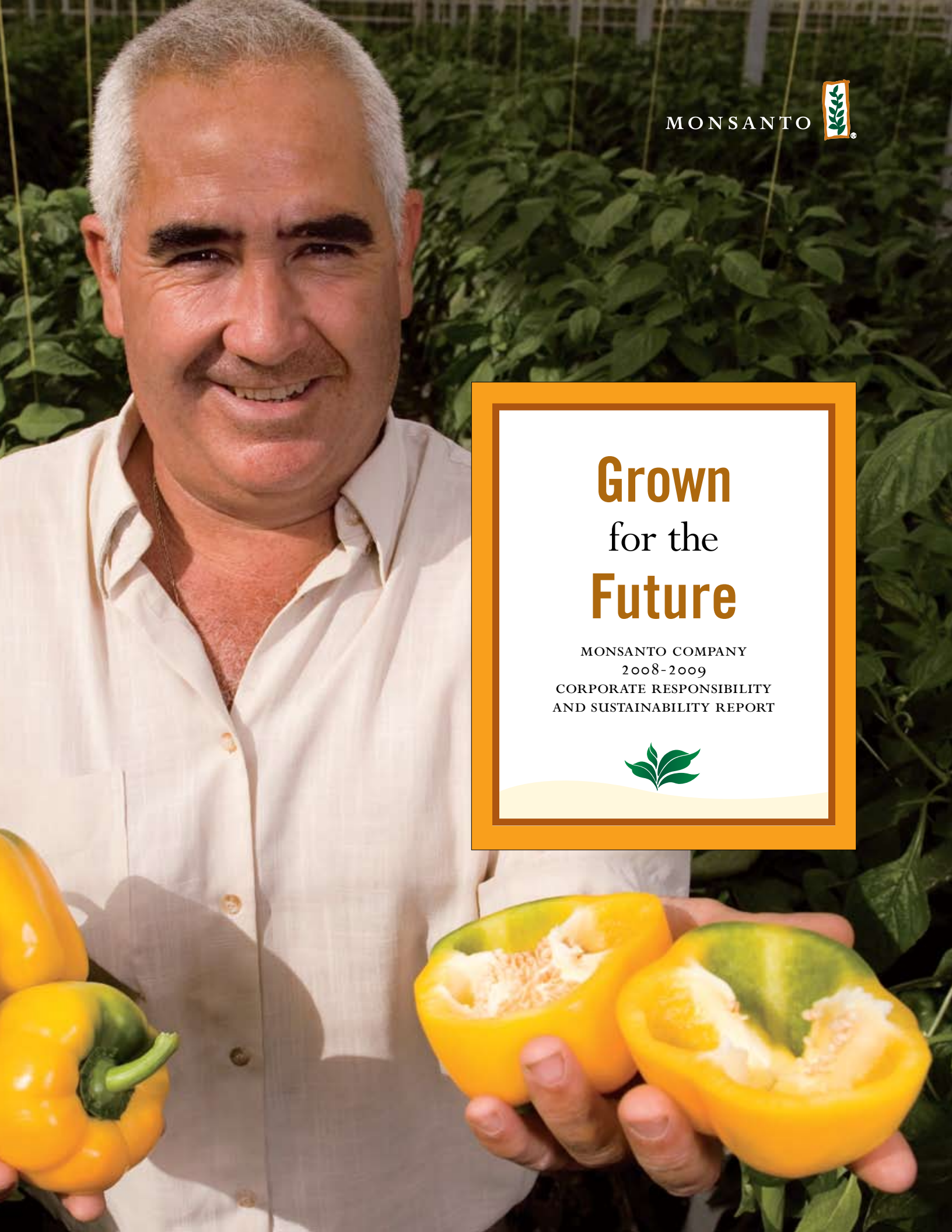

MONSANTO

Grown for the Future

MONSANTO COMPANY
2008-2009
CORPORATE RESPONSIBILITY
AND SUSTAINABILITY REPORT

EVERY ACRE MATTERS

Helping farmers meet the needs of today while **growing seeds** for the future.

The challenges facing agriculture are challenges facing all of us. We must meet our present needs and at the same time prepare for the needs of a growing population. That's why Monsanto is dedicated to helping farmers produce more — and conserve more — through sustainable agriculture.

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THIS REPORT Reporting our environmental, safety and sustainability performance is a long-standing tradition at Monsanto Company. Our goal is to provide our stakeholders with transparent and in-depth information on our activities.

In this *2008-2009 Corporate Responsibility and Sustainability Report*, we discuss our commitment to sustainable agriculture: our vision of how to help farmers around the world produce more crops, conserve more resources, and live better lives. We measure our progress toward this vision by the opportunities our products create. We demonstrate our commitment to corporate responsibility in social, economic, environmental, and governance spheres.

We invite you to read the articles and data in this report and to determine for yourself whether we are meeting our commitment to the values expressed in the Monsanto Pledge (see page 4) and our commitment to helping make agriculture more sustainable. The Global Reporting Initiative (GRI) provides guidance for our reporting. An index at the end of this report lists the pages where individual GRI indicators can be found.

PAGE 2 About Monsanto **PAGE 5** Letter to Stakeholders **PAGE 44** GRI Index and Notes

An Exclusive Focus on Sustainable Agriculture

Monsanto is the world's leading company focused on sustainable agriculture. We discover and deliver innovative products that support the farmers who feed, fuel and clothe our growing world. Farmers around the world use our products to address the challenges they face and to reduce agriculture's impact on our environment.

TWO BUSINESS SEGMENTS

Monsanto's business is managed in two segments: Seeds and Genomics, and Agricultural Productivity.[1]

Our Seeds and Genomics segment consists of global businesses in seeds and related biotechnology traits. Our technology platforms based on plant genomics increase the speed and power of genetic research. We offer seed products through our leading brands, such as *DEKALB*, *Asgrow*, *Deltapine* and *Seminis*. We also offer trait technologies to protect plants from weeds and insects. We broadly license our seed and trait technologies so that farmers have access to them in the brands they prefer.

Our Agricultural Productivity segment consists primarily of crop protection products and residential lawn-and-garden herbicide products. *Roundup* agricultural herbicides are the flagship product line of Monsanto's agricultural chemicals business. These products complement our seed business and play a vital role in improving productivity for farmers.[2]

RESEARCH AND DEVELOPMENT

Our research and development (R&D) pipeline is the source of our new products. We follow a systematic scientific process that allows us to offer farmers the products that give them the most benefits. Our technology is the vehicle that transforms research into realities. The breeding and trait pipeline delivers products that provide beneficial genetic traits to enhance or protect plants' growth or to provide nutritional or other benefits. Farmers, food and feed processors, and consumers can all benefit from our innovation.

