenhouse gas, as they grow. Growing plants is an economical and sustainable way to pull carbon dioxide out of the atmosphere. The downside is that greenhouse gases are emitted along the food and agriculture production chain.

The collective industry goal must be to reduce greenhouse gas emissions while sustainably meeting the world's increasing demand for nutritious foods. All agricultural practices will have a role to play in dealing with the potential impacts of climate change. Solutions will need to come from all parts of the world and from many groups including research institutes and universities, national agricultural research systems, companies and farmers themselves.

Monsanto has focused its work in multiple collaborations to help improve scientific understanding of how changes in weather and water availability will affect farming activities around the world.

Many of our products and services are designed to enable more efficient use of agricultural inputs, like water and fertilizer, while also delivering on every farmer's goal of a better harvest. Improved seeds and crop production practices enable farmers to have a positive impact on the environment by reducing the energy and land used to produce their crops.

Through sustainable intensification, the industry can impact climate change by increasing crop yields faster than the rise in food demand. In fact, from 1961 to 2005, global production increased by 135 percent while agriculture's footprint expanded by only 27 percent. This intensification helped avoid vast deforestation that would have resulted in greenhouse gas emissions up to 13.1 Gt CO_2e/yr.[1] This is equivalent to the emissions from almost three billion automobiles – three times the number of cars on the road today.

[1] *Burney et.al. | 12052–12057 | PNAS | June 29, 2010 | vol. 107 | no. 26*

Operational Greenhouse Gas Emissions Intensity Goal

As we continually strive for efficiencies within our own operations, we've been able to significantly reduce our greenhouse gas footprint. In calendar year 2015, after reviewing the emission trends of our operations, we committed to reduce greenhouse gas emissions from our crop protection operations by 22 percent (per pound of active ingredient) by 2020, relative to our baseline in 2010. This represents a cumulative greenhouse gas emissions reduction of 45 percent when compared to 2002. We're targeting our crop protection operations sector because it is the largest contributor to our company's carbon footprint, making it the place where we can have the greatest positive impact.

Collaborating to Curb Agricultural Greenhouse Gas Emissions

In seeking smarter ways to nourish the world, Monsanto is collaborating with partners to help shrink the food production system's carbon footprint and reduce its contribution to global climate change.

In April 2014, at the Walmart Sustainable Products Expo, we pledged to help farmers use nutrients more efficiently and curb greenhouse gas emissions on 1 million acres of crop land in the United States by 2020 through continued collaboration and development of a broad range of sustainable solutions. Working together with Walmart, we are establishing new and enhanced levels of organizational collaboration, seeking the advice and input of farmers, consumers, supply chain partners and NGOs to help identify the right tools and solutions to achieve this goal.

As a first step, we're partnering with GROWMARK, a regional agricultural supply cooperative serving 250,000 farmers in more than 40 U.S. states and Ontario, Canada. This unique partnership brings together Monsanto seed genetics and data science tools, GROWMARK nutrient management capabilities, and proprietary and industry benchmarking and decision support tools.

Initial benchmarking is driving the development and evaluation of nutrient action plans customized to individual farmers. GROWMARK staff will personally assist farmers in the program to understand and implement specific recommendations.

Engaging with the Clinton Global Initiative

At Monsanto, we know finding solutions to the significant challenges facing our world depends on the commitment and collaboration of many diverse stakeholders. That's why we're proud to be a member of the Clinton Global Initiative (CGI). Since 2005, we've engaged with CGI and its members – Nobel Prize Laureates, government leaders, NGOs, corporations, philanthropists, policymakers, entrepreneurs, journalists and other thought leaders – to share ideas, build partnerships and work toward

meaningful commitments, particularly in the areas of sustainable agriculture and global food security.

A signature focus of CGI is the Commitment to Action. Members are encouraged to identify areas where they can take action to improve society, protect the environment and address critical issues such as poverty and hunger.

In 2013, we made our first Commitment to Action on honey bee health *(learn more on Page 65)*. And in 2014, we looked to deepen our engagement with the organization by signing on as a sponsor of the CGI Annual Meeting in New York City and serving as a strategy leader for the new Food Systems Track. At the conference, Monsanto CEO Hugh Grant met with other members of the track, including agriculture, food and consumer product companies and key NGOs, to discuss the critical issues facing food production around the globe. Over the next year, these food systems leaders will work together to leverage the tremendous expertise and resources of the participating organizations in finding innovative ways to address global challenges.

Convening on Climate at the White House

In 2014, we joined a roundtable of experts at the White House to share new approaches for addressing the impact of climate change on the world's food supply. The meeting focused on the White House Climate Data Initiative, an ambitious new effort to develop data-driven planning tools for addressing climate issues.

Our participation at the roundtable and continuing support of the Initiative is a natural extension of our mission to find collective solutions for some of the major agriculture-related challenges of our time. During the meeting, we discussed various collaborative efforts to advance climate change research: providing corn yield data to public crop modeling efforts (AgMIP), building on climate change impact studies conducted by the University of Chicago, and partnering with external partners to improve corn-growth simulation models.

Greening Our Facilities: LEED Certification

As our company evolves, we are embedding sustainability into the structure of our company and our buildings. In early 2015, we broke ground on two new facilities at our Monsanto Research Center in Chesterfield, Mo.: a 400,000 square foot technology building and a 32,000 square foot building that will house employees and greenhouse service equipment.

Both building designs follow the U.S. Green Building Council's Leadership in Energy & Environmental Design (LEED) principles, incorporating energy- and water-efficient technologies, as well as features that foster employee health and well-being such as ample sunlight and good indoor air quality.

Water

The Technology Building has a 15,000 gallon rainwater collection system. The rainwater is treated and used for non-potable purposes, such as flushing toilets. The building features low and ultra-low water-use plumbing fixtures expected to reduce potable water use by 39 percent compared to current fixtures used in the Research Center. The landscaped areas around the buildings incorporate native and adaptive plants that require no irrigation, providing additional water savings.

Energy

The buildings integrate a variety of technologies to reduce energy use. Both feature efficient LED lighting systems, daylight dimming systems that turn off lights when there is sufficient natural daylight to meet employees' needs and high-efficiency systems that reduce the airflow necessary for cooling. The exterior of the Technology Building also maximizes sunlight penetration while minimizing heat gains and losses. Given these advances, we expect this specific building to use 20 percent less energy than a conventional building of similar size.

Materials

What our buildings are made of is just as important as *how* they're made. The Technology Building and smaller service building contain a high percentage of materials that are locally sourced and made with recycled content and wood from certified forests. Additionally, our team selected building materials which have low levels of volatile organic compounds to ensure we are providing a healthy work environment with good air quality for our employees.

Operational Energy Initiatives

Lighting the Way to Energy Savings

When it comes to improving energy efficiency in our operations, a first step for many of our facilities is to look for opportunities to upgrade older lighting fixtures with automated, LED systems. We have asked all our managers globally to identify opportunities, and, as a result, we're seeing reductions in energy use and greenhouse gas emissions while lowering operating costs around the world.

- Johannesburg, South Africa – *In the face of rising electricity costs and a stressed local utility grid, our Johannesburg facility conducted an energy audit and revealed that some simple changes, like replacing conventional lighting with LED bulbs paired with technology-driven solutions such as motion sensors, would result in both a reduction in greenhouse gases and cost savings. Over the course of one year, these upgrades have resulted in up to a 75 percent reduction in energy usage.*
- Shamirpet, India – *Our manufacturing facility replaced oversized sodium and mercury lamps – often used for street lights – with a combination of more compact, but equally as powerful LED street lamps and fluorescent lighting. The new lighting sources offer an extended bulb lifespan, no potential ultraviolet radiation or mercury exposure, and technical improvements such as compact size and improved longevity.*
- Waterman, Ill., United States – *This seed production site upgraded its legacy lighting system to a more efficient energy-saving system supported by motion sensors. Not only will the sensor-activated system reduce energy use and cost by an estimated 50 percent, but lighting turns on instantly when an employee enters a room, boosting site safety.*

Harnessing the Sun to Light Operations in Hawaii

Monsanto Hawaii is taking advantage of the plentiful Hawaiian sun by using a solar-powered indoor lighting system. The plant has installed 108 solar panels at the Upper Kunia Farm on the island of Oahu. The 25,000-watt system went live in September 2014 and is expected to generate 40,000 KWh per year of clean renewable energy, which reduces the farm's carbon footprint in an amount equal to driving 65,000 fewer miles in a typical passenger car. Monsanto Hawaii anticipates its energy bill will drop by approximately $15,000 over the system's first year of operation.

The new system is the latest in a series of efforts to reduce energy consumption and waste in Hawaii, with prospects to add solar panels to other Monsanto Hawaii farms. Additionally, the company's main administrative building in Kunia, Oahu, is LEED certified, for building features like efficient lighting and cooling systems.

Turning Plastic into Energy

Understanding seed traits is critical to advancing a sustainable food system. Monsanto performs some of the world's most cutting-edge research in this area, in part, through our Molecular Breeding Technologies (MBT) unit. In the course of this research, the teams at each MBT center use a high volume of several plastics. The MBT team recognized an opportunity to create a process to recycle the plastic by turning it into energy.

MBT team members from each of the U.S.-based MBT sites partnered with colleagues across other areas of the company to design a way to collect, package and ship materials for incineration that would not impede production or place unreasonable burdens on the teams.

More than 523 tons of plastic waste has been recycled since the program's inception and turned into 288,000 KWh of energy, offsetting the need to burn virgin fossil-based fuels. That's enough to power two dozen homes in the United States for an entire year. Now MBT sites are looking for new ways to tap into the energy potential of other waste. At our site in Woodland, Calif., we're exploring biodigesters that would directly convert wet waste to energy and compost. Our St. Louis site is also transitioning to a new local waste-to-energy facility in 2015, which is expected to significantly reduce transportation, costs and help support local businesses.

Tapping the Energy of Natural Byproducts

Companies that create goods typically find themselves with leftover materials that are essential to production but not part of the final product. These byproducts could end up in landfills, but increasingly, innovators are finding ways to reuse or recycle them. In agriculture, much of this material – like corn stalks and discarded cobs and seeds, known as biomass – can be beneficially repurposed.

One of the ways we're doing this is by burning biomass as a source of renewable fuel. This reduces waste and costs and helps us better manage our carbon footprint by offsetting our need for fossil-based fuels, like coal or natural gas. Burning biomass emits less greenhouse gases and many experts (but not all) consider this process to be "carbon neutral" because the plants had absorbed as much carbon while growing as they release when burning.

Seeking Energy Independence in Brazil

The corn seeds we provide to farmers come from removing kernels from the cob. From the beginning, our seed business in Brazil has tapped into the energy of leftover corn cobs by burning them in furnaces used for drying seeds. Today, we use this process at all our seed production sites in Brazil, repurposing more than 25,000 metric tons of cobs per year. Not only does this derive value from our facilities' largest byproduct, it cuts greenhouse gas emissions by 21,000 metric tons per year and saves about $10 million annually compared to burning natural gas.

Our teams in Brazil are working on ways to also burn corn dust and husks to generate heat and steam. At our seed facility in Uberlandia, Brazil, this energy will eventually be used to drive a steam turbine that can generate about 5 megawatts of electricity. That's enough to meet all the facility's power needs, making it energy self-sufficient and saving about $1 million per year.

Increasing Renewable Energy in Iowa

A casual chat between colleagues can lead to great ideas. Several years ago, employees were catching up at the Manufacturing, Engineering, Safety and Health Conference and the conversation turned to managing discarded corn. The Corn Burn Project at our Muscatine, Iowa, crop protection manufacturing plant was born.

Our U.S. corn processing plants used to pay to dispose of discarded seed corn that didn't meet our quality standards or was excess inventory. But since 2007, the Muscatine facility has been blending a portion of the discarded seed corn with coal to burn in boilers that produce steam for the facility. While that may sound simple, it is anything but. There's complex regulatory requirements that must be satisfied along with efficiencies and safety considerations.

The Corn Burn Project currently can burn up to 35 percent corn. Corn burns cleaner than coal and releases less greenhouse gases. In 2014 alone, what started as a few words between friends kept nearly 17,000 tons of carbon and 61 tons of SO_2 from the atmosphere and saved the company $1.6 million in energy and disposal costs.

PROTECTING AND PRESERVING THE NATURAL ENVIRONMENT

Natural species and habitats have an inherent value all their own, separate from the benefits they provide the world's human population. At Monsanto we understand and respect this. We also know that without a healthy natural environment, sustainable agriculture would not be possible. Productive farming depends on pollinators like the honey bee and on natural ecosystems that help maintain soil health and mitigate climate change.

Understanding Honey Bee Health

Without important pollinators like the honey bee, we would be unable to enjoy some of our favorite foods like fresh fruit and nuts, or our morning coffee.

But a significant decline in the honey bee population in recent years is posing a threat to a nutritious, accessible food supply around the world. Pollinators affect one-third of the world's crop production, increasing the output of 87 of the leading food crops worldwide, according to a 2015 study co-authored by a conservation biologist at the University of California, Berkeley.

In the United States, for example, the number of honey bee colonies that exist today is less than half that of historic levels due to a phenomenon known as Colony Collapse Disorder. 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.

Recognizing the importance of honey bees to the future of sustainable agriculture, we are working hard, alongside others, to find solutions to this complex challenge. These collaborations build upon the research we've been involved in since 2011 when we acquired Beeologics, an organization focused on researching and testing agricultural biological products that provide targeted control of pests and diseases without harm to the honey bee.

Honey Bee Health Coalition. In 2013, at the Clinton Global Initiative (CGI) Annual Meeting, we announced our Commitment to Action on honey bee health. An important part of this commitment is our investment of time and resources in the Honey Bee Health Coalition (HBHC), a diverse collaborative effort convened by policy think tank, The Keystone Policy Center.

This independent group of more than 30 organizations and agencies from across the food, agriculture, government, conservation and beekeeping sectors are working on real and meaningful improvements to honey bee health.

In 2014, the HBHC unveiled the first major outcome of our collaboration, the Bee Healthy Roadmap, which lays out specific priorities and actions members will take to improve the health of pollinators while meeting the needs of farmers and preserving the environment. Priority areas include improving hive management, forage and nutrition, and crop pest management, as well as cross-industry education and outreach.

As part of our commitment, Monsanto has already invested more than $1 million in research to discover and develop ways to control varroa mites. Combined, these efforts are intended to help sustain and grow honey bee populations, contributing to a more secure global food supply.

Honey Bee Advisory Council. To help guide our honey bee health research and outreach, we looked outside our walls for counsel to form the Monsanto Honey Bee Advisory Council (HBAC), tapping members of the beekeeping industry, academics and other experts.

HBAC members include:

- **Diana Cox-Foster,** *Ph.D., Entomology, Penn State University*
- **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*
- **Dennis vanEngelsdorp,** *PhD., Entomology, University of Maryland*
- **Pete Berthelson,** *Director of Habitat Partnerships, Pheasants Forever*

In June 2013, the HBAC collaborated with nonprofit Project Apis m. (PAm) to host the Honey Bee Health Summit at Monsanto's Chesterfield, Mo. campus. This first-of-its-kind meeting brought together experts in the commercial beekeeping, academic, public and private sectors to discuss the many issues impacting honey bee health. Participants shared research and discussed ways to help solve the challenges facing the world's most important pollinator.

Bee Informed Partnership. Monsanto's Honey Bee Health Lead Jerry Hayes is part of a group that supports the work of the Bee Informed Partnership (BIP). Supported by the United States Department of Agriculture and the National Institute of Food and Agriculture, BIP is working with beekeepers to better understand how to keep healthier bees. This collaboration of efforts across the United States includes leading research labs and universities in agriculture and science. In 2014, Hayes spoke at events

Project Apis mellifera (PAm)

Almond crops are a crucial part of the California agriculture industry that requires 800 commercial beekeepers and more than 1.8 million honey bee colonies – transported from around the country – for pollination each year. By placing a variety of early-blooming flowers in areas adjacent to almond groves and other farmland, bees have access to a nutritious food source during peak pollination times.

Our three-year partnership with PAm, a leading organization dedicated to improving the vitality of honey bee colonies, includes a $250,000 investment in educating California almond growers and landowners on the value of honey bee forage, as well as planting forage itself. With 2014 marking the second year of the partnership, together we have planted more than 3,000 acres of forage.

hosted by BIP and more than two dozen other organizations dedicated to honey bee health.

> *"Over time the Bee Informed Partnership will inform a direction for consistent, successful beekeeping, which translates into stronger pollination-based agriculture, a more diverse green environment and sustainability of this important insect."*
>
> - Jerry Hayes, Monsanto Honey Bee Health Lead

Supporting the Flight of the Monarch Butterfly

Experts agree – the number of monarch butterflies in the United States has declined. Many studying monarchs think a number of factors are contributing to lower numbers, including logging in Mexico, weather at overwintering sites and during migration, land use changes and the loss of habitat. The declining availability of milkweed plants for butterfly habitat in the United States is certainly a contributing factor.

The challenge is complicated. Monarchs need milkweeds to survive but farmers consider the plant a weed which competes with their crops for water and nutrients.

Milkweeds, which monarch butterflies depend on to nurture their young, have declined across their migration range as agricultural production systems have evolved. Since agriculture production and wildlife habitat are both needed, it is critical that we find ways as a society to achieve both.

We are currently collaborating with experts from universities, nonprofits and government agencies focused on the establishment of monarch habitat in Conservation Reserve Program land, on-farm buffer strips, roadsides, utility rights of way, government-owned land and our own facilities. In March 2015, we announced that we are partnering with the National Fish and Wildlife Foundation to provide $3.6 million over three years to the Monarch Butterfly Conservation Fund – which will support habitat restoration, education, outreach and milkweed seed production to benefit monarch butterflies – as well as other support for the efforts of experts working to benefit monarch butterflies. We're also part of a newly formed coalition, convened by The Keystone Policy Center, which is bringing together a diverse group of conservationists, farmers, scientists and landscape professionals from across the country to find solutions to the challenges facing monarchs and other pollinators. Monsanto is committed to making a difference by exploring ways for agriculture to co-exist with natural wonders like the monarch butterfly.

Controlling Pests Responsibly

At every stage in their growing cycle, plants are threatened by diseases and pests including weeds and insects. Monsanto looks at the factors that might affect future crop growth and works with others to help create solutions to protect plant health and minimize impact on the environment. Some of the ways that we're helping farmers control pests and protect their crops, include:

- Agricultural biologicals: *Topical or seed treatment products that contain natural materials like plant extracts or beneficial microbes that can complement or replace traditional agricultural chemical products for weed, insect and disease control and honey bee health improvement. See related story on Page 24.*
- Biotech crops: *Insect-protected biotech crops that require fewer insecticide sprays. See related story on Page 36.*
- Data science/precision agriculture: *Using weather, climate and soil data to target when and where to apply crop inputs like fertilizers or pesticides to maximize their effectiveness while minimizing the chance for them to impact the environment. See related story on Page 26.*
- Pesticides *are one tool farmers can use, but they also understand it's not sound agriculture to use them alone or in excess. That's why, for many farmers, pesticides are one option that they use precisely and judiciously to help protect their crops. To ensure that farmers know the best way to apply the right amount of pesticides at the right time for their specific needs, they periodically complete pesticide training and certification process for their region.*

The BioAg Alliance

Protecting crops from pests and disease and enhancing plant health is an essential part of growing the food the world needs. To this end, we partnered with Denmark-based Novozymes, a leader in sustainability, to form The BioAg Alliance in 2014, a long-term strategic initiative aimed at transforming the research and commercialization of microbial products for farmers.

Microbes are tiny organisms, like bacteria and fungi, that live in our environment and interact with plants, people and animals in beneficial ways. The BioAg Alliance unites Novozymes' extensive experience developing and manufacturing products based on microbes with Monsanto's experience researching, field testing and commercializing agriculture products. The goal is to help farmers sustainably meet the world's food demands by exploring new solutions derived from naturally occurring microbes. The BioAg Alliance has already introduced two types of microbial products: inoculants, which help plants absorb nutrients, and biocontrol products, which help protect plants against pests, disease and weeds.

To learn more about how microbes support healthy plants, view this informative video.