MONSANTO'S COMMITMENT TO SUSTAINABLE YIELD

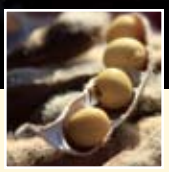
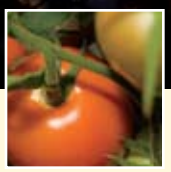
Monsanto's commitment to sustainable agriculture means increasing global food production in the face of growing demand, limited natural resources, and a changing climate. We work in partnership with other businesses, citizen groups, and governments to do our part to meet these challenges. This report highlights our strategies to:

1. **Produce more yield** Monsanto will help farmers double their yield in the core crops of corn, cotton, soybeans and spring-planted canola by 2030 (from the base year 2000).
2. **Conserve more resources** Monsanto seed products will reduce the aggregate amount of land, water and energy resources required, soil lost, and greenhouse gas emitted when growing crops by a third per unit of output from 2000 to 2030. We will also build partnerships to protect water quality and habitats.
3. **Improve farmers' lives** By providing choices for modern agricultural technology, Monsanto will help improve the lives of the farmers we serve, including an additional 5 million people in resource-poor farm families, by 2020.

We are committed to helping farmers achieve the sustainable yield goals in countries where there is support for biotech crops and private investment in seed businesses.

Monsanto Leading Brands and Traits

Monsanto offers farmers more choices than any other company in the industry. Our unique approach to serving farmer customers allows them to buy traits and seeds in the brands they want, in whatever way they want to purchase them. In each of our core crops, we're reaching the market through multiple channels. Some of our leading North American brands are listed below; learn more about our products on page 21. For information about brands and products available in specific countries, visit www.monsanto.com.

	CORN	COTTON	OILSEEDS	VEGETABLE SEEDS
				
Seed Brands	***Asgrow*** ***DEKALB***	***Deltapine***	***Asgrow*** ***DEKALB***	***De Ruiter Seeds*** ***Seminis***
Value-Added Traits	*Genuity VT Triple Pro* *YieldGard VT* *YieldGard* Plus with *Roundup Ready* Corn 2	*Genuity Bollgard II* with *Roundup Ready* Flex *Genuity Bollgard II* *Genuity Roundup Ready* Flex *Bollgard Roundup Ready*	*Genuity Roundup Ready 2 Yield* Soybeans *Genuity Roundup Ready* Canola *Vistive* Low-Linolenic Soybeans *Roundup Ready* Soybeans	

The Monsanto Pledge

The Monsanto Pledge is our commitment about 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

Integrity is the foundation for all that we do. Integrity includes honesty, decency, consistency and courage.

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.

A Meaningful Impact for Agriculture

Our world is facing tremendous economic challenges. No part of the globe has been untouched by the recent pressures on the international financial system.

In turbulent times like these, it becomes abundantly clear what is most important: our families, our health, our future. It is also during difficult times that we reexamine our values — as individuals and as a company — and focus on the basics.

But what if the basics include growing enough corn to feed your family? Raising enough cotton so you have the means to send your children to school? Producing more crops from every acre, with fewer natural resources?

These are real challenges that many of the world's billion farmers face every day. With this in mind, we announced our commitment to sustainable yield in 2008. Even small improvements in seeds and agronomic practices can have a tremendous positive effect on the environment and on the lives of countless farmers around the world.

Monsanto has a role to play in addressing these challenges. But a meaningful impact takes much more than the efforts of one company. We forge partnerships with people from public and private sectors to help smallholder farmers adopt modern agricultural practices that can lift them from being recipients of food aid to being growers who raise enough for their families and have extra to sell. We work with local researchers to develop new varieties of maize that can thrive in climates where rainfall is scarce. We invest in the next generation of plant breeders and agronomists to accelerate yield improvements in staple food crops. And we continue to innovate and share the benefits that new products bring to farmers — whether they farm a garden-size plot or thousands of acres.

Our commitment to sustainability doesn't stop at the farm gate. We also recognize that reducing agriculture's impact on our precious natural resources is critical to our future. We need to find ways to preserve natural habitats and to increase crop production on existing farmland without chopping down trees and clearing additional land.

These are just a few examples of our values in action. I encourage you to read on to learn more about our efforts to help make agriculture even more sustainable. Helping farmers do more with less is at the heart of our business. More than ever before, farming means growing crops for today, and for the future.

Hugh Grant
Monsanto Chairman, President,
and Chief Executive Officer
June 1, 2009

OUR COMMITMENT

Committed to **plentiful food,** now and in the future

We aspire to find solutions for one of the greatest challenges of our time: feeding a growing world and helping people live more productive lives without increasing the environmental burden on future generations.

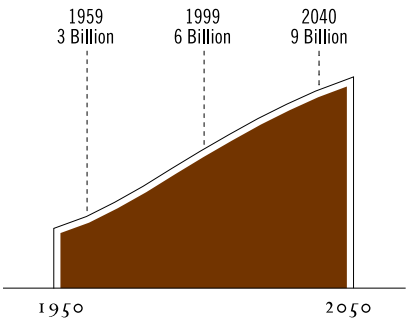
Our planet will need to double its food production to feed an anticipated population of 9.3 billion people in 2050. That is almost 40 percent more than the 6.7 billion now. Our supply of fresh water is under increased stress. And we face an energy-supply crunch and further climate change. Agricultural innovation is one key solution.

How 1 Earth Can Feed 9 Billion People

The facts are simple and sobering. By the year 2050, humanity will need to double the amount of food produced in the world to meet the demands of the growing population.

With 80 percent of the world's arable land already in production[3], increasing demand for food poses extraordinary challenges. It would be possible to expand the land devoted to crops; but that would require destroying forests and putting wildlife and biodiversity at risk. **The only environmentally sustainable alternative is to increase productivity on the fertile, nonerodible soils already in crop production.**

PROJECTED WORLD POPULATION GROWTH[4]



Although the challenge is daunting, it is not new. More than 200 years ago, the Rev. Thomas Malthus wrote that the power of population is greater than the power in the earth to produce subsistence for man.[5] Since his time, numerous people have argued that population growth would increase the demand for food faster than agricultural production could keep pace.

So far, they have been wrong. There have been brief periods when food production was insufficient; but overall, farmers have been able to produce ever-increasing amounts of crops from existing resources of land, water and energy. Technology and improvements in farm management practices have increased agricultural production and lowered food prices for consumers.

In the United States, average corn yields are six times greater today than they were during the first third of the 20th century.[6] Some of the more populous areas of the world have further potential for yield improvements because they have yet to take full advantage of the available technology. India, for example, has attained less than half of its potential corn yield.[7] The potential gains for smallholder agriculture are even more significant in developing countries.

A similar case can be made for cotton. Global cotton yield doubled between 1970 and 2006.[8] The worldwide adoption rate for existing biotechnology products was only 43 percent in 2007.[9] So there is still untapped potential.

This kind of evidence offers great hope that farmers can continue to meet the challenge of feeding, clothing and fueling an ever-growing population. But our success is by no means guaranteed. The social, economic and political realities of people and countries around the world pose unique challenges. For example, some people oppose the kind of technological advances that have allowed the world to maintain a readily available and reasonably affordable food supply thus far.