Reseeding Ecosystems with Conservation International

> *"We cannot feed the world in a sustainable manner if we destroy critical natural areas in the process. Our work with Monsanto is aimed at combining productivity and conservation in agricultural landscapes to benefit farmers and the environment."*
>
> - Peter Seligmann, Chairman-CEO, Conservation International

Recognizing the integral relationship between a healthy natural environment and sustainable, productive farming, Monsanto launched a five-year partnership in 2008 with Conservation International (CI) aimed at preserving and restoring Brazilian habitats in the Cerrado Plains Region. In 2014, this partnership was extended to the second phase, "Sustainable Agriculture Landscape" in Brazil, and due to its success we are now replicating it in Indonesia.

The natural Cerrado habitat is home to an astonishing array of plant and animal species. However, the region has undergone a significant amount of deforestation, leading to topsoil erosion and the movement of sediment into regional rivers, lowering their capacity to hold water used by communities and farmers alike. Deforestation also has reduced habitat for beneficial pollinator species and contributed to global climate change, as trees and other vegetation absorb carbon from the atmosphere.

Past efforts to restore the Cerrado forests have been met with mixed results. The seeds planted for reforestation were often not native species and struggled to thrive. Additionally, many local farmers were unaware of the economic benefits that healthy ecosystems provide to them.

To increase the success of restoration efforts, Monsanto and CI worked with local communities and farmers to introduce a technique called "muvuca," whereby native seeds combined with corn, beans, crotalaria and sand, are planted near riverbeds. This technique is economical and helps ensure results with great adaptation to local conditions. The native seeds were gathered by local women, providing new jobs and creating economic value in the community. With the help of 50 area families, 10,000 hectares have been restored in this way with more planned in the future.

The partnership also helped coordinate a study that demonstrated the economic value of maintaining 20 percent of rural lands as indigenous Cerrado forest, as required by Brazilian law. Together we conveyed this message throughout the country and worked to help prevent illegal deforestation.

ENVIRONMENTAL PERFORMANCE

In fiscal year 2014, Monsanto executed on its three-year commitment to significantly expand the scope of our environmental footprint data collection. This data represents the full operational footprint for Monsanto and includes for the first time, logistics and procurement, our mining operation and Monsanto contracted agricultural land. We also began reporting environmental data based on our fiscal year rather than calendar year, as we have done in the past. Due to the evolution of our operational footprint metrics and scope, we have established fiscal 2014 as the new baseline year for reporting environmental data.

Important Note about Environmental Data

In the environmental metrics on the following pages, we have included data for calendar year (CY) 2013, in addition to our fiscal year (FY) 2014 data. Since we have switched to a fiscal year reporting basis and broadened the scope of our reporting, especially on water metrics, the data from CY 2013 is not directly comparable with our FY 2014 data. The water related totals in particular will be significantly higher in FY 2014 than in CY 2013 because we have added contracted-land water metrics to our reporting scope. We have included 2013 data for historical purposes.

The majority of our FY 2014 data-driven environmental metrics have been externally assured by Bureau Veritas. See the GRI Index starting on Page 148 for more information, and see the Bureau Veritas Assurance Letter at the end of this report.

Energy Use and Emissions

	CROP PROTECTION CY'13	CROP PROTECTION FY'14	SEEDS & TRAITS CY'13	SEEDS & TRAITS FY'14	COMPANY VEHICLES CY'13	COMPANY VEHICLES FY'14	COMPANY TOTAL CY'13	COMPANY TOTAL FY'14
Direct Energy Consumption *(1000 GJ)*								
Natural Gas and other Gaseous Fuels	5,050	4,830	2,830	2,960	-	-	7,880	7,790
Oil (including Diesel)	140	526	730	1,040	-	1,760	870	3,330
Coal, Coke and other Solid Fuels	1,260	1,010	0.1	3.9	-	-	1,260	1,010
Waste Fuel	2,220	2,190	0	0	-	-	2,220	2,190
TOTAL	**8,670**	**8,560**	**3,560**	**4,010**	**-**	**1,760**	**12,200**	**14,300**
Biomass Fuels Used in Direct Energy Generation	*195*	*200*	*764*	*811*	-	-	*960*	*1,010*
Biomass Fuels Shipped Off Site for Energy Generation	*1.4*	*1.4*	*2,180*	*3,120*	-	-	*2,180*	*3,130*
Indirect Energy Consumption *(1000 GJ)*								
Purchased Electricity	6,800	6,940	1,660	1,850	-	-	8,460	8,780
Imported Steam	1,640	1,970	*7.1	7.1	-	-	*1,650	1,970
TOTAL	**8,440**	**8,900**	**1,670**	**1,860**	**-**	**-**	**10,100**	**10,800**
Consumed Primary Sources in Electricity Generation (percent of total Indirect Energy)								
• *Hydro, Biomass, Geothermal, Nuclear, Solar, Wind*	**50%*	*50%*	**35%*	*35%*	-	-	**46%*	*46%*
• *Natural Gas and other Gaseous Fuels*	**17%*	*18%*	**18%*	*18%*	-	-	**18%*	*18%*
• *Coal, Coke and other Solid Fuels*	**32%*	*32%*	**40%*	*41%*	-	-	**34%*	*34%*
• *Oil (including Diesel)*	**1%*	*1%*	**7%*	*7%*	-	-	**3%*	*3%*

The total amount of electricity is shown above along with the fractional amount of raw materials estimated to be necessary to produce this electricity. The conversion factors for electricity to raw material resources were taken from the USEPA eGRID and the International Energy Agency (IEA) databases.

KEY FOR ENVIRONMENTAL DATA TABLES

GJ = gigajoules • mt = metric tons • m^3 = cubic meters • CO_2 = carbon dioxide • CO_2e = carbon dioxide equivalent • NO_x = nitrous oxide • PO_4 = 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, including totals, 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. Calendar year 2013 items noted with an * were updated from what was previously reported to reflect corrections and/or changes to the data or calculation methodology.*

	CROP PROTECTION CY'13	CROP PROTECTION FY'14	SEEDS & TRAITS CY'13	SEEDS & TRAITS FY'14	COMPANY VEHICLES CY'13	COMPANY VEHICLES FY'14	COMPANY TOTAL CY'13	COMPANY TOTAL FY'14
Energy Consumption Summary *(1000 GJ)*								
Total Energy Consumption (Direct and Indirect)	17,100	17,500	*5,230	5,860	-	1,760	22,300	25,100
Energy Consumption Outside the Organization - Scope 3 *(1000 GJ)*								
Logistics and Business Travel	-	-	-	-	-	-	-	5,950
Contracted Land - Fuel & Electricity	-	-	-	-	-	-	-	2,340
Biomass Fuels Used in Direct Energy Generation	-	-	-	-	-	-	-	*93.4*
Biomass Fuels Shipped Off Site for Energy Generation	-	-	-	-	-	-	-	*3.8*
Energy Intensity *(GJ per $1,000 Revenue)*								
Total Direct and Indirect Energy Intensity (Scopes 1 & 2)	-	-	-	-	-	-	-	1.58
Total Direct GHG Emissions - Scope 1 *(1000 MT)*								
Direct GHG Emissions (CO_2e)	1,240	1,210	210	239	-	118	1,450	1,570
GHG Emissions from Biomass Fuels								
• *CO_2e from Biomass Used (Consumed) On Site*	*23.3*	*24.0*	*82.4*	*88.2*	-	-	*106*	*112*
• *CO_2e from Biomass Sold for Off Site Energy Generation*	*0.2*	*0.2*	*239*	*362*	-	-	*240*	*362*
Total Indirect GHG Emissions - Scope 2 *(1000 MT)*								
Indirect GHG Emissions (CO_2e)	*777	793	*261	287	-	-	*1,040	1,080

	CROP PROTECTION CY'13	CROP PROTECTION FY'14	SEEDS & TRAITS CY'13	SEEDS & TRAITS FY'14	COMPANY VEHICLES CY'13	COMPANY VEHICLES FY'14	COMPANY TOTAL CY'13	COMPANY TOTAL FY'14
Total Direct and Indirect GHG Emissions (1000 MT)								
Total GHG Emissions (CO_2e) (Scopes 1 & 2)	*2,020	2,010	*471	526	-	118	*2,490	2,650
Other Indirect GHG Emissions Sources - Scope 3 (1000 MT)								
Logistics and Business Travel	-	-	-	-	-	-	-	443
Contracted Land	-	-	-	-	-	-	-	204
GHG Emissions from Biomass Fuels								
• *CO_2e from Biomass Used (Consumed) On Site*	-	-	-	-	-	-	-	*10.2*
• *CO_2e from Biomass Sold for Off Site Energy Generation*	-	-	-	-	-	-	-	*0.5*
GHG Emissions Intensity (MT per $1,000 Revenue)								
Total Direct and Indirect Emissions (CO_2e) (Scopes 1 & 2)	-	-	-	-	-	-	-	0.167
Other Emissions (MT)								
Sulfur Oxide (SO_x) Emissions, Combustion and Process	1,670	1,560	40.0	43.2	-	-	1,710	1,610
Nitrous Oxide (NO_x) Emissions, Combustion and Process	3,190	3,110	581	653	-	-	3,770	3,770
Volatile Organic Compound (VOC) Emissions	78.0	92.8	-	0.9	-	-	78.0	93.7

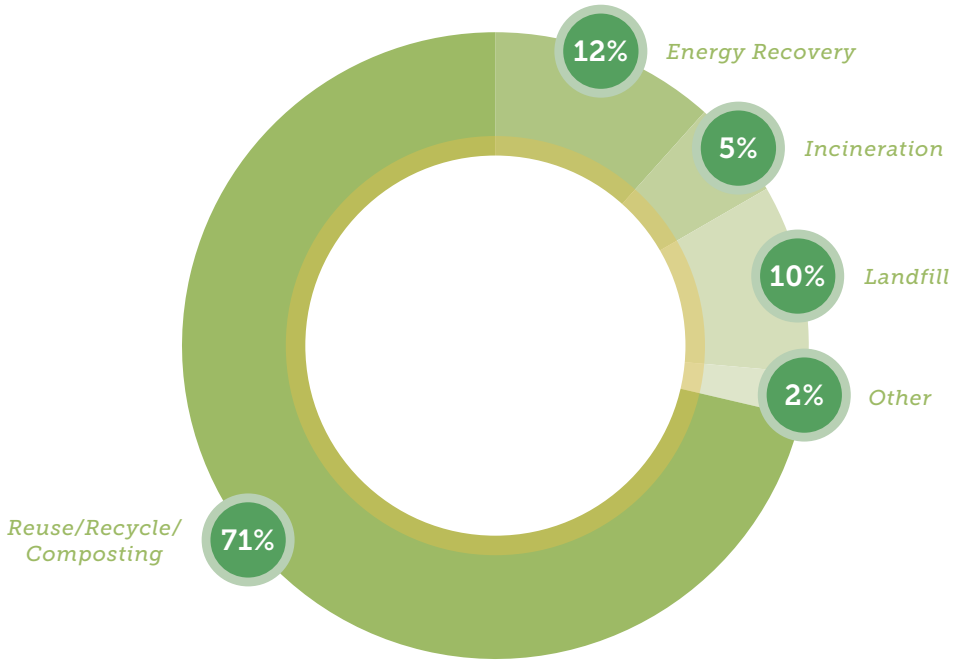
Greenhouse Gas emissions (GHGs) are calculated using various standardized emissions calculation methodology and factors, including the World Resources Institute and World Business Council on Sustainable Development Greenhouse Gas Protocol, USEPA Emission Factors, USEPA eGRID, IEA Country Specific factors and other site or case specific factors and calculations as reviewed by our third-party assurance auditors.

Water Use

	CROP PROTECTION CY'13	CROP PROTECTION FY'14	SEEDS & TRAITS CY'13	SEEDS & TRAITS FY'14	CONTRACTED LAND CY'13	CONTRACTED LAND FY'14	COMPANY TOTAL CY'13	COMPANY TOTAL FY'14
Fresh Water Withdrawal *(ML - 1000 m³)*								
Surface Water	2,630	2,300	5,460	7,920	-	451,000	8,090	460,000
Ground Water	*14,900	15,600	4,630	9,590	-	433,000	*19,500	458,000
Municipal Water	1,530	1,370	5,530	5,870	-	37,800	7,060	45,000
Collected Rainwater	119	110	253	411	-	58.7	372	580
Purchased Wastewater for Reuse (R1)	0	0	213	212	-	681	213	893
Purchased - Bottled or Lab Water	0.3	0.7	2.6	3.2	-	0.9	2.9	4.8
TOTAL	***19,200**	**19,400**	**16,100**	**24,000**	**-**	**920,000**	***35,300**	**964,000**
Water Reuse and Recycling *(ML - 1000 m³)*								
Volume of Condensate/Cooling Tower Water Recycled/Reused	340,000	342,000	31,800	31,800	-	-	371,000	373,000
Volume of On Site Process Waste Water Recycled/Reused	264	225	76.4	85.3	-	-	340	311
TOTAL	**340,000**	**342,000**	**31,900**	**31,900**	**-**	**-**	**372,000**	**374,000**
Process Waste Water Discharged *(ML - 1000 m³)*								
(Process waste water only; does not include domestic sewage, per GRI Guidelines)								
Discharged to Off Site Treatment (e.g. publicly owned treatment works)	811	635	378	469	-	-	1,190	1,100
Permitted Discharges to the Environment - Subsurface (e.g. deepwell/leachfield)	1,890	1,980	48.5	2.2	-	-	1,940	1,980
Permitted Discharges to the Environment - Surface Water (e.g. river)	16,300	16,200	169	262	-	-	16,500	16,500
TOTAL	**19,000**	**18,800**	**596**	**733**	**-**	**-**	**19,600**	**19,600**
Process Waste Water Quality Data for Direct Surface Water Discharges (MT)								
• *Biological Oxygen Demand*	*41.9*	*54.0*	-	-	-	-	*41.9*	*54.0*
• *Nitrate (as N)*	*35.1*	*53.8*	-	-	-	-	*35.1*	*53.8*
• *Phosphates (as PO_4)*	*187*	*217*	-	-	-	-	*187*	*217*
• *Total Suspended Solids (TSS)*	*52.2*	*63.4*	-	-	-	-	*52.2*	*63.4*

Wastes Shipped Off Site or Composted

The total waste shipped off site or composted in FY 2014 was 314,000 metric tons. Approximately 3 percent of the waste is classified as hazardous with the remaining 97 percent being non-hazardous. In addition, no forms of waste were exported or imported by Monsanto across country borders.



IMPROVING
the lives of farmers, workers and communities

Our people are dedicated to finding solutions that make life better today and contribute to a better tomorrow. We're supporting an inclusive work environment that protects the safety and rights of workers. We're collaborating with community leaders to add value to the places where we operate. We are engaging in new conversations about improving health and nutrition. And we're looking to the future supporting Science, Technology, Engineering and Math (STEM) education, empowering women and girls, and more. By investing in causes where we can make a genuine difference, we ***improve the lives of farmers, workers and communities****.*

Commitments and Guiding Principles

- *We have set a goal to help improve the lives of 5 million resource-poor farm families by 2020.*
- *We're working together with leaders in today's critical conversations about food and nutrition.*
- *We are committed to providing seeds to grow nutritious foods like broccoli, carrots, cauliflower, cucumbers, melons, peppers and tomatoes.*
- *We invest in STEM education and the empowerment of women and girls.*
- *We support and embrace diversity, inclusion and human rights around the world.*

IMPROVING LIVES IS THE HEART OF OUR MISSION.

That's why we focus our efforts on creating a positive experience for our workforce, supporting the communities where we live and work, and contributing to the conversation around issues that shape the world around us.

Martha Burmaster,
Director, Human Rights

IMPROVING FARMER LIVELIHOODS

Monsanto exists today because of farmers. They are our primary customers, and we are committed to ensuring their success by developing tools and resources that can help farmers sustainably grow enough for their families, their communities and people around the world. That's why we set an ambitious goal back in 2008 to help improve the lives of 5 million resource-poor farm families by 2020 through their adoption of biotechnology.

A big part of helping farm families and communities is providing them with the seeds and other products and services that contribute to a better harvest *(read about those efforts in the Producing section starting on Page 19).* But it goes beyond just that. We're collaborating with others around the world to help farmers think about new ways to use their land, gain ready access to educational resources and do their part in bettering their own communities.

Improving Lives

4.2 MILLION
Smallholder Farmers Adopting Biotech

$5.62 BILLION
in Additional Net Income as a Result of Technology Adoption

Based on global meta-analysis data compiled by ISAAA and PG Economics

Goal: helping to improve lives, including 5 million resource-poor farm families by 2020

Supporting Farming Communities Across America

America's Farmers outreach programs work with farmers to strengthen rural communities. The programs, Grow Communities and Grow Rural Education, with support from the Monsanto Fund, awarded over $5.6 million to rural America communities in 2014.

The America's Farmers Grow Communities program gives farmers the chance to win a $2,500 donation to direct toward their favorite local nonprofit organization. In fiscal 2014, the program supplied grants to nonprofits in nearly 1,300 counties across 39 states, investing more than $3.2 million in rural America through the program. These donations help nonprofits fight rural hunger, purchase life-saving fire and emergency medical services equipment, support agriculture youth leadership programs, buy much needed classroom resources and more.

The America's Farmers Grow Rural Education program partners with farmers to nominate their local public school districts to apply and compete for a merit-based grant of up to $25,000 for math or science education. In fiscal 2014, $2.3 million was awarded to school districts across the United States.

In 2014, Monsanto piloted a third America's Farmers program, Grow Ag Leaders, to add to the suite of America's Farmers community outreach programs. In 2015, Grow Ag Leaders will give students pursuing a career in agriculture the opportunity to earn a scholarship toward their education.

Improving Farmer Incomes in Vietnam

In Vietnam, farming plays a huge role in the health of the country and its families. In recent years, demand from other countries for Vietnamese-grown rice has dropped dramatically, directly impacting the livelihoods of Vietnamese in the Mekong Delta.

Farmers were left with a challenge – how to convert from their traditional rice operations to crops that are in higher demand. The Vietnamese government began working to help farmers transition their rice paddy fields to corn and soybean fields as part of Vietnam's Agricultural Restructuring Plan, all while preserving the rice-growing ecosystem that is still important to Vietnam.

In connection with our commitment to the World Economic Forum New Vision for Agriculture, our Monsanto Vietnam team introduced a rice-to-corn

rotation process to assist farmers in growing both crops, while minimizing the impact to the environment.

Working alongside the Vietnam government, Monsanto trained 5,000 rice farmers on corn planting techniques, including how to use minimum-tillage farming and mechanization techniques to improve their crops. Within just 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 helped farmers while improving water efficiency and reducing the use of pesticides and fungicides by breaking up the pest cycle. The process also decreased labor and other costs by as much as 80 percent. The result was a savings of $1 million, improving livelihoods for thousands of farmers.

Getting More from Corn in India

South Bihar, a state in eastern India, is known for its wheat production. But with a hot, dry climate that limits the wheat growing season, the Monsanto India team saw an opportunity to collaborate with farmers and implement sustainable farming practices to successfully grow corn during the dry season. The project focused on cultivating corn instead of wheat after the rice growing season, using conservation tillage practices that use the prior season's crop residue to reduce soil erosion.

The team collaborated with local organizations and universities, including the International Maize and Wheat Improvement Center (CIMMYT) and Bihar Agricultural University, to make the vision a reality.

Field demonstrations of DEKALB hybrids were conducted on 85 fields, with approximately 3,000 farmers to share corn hybrid information and highlight conservation tillage practices. When compared to conventional tillage, this new cropping system provided an additional 35 percent savings in the cost of irrigation. It also impacted the livelihoods of 91 smallholder farmer participants, who saw net incomes rise 150 percent by planting corn.

EMPOWERING WOMEN AND GIRLS AROUND THE WORLD

Investing in women and girls delivers huge returns in local communities and for society as a whole. In certain areas of the world where opportunities for women and girls are limited, we've worked with others to implement innovative programs to help them develop new skills and achieve a better future.

On small farms in some parts of the world, a bad harvest means that a mother does not have enough food to nourish her children. We are committed to helping rural farmers – many of them women – learn how to best grow more of the foods needed to maintain a balanced diet.

And we remain committed to key initiatives designed to encourage women to pursue careers in STEM-related fields. From educational programs to employment opportunities, our efforts are making a difference in the lives of women and girls around the world.

From Trash to Treasure in Brazil

In Camaçari, Brazil, home to one of our production facilities, unemployment is a serious concern, especially for women who make up a small portion of the workforce. When a group of women began a sewing and art project at Camaçari's community center as a way to support their families, Monsanto wanted to get in on the ground floor.

We use industrial-strength plastic liners to safely store raw materials used in the production of our products. However, if the liners have any imperfections, they are never put into service and are removed from circulation. Rather than disposing of imperfect liners, in 2013 we began donating them to Camaçari's community center to provide the seamstresses with starter fabric.

The donated materials have resulted in a steady source of work and income for the women of Camaçari. Since Monsanto's involvement, the seamstresses have sold thousands of bags and accessories while helping divert hundreds of pounds of waste from landfills.

View the Fabric of Change video to get a firsthand look at how the women of Camaçari and their community are benefiting from this initiative.

Helping Women Farmers and Workers in India

Better Cotton Harvests

With the support of India's Department of Agriculture, Monsanto India provided smallholder cotton farmers with best practices and tools to help them achieve stable harvests. The program has touched more than 100,000 farmers, including 1,600 women farmers, providing training prior to planting, field visits, soil tests and educational information. Past program participants have now assumed the role of mentors for other female farmers in the region.

Through the efficient use of seeds and nutrients, and application of sustainable farming practices, this project helped increase the cotton harvests of these smallholder farmers by an average of 15 percent to 20 percent across 250,000 acres. We are hoping to scale this project and see even greater impact.

Educating and Elevating: Project AASHA

In India, a large number of female workers on seed farms come from rural backgrounds and orthodox families. Many of these women lack social status and formal education, limiting their career prospects and putting them at risk for oppressive situations.

To help protect the health and interests of India's most vulnerable rural populations, Monsanto India launched Project AASHA (a Hindi word for "hope") to improve women's health, education and safety through a series of training sessions focused on proper hygiene, food handling and cooking safety. The program has benefited more than 400 female contract workers, teaching them new skills and boosting their self-confidence. After Project AASHA's successful pilot at our site in Bangalore, we've expanded the program to include sites in Aurangabad, Hyderabad and Sonipat.

In 2014, Project AASHA received Monsanto's President's Award, the highest honor for safety and ethics within our company. The project was personally selected by members of Monsanto's Executive Team in recognition of the program's profound impact on women laborers in India.

INVESTING IN THE FUTURE

Today, expertise in STEM has become central to meeting the challenge of nourishing a growing population while protecting natural resources.

The sustainability of our business and the future of our world depends on bringing new ideas to life. That's why we're committed to investing in the next generation of scientists, from grade school through their graduate studies. By sponsoring community science fairs to engaging with top-flight universities, we support programs designed to advance STEM education and attract more young people to STEM careers. In 2014, in our headquarters city of St. Louis alone, we reached more than 40,000 young people with science-related events and information.

Advancing STEM in Rural Communities: America's Farmers Grow Rural Education

Today, it's more important than ever for young farmers to have a solid foundation in STEM disciplines. But in many small rural communities, public schools face a gap in resources due to funding allocations based on student populations. With less funding, many schools in farming communities are unable to fund the technologies associated with math and science programs on par with urban school districts. In response, Monsanto Fund is working together with farmers to help schools in their local communities enhance their STEM programs, through the America's Farmers Grow Rural Education program.

In fiscal year 2014, more than 83,000 farmers nominated rural school districts for math and science grants, which

resulted in 163 school districts around the United States receiving grants. Students in those districts are now benefiting from $2.3 million awarded for classroom technology, greenhouses, school gardens, cutting-edge science labs and professional development for teachers.

Cultivating Excitement in Science: FIRST® Robotics

To encourage young people's interest and participation in science and technology, we are heavily involved in the annual FIRST Robotics international competition, a program that immerses young students in real-world engineering experiences. FIRST challenges teams of students to design, build and program their own robot to perform prescribed tasks against a field of competitors. In 2014, more than 200 Monsanto employees volunteered more than 875 hours of their time to support the FIRST Robotics global competition. Two Monsanto employees also served on a panel focused on career opportunities for women in STEM as part of FIRST events.

Promoting Hands-On Research: The Intel International Science and Engineering Fair

Each year, more than 1,700 high school students from around the world are awarded the opportunity to showcase their independent research and compete for millions of dollars in prizes at the Intel International Science and Engineering Fair (ISEF) – the world's largest international pre-college science competition. ISEF's mission to inspire young people to be science and technology leaders closely aligns with our efforts to promote STEM careers, which is why we're committed to the competition's continued success. In 2014, we funded three awards recognizing the best student research in plant science innovation. In addition to monetary prizes for the top three plant science research projects, we also flew the first and second place winners to our research headquarters in Chesterfield, Mo., to tour our facilities and present their work to our researchers.

Closing the STEM Gender Gap

With women significantly under-represented in STEM-based careers, we remain committed to not only educating young girls in STEM but also inspiring an interest and passion for it early.

In St. Louis we've partnered with a local all-girls school to help sponsor its Coding Club, which teaches girls how to build their own websites. Representatives from Monsanto will help the girls prepare for the upcoming

national competition in Washington, D.C., where they will be vying for thousands of dollars in scholarships. Monsanto is covering the entry fees and travel expenses for each girl that participates in the national competition.

We've also begun partnering with several Girl Scout troops in Missouri to lead new programs specifically designed to get young girls interested in science. From sessions about where food ingredients come from to demonstrations on DNA extraction, our STEM programming with the Girl Scouts reached more than 4,600 young girls in 2014.

Building Relationships and Our Future

University outreach is an integral part of our efforts to identify and develop the next generation of innovators. One way we achieve this is through mentoring and sponsoring key student organizations and events throughout the world. These include: the GlobeMed student conference, the International Genetically Engineered Machine competition and the Synberc research program, to name a few. Through our participation in these efforts, we help cultivate a wide range of scientific knowledge to address future challenges and opportunities.

Developing Young Ambassadors in Pakistan

Knowing that great opportunities for learning often happen outside the classroom, the Monsanto Pakistan team has partnered with local colleges to launch a flagship ambassador program devoted to student development. The goal: share our passion for sustainable agriculture and help students understand the opportunities for successful careers at Monsanto and other agriculture organizations. Through participation in college career fairs, tours of local Monsanto facilities, field trial showcases and briefings on technology in agriculture, Monsanto employees are connecting with the next generation of agricultural scientists.

These student ambassadors are recommending Monsanto to their peers and sharing a positive perspective on the important work we do to help farmers meet the challenges of feeding the world's growing population. Thanks to the program's success, Monsanto has added 10 interns and has hired two as full-time employees.

ADVANCING THE FOOD AND NUTRITION DIALOGUE

Monsanto is committed to working with others to bring a broad range of solutions that help nourish the planet. We provide farmers with seeds that, when harvested, produce some of the food we find on our plates, including vegetables, melons, grain and plant-based protein. And, we're working with food and nutrition experts inside the company and externally on issues related to feeding a growing global population and what it means to help ensure that a nutritious meal is within reach for everyone.

Supporting Healthy Eating: Monsanto Vegetable Seeds

Monsanto offers more than 2,000 vegetable seed varieties, which are available in more than 160 countries around the world. Our seeds represent 22 different crop families, including broccoli, carrots, cauliflower, cucumbers, melons, peppers, tomatoes and more. We use traditional and advanced plant breeding to provide farmers with the best seeds possible: ones that have the potential to not only limit the impacts of diseases and pests — so there's less food waste and more at harvest time — but also provide consumers eye-appealing, great-tasting vegetables on their plates.

More than 98 percent of our research and development investment in vegetables is on plant breeding. Two of our vegetable crops today include biotechnology innovations. One is sweet corn, which benefits from insect protection traits that can help reduce the use of insecticides. The other is squash, which benefits from virus protection that helps to prevent crop failure.

Ideal flavor is part of the solution to eating more fruits and vegetables. But, there is more to it than that. If the produce doesn't look, feel and smell

appealing, getting people to take that first bite can be challenging. If it doesn't stay fresh long enough, it may result in waste. And, the more slicing, dicing, peeling or packaging that consumers have to deal with, the more potential barriers to increasing produce consumption.

Some consumers are also looking for convenience in the produce aisle and are seeking certain attributes when it comes to their fresh produce, such as smaller, snack-sized melons and vegetables.

Through plant breeding, we're able to combine these important factors to produce vegetables that are more pleasing to consumers, and that can be a big help in boosting consumption of these nutritious foods including:

- Tomatoes. *We know from our sensory research that many consumers prefer tomato varieties with a sweeter flavor. Our plant breeders found a great source for sweetness in wild tomatoes and were able to breed these taste traits into a commercial variety, boosting the sweetness factor. These improvements led to higher levels of lycopene, which is the component that gives the tomato its bright color.*
- Bell Peppers. *Our **BellaFina** bell peppers offer consumers sweet taste and cooking convenience. At about one-third of the size of a traditional bell pepper, **BellaFina** peppers provide a more convenient serving size for many consumers, reducing the chance for waste. And, like all peppers, **BellaFina** are an excellent source of vitamin C.*

- Melons. ***Melōränge** wintertime melon is one of the sweetest melons available in North America in winter months. Melons are a natural source of essential nutrients and antioxidants, which provide important health benefits.*
- Lettuce. *Monsanto's plant breeders combined the best attributes of iceberg and romaine lettuce to develop **Frescada** lettuce, a variety with the sweet taste and crispy texture of iceberg, but greener in color and with more flavor. It also contains 246 percent of the folate and 174 percent of the vitamin C in ordinary iceberg lettuce.*
- Broccoli. ***Beneforte** broccoli delivers more than double the amount of the phytonutrient compound that boosts our bodies' antioxidant enzyme levels than other broccoli varieties, plus supports the good work of vitamins A, C and E.*

Supporting Better Oils

Vistive Gold soybeans produce high-oleic, low saturate, low-linoleic soybean oil that, on a per-serving basis, has 85 percent less saturated fat than palm oil (1 gram vs. 7 grams), 70 percent less saturated fat than fry shortening (1 gram vs. 3 grams) and 50 percent less saturated fat (1 gram vs. 2 grams) than conventional soybean oil. Vistive Gold soybean oil can provide food companies with more stable oil for frying with an extended fry life and baking applications that can help to reduce levels of trans fats because it does not require hydrogenation.

We have another soybean oil seed far along in our development pipeline that contains omega-3 fatty acids. Supportive but not conclusive research shows that consumption of EPA and DHA omega-3 fatty acids may reduce the risk of coronary heart disease. Once commercialized, our stearidonate (SDA) omega-3 soybean oil will enable food companies to offer a wide variety of omega-3 enriched foods such as dairy products, soups, sauces, beverages and bars without compromising product quality.

Engaging on Health and Nutrition – Inside and Out

Interest in food – from seed to supermarket to sauté pan – is growing. That's why we're working together and learning from external leaders involved in conversations about food and nutrition, including culinary specialists, dietitians, food and nutrition science academics, and their organizations and societies. We're openly sharing information, access and insights with these food community leaders as we gain a deeper understanding of everything from healthy consumer behaviors to food policy decisions.

In 2014, Monsanto created Leaders Engaged in Advancing Dialogue (L.E.A.D.) to support regular conversations with food and nutrition professionals about the intersection of food, nutrition, health and agriculture. A recent L.E.A.D. event was held with 16 nutrition professionals from throughout the country, focused on sustainable agriculture intensification and food systems, modern agriculture, biotechnology, advanced plant breeding, crop protection, precision agriculture and more.

But before we reached out to these industry leaders, we added food and nutrition expertise to our company. Monsanto has taken the important step of creating two new roles and hiring registered dietitians to fill them.

Immersing Food and Nutrition Professionals in Agriculture

What better way to give dietitians a firsthand look at how food, nutrition and agriculture intersect than take them straight to the source. That was the philosophy behind two unique and immersive multiday experiences we hosted in August 2014; one at our Monsanto Vegetable Seeds Research and Development Headquarters in Woodland, Calif., and one in Des Moines, Iowa, near our Research Centers in Ankeny and Huxley.

But it's not something we did alone. In addition to representatives from Monsanto's seed, research and bee health groups, we brought in farmers, food industry associations and nonprofits, food and nutrition academics, consultants and "Supermarket Guru," Phil Lempert. Nearly 75 invited guests attended the events, which took them well beyond the conference room to tour Monsanto research facilities, family farms, melon and vegetable fields, a grocery store and, of course, back to the dinner table.

As part of the experience, we shared information about the traditional and advanced plant breeding activities of our vegetable seed breeders, as well as the modern production practices of today's family farmers, including biotechnology. We delved into sustainable agriculture techniques, global trends that drive consumer preferences and purchases in the produce aisle, and discussed the collective role of the food, nutrition and agriculture community in making a balanced meal accessible to a growing population.

Bringing Nutrition Stakeholders Together

Knowing that it takes a range of stakeholders from around the world to reach common goals, in June 2014 Monsanto facilitated two related events more than 8,000 miles apart.

In early June, Monsanto's Africa Corporate Engagement staff spent the day in Nairobi, Kenya, with the Chief Science Officer of the Academy of Nutrition and Dietetics (Academy) and the National Education Director of its Foundation, for a visit with the people who are focused on bringing food and nutrition security to this rapidly growing nation. Representatives from the Water Efficient Maize for Africa (WEMA) program *(see related story on Page 40)*, Kenya Agricultural Livestock Research Organization (KARLO) and Kenya Medical Research Institute shared how their work is helping to make more nutritious meals available to families throughout Africa.

In a follow-up communication, Academy leaders noted three critical areas of focus for the nutrition community to support the fight against global hunger and malnutrition in Nairobi and similar regions. Specifically, there is a need to:

- *Develop, implement and evaluate educational strategies for consumers, agricultural and medical professionals about the connection of food, agriculture biotechnology, nutrition and health.*
- *Raise awareness of, scale up and develop new successful public-private partnerships that integrate food, agriculture, nutrition and health.*
- *Build capacity for dietetics and nutrition professionals within healthcare systems at all levels to improve population health.*

Later that month, we hosted a town hall meeting with global Monsanto participation that included a panel of representatives from the Academy, Walmart and National Corn Growers Association. They provided perspectives on the food and agriculture environment. Each noted the importance of engagement within the agriculture, food, nutrition and retail realm. Specifically, the Academy shared that some dietetic professionals believe that modern agriculture is headed in the wrong direction, stressed the importance of the agriculture perspective and ongoing engagement, and praised Monsanto for hiring two registered dietitians dedicated to such engagement.

Monsanto followed up on the recommendation for ongoing engagement by hosting a delegation of eight Academy and Academy Foundation staff and elected leaders at Monsanto's world headquarters in St. Louis in December 2014. The delegation toured the Monsanto Research Center in Chesterfield, Mo., talked openly with key Monsanto leaders regarding our agricultural innovation and business practices, and discussed our mutual desire to advance food and nutrition security, as well as potential opportunities for collaboration. The following sentiment was shared by the Academy following our meeting:

> *"Thank you and your staff for the invitation to visit and learn more about the work that goes on at Monsanto. It was an excellent and transformative visit for me."*
>
> - President-Elect, Academy of Nutrition and Dietetics

COMMUNITY ENGAGEMENT

Working in collaboration with our neighbors to promote shared values allows our business and the communities where we operate to prosper and thrive.

We take being a good neighbor very seriously and actively seek input from the communities where we operate to help guide our actions. Approximately 90 percent of our sites around the world undertake some level of formal proactive community engagement. Many of them, for example, conduct environmental impact assessments and ongoing monitoring and feature occupational health and safety councils with employee representation.

Community Advisory Panels

One of the formal ways we engage in some communities where we're located is through Community Advisory Panels (CAPs). CAPs include a cross-section of 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 the panel deems pertinent. Each group follows a consistent model to solicit feedback and counsel from neighbors and build meaningful relationships within the communities surrounding our plants, while helping to inform our operational decision-making.

The CAPs model is guided by five primary principles:

1. Establish and improve communications with our neighbors
2. Obtain feedback and listen to concerns raised by the community
3. Be responsive to community concerns and issues
4. Provide factual information about our company's operations and actions that could impact the community
5. Support our neighbors in charitable programs that benefit the community

Formal CAPs have been established at all our chemical manufacturing facilities for years and new groups are launched based on local stakeholder needs and interests. As of 2014, we have facilitated CAPs across the United States, Argentina, Belgium, Brazil, Puerto Rico and more. We will continue to expand the number of CAPs and town hall forums held in conjunction with our locations to further local interaction and dialogue.

Listening in Louisiana, United States

One of our first Community Advisory Panels (CAPs) was established at our production plant in Luling, La., in 1987. Since its launch, it has become a model for CAPs across our network. Luling's panel members have been instrumental in alerting our operations team to issues within the community early, giving us the time to develop thoughtful responses that benefit both the community and the company.

Taking a Global Approach to Community Health and Safety

The health of the people in the communities where we operate is imperative; they are our employees, their families and our neighbors. We invest in community health and safety initiatives on a global scale. From organizing disease prevention seminars to distributing first-aid kits, our sites implement vital programs to tackle pressing issues impacting the well-being of our communities.

Community Health

- India: *Nearly 1,000 children registered with the Indian Red Cross Society suffer from thalassemia, an inherited blood disorder that can lead to anemia and requires regular blood transfusions. With so many children in need, employees at our sites in Shamirpet and Manyata decided to host blood drives with their local blood banks. Close to 120 employees participated. We also conducted six "Know Your Stats" health camps that were open to the community, featuring free eye, body mass index, blood glucose level and blood pressure screenings. The health camps reached more than 400 individuals, and eye testing was later extended to students at local schools in Kallakal and Shamirpet.*
- Brazil: *Through the launch of our Women's Health Program, Monsanto is working to improve health outcomes in the Camaçari community, located near one of our production sites. The program provides women with free educational resources and examinations for breast cancer, cervical cancer and sexually transmitted diseases. Though in its infancy, the program is already yielding promising results in the prevention and early detection of women's health issues.*
- Latin America: *Chagas is an inflammatory, infectious disease caused by a parasite commonly found in Latin America. While treatable when detected early, many people don't experience symptoms until they reach the chronic stage. To address this community health issue, our sites held a Chagas disease prevention program for employees and members of the community, educating roughly 450 people on ways to protect against the disease. We also hosted a general health orientation for the community that reached more than 1,000 individuals.*

- United States: *Our employees participated in multiple charitable walks and bike rides to promote awareness and research for health issues including juvenile diabetes, breast cancer, heart disease and multiple sclerosis (MS). In 2014, the Monsanto Mavericks participated in Bike MS for the 13th consecutive year. The team raised nearly $50,000 for services to benefit those affected by MS.*

Community Safety

Monsanto's Off-the-Job Safety (OTJ Safety) efforts reached over 1 million people globally in fiscal year 2014. This includes OTJ Safety site and community outreach events impacting employees, families, communities and customers. For example, our multiyear global

Home Emergency Preparedness Initiative provides important resources to help employees also remain safe away from work. In 2014 (October-November), the focus of this program was Home Fire Safety in North America. We provided over 15,000 fire extinguishers to employees for their homes and provided hands-on fire extinguisher training. Other examples include:

- Chile: *With a rise in carbon monoxide related deaths in Chilean households over the past five years, we implemented a regional awareness campaign to educate local families about carbon monoxide risks from hot water gas boilers and kerosene heaters. The initiative reached more than 300 employees and community members.*
- United States: *In Soda Springs, Idaho, our employees performed seat belt safety checks at five area high schools, reaching more than 950 students. The program is already driving quantifiable behavior change. Since implementing the checks, seat belt usage at Soda Springs High School has increased 16 percent.*
- India: *We successfully organized a two-wheeler motorized vehicle safety awareness workshop including helmet demonstrations at the University of Agricultural Sciences, Dharwad. The four-day initiative educated more than 100,000 farmers on the importance of vehicle safety.*

Helping Farmers Grow Safely

Farming can be a risky business. In fact, agriculture ranks among the most hazardous industries, with farmers at high risk for fatal and nonfatal on-the-job injuries. In 2014, we developed Growing Safely, a video series focused on promoting safety in agriculture. The initiative highlighted seven safety risk topics – tractor operations, grain auger operations, rural road travel, sun affecting vision, all-terrain-vehicle (ATV) operations, towing and backing trailers, and grain bin safety. The Growing Safely videos are hosted on our Off-the-Job-Safety YouTube channel for employees and external audiences to share. They've collectively received more than 9,000 views. Feedback to the video series has been overwhelmingly positive, and we plan to continue the program in 2015.