For our part, in 2008 Monsanto Company announced its commitment to help farmers:

1. Double yields of corn, cotton, soybeans, and spring-planted canola from 2000 to 2030;

2. Conserve resources by reducing agriculture's use of key resources per crop unit by a third from 2000 to 2030; and

3. Improve the lives of all who use our products, including 5 million people in resource-poor farm families, by 2020.

We are optimistic about fulfilling those commitments. But we realize that we can't do it alone. In addition to fostering greater acceptance of agricultural advances, we will need to collaborate with partners globally, while respecting the differences in needs, resources and cultures from country to country.

MEETING THE CHALLENGE

The extent of the challenges we face in meeting the world's future needs for food, feed, fuel and fiber can be seen in an array of data.

Global demand for three basic crops is expected to increase dramatically from the year 2000 to 2030:

81% FOR CORN

130% FOR SOYBEANS

100% FOR COTTON [10]

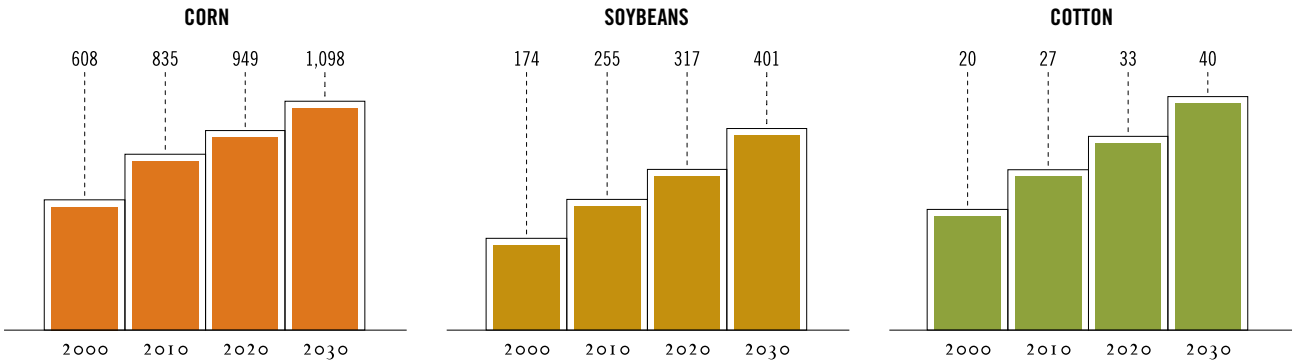
Increased demand will result from two compounding factors. We will have more people: 8.27 billion mouths to feed by 2030.[4] Moreover, people of means will consume more protein, driving up the demand for agricultural commodities that are used as livestock feed. Global meat demand will reach 376 million metric tons in 2030 — more than a 60 percent increase from 2000.[10] And total cereal demand will increase to 2,831 million metric tons — by 50 percent.[10]

Also, at the beginning of this decade, global soybean consumption rose almost as high as rice consumption.[10] Increased demand for soybeans signifies a move to higher-income food items. Much of the world is demanding not only more food, but more diversified and more expensive food.

The affluent countries' appetite for higher-priced protein poses especially difficult challenges in parts of the globe that are faced with deep and persistent poverty. One-third of the world's population growth will be in the least developed regions, such as sub-Saharan Africa; two-thirds will be in developing countries such as China.[4] These factors highlight the need both for more food and less expensive food to feed the many resource-poor people for whom hunger is still the most pressing concern.

Despite these challenges, farmers have proved over time that they are up to the task of meeting the needs of today while protecting resources for future generations. With advances in breeding, biotechnology and agronomics, and with projects currently in development and to come, Monsanto hopes to help farmers meet these challenges.

PROJECTED GLOBAL DEMAND FOR MAJOR CROPS [10] (million metric tons)



Producing More Food for Society

In the early 1930s, corn yields in the United States were about the same as they were at the turn of the century: 25 bushels per acre (1.57 metric tons per hectare).[6]

To feed a burgeoning domestic livestock herd, America's farmers turned prairies into cornfields. By 1933, 46 million hectares were under cultivation, with an average yield (production per unit of land) of 1.63 metric tons per hectare.[6]

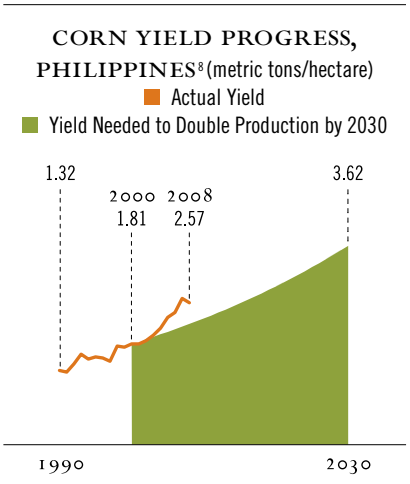
In the same year, single-cross hybrids were planted on 1 percent of the U.S. corn area.[11] The performance of hybrid corn impressed farmers so much that it was soon planted on almost every field. With addition of fertilizers, irrigation, and a wave of innovative management practices, corn yields expanded fivefold between 1933 and 2000. This allowed farmers to diversify. Eight million hectares were moved from corn production to other uses.[6, 11]

Planners took these Green Revolution tools around the world in the latter half of the 20th century and extended them to wheat and rice. Unfortunately, yield gains were largely unrealized in sub-Saharan Africa, where a third of the people are still considered food-insecure or malnourished.[12]

To meet demand through 2030, we will need to double the amount of corn, soybeans and cotton that was available in 2000.[10] Doubling the land area dedicated to producing these crops would be difficult, if not impossible.[3] But doubling the yields of these crops would meet anticipated demand with no additional land requirements — a goal that would produce numerous other benefits, from habitat and biodiversity protection to lower greenhouse gas (GHG) emissions. Farmers would also benefit from realizing sales on additional production, thereby increasing their incomes and the value of their land.

To this end, Monsanto is committed to helping farmers double the yields of their corn, cotton, soybean and spring-planted canola crops by 2030 from 2000 yield levels. We believe that the combination of advanced breeding techniques, improved agronomic practices, and biotechnology traits will give farmers the best opportunity to achieve this goal. Although we hope to work with farmers in every country, we believe this goal will initially be achievable in countries that 1 provide timely biotech crop approvals and 2 support intellectual property rights that facilitate private-sector seed investments.

Analysis of recent yields among large corn producers — countries that reap



more than 10 million metric tons a year — demonstrate important differences in productivity. **From 2000 to 2007, worldwide average corn yields increased by 0.53 metric tons per hectare. However, large-producer countries that adopted biotech corn traits have gained at nearly twice the rate, 0.93 metric tons per hectare.**[13] Rapid gains are also occurring in small-producer countries, such as the Philippines where policies supporting the adoption of biotech corn hybrids have accelerated yields. The Philippines is now on pace to double corn yields by 2030, if not before.[8]

Monsanto will continue to track these data and to report on progress in improving average corn, soybean, canola and cotton yields in countries where timely biotech crop approvals can be achieved and policies supporting intellectual property rights that facilitate private sector seed investments are in place.