Investing in Causes that Matter: The Monsanto Fund

As the philanthropic arm of the company, the Monsanto Fund, a U.S.-based 501(c)(3) nonprofit organization funded by Monsanto, seeks to substantially and meaningfully improve lives by providing sustainable assistance to both farming communities and the

communities where we live and work globally. Since needs vary in different parts of the world, we collaborate with communities and their partners to prioritize critical issues and appropriate solutions. This strategy allows us to strengthen our community relationships and increase local ownership in projects to drive impact.

Some examples of Monsanto Fund projects include:

- Community Gardening: *In Petrolina, Brazil, nearly half of residents live in poverty, and many suffer from hunger. But thanks to more than $100,000 in grants from the Monsanto Fund, INMED Partnerships for Children has established a new community garden to help families improve nutrition and reduce food expenditures. Nearly 1,000 people are estimated to benefit from the project.*
- School Nutrition in India: *Nutritional deficiencies are commonplace in Jaipur, India. To combat this, the Akshaya Patra Foundation created a kitchen garden made possible by a grant from the Monsanto Fund. The hot, cooked school meals prepared through the program are filled with freshly grown vegetables and feed more than 150,000 children daily. For some, it is their only meal of the day. So far, around 400 farmers from neighboring villages are directly involved in the project.*
- Seedbed of the Future: *In rural Argentina, access to higher education is extremely limited. With little opportunity at home, many rural young people flee to the cities but their lack of education and vocational training leaves them unqualified for good-paying jobs. The Monsanto Fund is helping to stem this cycle of poverty by funding Seedbed of the Future, which in turn supports projects that help young people find viable work in their own rural communities. In 16 Argentine provinces alone, Seedbed of the Future has helped more than 48,000 individuals through its programs.*

SERIOUS ABOUT SERVICE: EMPLOYEE VOLUNTEERISM AT MONSANTO

From our CEO to our newest hires, Monsanto employees regularly roll up their sleeves to make a difference in the communities where we operate. As a company, we work to strengthen our employees' charitable efforts through programs that encourage and magnify the benefits of their hard work.

United in Service: Monsanto Together Volunteer Program

In 2010, we launched the Monsanto Together Volunteer Program in the Americas, which not only encourages our employees to volunteer for causes that matter to them, but also rewards them for their time and effort through service grants that support the organizations that 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 fiscal year 2014, 5,231 employees volunteered more than 100,000 hours across the many countries in the Americas. Their efforts resulted in $450,000 in service grants being provided to 455 different nonprofit organizations. Since its launch, the Monsanto Together Volunteer Program has recorded more than 280,000 volunteer hours and gifted more than $1.5 million in service grants.

In 2015, we plan to expand the Monsanto Together Volunteer Program globally to all of our regular full-time employees. The 2015 global launch will be accompanied by a newly designed website available in five different languages, as well as a simplified service grant-vetting process for international nonprofits.

Volunteering Around the World

Our commitment to volunteerism is alive in communities around the world. From food education programs to major renovation projects, employees across our global operations are getting their hands dirty in projects making a real impact in the lives of those in need.

- Argentina: *In Buenos Aires, a group of 140 Monsanto volunteers joined forces with local suppliers to update the city's fire department headquarters and a local retirement home. The volunteers helped paint walls, repair garden benches, install crash barriers, create space for bicycle parking and assist with landscaping to improve the functionality of both institutions.*
- Brazil: *Nearly 80 employees celebrated Children's Day, volunteering at Casa do Zezinho, a nongovernmental organization that helps at-risk youth achieve their full potential. Employees divided into teams to assist in the coordination of entertainment, games and workshops for more than 1,500 children over the course of 10 days.*
- India: *Employees and their families from Monsanto's cotton seed production facility in Nandyal celebrated World Environment Day by organizing the "5K Go Green Walk." The event aimed to raise awareness of environmental conservation and efforts to make the town more sustainable through the planting of trees during monsoon season. More than 2,000 people in the community participated, and the event received extensive publicity helping to spread the word about the importance of protecting the environment.*
- Mexico: *The collective volunteer efforts of employees allowed the team in Los Mochis to earn $2,000 through the Monsanto Together Volunteer Program. Employees participated in a range of volunteer activities, from visiting the elderly to restoring public spaces, in order to raise funds for Organization Pro Education of Ahome, a nongovernmental organization that addresses critical education issues in the community. The $2,000 contribution will be used to assist with daily operation costs and support the organization's educational and parent formation programs.*
- United States: *America's farmers are among the most productive and efficient in the world. Still, 3 million rural households struggle to put enough food on their tables. In 2014, 80 percent of our U.S. production and manufacturing sites partnered with local food banks and hunger relief organizations as part of Monsanto's third annual Rural Hunger Volunteer Campaign. In total, more than 1,000 Monsanto employees across 27 states logged nearly 3,200 hours of volunteer service to address hunger in their local community.*

THE PEOPLE OF MONSANTO

Bringing together diverse perspectives to the table is the most effective way to develop creative solutions that tackle some of the world's biggest challenges. To ensure the success of our employees, we invest in world-class resources, training and development, embrace their diversity and protect their well-being.

Employee Development

As we continue to evolve our business and help build a sustainable food system, it's more important than ever that our employees feel challenged by and well rewarded for their work. Each year, we invest in efforts to develop our employees and help them achieve their professional goals. It's part of our culture of continuous improvement and helps ensure that our next generation of leaders are prepared to guide our business for years to come.

Paving the Way for the Future: Monsanto's Leadership Exchange Program

We've built a comprehensive approach that empowers our employees to accelerate their professional development and help the company identify and nurture strong leadership candidates. This includes the Monsanto Leadership Exchange Program, a targeted training designed for individuals at three key career milestones:

- **Global Leadership Exchange:** *Created for leaders who manage other leaders within Monsanto and have demonstrated high levels of potential and performance. This six-month program gives*

participants an opportunity to engage in dialogue with executive team members about Monsanto's global businesses, expand their skills in business planning processes and strategy, and enhance their capabilities as senior leaders. In 2014, 37 employees participated in the Global Leadership Exchange.

- Regional Leadership Exchange: *Developed for leaders of projects or teams who already hold a formal leadership role within Monsanto and have demonstrated high levels of potential and performance. This six-month program empowers participants to discuss challenges and opportunities facing Monsanto's businesses within their region, expand their business acumen and improve their ability to influence and lead effectively. In 2014, 145 employees participated in the Regional Leadership Exchange.*
- Local Leadership Exchange: *Designed for future leaders who are typically early in their career but have already shown high levels of leadership potential. This nine-month program allows participants to gain a deeper understanding of Monsanto's businesses, hone their critical and strategic thinking skills, and understand Monsanto's expectations of leaders. The program also gives young leaders an opportunity to network with their peers and senior leadership. In 2014, 118 employees participated in the Local Leadership Exchange.*

Leadership Exchange Spotlight: Kelly, Plant Scientist

Kelly joined Monsanto as a researcher in 2011. With her exceptional talent and a passion to lead others, Kelly was nominated to participate in the Local Leadership Exchange in 2014. Through the program, Kelly learned how to apply different leadership styles, foster creativity and develop co-workers.

Shortly before completing the program, Kelly earned her first leadership position at Monsanto. Now she oversees a team of researchers dedicated to helping farmers experience better harvests while using resources more efficiently. In her management role, Kelly credits the Local Leadership Exchange with helping her succeed.

"It's been critical," Kelly said. "It's made me more self-aware in how I show up as a leader and given me a language to talk about different leadership styles with my mentors."

People Leader Learning Series

The best ideas come from collaboration and teamwork. As part of our efforts to help employees bring out the best in each other, we created the People Leader Learning Series (PLLS) – a classroom training program

that focuses on enabling and further developing leadership skills critical for managers at Monsanto.

The program is designed to foster a high degree of interaction among participants, allowing for a lively exchange of best practices and discussion of practical applications. We feel so strongly about PLLS that all people managers are highly encouraged to complete this training program.

Content for the series includes individual one- to two-day modules, each on:

- *The role of leadership*
- *Selecting talent*
- *Goal setting*
- *Understanding how to motivate and develop others*
- *Assessing performance*
- *Understanding employment laws*
- *Building intercultural competency*

Business Forum Functional Training

Monsanto has partnered with the Olin Business School at Washington University in St. Louis to deliver a series of hands-on classroom training sessions to prepare employees for the next step in their career.

Designed to cover both fundamental management theories and practical business case studies, the Business Forum Functional Training offers four tracks focused on critical areas of management: product, strategic, supply chain and finance. These week-long modules also equip employees with expertise for their current role and provide exposure to another critical business area.

Improving Opportunities for Women: Monsanto's Apprenticeship Program

Many of our sites require the use of increasingly sophisticated equipment resulting in specialized work requirements for employees. Monsanto is committed to ensuring that a diverse population has the skills and training needed for these positions.

In 2013, we launched the Monsanto Apprenticeship Program at our Soda Springs, Idaho, mining facility to promote skilled labor opportunities, primarily for women. 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. Since the launch of the program, we have engaged eight female apprentices, six of whom are either still in the program or have been hired full time. In 2015, we expect to bring on six additional apprentices who would complete the program by May 2016.

Educating and Empowering Seasonal and Contract Workers

Learning the Basics. We work to provide best-in-class working conditions for seasonal workers around the world, often going beyond local legal requirements to accommodate their needs. Our site in Buenos Aires Province is a prime example. After recognizing a need for learning opportunities among seasonal workers, we piloted an adult education program that was transformative for participants. The program included three courses:

- Complementary Studies *(training in reading, writing, addition and subtraction)*
- Productive Projects *(management tools for developing family businesses in hometowns)*
- Course for Cooks *(training in nutrition and health, based on food available in hometowns)*

In the first year, 85 workers took advantage of the courses – decisions that changed their lives.

"I am very proud, because since my children have completed primary school education, I had to always ask for their help," said one worker, who took the Complementary Studies course. "Maybe now I can manage alone."

Protecting Worker Well-being. Monsanto improved living conditions for migrant laborers in our Western Argentina Vegetable business, setting up four modern, comfortable camps to house more than 350 seasonal workers. The team ensured that Monsanto facilities provided both protective gear and weekly doctor visits – features not common to the area. In a region noted for a lack of available labor, these moves helped secure quality workers and improved productivity, while setting a good example for the larger harvesting industry.

We also expanded the North American Seasonal Nurse Program to advance the health of our seasonal workers at plant breeding sites across the continent. Through the program, nurses provide workers with nursing care and education on preventative health measures, such as steps to reduce heat-related illnesses. The project has expanded from nine sites in 2008 to 28 in 2014. The success of this program was recognized in 2014 as a Sustainable Yield Pledge Award finalist.

Our People: By the Numbers

FISCAL YEAR 2014

The total workforce broken down by employees and supervised workers.

Employees	22,401
Supervised Workers	0
TOTAL	**22,401**

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.

The total number of permanent employees broken down by employment type.

Full Time	21,960
Part Time	441
TOTAL	**22,401**

Total workforce by region.

Asia Pacific	852
Brazil	2,771
Canada	305
China	111
EMEA	3,956
India	976
Latin America North	1,172
Latin America South	1,416
United States	10,842
TOTAL	**22,401**

New hires during reporting period.

Full Time	2,495
Part Time	4
TOTAL	**2,499**

New hires during reporting period, by gender.

Female	838
Male	1,661
TOTAL	**2,499**

Rate of new hires during reporting period, by gender.

Female	3.74%
Male	7.41%
OVERALL	**11.16%**

New hires during reporting period, by age group.

Under 30	1,171
30-50	1,201
Over 50	127
TOTAL	**2,499**

Rate of new hires during reporting period, by age group.

Under 30	5.23%
30-50	5.36%
Over 50	0.57%
OVERALL	**11.16%**

New hires during reporting period, by region.

Asia Pacific	122
Brazil	540
Canada	72
China	1
EMEA	366
India	111
Latin America North	97
Latin America South	145
United States	1,045
TOTAL	**2,499**

Rate of new hires during reporting period, by region.

Asia Pacific	0.54%
Brazil	2.41%
Canada	0.32%
China	0.00%
EMEA	1.63%
India	0.50%
Latin America North	0.43%
Latin America South	0.65%
United States	4.66%
OVERALL	**11.16%**

Number of employees leaving employment during the reporting period, by gender.

Female	565
Male	1,381
TOTAL	**1,946**

Rate of employees leaving employment during the reporting period, by gender.

Female	2.52%
Male	6.16%
OVERALL	**8.69%**

Number of employees leaving employment during the reporting period, by age group.

Under 30	429
30-50	1,091
Over 50	426
TOTAL	**1,946**

Rate of employees leaving employment during the reporting period, by age group.

Under 30	1.92%
30-50	4.87%
Over 50	1.90%
OVERALL	**8.69%**

Number of employees leaving employment during the reporting period, by region.

Asia Pacific	89
Brazil	330
Canada	21
China	120
EMEA	238
India	140
Latin America North	132
Latin America South	160
United States	716
TOTAL	**1,946**

Rate of employees leaving employment during the reporting period, by region.

Asia Pacific	0.40%
Brazil	1.47%
Canada	0.09%
China	0.54%
EMEA	1.06%
India	0.62%
Latin America North	0.59%
Latin America South	0.71%
United States	3.20%
OVERALL	**8.68%**

Percentage of employees, by gender.

Female	31.54%
Male	68.46%
TOTAL	**100.00%**

*Percentage of employees in minority groups.**

	23.43%

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

Percentage of employees, by age group.

Under 30	16.18%
30-50	62.02%
Over 50	21.80%
TOTAL	**100.00%**

Percentage of individuals on board of directors, by gender.

% By Total Leaders	
Female	23%
Male	77%
TOTAL	**100.00%**

*Percentage of individuals on board of directors in minority groups.**

% By Total Leaders	
TOTAL	**15.79%**

**Excludes Caucasian males and Caucasian females.*

Percentage of individuals on board of directors by age group.

30-50	30%
Over 50	70%
TOTAL	**100.00%**

Employee Health, Wellness and Safety

We strive to promote a culture of balance, where employees not only contribute to meaningful work but also enjoy healthy, well-rounded lives. The safety and health of our employees has always been a core value of our culture. We manage our business in a way that our employees are educated to make better choices at work, on the road or at home with their families. That's why we've invested in a number of world-class health, wellness and safety programs.

Putting Safety First

At Monsanto, working to ensure the safety of our employees and contract workers is a part of our everyday culture. Our employees at all our sites globally are actively engaged in safety and health. Where we have a formal occupational health and safety council, our employees are represented and participate in creative problem solving to further reduce the risk of injuries on the job. In addition, they take what they learn about safety and health at work home to their families and neighbors so that the community benefits as well.

Employee-led councils are responsible for the various elements of the site's safety programs, which increases engagement and ownership in the safety process. All of our sites are governed under our environment, safety and health (ESH) policies, of which a basic underlying principle is that employees will be actively involved or represented within the site's ESH councils or committees.

Additionally, we have programs and policies in place to enhance safety leadership and ownership and to provide recognition for outstanding safety performance.

Annual Safety Pause. All of our locations participate in Monsanto's Annual Safety Pause, which gathers employees and leadership together at a designated time to discuss safety-related topics relevant to their particular site. Each site is provided with a presentation document, facilitator guide and employee workbook as part of the program. Site leaders review with the group and engage employees in conversations about how the information relates to their work and off-the-job environments. These events help employees get into the habit of having conversations about safety and provide a forum for sharing personal safety stories.

Vehicle Safety. Our employees drive more than 192 million miles annually. Monsanto takes a proactive approach to help them improve their safety, both on the job and off the job. Globally, we have well-developed vehicle safety programs and training to keep employees — both drivers of company and non-company vehicles — informed on a variety of safety topics such as defensive driving, controlling driving speed, preventing rollover accidents, seat-belt usage, texting and driving dangers, and drowsy driving.

We have also adopted driver feedback technology, which has demonstrated a significant impact on our employees' driver safety performance. We extend our vehicle safety messages to communities through outreach and our Monsanto Off-the-Job Safety YouTube Channel.

Monsanto Star Program. Since the early 1990s, we have recognized outstanding safety and health performance at our sites with the Monsanto Star designation. In order to be considered for a Monsanto Star rating the location must meet the following criteria:

- *Demonstrate that a third-party auditor has confirmed that the site's safety and health programs are solid and robust.*
- *Successfully address any outstanding safety and health issues that may have been identified through the third-party audit.*
- *Have a Total Recordable Injury/Illness Rate that is less than half of the industry average.*
- *Successfully complete a corporate Environmental, Safety, Health, and Occupational Medicine audit in which programs are reviewed, facilities are inspected and employees are interviewed.*

Once a given site has demonstrated that it meets these criteria, a Monsanto Star Committee votes to approve the designation. Monsanto currently has over 140 Monsanto Star sites out of more than 400 sites and continues to add new sites each year.

Global Safety and Ethics Awards. Monsanto's Global Safety and Ethics Awards annually recognize the top safety projects developed and implemented throughout the year. In 2014, there were more than 100 location and project award applications submitted from around the world. Typically there are 15 sites and 10 projects awarded this recognition each year.

Third-party Safety Recognition. In 2014, our safety performance was recognized by key third parties around the world. Some examples include:

Costa Rica

- Vehicle Safety Program Award: *Our Cañas cotton breeding site was recognized by the*

National Insurance Institution on behalf of the Costa Rican government for the best car accident prevention program.

- Incident Prevention Management Award - Agriculture: *Our Cañas cotton breeding site also won this recognition from the Costa Rican government for its voluntary participation and commitment to employee vehicle safety.*

India

- Kaizen Award: *Our Hyderabad seed production site won first prize in a national competition for its ergonomics program from the Confederation of Indian Industry, a premier industry-managed organization with over 100,000 enterprise members.*

Malaysia

- CCIM Responsible Care Awards: *Our crop protection site in Pasir Gudang received the gold award for employee health and safety and silver awards for pollution prevention and process safety. Given by the Chemical Industries Council of Malaysia (CCIM), this award recognizes outstanding efforts to improve environmental, health and safety performance.*
- Occupational Safety and Health Gold Class Award: *Our Pasir Gudang site was also recognized for its continued effort, discipline and commitment by all employees to ensure that safety requirements and systems are implemented in an orderly manner.*

Mexico

- Maximum Excellence in Safety and Occupational Medicine Award: *Our Nextipac row crops site received this award from the Secretaria del Trabajo y Prevision Social, a Mexican federal labor agency, for demonstrating outstanding results in legal compliance for safety, occupational medicine standards and safety and health management systems.*

Safety and Health Data

Safety and health 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) guidance:

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

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

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

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

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.

EMPLOYEES AND SUPERVISED CONTRACTORS — FISCAL YEAR 2014 (CONTRACT WORKERS SUPERVISED BY MONSANTO EMPLOYEES)

BY REGION/ ILLNESS/INJURY/GENDER	INJURY RATE (IR)	OCC DISEASE RATE (ODR)	LOST DAYS RATE (LDR)	INJURY & OCC DISEASE RATE (TOTAL RECORDABLE RATE [TRR])
Asia Pacific *(China/Taiwan, India, Asia Pacific)*	**0.30**	**0.00**	**0.60**	**0.00**
Recordable Illness (ODR)	**0.00**	**0.00**	**0.00**	**0.00**
Female	0.00	0.00	0.00	0.00
Male	0.00	0.00	0.00	0.00
Recordable Injury (IR)	**0.30**	**0.00**	**0.60**	**0.30**
Female	0.32	0.00	0.32	0.32
Male	0.29	0.00	0.70	0.29
EMEA *(Europe, Middle East, Africa)*	**0.45**	**0.03**	**4.48**	**0.48**
Recordable Illness (ODR)	**0.00**	**0.03**	**0.33**	**0.03**
Female	0.00	0.00	0.00	0.00
Male	0.00	0.04	0.49	0.04
Recordable Injury (IR)	**0.45**	**0.00**	**4.15**	**0.45**
Female	0.66	0.00	4.06	0.66
Male	0.34	0.00	4.20	0.34
Latin America North	**0.17**	**0.00**	**1.48**	**0.17**
Recordable Illness (ODR)	**0.00**	**0.00**	**0.00**	**0.00**
Female	0.00	0.00	0.00	0.00
Male	0.00	0.00	0.00	0.00
Recordable Injury (IR)	**0.17**	**0.00**	**1.48**	**0.17**
Female	0.00	0.00	0.00	0.00
Male	0.26	0.00	2.20	0.26

EMPLOYEES AND SUPERVISED CONTRACTORS (CONTRACT WORKERS SUPERVISED BY MONSANTO EMPLOYEES)

BY REGION/ ILLNESS/INJURY/GENDER	INJURY RATE (IR)	OCC DISEASE RATE (ODR)	LOST DAYS RATE (LDR)	INJURY & OCC DISEASE RATE (TOTAL RECORDABLE RATE [TRR])
Latin America South	**0.32**	**0.00**	**7.96**	**0.32**
Recordable Illness (ODR)	**0.00**	**0.00**	**0.00**	**0.00**
Female	0.00	0.00	0.00	0.00
Male	0.00	0.00	0.00	0.00
Recordable Injury (IR)	**0.32**	**0.00**	**7.96**	**0.32**
Female	0.25	0.00	9.81	0.25
Male	0.35	0.00	7.20	0.35
North America (Canada, Puerto Rico, United States)	**0.80**	**0.11**	**10.19**	**0.91**
Recordable Illness (ODR)	**0.00**	**0.11**	**0.43**	**0.11**
Female	0.00	0.28	1.34	0.28
Male	0.00	0.04	0.00	0.04
Recordable Injury (IR)	**0.80**	**0.00**	**9.76**	**0.80**
Female	1.00	0.00	9.11	1.00
Male	0.70	0.00	10.07	0.70
TOTAL	**0.57**	**0.06**	**7.70**	**0.63**

CONTRACTORS NOT SUPERVISED — FISCAL YEAR 2014 BY MONSANTO EMPLOYEES

BY REGION/ ILLNESS/INJURY/GENDER	INJURY RATE (IR)	OCC DISEASE RATE (ODR)	LOST DAYS RATE (LDR)	INJURY & OCC DISEASE RATE (TOTAL RECORDABLE RATE [TRR])
Asia Pacific *(China/Taiwan, India, Asia Pacific)*	**0.24**	**0.00**	**1.59**	**0.24**
Recordable Illness (ODR)	**0.00**	**0.00**	**0.00**	**0.00**
Female	0.00	0.00	0.00	0.00
Male	0.00	0.00	0.00	0.00
Recordable Injury (IR)	**0.24**	**0.00**	**1.59**	**0.24**
Female	0.41	0.00	0.97	0.41
Male	0.19	0.00	1.80	0.19
EMEA *(Europe, Middle East, Africa)*	**0.90**	**0.00**	**8.67**	**0.90**
Recordable Illness (ODR)	**0.00**	**0.00**	**0.00**	**0.00**
Female	0.00	0.00	0.00	0.00
Male	0.00	0.00	0.00	0.00
Recordable Injury (IR)	**0.90**	**0.00**	**8.67**	**0.90**
Female	0.98	0.00	15.54	0.98
Male	0.87	0.00	6.16	0.87
Latin America North	**0.16**	**0.02**	**1.26**	**0.18**
Recordable Illness (ODR)	**0.00**	**0.02**	**0.04**	**0.02**
Female	0.00	0.00	0.00	0.00
Male	0.00	0.03	0.05	0.03
Recordable Injury (IR)	**0.16**	**0.00**	**1.23**	**0.16**
Female	0.28	0.00	2.71	0.28
Male	0.11	0.00	0.53	0.11

CONTRACTORS NOT SUPERVISED BY MONSANTO EMPLOYEES

BY REGION/ ILLNESS/INJURY/GENDER	INJURY RATE (IR)	OCC DISEASE RATE (ODR)	LOST DAYS RATE (LDR)	INJURY & OCC DISEASE RATE (TOTAL RECORDABLE RATE [TRR])
Latin America South	**0.41**	**0.32**	**7.58**	**0.72**
Recordable Illness (ODR)	**0.00**	**0.32**	**0.58**	**0.32**
Female	0.00	2.90	5.03	2.90
Male	0.00	0.13	0.25	0.13
Recordable Injury (IR)	**0.41**	**0.00**	**7.00**	**0.41**
Female	1.74	0.00	27.10	1.74
Male	0.31	0.00	5.54	0.31
North America *(Canada, Puerto Rico, United States)*	**0.79**	**0.00**	**8.91**	**0.79**
Recordable Illness (ODR)	**0.00**	**0.00**	**0.00**	**0.00**
Female	0.00	0.00	0.00	0.00
Male	0.00	0.00	0.00	0.00
Recordable Injury (IR)	**0.79**	**0.00**	**8.91**	**0.79**
Female	1.12	0.00	0.67	1.12
Male	0.55	0.00	8.10	0.55
TOTAL	**0.41**	**0.11**	**5.06**	**0.52**

Rewarding Great Work

At Monsanto, we have a global philosophy of providing competitive rewards and benefits that maximize performance and attract and retain the best talent around the world. We strive for simplicity and commonality in our approach so employees can understand the links between performance and pay. Our total compensation package for regular full-time employees includes:

- **Market-competitive base and equal pay for all** *recognizing skills, experience and role responsibilities. Base pay increases as market rates increase and if the scope and responsibilities of the role increase. We perform regular reviews of base pay to ensure continued competitiveness across the globe.*
- **Performance-based annual cash awards** *recognizing the achievement of team and individual goals. Through our Development, Performance and Rewards (DPR) process, employees set clear goals, receive ongoing feedback and are rewarded for the results they deliver. The annual DPR process firmly establishes a link between development, performance and rewards through the annual cash incentive.*

We also seek to give our employees a sense of ownership in the company and a chance to share in the rewards of our success. As a result, all regular full-time and part-time management-level employees are eligible for long-term incentives, such as restricted stock and stock options.

Monsanto also provides regular full-time and part-time employees with additional benefits that help attract and retain employees. These benefits are tailored to specific regions. For example in the United States we provide:

- **Paid Parental Leave** – *Mothers and fathers of newborns or adopted children under the age of 18 may receive up to seven business days of paid parental leave that may be taken consecutively or individually as needed within 12 months of the birth or adoption. Paid parental leave is in addition to disability leave if the mother is a Monsanto employee who gives birth to a child.*
- **Adoption Assistance Program** – *Adopting a child is a life-changing decision that is filled with both great anticipation and uncertainty. Our employees, including new hires, are eligible to receive up to $7,500 toward adoption costs. Monsanto's newly launched Family Network adoption group focuses on educating and supporting employees as they*

go through the process of adopting a child. In 2014, Monsanto was named to the Dave Thomas Foundation for Adoption® 100 Best Adoption-Friendly Workplaces in the United States.

- Fertility Benefit – *From day one of employment, all employees are covered to receive fertility treatments through Monsanto's medical plan. We pay for unlimited artificial inseminations and two infertility treatment procedures per person. Employees can also receive up to $5,000 to pay for prescription drugs for infertility treatments.*
- WealthGard Financial Planning Program – *Through this program, employees have free, unlimited access to third-party financial planning and education professionals as well as financial planning tools and financial education workshops. The entire cost of the program is paid by Monsanto.*

Embracing the Power of Diversity & Inclusion

Honoring and embracing diversity drives broad employee engagement and business success. At Monsanto, we define diversity as the collective makeup of who we are, including age, beliefs, culture, ethnicity, education, gender, gender identity and expression, sexual orientation, disability, race, work style and more. Our efforts foster an environment of openness and inclusion.

Business Resource Networks

A key example of our culture of inclusion is the Business Resource Networks (BRNs) we support. These are employee-led groups that enhance and diversify our company through initiatives focused on careers, customers, culture and community at Monsanto. As of 2014, we have expanded the nine main networks to create 21 local BRN chapters across 13 locations. Membership has grown 58 percent in the past two years. In fact, approximately 15 percent of our global employee base is a member of one of these employee-led groups. In 2014, our BRNs included:

- Access: *Supports employees, their family members and our customers with visible and non-obvious disabilities through awareness, facility access consultation and resources.*
- African-Americans in Monsanto: *Focuses on sustaining an inclusive environment that enables African-Americans to be successful while adding value to our company and communities.*

- Encompass: *Provides an environment of learning, sharing and communication for Monsanto's gay, lesbian, bisexual and transgendered employees.*
- The Family Network: *Helps employees balance their work contributions with family responsibilities at home through programs, groups and connections to those with similar circumstances.*
- Monsanto Asian Connection: *Provides an Asian employee lens to our multicultural business while fostering leadership growth through career development and community outreach.*
- Monsanto Latin Network: *Enhances the Monsanto experience by creating development opportunities, fostering leadership, leveraging and raising the awareness of Latin diversity and creating a sense of community.*
- VanGuard: *Focuses on bringing together Monsanto employees who supported their country or state through military service.*
- St. Louis Women's Network: *Seeks to further the professional development of women, foster leadership growth and create a sense of community to enhance success at Monsanto. Beyond St. Louis, chapters of this BRN have started in Brazil, Central America, China, India, Indonesia, Netherlands, Pakistan and Vietnam.*

Awards and Recognition

Our work to promote an inclusive work environment and be a best-in-class employer has been widely honored in 2014 with the following recognitions:

- DiversityInc Top 50 Companies for Diversity: *Monsanto was recognized as one of the DiversityInc Top 50 Companies for Diversity for the seventh consecutive year, ranking 46 on the list out of almost 1,300 companies that applied for the recognition. Monsanto was acknowledged for its strong leadership support for diversity, robust talent-development initiatives and a deep commitment to community philanthropy.*
- Glassdoor Employees' Choice Award: *Recognizing the 50 Best Places to Work in 2015, Monsanto ranked 39 on the list and was the only company focused on agriculture to be included.*
- World's Best Multinational Workplaces: *Awarded by the Great Place To Work Institute, Monsanto was named eighth among the World's Best Multinational Workplaces in 2014.*
- Corporate Equality Index: *Monsanto earned a perfect score of 100 percent through a national workplace equality benchmarking survey administered by the Human Rights Campaign Foundation.*

- Young Professionals Network: *Provides young professionals and early career talent with opportunities to connect with peers and management, explore Monsanto's global business, gain leadership experience and give back to the community through agriculture-related service projects.*
- IamMonsanto (Iam) Networks: *Where no critical mass of a particular demographic exists in certain sites, these business resource networks channel the impact of each of the above networks through representatives via a site-based network that represents all groups in one. IamMonsanto chapters exist at Luling, La.; Research Triangle Park, N.C.; and a combined group across both our Oxnard and Woodland, Calif., locations.*

Service is a major component of our Business Resource Networks. All are led by employee volunteers, and many members participate in service events that support their group's mission. In 2014, our executive leadership hosted a Business Resource Network recognition event to honor the efforts of employees who went above and beyond to advance diversity and service within Monsanto. More than 60 committed BRN leaders were recognized for their network leadership and project contributions.

Business Resource Network Spotlight: VanGuard

After decades of war, Afghanistan's agricultural base had been largely destroyed, with many farmers turning to illegal crops to support their families. To help Afghan farmers better develop an improved agricultural system for legal crops, the U.S. National Guard Agricultural Development Teams (ADT) deployed to the country.

Monsanto's VanGuard Network, consisting mostly of veterans and National Guardsmen, worked with the ADT to help teams stationed in Afghanistan promote sustainable agriculture. However, efforts to revitalize Afghanistan's farming community slowed when ADT's platoon was attacked by the Taliban, destroying the barracks and all of the supplies of the team. Monsanto's VanGuard Network quickly mobilized for action, collecting donations from Monsanto employees to resupply the platoon with items lost in the attack. Within three weeks, the VanGuard Network packed and shipped nearly 50 boxes of donated items to the ADT.

Management Advisory Committee (MAC) Diversity & Inclusion Council

Our mission to make diversity a priority starts at the top. In 2007, we formed the MAC Diversity & Inclusion Council. MAC represents our top leaders across the globe. A cross-functional subset of these top leaders, 22 in total, form our Diversity & Inclusion Council. To ensure that we attract, develop and retain a diverse workforce and leverage best practices regarding supplier diversity, the MAC Diversity & Inclusion Council is charged with providing strategic direction around diversity and inclusion in a way that promotes innovation, builds trust and maintains our competitive advantage.

In 2014, CEO Hugh Grant became the MAC Diversity & Inclusion Council sponsor. Under his leadership, the Council has commissioned a new sponsorship initiative, a more integrated Business Resource Network strategy and a communications strategy to build awareness of diversity and drive inclusion throughout the organization.

Monsanto's Diversity & Inclusion Council Charter encompasses five focus areas:

1. *Provide strategic direction, oversight and leadership*
2. *Integrate our diversity and inclusion strategy with overall business priorities*
3. *Ensure diverse representation in priorities, discussions and decisions*
4. *Use metrics to measure our progress*
5. *Provide consistent, integrated messaging at all levels*

FORGING THE WAY IN HUMAN RIGHTS

Respecting and protecting the dignity of every worker is a long-held commitment of Monsanto. To this end, we have practices in place to ensure that the fundamental human rights of workers are upheld. In 2014, we strengthened our commitment with new programs and enhancements to improve working conditions throughout the world and facilitate open communication with our workers.

Our Human Rights Policy

In 2006, we formalized our commitment to human rights with the establishment of our Human Rights Policy, which is grounded in international labor standards and applies to our sites and business partners who provide manual labor for field trials and the production of seeds. The Policy focuses on nine key areas: child labor, forced labor, compensation, working hours, harassment and violence, discrimination, safety, freedom of association and legal compliance.

In some cases, our Policy goes beyond what is required by law or what is customary in a region of the world. The United Nations' Universal Declaration of Human Rights and the International Labor Organization's Fundamental Principles and Rights at Work are widely recognized international standards on which our Policy is based.

To familiarize new employees with our Policy, in 2014 we again required all new Monsanto employees to complete a computer-based training module providing a basic overview of all the elements of Monsanto's Human Rights Policy, with examples of violations. We also introduced a

more in-depth computer-based training targeted at field labor supervisors, their managers and human resource generalists. This training focused on four Policy elements where field laborers may be particularly vulnerable to abuses: working hours, compensation, discrimination and harassment and violence. Participants learned how to identify potential issues early and implement appropriate solutions should an issue arise. More than 4,200 individuals participated, representing a 99.9 percent completion rate. Including the new hire training, this represents 4,315 hours of human rights training completed by Monsanto employees in 2014.

To safeguard our sites and our workers, we employ security professionals around the world. All of our security employees and individual security contractors have been trained on our Human Rights Policy. In some world areas, we may also contract with security companies. In 2014, our Human Rights Champions *(see Page 122)* began providing training to groups of employees from these companies, reaching more than 400 security officers.

We also host special events to refresh workers' awareness and understanding of our Policy and emphasize the role each individual plays in advancing human rights throughout our organization and beyond. In 2014, we conducted human rights awareness events at 192 technology sites and 85 seed manufacturing sites, training almost 20,000 employees and seasonal workers in our operations.

Human Rights: From Farm to Fashion

We believe the full realization of human rights starts with awareness. In November 2014, we co-sponsored *From Farm to Fashion*, a community forum in our global headquarters city of St. Louis with six area universities to explore human rights issues in the various steps of cotton's journey from seed to a retail clothing store.

More than a dozen prominent experts from business, academia and NGOs shared their insights into human rights challenges facing the production of cotton and its use in the fashion apparel industry, providing attendees a window into a world the public rarely sees.

The speakers covered a range of human rights issues, including child labor, wages, worker safety, human trafficking and working hours. Guests discussed best practices for addressing these issues, from audits to law enforcement to technological tracking solutions. More than 200 individuals attended, including many young leaders who will shape the future of human rights advocacy.

View the *From Farm to Fashion* video

Protecting the Dignity of Every Worker

Ensuring that our people have safe and fair working conditions is more than a priority. It's an imperative. That's why we invest in numerous programs to make certain that workers are treated with dignity and respect.

Tracking Our Progress

We strive to identify and do business with partners who share our commitment to human rights and ethical business practices. In 2014, we developed a new human rights screening profile for our suppliers to collect basic information about their employment practices and policies. The questionnaire was integrated into Monsanto's new purchasing system, which is in the process of a phased rollout around the world. Suppliers will be required to register in the system in order to be paid. With this new screening process, we will be able to identify and prioritize suppliers to receive monitoring or detailed assessments.

For the business partners with whom we contract directly, 100 percent of their contracts have a human rights clause that binds them to uphold the elements of our Human Rights Policy. In certain countries, a significant number of the partners we work with are contracted indirectly, but the party that contracts with the business partners is expected to cascade the contract language to uphold our standards.

In addition to preliminary screenings, we also conduct periodic audits of our suppliers to ensure they are acting consistently with our Human Rights Policy. In 2014, we conducted more than 11,000 assessments of business partners globally. In 2015, we will be rolling out a new management system to handle these audits and track completion of corrective actions, as necessary.

Providing Access to Clean Drinking Water, Sanitation and Hygiene Education (WASH)

In 2014, Monsanto became the first agriculture company to sign onto the WBCSD WASH Pledge reinforcing our long-standing commitment to ensuring safe drinking water and adequate sanitation for employees. As a member of the WBCSD global coalition, we also participate in its Water Leadership Working Group. As an agricultural leader, we believe we can improve lives by sharing good WASH practices within our global supply chain and encouraging others in the industry to participate in the WASH program. For more information about our WASH pledge, please visit our 2013 Spring Progress Report.

In 2014, we visited 10 of our corn seed production sites in the United States to evaluate documents and audit the payroll of our farm labor contractors who provide seasonal labor services for us. Each site received individualized recommendations based on the results of their audit, and we plan to conduct a follow-up audit in 2015.

When violations of our policy are identified, we take the appropriate corrective action. Our first choice is to work with our business partners to improve their practices to ensure compliance with our standards and advance the workers' full realization of their human rights. The successful implementation of these practices is best for the business partners, their employees and communities, and for Monsanto. Sometimes, however, business relationships need to be terminated. In 2014, we decided not to renew our contracts with five business partners in the United States and 47 in India as a result of violations of our stated policies *(see Page 124 for information on how we're working to fight human rights violations in India)*.

Championing Human Rights

Monsanto has established a network of Human Rights Champions located around the world to heighten awareness of human rights issues and resolve concerns swiftly in their respective regions. Our Champions play an integral role in efforts to provide a safe and healthy workplace as they talk with workers in the field, conduct audits, coordinate human rights initiatives and implement new solutions to create better working conditions.

Our Human Rights Champions Network is growing. In 2014 Monsanto expanded the scope of the program to include representatives from our Breeding and Biotechnology organizations, which resulted in four additional Champions, expanding the global network to 26.

Innovative Solutions, Positive Results: Human Rights Champions

My dream is that every person on the planet is treated the same way.
– Pablo, Trade and Compliance Manager, Monsanto

We continuously strive to improve communication with workers, and we leverage the passion of our Monsanto Human Rights Champions to bring innovative solutions to life. One outstanding example of this leadership in action is Pablo, Monsanto's Human Rights Champion for the Latin America South region. In 2014, Pablo led a mobile phone survey pilot program in Western Argentina designed to solicit anonymous feedback from seasonal laborers about their working and living conditions.

Pablo was instrumental in ensuring that workers felt comfortable taking the survey, and participants appreciated the opportunity to share their opinions. They also challenged Pablo and the team to make some improvements. "It was a fair challenge, and I think they'll be happy to see that we did take action," notes Pablo.

Thanks to suggestions submitted through the mobile phone survey, we have improved communications with workers regarding their compensation and made enhancements to the temporary housing we supply. We made these improvements across our entire seasonal workforce in Argentina, not just the workers covered by the pilot project. We also leveraged the mobile phone survey to evaluate changes implemented several years ago to address concerns about gender discrimination and harassment at one of our sites in Central America. The survey results confirmed that the corrective actions have resulted in a better, more respectful environment.

Protecting Human Rights in High-risk Areas

The culture for respecting the rights of workers can vary from region to region. As a result, we routinely assess the working conditions in fields supporting our business and take action to correct potential issues.

Our priorities are guided by a global risk assessment, which evaluates each country where we have field operations against the nine elements of our Human Rights Policy. In 2014, we updated our global risk assessment, which identifies high-, medium- and low-risk countries, allowing us to focus on improving conditions in areas with the greatest human rights risks.