CASE IN POINT:

U.S. CORN YIELDS EXPAND FOUR TIMES FASTER THAN EU-27 YIELDS

In the years between 2000 and 2007, U.S. corn yields expanded at more than four times the rate of corn yields in the European Union (EU-27) countries. Although both production regions employed modern agricultural practices and hybrid seeds, U.S. corn producers could also buy biotechnology traits to control insect pests and weeds on 80 percent of their corn area. U.S. yields expanded by almost one metric ton per hectare in just seven years. A few of the EU-27 countries approved one biotechnology trait to control a single pest. But only a small percent of their corn crop is insect-protected, so their yields increased by less than a fifth of a metric ton per hectare.[13]

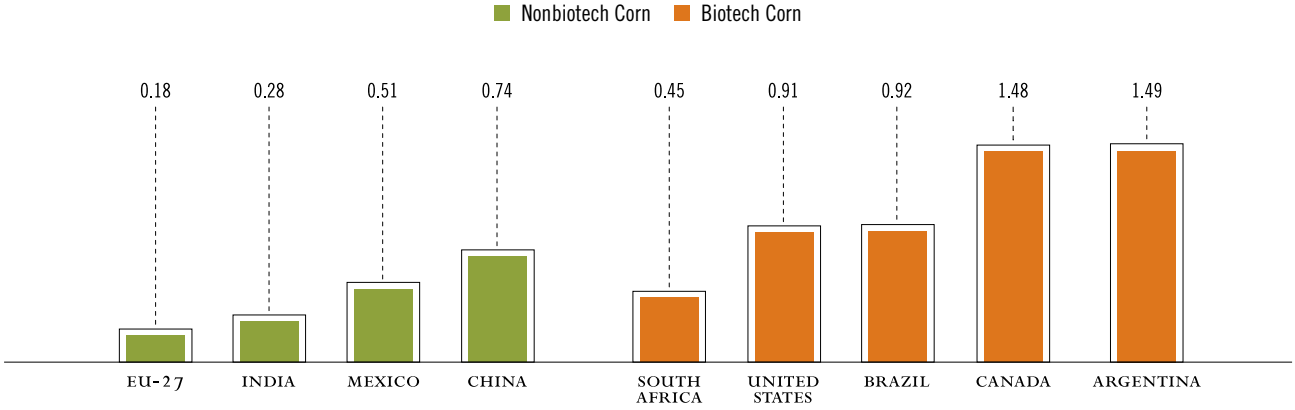
By 2010, we expect farmers in the United States will have access to the first corn hybrid with eight traits that control a wide range of pests. In about 2012, we expect the world's first biotech drought-tolerance trait will be introduced in a hybrid planted in the United States. **By fostering policies supportive of timely biotechnology trait approvals and private-sector seed investments, U.S. farmers and those in other biotech-growing countries can expect to enjoy expanding crop yields at faster rates than farmers in countries where these policies haven't yet been implemented.**

MEETING THE CHALLENGE

We believe that farmers can meet the challenge of increased grain demand if they are given the right tools. That is why Monsanto has made the commitment to

GROWTH IN CORN YIELD AMONG TOP PRODUCERS*, 2000-2007[13]

(metric tons/hectare)



* Countries producing more than 10 million metric tons of corn a year.

PRODUCING MORE WITH PARTNERS:

Monsanto's Beachell-Borlaug International Scholars Program

Rice and wheat are staple crops. They are critical to the food security of billions of people around the world. Together, these two crops feed more than half the world's population. In 2008, farmers produced 440 million metric tons of rice and 680 million metric tons of wheat.[8] However, rice and wheat productivity still lag behind other crops in productivity increases.

It's important to ensure future plant breeders are educated in advanced technologies.

Yields of rice and wheat have grown at a compound annual rate of about 0.8 percent over the past decade. The population has grown at a compound annual rate of about 1.25 percent during the same period.[4] Reasons for the lag in rice and wheat include lack of adequate investment to improve varieties and yield, diminishing land and water resources, and environmental stresses.

To overcome these challenges and to meet growing demand, it's important that future plant breeders be educated in advanced technologies and have an appreciation for how public sector research can help meet the needs of developed and developing countries. **In 2008, Monsanto Company pledged $10 million to improve yields in these crops as part of our commitment to sustainable agriculture. In 2009, we announced Monsanto's Beachell-Borlaug International Scholars Program as the result of that pledge.** We established this program in honor of two of the world's preeminent rice and wheat breeders, Henry Beachell, Ph.D., and Norman Borlaug, Ph.D. Their lifelong work laid the foundation for the tremendous increases in rice and wheat production that continue to help feed the world today.

The primary objective of this prestigious fellowship program is to educate rice and wheat plant breeders who can serve as future agricultural leaders. It will be administered by Texas AgriLife Research, an agency of the Texas A&M University system.

The program has three components.

1. It provides a full package of support, including a generous student stipend, tuition, applicable fees, health insurance, research fees, and travel, as well as funds for the collaborating institution and advising professor.
2. It supports projects that allow the student to develop advanced breeding techniques, and to conduct at least one season of field work in a developing country.
3. It is open to students worldwide who are seeking a Ph.D. in rice or wheat plant breeding.

Applications will be reviewed by an independent panel of global judges chaired by Program Director Ed Runge, Ph.D. Runge is a professor in the Soil and Crop Sciences Department, Texas A&M University at College Station, where he is the emeritus holder of the Billie B. Turner Chair in Production Agronomy.

EXTERNAL PERSPECTIVE:

Inspiring the Brightest Scientists

ED RUNGE, PH.D., Texas A&M University

As an agronomist, I have been impressed over the years with the breakthroughs Monsanto has made that improve crop production, particularly its programs to improve the yield and profitability of cotton, corn and soybeans.

A major concern I have had is how yields for crops like wheat and rice will fare without increased research and development funding. More than 3 billion people depend on rice as a staple food in their diets. Wheat provides 18 percent of the world's calories. Moreover, wheat flour is the basis for a wide range of food products — many of which are culturally significant.

Imagine my surprise when I received a call asking if I would play a leadership role in Monsanto's strategy to boost rice and wheat yields through the creation of a $10 million fund. I am pleased that the program has been named **Monsanto's Beachell-Borlaug International Scholars Program**. I hope to bring the optimism, dedication, and hope for crop improvement of these two ag research giants to young scientists around the world.

Both Dr. Beachell and Dr. Borlaug saw young people as drivers of change. This program helps a new generation of people make a difference. The fund put in place by Monsanto can catalyze investment in strategies to increase yields in these crops. Both wheat and rice desperately need talented new plant breeders to choose a career improving these crops. **Increased research funding alone — whether from private or public sources — will be squandered if we don't inspire the best and brightest among the next generation of plant scientists to make their own investment in rice and wheat.** I look forward to contributing my best efforts in the coming years to ensure that those who depend on rice and wheat will have plenty of both.

help farmers produce more. These yield gains will come from a combination of plant breeding, biotechnology, and improved agricultural practices.

U.S. farmers have doubled average corn yields in the past 40 years.[8] We are committed to helping them double yields again by 2030. Our plant breeders are constantly developing new corn hybrids that yield more. Our scientists are working on a variety of biotech traits that protect crops from yield-robbing stressors such as weeds, bugs and drought. **We are a major step closer to delivering the world's first drought-tolerant corn product. Drought- tolerant corn is designed to provide farmers with yield stability during dry conditions.** In addition, *Genuity SmartStax* corn, an eight-gene seed that provides exceptional insect protection and weed control, is on track for a 2010 launch, pending appropriate regulatory approvals. *Genuity SmartStax* corn could provide an estimated yield benefit of an additional 4 percent to 10 percent.[14]

Our soybean pipeline is rich with products designed to provide significant yield improvements. *Intrinsic Yield* soybeans have demonstrated consistent performance across locations and across seasons — a 6 percent to 10 percent yield increase compared with elite conventional soybean varieties. This project reflects the overall progress being achieved in seeds through innovative biotechnology and breeding methods.

Another product in the pipeline, our dicamba- and glufosinate-tolerant cotton, will soon be undergoing lab and field tests. We will observe the genes in plants to select commercial product candidates and to meet regulatory requirements. This particular product, which provides two flexible methods of protection from weeds, is an important tool for preserving and enhancing yields for farmers. In its first year of trials, this cotton product demonstrated excellent tolerance to dicamba and glufosinate, with no negative impact on yield.

OUR PERSPECTIVE:

Realistic Commitments

ROBB FRALEY, Monsanto Executive Vice President and Chief Technology Officer

I'm enthusiastic about Monsanto's commitment to sustainable agriculture because it identifies so closely with what we're dedicated to as a company: improving the lives of farmers by making them more productive.

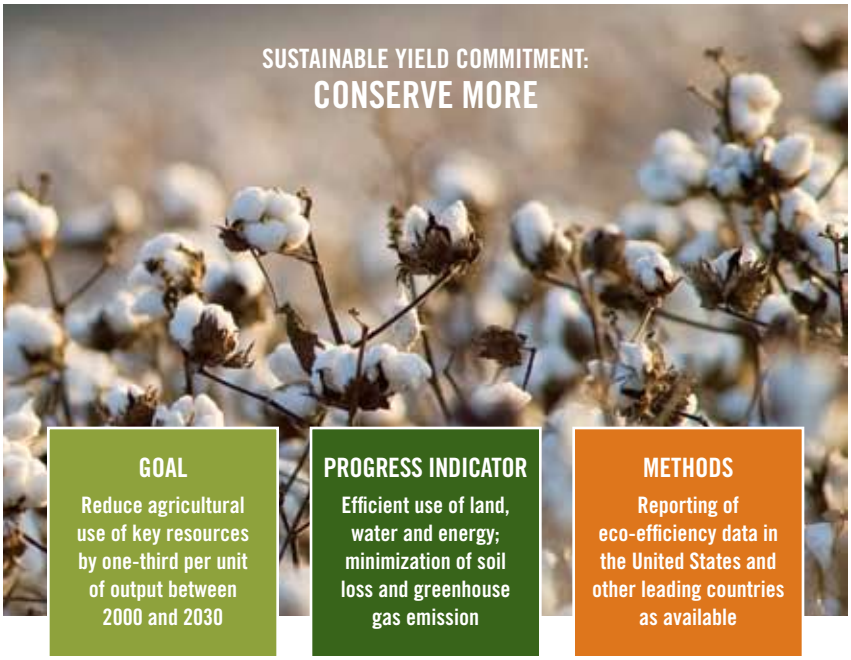
We're doing that successfully with tools and techniques that help farmers increase their crop yield. When you look at the fundamental needs of the world population, there's no denying the importance of producing more grain, more biomass, more food, and more fuel — all more efficiently.

We have already developed plants that result in reduced pesticide use, better weed control, and increased conservation tillage, while steadily increasing yields. In the coming years, we hope to introduce plants that use water and nitrogen fertilizer more efficiently.

All of this adds up to a realistic commitment to double yields in corn, cotton, soybeans and spring-planted canola from 2000 to 2030, with one-third less key resources per unit produced. It's a commitment we are determined to deliver on, in the United States and around the world.

Conserving More for Future Generations

Farmers face a complex dilemma: They must meet a growing world appetite for food, fiber and energy while conserving the vital natural resources so essential to their success. Agriculture uses two-thirds of the world's fresh water withdrawals,[15] and concerns about the potential impact of climate change on the food supply are on the rise.

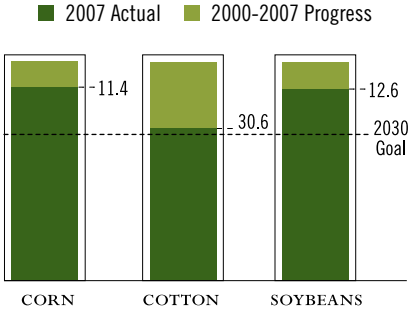


Prudent resource use is essential for sustainable agriculture. The Aral Sea exemplifies what happens when resources are used in well-intentioned but imprudent ways. Situated between Uzbekistan and Kazakhstan, the Aral Sea was the world's fourth largest lake in 1960. But by 2007, it was only 10 percent of its 1960 size and had three times the salinity of ordinary seawater.[16]

What happened? Years ago, planners in the Soviet Union diverted the two rivers that fed the Aral Sea, which was then part of the U.S.S.R., for agricultural use. They were interested in starting a lucrative export business in cotton. Today, Uzbekistan is one of the largest cotton producers and exporters in the world. But the Aral Sea has become a symbol of the trade-offs that must be weighed when natural resources are reallocated.[16]

Water is a vital resource in agriculture. Irrigation systems have created abundance and food self-sufficiency in many parts of the world. Of the total global agricultural output, 40 percent comes from just the 18 percent of cropland that is irrigated.[17] As humanity meets the challenge of feeding a growing world population, the efficient use of water will be the significant limiting factor. In fact, the World Water

RESOURCE USE REDUCTION PER CROP UNIT, U.S. 2000-2007



PERCENT CHANGE IN RESOURCES CONSUMED AND EMISSIONS PER UNIT OF OUTPUT, U.S. CROPS 2000-2007[19]

RESOURCE	CORN	COTTON	SOYBEANS
Land	-9	-26	-8
Water	-9	-29	-8
Energy	-21	-50	-32
Soil	-9	-21	-5
CO_2-eq.	-9	-27	-10
Average	-11.4	-30.6	-12.6

Council has estimated the world will require 17 percent more water than is available now to meet all its needs in 2020.[18] **Irrigation for agriculture is the most significant use of water globally, accounting for 66 percent of annual withdrawals.**[17]

Technologies and management practices that make the most efficient use of water, as well as land and energy, are critically important to the sustainability of agriculture systems. Monsanto wants to help farmers conserve more of these resources. In 2008, we set the goal of reducing by one-third the soil lost, the greenhouse gas emitted, and the land, irrigated water, and energy resources needed to produce a metric ton of corn, cotton, soybeans or spring-planted canola in 2030, compared with the base year 2000. **Our strategy is to develop seeds that produce higher-yielding crops with the same or fewer resources.** We will track our progress in some of largest producing markets, such as the United States, Brazil, India, and Europe.