Helping Eradicate Child Labor

The use of child labor is a systemic problem throughout India. While 14-17 year olds can be legally employed for non-hazardous work in this country, we focus on eliminating younger children working in our business partners' fields.

To help us meet this goal, we created the Child Care Program (CCP), a group that consists of NGOs and another multinational seed company, that oversees efforts to monitor our business partners' fields, remove any child laborers we find and follow through to enroll these children in school. This group meets monthly during crop seasons and suggests and implements program enhancements to educate rural villagers, monitor child labor data and provide intervention when needed.

One aspect of this intervention may be to place a child in a bridge school, which is an accelerated program, sometimes live-in, where a child can get special help to get caught up with their educational level. It is a significant barrier to get a child back in school if they are way behind their age group, which can happen if they have worked in the fields for a long time. Several bridge schools are operated by the NGOs on the CCP committee.

In 2014, our child labor monitoring program recorded only 0.3 percent child labor in our business partners' hybrid cotton seed fields in India. This amounted to 53 children in total, of which 87 percent were enrolled in school and working outside school hours – a substantial improvement compared to previous years. Similarly, in our business partners' vegetable fields in India, only one child was found working, resulting in 0.01 percent of workers observed and reported.

One of the ways 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 work.

Another way Monsanto is minimizing instances of child labor in India is through our "model village" designation, a title awarded to communities with at least 50 growers or 16 production hectares that have had no child labor observed by the CCP monitoring during the season. As an incentive to keep children in school and out of the fields, Monsanto provides in-kind donations to schools in every model village. In 2014, model village designations grew from around 30 percent of production villages in prior years to 70 percent of the eligible villages.

Mexico is another country where child labor is widespread in agricultural settings. Nearly 60 percent of our locations in Mexico were honored by the Secretaria del Trabajo y Previsión Social (STPS) department of the Mexican government in 2014 for having fields free of child labor. This was the second consecutive year that Monsanto was recognized by the Mexican government for efforts to eradicate the employment of minors.

"Despite an unfavorable environment in the industry, Monsanto has done extremely well in addressing the issue of child labor in its suppliers' farms in India. The sustained efforts of the company with the collaboration of other stakeholders has provided positive results and reduced the incidences of child labor substantially. The company has put a robust system in place through its Child Care Program to address the systemic incidences of child labor."

- Dr. Davuluri Venkateswarlu, child labor expert and Director, Glocal Research Institute, Hyderabad, India

CORPORATE GOVERNANCE

touches every aspect of our company

As a global, publicly traded company committed to effective corporate governance, our policies and processes serve as checks and balances as we set and pursue our objectives, monitor our performance and actions and make changes where needed. Through our corporate governance, rights and responsibilities are shared among the board, management, shareowners and other stakeholders, and the interest of these different groups are better aligned. ***Corporate governance indeed touches all aspects of our company.***

Commitments and Guiding Principles

- *We believe that sound corporate governance is essential to deliver strong business performance and long-term shareowner value.*
- *Our commitment to sustainability starts at the board level with oversight from our Sustainability and Corporate Responsibility Committee.*
- *Our business conduct governance structure embeds compliance ownership and accountability with employees at every level of the company in every region of the world.*
- *We are committed to the United Nations Global Compact and its ten principles within Human Rights, Labor, Environment and Anti-corruption.*

OUR COMMITMENT TO SUSTAINABILITY

is a key component of who we are. Through our Sustainability and Corporate Responsibility Committee, we're addressing critical issues and engaging with stakeholders about our progress.

David Snively,
Executive Vice President,
Secretary and General Counsel

OUR CORPORATE GOVERNANCE FRAMEWORK

Monsanto is committed to the values of effective corporate governance and high ethical standards. Our board of directors believes that these values are conducive to strong performance and creating long-term shareowner value. Our governance framework gives our highly experienced directors, 12 of 13 who are independent, the structure necessary to provide appropriate oversight to the company.

Sustainability and Corporate Responsibility Committee

Central to Monsanto's commitment to sustainability is oversight from our board of directors, particularly our Sustainability and Corporate Responsibility Committee (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, government, academia, technology and healthcare. These diverse backgrounds help ensure that the committee has a comprehensive view of the sustainability issues that impact our company, the environment, communities, customers and other key stakeholders.

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. It also receives periodic reports on our business conduct program, progress

related to our Human Rights Policy and our charitable and political contributions and lobbying expenses, including authorizing funding for contributions and appointing senior management to manage political contributions.

In 2014, the SCRC reviewed and discussed many of the topics covered throughout this report and other Monsanto sustainability communications. The committee approved this report, including the materiality assessment that informed its content. Some of the specific matters presented to and discussed by the SCRC in 2014 included water usage and risks, sustainability in our supply chain, and honey bee and monarch butterfly health and populations. The committee is also responsible for reviewing and considering such topics as biotechnology approvals and product launches, GMO labeling and the company's reputation.

For more information, see the Sustainability and Corporate Responsibility Committee charter.

Board Composition

Our board has fixed the number of directors at 13 members. Beginning with our 2014 annual meeting, we began phasing out board classes. By 2016, we will have a fully nonclassified board with annual elections of all directors.

When evaluating potential board candidates, the Nominating and Corporate Governance Committee takes into consideration the Desirable Characteristics of Directors outlined in our board charter, which includes consideration of diversity. At present, three of our 13 directors are female, two are African-American and one is from outside the United States. The committee also considers whether potential candidates will likely satisfy the independence standards for service on the board and its committees.

For more information, see our board charter, bylaws and Pages 30-31 and 98 of our 2014 proxy statement.

Board Independence

Our board charter provides that no more than two board members may be nonindependent under the independence criteria set by the New York Stock Exchange. Currently, 12 out of our 13 directors are independent. Our CEO, Hugh Grant, is the only management director.

Leadership Structure. Our board believes that its current leadership structure, in which the roles of chairman and CEO are held by one person, is best for Monsanto and its shareowners at this time. In this dual role, the chairman and CEO is able to use the in-depth focus

and perspective gained in running the company to effectively and efficiently guide our board. He works closely with our independent lead director, who is elected annually by the independent directors of our board.

The board has structured the role of our independent lead director to strike an appropriate balance to the combined chairman and CEO role and to fulfill the important requirements of independent leadership. Among other duties, the independent lead director chairs executive sessions of the independent directors to discuss certain matters without management present.

During fiscal 2014, we took the following new governance actions:

- *Added a director who is based in Brazil, a key region for our business.*
- *Refreshed our board committees by changing the membership of several committees.*
- *Adopted changes to our stock ownership requirements for directors and executive officers, including increasing ownership requirements for our CEO from five times to six times base pay in order to further incentivize long-term thinking.*

For more information about our governance structure and processes, see Pages 10-24 of our 2014 proxy statement.

Monsanto Appoints First International Director

Marcos M. Lutz was elected to the Monsanto board in 2014 and is a member of the Science and Technology and Sustainability and Corporate Responsibility Committees. Mr. Lutz brings an important international perspective to the Monsanto board. He has been the chief executive officer of Cosan S.A. Indústria e Comércio since October 2009 and also has served as the chief commercial officer of Cosan Ltd. since 2007. Cosan and its subsidiaries engage in the production and sale of sugar and ethanol worldwide, distribution of fuels and lubricants in Brazil, and operation of port and rail logistics.

Director Training and Assessment

Upon joining the board, directors are provided with an in-depth orientation about our company, including business operations, strategy and governance, and a visit to one of our facilities. New directors without previous experience as a director of a public company are expected to enroll in a director education program. We provide our directors with ongoing education opportunities

to help them remain abreast of developments in corporate governance and critical issues relating to the operation of public company boards.

The board also conducts annual self-evaluations to determine whether it and its committees are functioning effectively, and whether its governing documents continue to remain appropriate. The process is designed and overseen by the Nominating and Corporate Governance Committee, which is chaired by our lead independent director, and the results of the evaluations are discussed by the full board. Our board's self-evaluation is facilitated by a wide range of questions related to topics including operations, composition of the board, responsibilities, governing documents and resources.

Each committee, other than the Executive Committee and the Restricted Stock Grant Committee, annually reviews its own performance and assesses the adequacy of its charter, and reports the results and any recommendations to the board. For more information, see Page 18 of our 2014 proxy statement.

Board Role in Risk Oversight and Assessment

As a company focused on technology and innovation, taking risk is important to pursuing future growth for Monsanto. We also must manage our assets for the benefit of our company, our shareowners and our stakeholders.

Our board oversees management as it balances risk and reward opportunities and is responsible for motivating and challenging management to properly assess, mitigate and take risks. In fulfilling its oversight responsibilities, our board receives periodic in-depth reports on management's enterprise risk assessment process and frequent updates on management's assessment of current and future risks. When requesting approval for a project, management is responsible for fully describing the relevant risks and mitigating factors to the board. The board is then able to fully assess the project within our risk-reward parameters.

Our board oversees many risks at the board level, but allocates certain risks to its committees for a deeper review. For a summary of key risk oversight responsibilities of our board and its committees, see Page 23 of our 2014 proxy statement.

Engaging with Shareowners

We engage in dialogue with our major shareowners throughout the year about various corporate governance topics, including executive compensation and sustainability. In 2014, we proactively reached out to a significant portion of our top 150 investors and beyond. The smallest holdings in this group of investors represented voting authority for less than 0.1 percent of our outstanding shares. We encourage shareowners to contact our board, independent lead director or management team through our website or by 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, Missouri 63167

We will continue to seek opportunities for dialogue with our investors on sustainability, executive compensation and, more broadly, corporate governance. For more information, see Page 51 of our 2014 proxy statement.

Our Compensation Philosophy

Our executive compensation program is designed to attract, motivate and retain exceptional talent to drive our business objectives and strengthen long-term shareowner value. We structure our program to accomplish our key objectives by focusing on our core principles and aligning executive pay with company and individual performance.

We believe that our fiscal 2014 program successfully implements these principles and incorporates best practices in executive compensation. For more information about our compensation practices, see Pages 46-69 of our 2014 proxy statement.

CODES OF CONDUCT

Integrity, in alignment with the Monsanto Pledge, helps us earn and retain the trust of people with whom we do business. Our board adopted a Code of Business Conduct (Code) that applies equally to all employees, officers and directors of Monsanto, as well as all of our subsidiaries worldwide. Furthermore, we expect our suppliers, consultants, agents, sales representatives, distributors and independent contractors to uphold similar standards. We aspire to do business only with third parties that have a reputation for integrity. In essence, anyone representing the Monsanto name or working on our company's behalf is expected to act consistently with our Code.

For more information, see our Code of Business Conduct.

Our Supplier Code of Conduct extends these commitments to third-party providers in support of our efforts to do business with only those who share our values.

To get from seed to grocery store shelves more sustainably, Monsanto relies heavily on collaborating with our partners across the global supply chain. As a global company, Monsanto engages thousands of suppliers for services, equipment and raw materials, as well as contracted seed suppliers, all of whom contribute to our efforts. All new suppliers must complete a sustainability questionnaire. Our ambition is to help improve lives around the world by procuring goods and services in ways that conserve and protect natural resources and are ethically and socially responsible.

For more information about our efforts to promote a sustainable supply chain, see our 2013 Fall Progress Report.

Business Conduct Office

Monsanto maintains an open-door policy with all employees and business partners who have questions about how to manage difficult work situations or have concerns about business actions. Through our board-chartered global Business Conduct Office (BCO), we implement compliance and ethics initiatives through working groups and dedicated facilitators in each of our global business regions. As allowed by local law, employees may submit concerns or questions to the BCO via a private post office box, an internal toll-free telephone number or an email address dedicated to business conduct matters.

In 2014, we addressed a total of 241 inquiries, 137 of which were requests for guidance regarding compliance and business ethics, and 104 were comments about employee work environments, proper stewardship of corporate assets and observed behaviors that might be inconsistent with our policies or codes of conduct. Of these inquiries, six were allegations of discrimination. All six were investigated, and five were found to be unsubstantiated. One allegation required intervention and was swiftly resolved.

Ensuring Compliance with Our Code

Third-party Audit. To uphold our commitments to ethical business practices, we engaged an independent third party to conduct a comprehensive audit of our anti-corruption compliance program. The audit concluded that our program is effective and that Monsanto has established a strong tone of compliance, starting with the board of directors and permeating throughout the organization. Moreover, the audit revealed that we excel in maintaining appropriate, centralized oversight and control of the compliance program.

Automated Due Diligence Reporting System. To maintain compliance with our Code of Business Conduct more efficiently and effectively, we contracted with a third-party vendor to provide a secure, web-based system for managing our compliance functions globally through a single portal. Not only has this new system enabled our personnel to be more efficient and productive, but it has improved the consistency of how we categorize, respond to and report critical data.

Excellence in Trade Compliance

Exporting and importing are a daily part of Monsanto's global operations, and we are committed to compliance with all U.S. export and applicable non-U.S. export regulations that govern the transportation of our products across international borders. In fact, we are certified with several voluntary trade compliance programs, including:

- Customs-Trade Partnership Against Terrorism (C-TPAT): *C-TPAT seeks to safeguard the world's vibrant trade industry from terrorists, adopting measures to add security without having a chilling effect on trade. After thorough vetting by the U.S. government, Monsanto became a validated member of C-TPAT in 2007, and we have maintained our member status through revalidations in 2009, 2011 and 2013.*
- Importer Self-Assessment (ISA) Program: *The ISA program is an initiative of U.S. Customs and Border Protection (CBP) that partners with importers who can demonstrate their readiness to manage and monitor their trade compliance through self-assessment. Monsanto applied for this program in 2012 and worked with CBP for two years to prove our qualifications and commitment to the program. This process included a thorough government audit of our entire import process and a three-day, on-site interview and audit at our world headquarters in St. Louis. In March 2014, Monsanto received ISA certification in recognition of our "commitment to the highest level of trade compliance." Monsanto now joins roughly 0.02 percent of all U.S. importers who have achieved membership into the ISA program.*

Political Contributions

We believe that participating constructively in the political process is essential to our company's long-term success, and we contribute to U.S. political candidates in a manner that is compliant with all applicable laws and reporting requirements. Our board of directors Sustainability and Corporate Responsibility Committee has oversight regarding all political contributions made by our company to ensure proper compliance. In 2014, the Center for Political Accountability (CPA), a nonpartisan, nonprofit organization created to bring transparency and accountability to corporate political spending, ranked Monsanto in the top 25 percent of 300 companies on the CPA-Zicklin Index in recognition of our efforts to promote transparency in political disclosures in the United States. We continue to champion transparency in this important area and proudly work with centers like the CPA to improve our disclosures.

Please see our website for more information about the ways in which we participate in the political process.

Protecting Customer Data

Monsanto takes the safeguarding of our customers' data very seriously, and has been active in establishing company policies and supporting industrywide efforts *(see related story on Pages 26-28).* The Climate Corporation division established a set of principles to protect the data that farmers transfer and share when they use The Climate Corporation's advanced data science tools.

That's why when computer security was breached at our Precision Planting unit in March 2014, we worked with state and federal authorities to investigate and resolve the matter. While we don't believe the breach was an attempt to steal customer information, we notified customers and offered complimentary credit monitoring services for a year and added enhanced data system protection measures to prevent further breaches.

RECOGNIZING INTEGRITY

Each year, we recognize employees who demonstrate integrity in exceptional ways with our Business Conduct Awards.

Developed by the Business Conduct Office, in cooperation with other functional areas, the program honors group or individual employee contributions that serve to strengthen Monsanto's culture of integrity, recognize and address compliance with all legal, regulatory and company policy requirements, or create efficiencies in existing compliance practices.

The Business Conduct Awards focus on four key categories:

- Integrity Champion Award: *For compliance awareness or educational projects or initiatives that result in employees, vendors or customers conducting business in a way that clearly demonstrates a commitment to integrity.*
- Compliance in Action Award: *For initiatives or actions that detect and address internal control weaknesses that may lead to noncompliance issues.*
- Operational Excellence Award: *For ideas and resulting action plans that create meaningful process improvements and efficiencies to existing compliance activities.*
- Courage in Integrity Award: *For demonstration of individual courage and foresight to recognize and proactively address observed noncompliance under adverse conditions.*

We recognized both regional award and global award winners who contributed in a meaningful way to Monsanto's corporate culture of integrity in ways that hold the potential for improvement across all or multiple business units.

External Recognition

Our efforts to govern our business in line with the highest ethical standards have also been widely recognized by key third parties. Some of the awards received in 2014 include:

- 100 Best Corporate Citizens:
  CR Magazine ranked Monsanto No. 38 on its "100 Best Corporate Citizens" list based on seven key areas associated with corporate responsibility. This is the fifth time Monsanto has been included on the magazine's ranking of corporate responsibility performance of major U.S. companies.
- International General Counsels' Awards:
  Recognizing outstanding legal professionals from around the globe, Monsanto's law department was named the "Best USA Legal Department" in the Industrial and High Tech Sector category.
- Corporate Governance Awards:
  Corporate Secretary named Monsanto to its shortlist for "Best Shareholder Engagement" and "Best Ethics and Compliance Program." In 2013, Monsanto was named to the shortlist in the "Best Shareholder Engagement" category.

Integrity Champion Award

In 2014, members from our Latin America South Commercial, Corporate Affairs and Procurement teams received Monsanto's Integrity Champion Award in recognition of their cross-functional initiative to promote sustainability within our supply chain. These teams invited 180 of Monsanto's suppliers to an educational event aimed at explaining Monsanto's position and vision on sustainable agriculture, and later created a workshop that was attended by 80 percent of involved suppliers. Their work embodies the very essence of what our Integrity Champion Award category is all about: spreading integrity and goodwill in a meaningful way and building trust.

Our Pledge

The Monsanto Pledge is our commitment to how we do business. It is a declaration that compels us to listen more, to consider our actions and their impact broadly, and to lead responsibly. It helps us to convert our values into actions, and to make clear who we are and what we champion. Integrity is the foundation for all that we do. Integrity includes honesty, decency, consistency and courage. Building on those values, we are committed to:

Dialogue: *We will listen carefully to diverse points of view and engage in thoughtful dialogue. We will broaden our understanding of issues in order to better address the needs and concerns of society and each other.*

Transparency: *We will ensure that information is available, accessible, and understandable.*

Sharing: *We will share knowledge and technology to advance scientific understanding, to improve agriculture and the environment, to improve crops, and to help farmers in developing countries.*

Benefits: *We will use sound and innovative science and thoughtful and effective stewardship to deliver high-quality products that are beneficial to our customers and to the environment.*

Respect: *We will respect the religious, cultural, and ethical concerns of people throughout the world. The safety of our employees, the communities where we operate, our customers, consumers, and the environment will be our highest priority.*

Act as Owners to Achieve Results: *We will create clarity of direction, roles, and accountability; build strong relationships with our customers and external partners; make wise decisions; steward our company resources; and take responsibility for achieving agreed-upon results.*

Create a Great Place to Work: *We will ensure diversity of people and thought; foster innovation, creativity and learning; practice inclusive teamwork; and reward and recognize our people.*

REPORTING

our sustainability strategies, efforts, impact and progress

Monsanto is committed to embedding sustainability throughout our business, a key driver of which is reporting on our progress — not only to document where we've been and where we're going, but also to identify gaps, opportunities and challenges. We view sustainability reporting as both a communications vehicle and a strategic management tool. By engaging key stakeholders in our reporting process we are able to incorporate ***information and concepts that truly matter to our company, our shareowners, our customers and the communities where we operate****.*

Commitments and Guiding Principles

- *We are reporting in accordance with the Core option of the Global Reporting Initiative (GRI) G4 voluntary Sustainability Reporting Guidelines, while incorporating many aspects of the "Comprehensive" option.*
- *We are committed to issuing an annual GRI-based sustainability report and a UN Global Compact Communication on Progress.*
- *We have conducted a formal materiality assessment to ensure that the content included in this report reflects Monsanto's significant economic, environmental and social impact or substantively influence the assessments and decisions of stakeholders.*

WE'RE COMMITTED

to seeking input from our stakeholders, reporting our progress transparently and collaborating with a diverse set of partners to make a positive impact on our stakeholders and thereby our business, our farmer customers and the global community.

Martha Schlicher, Global Sustainability and Stakeholder Engagement Lead

REPORTING WHAT MATTERS

Understanding our impact, the context of our work and what matters to the people and communities we touch daily are key to any successful sustainability journey. At Monsanto, we're taking stock of our position at the beginning of the food value chain. We're analyzing our commitments and business practices and tapping into the passion and strengths of our more than 20,000 employees worldwide. And we're inviting in a broad range of outside perspectives to learn more about what's important to stakeholders and how we can collectively innovate to help sustainably feed a growing global population.