Data availability will ultimately determine how many markets we can track. However, we have already joined a coalition that is tracking these data in the United States. An organization called Field to Market: The Keystone Alliance for Sustainable Agriculture has documented and published a series of indicators that include land, irrigated water, and energy use per unit of crop output.

CASE IN POINT:

LAND, WATER AND ENERGY RESOURCE USE INDICATORS, FOR COTTON

Cotton is produced on 32 million hectares, which makes it one of the top crops in the world.[8] Today, the world consumes more than 24 million metric tons of cotton a year. Some estimates are that total cotton demand will double between 2000 and 2030.[10] The United States is a major producer of cotton. It ranks third in the world in production, and second in exports.[8] The efficient use of land, water and energy to produce cotton is at once an economic competitiveness issue for U.S. cotton farmers and an important use of natural resources. U.S. cotton farmers have reduced the amount of land, irrigated water, and energy used to produce a pound of lint by 26 percent, 29 percent, and 50 percent since 2000.[19] The adoption of biotech crops, higher-yielding cotton genetics, no-till farming practices and other innovative management strategies account for these gains. Continued gains in resource-use efficiency depend on U.S. cotton farmers' interest in the latest innovations.

DROUGHT TOLERANCE AND NITROGEN-USE EFFICIENCY

Advancements in biotechnology and improved production methods help farmers squeeze more from every ounce of water, fuel and fertilizer and from every acre of farmland today than at any other time in history. It now takes 30 percent less energy to grow a ton of corn than it did just a decade ago.[19] It takes less water and less pesticide, too. As stewards of the earth, farmers

OUR PERSPECTIVE:

Our Vision at Work

JERRY STEINER, Monsanto Executive Vice President, Sustainability and Corporate Affairs

The world relies on farmers. Demand for the crops they grow is increasing with population growth and with people choosing to eat more varied and balanced diets.

Between now and 2050, our planet must produce as much food as it has in the last 10,000 years, while coping with climate change and limited arable land, water, and energy. We believe these challenges can be met in a sustainable way, and that Monsanto can play a role with its breeding and biotechnology capabilities.

We are committed to helping farmers conserve precious limited resources while producing more bountiful crops to meet growing demand. We're also partnering on conservation projects that protect biodiversity and the environment, to help sustain the natural world in agriculturally significant areas where it has been under threat.

As the world's largest investor in agricultural research, we have a great opportunity to help farmers rise to the challenge of producing more while reducing their environmental impact.

CONSERVING MORE WITH PARTNERS:

Biodiversity In Brazil

The Cerrado and the Atlantic Forest regions of Brazil are biodiversity hotspots. They are areas rich in biologic diversity that have seen significant damage from human activity and are under further threat. The Atlantic Forest has lost 93 percent of its native vegetation; the Cerrado has lost more than 50 percent of its native vegetation.[20] Both are priority areas for natural resources and biodiversity conservation actions, and both are regions where agriculture plays a significant role. Both regions are home to most of Monsanto's Brazilian farmer customers.

Monsanto is working with Conservation International and farmers to protect biodiversity in Brazil.

Photo by Jopo Makray

We believe that it is essential to work with farmers and local residents to protect these regions. That is why we are collaborating with Brazilian farmers and with Conservation International (CI) in Brazil. **We believe that by working together we can encourage positive changes for biodiversity and natural habitats by:**

1. Influencing the implementation of best practices along Monsanto's supply chain and among farmers who grow our products in the Cerrado and the Atlantic Forest.
2. Implementing concrete conservation actions in two biodiversity corridors in the Cerrado and Atlantic Forest biomes.
3. Preventing illegal deforestation and local extinction of species.
4. Encouraging compliance with legislation in the agriculture and livestock supply chain.

CI and Monsanto are working together to develop strategies, internal rules, and practical procedures to achieve alignment on these objectives.

The total value of the project is US $13 million, to be invested over five years. Costs will be equally shared between CI and Monsanto. As part of our partnership, CI will work with Monsanto and its supply chain to design an institutional environmental policy, which will be implemented by Monsanto. In turn, Monsanto has committed to adopt the conservation of biodiversity in the Cerrado and the Atlantic Forest as one of the key elements of its business strategy in Brazil. Our partnership states that both institutions will carry out activities that will produce concrete and measurable results to guarantee the conservation of biodiversity in areas selected as critical to both partners.

CONSERVING MORE WITH PARTNERS:

The Mississippi River Basin

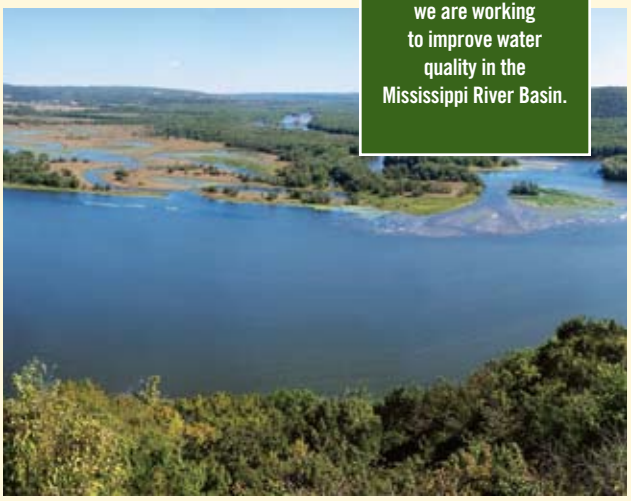
Monsanto has committed more than $5 million to help retain nutrients on the farm by working with The Nature Conservancy, the Iowa Soybean Association and Delta Wildlife on conservation projects in the Mississippi River Basin. This conservation initiative offers a vision for the Mississippi River and agricultural landscapes, in which farmers can efficiently produce higher-yielding crops in ways that further preserve water quality and support diverse and abundant wildlife.

In the collaboration, The Nature Conservancy is conducting a three-year conservation pilot project in watersheds of the upper Mississippi River Basin in Illinois, Iowa, Minnesota, and Wisconsin. The Nature Conservancy is working with farmers in the watersheds to identify conservation techniques that best retain nutrients on-farm. The Iowa Soybean Association is conducting similar research on paired microwatersheds in Iowa, where it will coordinate conservation outreach.

Delta Wildlife is installing best management practices on about a thousand sites on working farms in the lower Mississippi Valley. These practices are designed to maximize onsite nutrient retention while providing secondary environmental benefits, such as improved fish and wildlife habitats and water conservation.

Monitoring and assessment data will be collected by all the projects and shared with our farmer customers. Together, we hope these projects will generate novel approaches that can be implemented across many landscapes.

In the near term, these projects should offer the agricultural community additional tools to continue to help improve the health of the Mississippi River. Ultimately, the best practices generated may be integrated into conservation plans for river systems around the world.



Through partnerships, we are working to improve water quality in the Mississippi River Basin.

naturally understand the challenge to conserve more. They deserve the best possible tools.

Our research pipeline contains several corn, soybean and cotton products designed to increase production while reducing the use of energy, fertilizer and water. Our goal is to help farmers around the world reduce by one-third the cumulative amount of key resources required per unit of output by 2030. In addition to our research, we are undertaking a series of partnerships to address key environmental issues associated with agriculture, including habitat preservation and improved water quality.

For several years, Monsanto scientists have focused on developing drought-tolerant traits. **The drought-tolerant technology we are developing in corn and cotton is expected to offer farmers a means of reducing agriculture's impact on the environment. This technology could allow farmers to achieve more consistent yields even when water is scarce.**

During field trials last year in the Western Great Plains, drought-tolerant corn showed a 6 to 10 percent yield enhancement — a gain of 7 to 10 bushels on the average of 70 to 130 bushels per acre.[14]

Fertilizers are effective in increasing crop yields, so improving the way plants use nitrogen-based fertilizers could be beneficial for the environment. Most plants are able to use less than half of the nitrogen fertilizer applied by farmers. Much of the remaining fertilizer leaches into the air, soil and water. To address this problem, Monsanto is developing nitrogen utilization corn. It will use nitrogen more efficiently by either boosting yield under normal nitrogen conditions or by stabilizing yield under low-nitrogen conditions. Either way, it will ultimately help farmers reduce the impact of agriculture on the environment.

FIELD TO MARKET:

The Keystone Alliance for Sustainable Agriculture

What is sustainable agriculture? This was the question that leaders throughout the United States food and agriculture markets asked themselves in early 2007. The Keystone Center, a nonprofit organization dedicated to finding collaborative solutions to societal issues, brought together grower organizations, farm input suppliers, grain processors, food manufacturers, and conservation organizations to discuss the merits of gaining alignment on this important question.

The stakeholders, building on the landmark Brundtland Report,[21] defined sustainable agriculture as meeting the needs of the present while improving the ability to feed future generations. **This is to be done by increasing agriculture productivity while decreasing environmental impact; improving human health through access to safe, nutritious food; and enhancing the social and economic well-being of rural communities.** Field to Market was then formed to carry out this mission. It is one of the most diverse collections of stakeholders in the U.S. food and agriculture system.

In January 2009, Field to Market issued its Environmental Resource Indicators Report for U.S. produced corn, cotton, soybeans and wheat over the past two decades. The report suggests that increasing productivity has brought about significant reductions in land use, soil loss, irrigated water use, energy use, and greenhouse gas emissions per ton of crop output.[19] In addition, the indicators developed by Field to Market help provide measurement tools and resources for growers and the supply chain to track and achieve continuous improvement against key outcomes.

ORGANIZATIONS PARTICIPATING IN THE ALLIANCE INCLUDE:

- American Farm Bureau Federation
- American Farmland Trust
- American Soybean Association
- Bayer CropScience
- Bunge
- Cargill
- Conservation International
- Conservation Technology Information Center
- Cotton Incorporated
- CropLife America
- CropLife International
- Dairy Management Inc.
- Darden Restaurants, Inc.
- DuPont
- Environmental Defense Fund
- Fleishman-Hillard
- General Mills
- Grocery Manufacturers Association
- John Deere
- Kellogg Company
- Land O'Lakes
- Manomet Center for Conservation Sciences
- Mars, Incorporated
- Monsanto Company
- National Association of Conservation Districts
- National Association of Wheat Growers
- National Corn Growers Association
- National Cotton Council of America
- National Potato Council
- The Fertilizer Institute
- The Nature Conservancy
- Syngenta Corporation
- United Soybean Board
- University of Arkansas Division of Agriculture
- University of Wisconsin — Madison College of Agricultural and Life Sciences
- USA Rice Federation
- World Resources Institute
- World Wildlife Fund — US

Better Lives Begin with Farmers

Farmers everywhere deserve the opportunity to improve their lives and enhance their communities. In rural areas, agriculture is the source of livelihood for 86 percent of the population.[22] When farmers produce more, they are better able to support their families and to invest in the communities where their role is so vital.

Advanced hybrid seeds, biotechnology, and improvement in farming practices are all helping farmers live better. A clear example is how farm output and income have increased in the United States. In the 1930s, 25 percent of the people and 8 percent of the gross domestic product (GDP) were found on the farm. But farms produced only a third as much per capita income as the rest of the economy. Today, just 1 percent of the population is on the farm, and the farm sector generates just 1 percent of total U.S. GDP. Productivity growth between 1950 and 2002 for farms averaged 2.1 percent a year, compared with 1.2 percent for the rest of the economy. At the same time, average farm household income rose to become 35 percent higher than U.S. average household income. In short, agricultural technology dramatically boosted farm productivity to the point where farm income rose while real prices for food steadily declined.[23]

Several countries have undergone a similar change. Agricultural productivity typically increases farm incomes, and new industries are started with the surplus income and labor. The Green Revolution in Asia was made possible through the use of improved seed, fertilizer and irrigation. More recently, seed biotechnology catalyzed major progress in the 24 countries that have made it available to their farmers.

A large part of the world, however, has not experienced a Green Revolution. Agriculture provides jobs for 1.3 billion smallholder farmers and landless workers.[22] Yet three-quarters of the world's hungry live in rural areas, mostly in the villages of Asia and Africa.[24] In most developing countries, farmers are in the lowest economic class, which makes the need for agricultural productivity and better living conditions even more urgent.

Income is the most basic indicator of such progress. Income growth measures benefits before decisions are made about what to consume and where to invest extra resources.

Income tells us a person's or a family's general well-being relative to the rest of the population. Income is one of the key indicators the U.S. Department of Agriculture (USDA) uses to measure the well-being of American farm operator households.[25] In developing countries,

INCOME BENEFITS OF AGRICULTURAL BIOTECHNOLOGY, GLOBAL[27]

YEAR 2007	NET FARM INCOME	FARMERS AFFECTED
Total	**$10.1 billion**	**12.0 million**
Resource-Poor Developing Country Farmers	$ 5.8 billion	10.8 million
Large-Scale Developed Country Farmers	$ 4.3 billion	1.2 million

farm income is used to assess the impact of agricultural research and technology. Agricultural technology adoption improves the general income through higher yield, lower food prices (because the poorest people spend the largest share of their income on food), and higher wages. And income gains ultimately reduce poverty.[26]

Agricultural biotechnology has had a significant beneficial effect on farmers' income. Between 1996 and 2007, biotechnology helped farmers increase their income by $44.1 billion. About half, or $22 billion, of this income gain occurred in developing countries.[27] The gain in 2007 alone was $10.1 billion globally, with $5.8 billion benefitting resource-poor farmers. Farm income gain was achieved through yield gains and cost reduction. Biotechnology resulted in additional global production of key crops: an extra 68 million metric tons of soybeans and 62 million metric tons of corn.