Formal stakeholder engagement and consumer listening sessions have helped shape not only the content of this report, but also who we are as a company now, and where we want to go.

Building on our original materiality assessment published in our 2012 report, we conducted a materiality assessment update during 2013 and 2014 to refresh and review the sustainability issues and topics that have the most impact on the success of our business and that are important to external stakeholders.

We queried representatives from NGOs, academia, research institutions, public health organizations, government, the food industry, consumers, community neighbors and our farmer customers. Our engagement with external stakeholders took place across several forums including listening sessions and one-on-one interviews. We also looked at what similar companies were doing and topics that garnered significant media coverage.

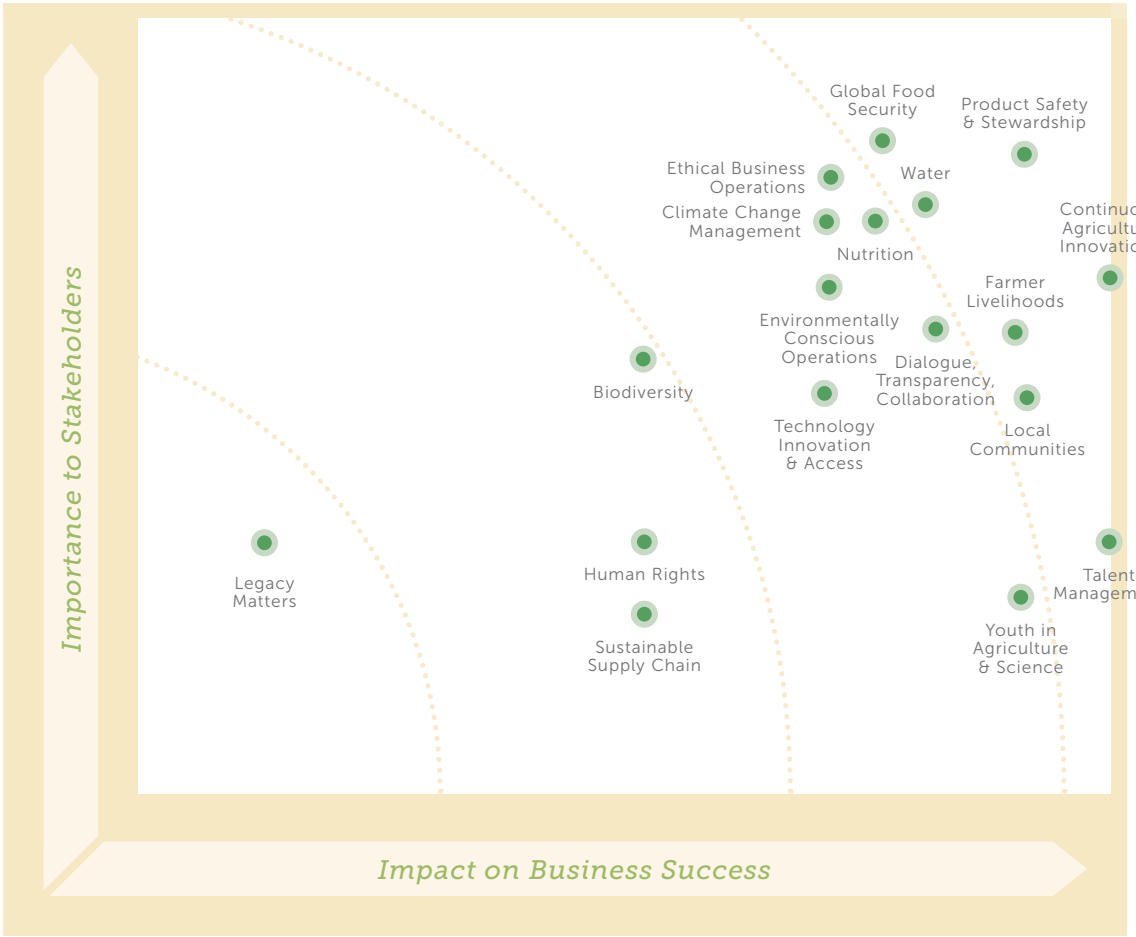
Internally, we interviewed Monsanto leaders from around the world about key business drivers and what they believed external stakeholders considered important from a sustainability perspective.

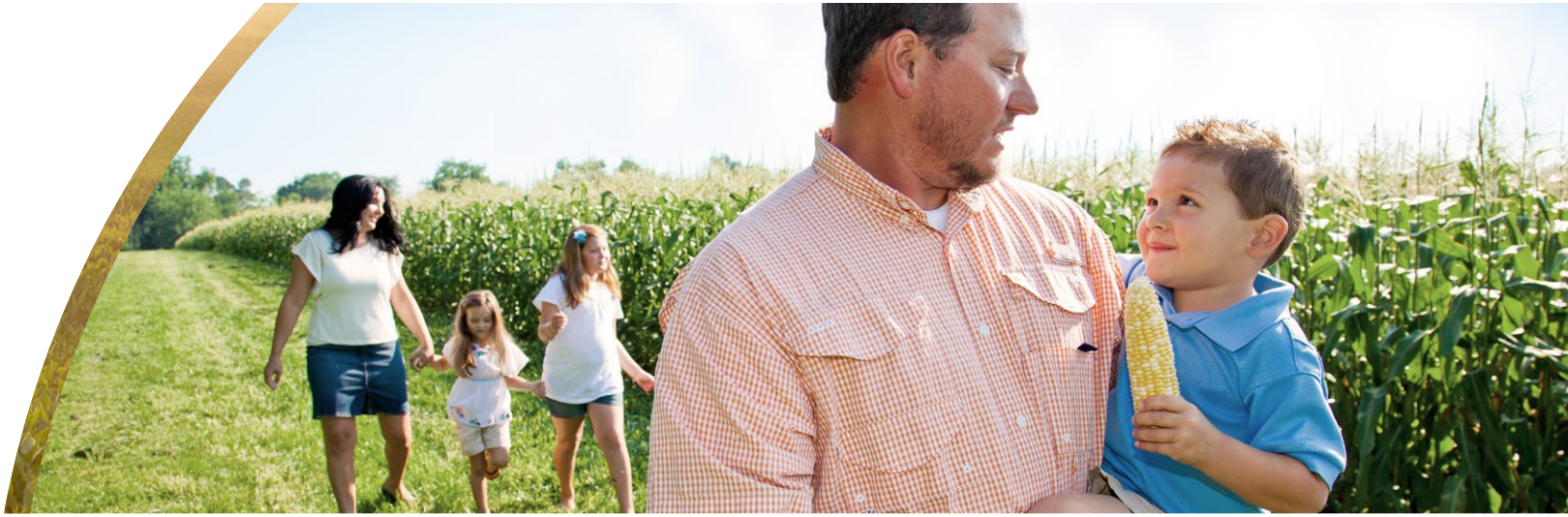
A scoring system was applied to the results that enabled us to plot the issues on a matrix that visually represents where each topic falls relative to its importance to our company and our stakeholders.

Through this process, we identified that the fiscal year 2014 updated materiality assessment areas were similar to what we reported before. However, we felt it was necessary for us to expand the definitions of the assessment categories to better reflect the feedback we received from stakeholders and provide greater transparency.

Materiality Matrix

(see issue definitions on Pages 10-11)





WHERE IMPACTS OCCUR

A key principle of the GRI G4 Guidelines is to determine and report where a company's material issues impact the business, key stakeholders and society at large. An impact can be positive, like improving farmer livelihoods, or potentially negative, like causing or affecting water scarcity. The tables on the following pages summarize the issues that both external stakeholders and regional internal teams identified as most important and where the impacts of these issues occur relative to our business, our suppliers, farmers and consumers.

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 Seed and Traits and Crop Protection 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 2014, which runs from September 1, 2013, to August 31, 2014. There is some anecdotal information, as noted, from calendar years 2012-2014 and limited information from early calendar 2015. For anecdotal information we do not distinguish between fiscal and calendar years.

Locations referenced throughout this report without a country name are within the United States.

Mapping Where Material Issue Impacts Occur – External Stakeholder Groups

This table maps the most important sustainability issues and topics from an external stakeholder perspective. The displayed order of the issues is intended to be directional and does not represent absolute rankings. Some stakeholder groups, such as NGOs, had heavier representation than others, so an absolute ranking by stakeholders would not be illustrative of the results.

	ENVIRONMENT, SOCIAL & GOVERNANCE NGOS	ACADEMICS & RESEARCHERS	PUBLIC HEALTH ORGANIZATIONS	GOVERNMENT & GOVERNMENT DEVELOPMENT	FOOD INDUSTRY GROUPS	FOOD COMPANIES	FARMERS
1	Ethical Business Operations	Dialogue, Transparency, Collaboration	Dialogue, Transparency, Collaboration	Product Safety & Stewardship	Global Food Security	Dialogue, Transparency, Collaboration	Continuous Agriculture Innovations
2	Dialogue, Transparency, Collaboration	Water	Food Security	Food Security	Ethical Business Operations	Ethical Business Operations	Ethical Business Operations
3	Environmentally Conscious Operations	Continuous Agriculture Innovations	Technology Innovation & Access	Water	Dialogue, Transparency, Collaboration	Nutrition	Global Food Security
4	Continuous Agriculture Innovations	Global Food Security	Nutrition	Nutrition	Farmer Livelihoods	Global Food Security	-
5	Global Food Security	Ethical Business Operations	Ethical Business Operations	Dialogue, Transparency, Collaboration	Talent Management	Farmer Livelihoods	-

Mapping Where Material Issue Impacts Occur – Regions of the World

This table maps the most important sustainability issues and topics from an internal perspective for each region of the world in which we operate based on regional business assumptions and regional trends. As part of the materiality assessment process, representatives from our global operations helped identify which issues matter most in the different regions.

	AFRICA	MIDDLE EAST	EASTERN EUROPE	WESTERN EUROPE	LATIN AMERICA SOUTH	LATIN AMERICA NORTH	BRAZIL	INDIA	PANSEA	NORTH AMERICA
1	Water	Water	Water	Dialogue, Transparency, Collaboration	Global Food Security	Technology Innovation & Access	Dialogue, Transparency, Collaboration	Technology Innovation & Access	Continuous Agriculture Innovations	Technology Innovation & Access
2	Global Food Security	Farmer Livelihoods	Continuous Agriculture Innovations	Environmentally Conscious Operations	Water	Dialogue, Transparency, Collaboration	Product Safety & Stewardship	Global Food Security	Global Food Security	Dialogue, Transparency, Collaboration
3	Farmer Livelihoods	Local Communities	Technology Innovation & Access	Product Safety & Stewardship	Farmer Livelihoods	Continuous Agriculture Innovations	Ethical Business Operations	Water	Dialogue, Transparency, Collaboration	Nutrition

Mapping Where Material Issue Impacts Occur – Business and Stakeholders

The table below maps the most important sustainability impacts across the following areas: Monsanto's business, suppliers, farmers and consumers. A cross-sectional group of Monsanto employees executed the mapping exercise, taking into consideration stakeholder input, global trends and business assumptions.

Material Issues	MONSANTO	SUPPLIERS	FARMERS	CONSUMERS
Product Safety & Stewardship	●	●	●	●
Continuous Agriculture Innovations	●		●	
Global Food Security	●		●	●
Water	●		●	●
Farmer Livelihoods	●		●	●
Ethical Business Operations	●	●	●	●
Dialogue, Transparency, Collaboration	●	●	●	●
Nutrition			●	●
Environmentally Conscious Operations	●		●	●
Climate Change Management	●	●	●	●
Local Communities	●			●
Talent Management	●			
Biodiversity	●		●	●
Technology Innovation & Access	●	●	●	
Youth in Agriculture & Science	●			●
Human Rights	●	●	●	●
Sustainable Supply Chain	●	●	●	
Legacy Matters	●			

GLOBAL REPORTING INITIATIVE AND UNITED NATIONS GLOBAL COMPACT TABLES

GRI G4 Index

GENERAL STANDARD DISCLOSURES

GRI INDICATOR	LOCATION / DESCRIPTION
G4-1	CEO Letter, Page 3
G4-2	CEO Letter, Page 3; Hello. We are Monsanto., Pages 14-18; Producing, Pages 19-47; Conserving, Pages 48-76; Improving, Pages 77-125; 2014 10-K, Items 1, 1A, 7A

Organizational Profile

G4-3	Monsanto Company
G4-4	Hello. We are Monsanto., Pages 5-8
G4-5	St. Louis, Missouri, United States
G4-6	Hello. We are Monsanto., Page 6; 2014 10-K, Item 8, Note 26
G4-7	Certificate of Incorporation

GENERAL STANDARD DISCLOSURES

GRI INDICATOR	LOCATION / DESCRIPTION
G4-8	Hello. We are Monsanto., Pages 7-8; 2014 10-K, Item 1
G4-9	Hello. We are Monsanto., Page 6; Improving, Pages 103-105; 2014 10-K, Item 8
G4-10	Improving, Pages 103-105
G4-11	In excess of 15 percent of Monsanto's regular employees are covered by a collective bargaining agreement.
G4-12	Corporate Governance, Page 133; Monsanto 2013 Fall Progress Report, Page 5
G4-13	2014 10-K, Items 1, 2, 7
G4-14	Producing, Page 34 (Stewarding Product Safety)
G4-15 G4-16	**External Charters/Principles** - CEO Water Mandate, Customs-Trade Partnership Against Terrorism (C-TPAT), International Labour Organization's Fundamental Principles and Rights at Work, Privacy and Security Principles for Farm Data, United Nations Global Compact (UNGC), United Nations Universal Declaration of Human Rights, U.S. Green Building Council's Leadership in Energy & Environmental Design (LEED) Principals, WASH Pledge **Advocacy Groups** - African Agricultural Technology Foundation (AATF), Clinton Global Initiative (CGI), Field to Market Alliance, Honey Bee Health Coalition, Institute for Sustainable Agriculture (IAD), Soil Health Partnership, Sustainability Consortium, World Business Council for Sustainable Development (WBCSD), World Economic Forum (WEF) New Vision for Agriculture and Climate Leadership Group **Industry Groups** - American Production and Inventory Control Society (APICS), Biotechnology Industry Organization, Confederação Nacional da Indústria (CNI), Council of Supply Chain Management Professionals (CSCMP), CropLife International, International Seed Federation, US-ASEAN Business Council, Inc. **Diversity Groups** - Minority Business Development Agency Business Center Chicago, National Minority Supplier Development Council, WEConnect International, Women's Business Development Center, Women's Business Enterprise National Council (WBENC)

Identified Material Aspects and Boundaries

G4-17	All entities included in our Consolidated Financial Statements are covered in this report.
G4-18	Reporting, Pages 142-143
G4-19	Hello. We are Monsanto., Pages 10-11; Reporting, Pages 144-147
G4-20 G4-21	Conserving, Pages 71-75 (Environmental Data); Improving, Pages 109-113 (Safety and Health), 103-105 (Our People: By the Numbers); Reporting, Page 144

GENERAL STANDARD DISCLOSURES

GRI INDICATOR	LOCATION / DESCRIPTION
G4-22	Some calendar year 2013 environmental data has been restated. See Pages 72-75
G4-23	Environmental data scope expanded (see Conserving, Page 71)
Stakeholder Engagement	
G4-24	Reporting, Pages 142, 145; Corporate Governance, Page 132; See also G4-15 and G4-16
G4-25 G4-26	Monsanto stakeholders include organizations that have interest in agriculture production, water, soil health, human rights, climate change, food and nutrition security, biodiversity, science and technology innovation, diversity and inclusion, youth development, community health and other issues related to our business. We interact with organizations and individuals on an ongoing basis as part of regularly planned visits, technical seminars, conferences, telephone calls and updates. Although the frequency of our engagement varies, the intent to stay engaged on areas of mutual interest is foremost in our minds. The groups identified throughout the report provide significant insight into how they see our role in society. No groups or individuals were engaged specifically for the preparation of this report, but are instead part of our ongoing effort to engage with stakeholder organizations.
G4-27	Hello. We are Monsanto., Page 16; Improving, Pages 37-38; Reporting, Page 145; Also discussed throughout this report.
Report Profile	
G4-28	Fiscal year 2014; See also Reporting, Page 144
G4-29	Calendar year 2012 with Spring and Fall Progress Reports for calendar year (CY) 2013.
G4-30	Moving forward we plan to report on our sustainability commitments annually on a fiscal year basis.
G4-31	tami.j.craig.schilling@monsanto.com
G4-32	This report was prepared in accordance with the GRI G4 "Core" option and contains many elements of the "Comprehensive" option. We have sought and received external assurance for the majority of our data-driven environmental indicators. See Assurance Letter on Page 164.
G4-33	The majority of our data-driven environmental indicators have been externally assured by Bureau Veritas; see Assurance Letter on Page 164. Financial data in our 2014 10-K has been assured by Deloitte & Touche LLP; see Assurance Letter, Item 9A

GENERAL STANDARD DISCLOSURES

GRI INDICATOR	LOCATION / DESCRIPTION
Governance	
G4-34 G4-35 G4-36 G4-37 G4-38 G4-39 G4-40 G4-41 G4-42 G4-43 G4-44 G4-45 G4-46 G4-47	Corporate Governance, Pages 126-132
G4-48	The Board of Directors Sustainability and Corporate Responsibility Committee
G4-49	2014 Proxy Statement, Pages 12, 24
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.
G4-51 G4-52	2014 Proxy Statement, Pages 46-69
G4-53	2014 Proxy Statement, Pages 44, 51
Ethics and Integrity	
G4-56 G4-57 G4-58	Corporate Governance, Pages 133-134, 137-139

SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION / DESCRIPTION
Category: Economic	
Aspect: Economic Performance	
G4-EC1	2014 10-K, Item 8
G4-EC2	Climate change and associated impacts, like higher temperatures, more frequent droughts and floods and evolving pest pressures, requires us to explore even more ways to mitigate these conditions through our R&D pipeline. We are currently studying the potential effects of a changing climate on seven field crops to understand how we should focus our resources. At the same time, we are exploring ways to sequester more carbon from each acre of land through the use of reduced tillage practices, cover crops and double cropping systems while supporting sustainable biofuel and biomass development.
G4-EC3	2014 Annual Report, Pages 78-81
Aspect: Indirect Economic Impacts	
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	Producing, Pages 39-47 (Heightening Food and Nutrition Security); Conserving, Page 70 (Reseeding Ecosystems with Conservation International); Improving, Pages 79-81 (Improving Farmer Livelihoods), 82-83 (Empowering Women and Girls Around the World), 84-86 (Investing in the Future); 2013 Fall Progress Report, Pages 14-15 (Collaboration and Advocacy)
Category: Environmental	
Aspect: Energy/Greenhouse Gas Emissions	
G4-EN3 G4-EN4 G4-EN5 G4-EN15 G4-EN16 G4-EN17 G4-EN18 G4-EN21 (all indicators externally assured)	Conserving, Pages 72-74 (Environmental Data - Energy Use and Emissions)

SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION / DESCRIPTION
G4-EN6 G4-EN19	(Partially reported) Conserving, Pages 61-64
G4-EN7	Producing, Pages 26-28 (Heralding the Green Data Revolution); Conserving, Page 51 (Helping Farmers Conserve Resources)
Aspect: Water	
G4-EN8 G4-EN10 G4-EN22 (all indicators externally assured)	Conserving, Page 75 (Environmental Data - Water)
G4-EN9	(Partially reported) Conserving, Page 51 (Mapping Water Risks)
Aspect: Biodiversity	
G4-EN11	Several of our U.S. sites have been awarded the Wildlife Habitat Council's *Wildlife at Work* certification. While we do not yet centrally collect the data to report on EN11, we are building capacity to do so in the future.
G4-EN12	(Partially reported) Conserving, Pages 65-69 (Protecting and Preserving the Natural Environment), 69 (Controlling Pests Responsibly), 70 (Reseeding Ecosystems with Conservation International)
G4-EN13	Conserving, Page 70 (Reseeding Ecosystems with Conservation International)
G4-EN14	We are building capacity to answer this indicator moving forward, but do not currently collect this data.
Aspect: Effluents & Waste	
G4-EN23	Conserving, Page 76 (Environmental Data - Waste)
G4-EN24 (externally assured)	Accidental, Episodic Spills and Releases: In fiscal year (FY) 2014, the following two releases from our facilities were significant enough to be reported to one or more governmental agencies. Neither release caused lasting adverse effects on human health or the environment. In both cases, we identified and addressed the root causes of the releases. • *In December 2013, 2.2 lbs of chlorine gas were released to the air during maintenance activities at our Luling, Louisiana, facility. Three workers were exposed to the vapor, received medical attention for it, and have fully recovered.* • *In February 2014, 4.2 lbs of chlorine gas were released to the air during maintenance activities at our Luling, Louisiana, facility. There were no injuries or environmental impacts associated with the release.*
G4-EN25	Conserving, Page 76 (Environmental Data - Waste)

SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION / DESCRIPTION
G4-EN26	(Partially reported) Across the globe, Monsanto complies with a diverse set of regulatory programs designed to protect water bodies and related habitats. Beyond these legal requirements, Monsanto regularly performs self-assessments of all of our chemical manufacturing operations to confirm that we are not causing adverse impacts to neighboring water resources. At our phosphate mining operations in southeastern Idaho, we are pursuing a multifaceted water protection program that is aimed at protecting sensitive habitats within the Upper Blackfoot River watershed and species like the Yellowstone Cutthroat Trout. We have implemented a state-of-the-art water management program at our existing mine, ensuring that impacted runoff does not reach surface waters or habitats. We are performing extensive studies on the environmental conditions of our former mines, with the goal of identifying and performing any remediation that may be appropriate. Looking beyond our mining operations, we are a key member in the Upper Blackfoot Confluence, a partnership of industry and environmental nonprofits working together on regional projects to enhance wildlife habitat along the Blackfoot River.
Aspect: Products & Services	
G4-EN27	Conserving, Pages 36-37 (Targeted Control of Weeds and Insects)
G4-EN28	Monsanto does not measure this on a global basis but we are partners in agricultural container recycling programs globally. For example, the Ag Container Recycling Council (ACRC) has been successful in recycling agriculture crop protection containers in the United States into useful industrial purposes for over 20 years. More recently, we were recognized in 2014 by a nongovernment environmental organization (AMOCALI) for Monsanto's contribution on the recycling chain of empty agrochemical bottles in Mexico.
Aspect: Compliance	
G4-EN29 (externally assured)	Monsanto conducted an internal review and 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, 2014, in Note 25 – Commitments and Contingencies, Management's Discussion and Analysis of Financial Condition and Results of Operations - Outlook, and the Legal Proceedings sections.
Aspect: Transport	
G4-EN30	Conserving, Pages 72-74 (Environmental Data - Energy Use and Emissions)
Aspect: Supplier Environmental Assessment	
G4-EN32	Our suppliers are required to complete a computer-based profile that covers a range of sustainability topics, including environmental issues. For more information on our approach to assessing our supply chain, see our 2013 Fall Progress Report.

SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION / DESCRIPTION
G4-EN33	Our suppliers are required to complete a computer-based profile that covers a range of sustainability topics, including environmental issues. For more information on our approach to assessing our supply chain, see our 2013 Fall Progress Report.
Aspect: Environmental Grievance Mechanisms	
G4-EN34	Monsanto does not centrally track the number of environmental grievances, but we have various ways of gathering concerns across company functions and regions of the world. 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, as appropriate.

Category: Social
Subcategory: Labor Practices and Decent Work

Aspect: Employment	
G4-LA1	Improving, Pages 103-105
G4-LA2	Improving, Pages 114-115
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.
Aspect: Occupational Health & Safety	
G4-LA5	Improving, Page 106 (Putting Safety First)
G4-LA6	Improving, Pages 109-113; In FY 2014 there was one Monsanto employee fatality (male).
G4-LA7	Improving, Pages 109-113 (Safety and Health Data)
Aspect: Training & Education	
G4-LA9	(Partially reported) Average hours of employee training per category: communications, two hours; people management (for people-managers), eight hours; business conduct (for people-managers), one hour; safety (all employees) 10 hours. Also see Improving, Page 120 (human rights training); See also G4-SO4

SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION / DESCRIPTION
G4-LA10	Improving, Pages 99-102 (Employee Development)
G4-LA11	97 percent of Monsanto employees received performance reviews in FY 2014.
Aspect: Diversity & Equal Opportunity	
G4-LA12	Improving, Page 105
Aspect: Supplier Assessment for Labor Practices	
G4-LA14 G4-LA15	Our suppliers are required to complete a computer-based profile that covers a range of sustainability topics, including labor. For more information on our approach to assessing our supply chain, see our 2013 Fall Progress Report.
Aspect: Labor Practices Grievance Mechanisms	
G4-LA16	Corporate Governance, Page 134 (Business Conduct Office)

Subcategory: Human Rights

Aspect: Investment	
G4-HR1	Significant investment agreements for human rights are defined for 2014 as seed supply and labor provider contracts. In 2014 we had contracts with 11,215 such entities and 100 percent of them contained human rights clauses, which differ according to country laws.
G4-HR2	Improving, Pages 119-120 (Our Human Rights Policy)
Aspect: Non-discrimination	
G4-HR3	Corporate Governance, Page 134 (Business Conduct Office)
Aspect: Freedom of Association and Collective Bargaining	
G4-HR4	(Partially reported) Our Human Rights Policy supports the rights of workers to associate freely and bargain collectively. In situations where these rights are restricted under law, Monsanto facilitates an open line of communication with management so workers can freely voice concerns.

SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION / DESCRIPTION
Aspect: Child Labor	
G4-HR5	Improving, Pages 124-125 (Helping Eradicate Child Labor)
Aspect: Forced or Compulsory Labor	
G4-HR6	Our business partner assessments did not identify any instances of forced labor in FY 2014.
Aspect: Security Practices	
G4-HR7	Improving, Pages 119-120 (Our Human Rights Policy)
Aspect: Assessment	
G4-HR9	We have several methods for assessing human rights impacts in our owned operations, but have not had a system to capture the percentage of operations assessed. This is changing under our new quality management system. Our Human Rights Champions assess the operations in their geography, with priority on the highest risk countries, and report and remedy any concerns. The ESH Corporate Audit team also conducts human rights assessments when they visit high and medium risk country sites that have not been recently assessed. This is on their rotating schedule.
Aspect: Supplier Human Rights Assessment	
G4-HR10	Our suppliers are required to complete a computer-based profile that covers a range of sustainability topics, including human rights. Also see our 2013 Fall Progress Report, Page 11, for information on human rights assessments in countries identified as high risk.
G4-HR11	Our suppliers are required to complete a computer-based profile that covers a range of sustainability topics, including Human Rights. See Improving, Pages 121-122 (Tracking our Progress) and our 2013 Fall Progress Report, Page 11, for information on human rights assessments in countries identified as high risk.
Aspect: Human Rights Grievance Mechanisms	
G4-HR12	Improving, Pages 121-122 (Tracking our Progress); Corporate Governance, Page 134 (Business Conduct Office)

Subcategory: Society

Aspect: Local Communities	
GR-SO1	Improving, Pages 92-93 (Community Engagement)

SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION / DESCRIPTION
GR-SO2	We take substantial measures to limit the potentially negative impact that our sites may have on the local communities where we operate. In some cases, we have had to alert the community when traffic would be increasing during harvest.
Aspect: Anti-corruption	
GR-SO3	(Partially reported) Corporate Governance, Page 134 (Ensuring Compliance with Our Code)
GR-SO4	Anti-corruption policies and procedures have been communicated to all 13 members of our board of directors, 100 percent of our employees (22,138) and 100 percent of our business partners (via the Supplier Code of Conduct). Anti-corruption training has been executed with our board of directors and 54 percent (11,913) of our employees.
Aspect: Public Policy	
GR-SO6	Political Disclosures
Aspect: Anti-competitive Behavior	
GR-SO7	2014 10-K, Note 25
Aspect: Compliance	
GR-SO8	Monsanto conducted an internal review and 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, 2014, in Note 25 – Commitments and Contingencies, Management's Discussion and Analysis of Financial Condition and Results of Operations – Outlook, and the Legal Proceedings sections.
Aspect: Supplier Assessment for Impacts on Society	
GR-SO9	Our suppliers are required to complete a computer-based profile that covers a range of sustainability topics, including social issues. For more information on our approach to assessing our supply chain, see our 2013 Fall Progress Report.
GR-SO10	Our suppliers are required to complete a computer-based profile that covers a range of sustainability topics, including social issues. See Improving, Pages 121-122 (Tracking our Progress) and our 2013 Fall Progress Report, Page 11, for information on human rights assessments in countries identified as high risk.

SPECIFIC STANDARD DISCLOSURES

GRI INDICATOR	LOCATION / DESCRIPTION
Aspect: Grievance Mechanisms for Impacts on Society	
GR-SO11	We do not have a formal mechanism that collects this information. We deal with each societal issue on a case-by-case basis and work to resolve it in an agreed-upon way. We have fulltime security at many of our larger locations to address neighbors' inquiries or requests. See also, Corporate Governance, Page 134 (Business Conduct Office)
Subcategory: Product Responsibility	
Aspect: Customer Health and Safety	
G4-PR1	Producing, Pages 34-36 (Confirming the Safety of Biotech Crops), 36-37 (Targeted Control of Weeds and Insects)
G4-PR2	Monsanto conducted an internal review and 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, 2014 in Note 25 – Commitments and Contingencies, Management's Discussion and Analysis of Financial Condition and Results of Operations - Outlook, and the Legal Proceedings sections.
Aspect: Product and Services Labeling	
G4-PR3	• *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*** Our crop and vegetable seeds and crop protection products are covered by and assessed for compliance with the procedures identified above.
G4-PR4	Monsanto conducted an internal review and did not identify any material incidents of noncompliance with regulations and voluntary codes concerning product and service information and labeling. Additional information is provided in Monsanto's Form 10-K for the fiscal year ending August 31, 2014 in Note 25 – Commitments and Contingencies, 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
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.
Aspect: Marketing Communications	
G4-PR6	Producing, Pages 34-36 (Confirming the Safety of Biotech Crops), 36-37 (Targeted Control of Weeds and Insects), 37 (Communicating our Views on Food Labeling)
G4-PR7	Monsanto conducted an internal review and did not identify any material incidents of noncompliance with regulations and voluntary codes concerning marketing communications. Additional information is provided in Monsanto's Form 10-K for the fiscal year ending August 31, 2014, in Note 25 – Commitments and Contingencies, Management's Discussion and Analysis of Financial Condition and Results of Operations - Outlook, and the Legal Proceedings sections.
Aspect: Customer Privacy	
G4-PR8	Corporate Governance, Page 136 (Protecting Customer Data)
Aspect: Compliance	
G4-PR9	Monsanto conducted an internal review and did not identify any material fines for noncompliance with laws and regulations concerning the provision and use of products and services. Additional information is provided in Monsanto's Form 10-K for the fiscal year ending August 31, 2014, in Note 25 – Commitments and Contingencies, Management's Discussion and Analysis of Financial Condition and Results of Operations - Outlook, and the Legal Proceedings sections.

DISCLOSURES ON MANAGEMENT APPROACH OF MATERIAL ISSUES

See Pages 10-11 for definitions of each material issue listed below.	LOCATION / DESCRIPTION
Product Safety & Stewardship	Producing, Pages 34-37 (Stewarding Product Safety)
Continuous Agriculture Innovations	Producing, Pages 21-28 (Growing the Right Amount More Efficiently), 29-31 (Soil Health: Vital to Farmers, Consumers and the Environment)
Global Food Security	Producing, Pages 39-46 (Heightening Food and Nutrition Security), 47 (Supporting Rice and Wheat Research: Monsanto's Beachell-Borlaug International Scholars Program)
Water	Producing, Pages 32-33 (Driving Water Innovation); Conserving, Pages 50-56 (Protecting and Conserving Water)
Farmer Livelihoods	Improving, Pages 79-81 (Improving Farmer Livelihoods)
Ethical Business Operations	Corporate Governance, Pages 128-132 (Our Corporate Governance Framework), 133-136 (Codes of Conduct), 137-139 (Recognizing Integrity)
Dialogue, Transparency, Collaboration	Hello. We are Monsanto., Page 9 (Collaborating with Stakeholders to Grow Enough Food), 12-13 (Promoting Dialogue and Taking Action), 16 (Confronting Tough Issues Head-on) Producing, Pages 37-38 (Satisfying Peoples' Quest for Knowledge) Corporate Governance, Page 132 (Engaging with Shareowners); Reporting, Pages 140-147
Nutrition	Producing, Pages 39-46 (Heightening Food and Nutrition Security); Improving, Pages 87-91 (Advancing the Food and Nutrition Dialogue)
Environmentally Conscious Operations	Conserving, Pages 48-71 See also our Environmental Management Guidelines

DISCLOSURES ON MANAGEMENT APPROACH OF MATERIAL ISSUES

	LOCATION / DESCRIPTION
Climate Change Management	Producing, Pages 26-28 (Heralding the Green Data Revolution: The Climate Corporation), 29-31 (Soil Health: Vital to Farmers, Consumers and the Environment), 32-33 (Driving Water Innovation), 40-42 (Dealing with Drought and Insects in Africa: WEMA) Conserving, Pages 57-60 (Mitigating and Adapting to Climate Change)
Local Communities	Improving, Pages 82-83 (Empowering Women and Girls Around the World), 84-86 (Investing in the Future), 92-93 (Community Engagement), 97-98 (Serious About Service: Employee Volunteerism at Monsanto)
Talent Management	Improving, Pages 99-118 (The People of Monsanto)
Biodiversity	Producing, Page 24 (Researching New Sustainable Solutions for Increasing Productivity and Managing Pests: Agricultural Biologicals); Conserving, Pages 65-70 (Protecting and Preserving the Natural Environment)
Technology Innovation & Access	Producing, Pages 21-28 (Growing the Right Amount More Efficiently), 34-37 (Stewarding Product Safety), 32-33 (Driving Water Innovation), 39-46 (Heightening Food and Nutrition Security)
Youth in Agriculture & Science	Improving, Page 80 (Supporting Farming Communities Across America), 84-86 (Investing in the Future)
Human Rights	Improving, Pages 119-125 (Forging the Way in Human Rights)
Sustainable Supply Chain	Improving, Pages 121-122 (Tracking Our Progress); 2013 Fall Progress Report (This report focuses on our supply chain)
Legacy Matters	Under various agreements, today we manage several legacy liabilities stemming from former businesses. These matters include product liability suits and environmental cleanup actions that, in most cases, have nothing to do with our business today. Regardless, we take our commitments seriously and strive to resolve these liabilities responsibly and fully. See our website for more information.

UN Global Compact Index

THE TEN PRINCIPLES

PRINCIPLE		LINK / PAGE / REFERENCE / NOTES
Human Rights		
1	Businesses should support and respect the protection of internationally proclaimed human rights.	Improving, Pages 119-125 (Forging the Way in Human Rights)
2	Businesses should make sure that they are not complicit in human rights abuses.	Improving, Pages 121-122 (Tracking Our Progress); 2013 Fall Progress Report (This report focuses on our supply chain)
Labour		
3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	Improving, Page 119 (Our Human Rights Policy); 2013 Fall Progress Report (This report focuses on our supply chain); GRI/UNGC, Page 149 (G4-11), 156 (G4-HR4)
4	Businesses should uphold the elimination of all forms of forced and compulsory labour.	Our business partner assessments did not identify any instances of forced labor in FY 2014.
5	Businesses should uphold the effective abolition of child labour.	Improving, Page 119 (Our Human Rights Policy), 124-125 (Helping Eradicate Child Labor); 2013 Fall Progress Report (This report focuses on our supply chain)
6	Businesses should uphold the elimination of discrimination in respect of employment and occupation.	Improving, Pages 115-118 (Embracing the Power of Diversity & Inclusion), 119 (Our Human Rights Policy); Corporate Governance, Page 129 (Board Composition), 134 (Business Conduct Office)
Environment		
7	Businesses should support a precautionary approach to environmental challenges.	Producing, Pages 34-37 (Stewarding Product Safety), 32-33 (Driving Water Innovation); Conserving, Pages 57-60 (Mitigating and Adapting to Climate Change), 65-70 (Protecting and Preserving the Natural Environment)
8	Businesses should undertake initiatives to promote greater environmental responsibility.	Conserving, Pages 48-70
9	Businesses should encourage the development and diffusion of environmentally friendly technologies.	Producing, Pages 21-28 (Growing the Right Amount More Efficiently), 29-31 (Soil Health: Vital To Farmers, Consumers and The Environment), 32-33 (Driving Water Innovation); Conserving, Pages 50-56 (Protecting and Conserving Water), 59 (Collaborating to Curb Agricultural Greenhouse Gas Emissions), 59-60 (Engaging with the Clinton Global Initiative), 65-70 (Protecting and Preserving The Natural Environment)
Anti-corruption		
10	Businesses should work against corruption in all its forms, including extortion and bribery.	Corporate Governance, Pages 133-134 (Codes of Conduct), 137-139 (Recognizing Integrity) See also G4-SO4, Page 158

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 2014 (September 1, 2013 to August 31, 2014) to be presented in Monsanto's 2014 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 2014 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 2014 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 – NOx, SOx and VOCs

G4-EN22: Total process water discharged by destination

G4-EN22: Process waste water quality for direct surface water discharges

G4-EN24: Total number and volume of significant spills

G4-EN29: Significant fines for non-compliance with environmental laws and regulations

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 2014 Environmental Sustainability Report that is outside the scope of work

- Activities outside the defined verification period of Fiscal Year 2014

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 Oxnard, California, USA; Boone, Iowa, USA; Ankeny, Iowa, USA; Muscatine, Iowa, USA and Chesterfield, Missouri, USA during site visits;
5. Audit of select environmental and energy data traced back to the source for Monsanto facilities located in Sao Jose dos Campos, Brazil; Cachoeira Dourada, Brazil; Soda Springs, Idaho, USA; Kunia, Hawaii, USA; Kihei, Hawaii, USA, Molokai; Hawaii, USA; Rock Springs, Idaho, USA 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 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 2014.
- 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 2014 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 2014 revenue of 4.2 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:

David Reilly, Lead Verifier
Senior Project Manager
Bureau Veritas North America, Inc.

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

Costa Mesa, California
April 28, 2015

Environmental Metric Description	Value
G4-EN3: Energy Consumption within the organization (1000 GJ)	25,100
G4-EN4: Energy Consumption outside of the organization associated with business travel and logistics (1000 GJ)	5,950
G4-EN5 Energy Intensity Ratio (GJ per $ Revenue)	1.58
G4--EN8: Total water withdrawal by source (1000 M^3)	964,000
G4- EN10: Total volume of water reused and recycled (1000 M^3)	374,000
G4-EN15: Total Direct GHG Emissions Source (1000 MT of CO_{2e})	1,570
G4--EN16: Energy indirect (Scope 2) GHG emissions (1000 MT of CO_{2e})	1,080
G4-EN17: Other indirect (Scope 3) GHG emissions associated with logistics and business travel (1000 MT of CO_{2e})	443
G4-EN18: Scope 1 and Scope 2 GHG emissions intensity ratio (MT CO_{2e} per $ revenue)	0.167
G4-EN21: Other air emissions (MT)	
Sulfur Oxide (SOx) Emissions, combustion and process	1,610
Nitrous Oxide (NOx) Emissions, combustion and process	3,770
Volatile Organic Compound (VOC) Emissions	94
G4- EN22: Total process water discharged by destination (1000 M^3)	
Discharged to Off-site Treatment (e.g., POTW)	1,100
Permitted Discharges to the Environment - Subsurface (e.g., deep well injection, leach field)	1,980
Permitted Discharges to the Environment - Surface Water (e.g., river)	16,500
G4-EN22: Process waste water quality for direct surface water discharges (MT)	
BOD	54.0
Nitrate (as N)	53.8
Phosphates (as PO4)	217
Total Suspended Solids (TSS)	63.4
G4-EN24: Total number and volume of significant spills (agency reportable releases)	2
G4-EN29: Significant fines for non-compliance with environmental laws and regulations (fines ≥$100,000)	0

GJ = gigajoule
MT = metric ton
M3 = cubic meters
CO2e = carbon dioxide equivalent

MONSANTO