CASE IN POINT:

INSECT-PROTECTED COTTON HELPS INDIAN FARMERS ENJOY BETTER LIVING CONDITIONS

Insect-protected cotton in India is a notable example of the benefits of biotechnology. A study released by the Associated Chambers of Commerce and Industry of India (Assocham) found that in 2006, Bacillus thuringiensis (Bt) cotton earned farmers almost three times the revenue per acre that conventional cotton farmers earned.[28]

Biotechnology has positive effects for the lives of farmers beyond income. When farmers adopt yield-enhancing technology such as insect resistance, they save the time and money formerly spent on pesticide application. In the long term, this allows them to move beyond subsistence, into life-quality enhancers such as education, improved nutrition, and health care. The impact of this technology can be measured in many benefits.

A study by Indicus Analytics, a leading economic research firm in India, compared key socioeconomic indicators of Indian farmers growing Bt cotton with those growing nonBt cotton.[29] The study found positive effects on income and socioeconomic factors. For example, a higher percentage of Bt cotton villages had access to drinking water, electricity, street lights, and resident doctors than nonBt villages. Bt cotton adoption was also associated with better economic infrastructure: banks, marketplaces, Internet kiosks, agricultural inputs, and textile shops. The study found that higher incomes convert to socioeconomic benefits over time. Higher yield led to higher incomes, which in turn led to improved living conditions for farmers.

Our commitment to sustainable agriculture is about more than production. It is also about giving farmers around the world the tools they need to live better. As we track our progress on this commitment, we will continue to measure farmer income gain and its impact on lives. We expect to witness greater income gains and livelihood benefits as biotechnology crops gain acreage around the world.

BENEFITS OF BT COTTON IN INDIA, 2006[28,29]

INCOME GAIN	$1,887 million
INCOME GAIN PER HECTARE	322
YIELD GAIN	50%
PESTICIDE REDUCTION PER HECTARE	1.63 kg

OUR PERSPECTIVE:

Sharing Knowledge

BRETT BEGEMANN, Monsanto Executive Vice President, Global Commercial

I've had the privilege of meeting with farmers around the world to talk about the challenges they face in growing crops that can feed their families and provide them with a steady income. The reality is that yesterday's farming methods can't keep pace with today's demand for more food.

Imagine: What if farmers in developing countries did not have to choose between having their children work in the field and sending them to school? Many smallholder farmers in India no longer have to make that choice, because they reap bigger yields when planting biotech cotton. I've also met farmers in Africa who have moved their families from mud huts to cinder block homes by choosing to plant hybrid seeds instead of older local varieties, and in the process increased their yields nearly threefold.

Innovations in plant breeding, agronomic practices, and biotechnology are all tools that can improve farm families' lives. Whether they are farming a small plot of land in Uganda with handheld tools or a thousand acres in Brazil with modern machinery, these farmers are looking for the knowledge and the best tools available to help them on their farms.

IMPROVING LIVES WITH PARTNERS:

Water Efficient Maize for Africa

Monsanto has donated maize varieties, molecular markers, drought tolerance transgenes, and the expertise of our scientists to a public-private partnership, called Water Efficient Maize for Africa (WEMA), that is to developing drought-tolerant maize varieties for Africa.

Africa is a drought-prone continent, making farming risky for millions of small-scale farmers who rely on rainfall to water their crops. Maize is the most widely grown staple crop in Africa. It is severely affected by frequent drought, which leads to crop failure, hunger and poverty. Climate change can only worsen the problem.

The WEMA partnership formed in response to a growing call by African farmers, leaders, and scientists to address the devastating effects of drought on small-scale farmers and their families. It is led by the African Agricultural Technology Foundation (AATF), and it partners Monsanto with the International Maize and Wheat Improvement Center (CIMMYT) and research systems in Kenya, South Africa, Tanzania, Mozambique, and Uganda. The Bill & Melinda Gates Foundation and the Howard G. Buffett Foundation are funding the partnership.

WEMA aims to use conventional breeding, marker-assisted breeding, and biotechnology to develop drought-tolerant African white maize varieties. These varieties will be made available, royalty-free for the drought-tolerance trait, to small-scale farmers in sub-Saharan Africa so that they can produce more reliable harvests.

During moderate drought, the WEMA partners estimate that the new varieties could increase yields by 20 percent to 35 percent, compared to current varieties. That increase would translate into about two million additional tons of food during drought years in the participating countries, meaning that 14 million to 21 million people would have more food to eat and sell.

Within the first year, the project celebrated some significant successes, including the development of WEMA teams in each country, national stakeholder workshops, and the recruitment of scientists based in Africa to work full-time on WEMA.

Risk of crop failure from drought is one of the primary reasons why small-scale farmers in Africa do not adopt improved farming practices. Drought-tolerant maize being developed by WEMA can give farmers a more reliable harvest, increase their confidence in improved techniques, and ultimately increase food self-sufficiency in Africa.

In the future, food security for Africa's farmers will require the use of multiple resources, including biotechnology, to improve productivity.

IMPROVING LIVES WITH PARTNERS:

Youth in Agriculture

We believe in investing in the future of agriculture. It is essential to ensure that future generations have the knowledge and tools to advance the sustainability of agriculture. That is why Monsanto sponsors the National FFA Organization, the National 4-H Council, and numerous other ag youth organizations.

Monsanto is a Platinum Sponsor of the National FFA Organization, which was founded in 1928 as Future Farmers of America. In 2008, we provided $1 million to support its 500,000 members. The National FFA Organization's mission is to "make a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success through agricultural education." Through supervised projects, numerous proficiency competitions, and leadership opportunities, these students not only learn about the opportunities in agriculture, but also develop the skills necessary to capitalize on them. FFA members are students, ages 12 to 21, who belong to one of more than 7,000 chapters in 50 states, Puerto Rico and the Virgin Islands. The members come from all walks of life and from farming, rural and urban areas. In fact, two of the largest chapters in the country are in Chicago and Philadelphia.

Monsanto also supported the National 4-H Council with $500,000 in 2008. The National 4-H Council is a youth organization administered by the U.S. Department of Agriculture that focuses on citizenship, healthy living, and science, engineering and technology programs. The National 4-H Council serves over 6.5 million members, from ages five to nineteen in approximately 90,000 clubs. Monsanto sponsors the 4-H volunteer network to recruit, retain, recognize and promote 4-H volunteers.

We support several other organizations that are making a difference in lives of young people across the United States, including Ag in the Classroom, Farm Safety 4 Just Kids, and the Progressive Ag Foundation Safety Days.

OUR PRODUCTS

Innovation **designed** to serve future generations.

As a company 100 percent focused on agriculture, Monsanto uses its R&D skills to deliver innovation to the farm. Through investments in breeding and biotechnology, we are creating products that make farmers more productive and profitable. We invest more than $2.6 million a day in discovering and delivering innovative technologies that make a difference to farmers. Our research supports both the agronomic and the value-added needs of our customers. By investing in products that make a difference on the farm, we're supporting the future of agriculture.

Better Breeding, Higher Yields

Our Seeds and Traits business meets farmer demand by offering seeds with the best possible germplasm, or improved genetics, for a higher yield. Through leading brands, we sell seed for large crops such as corn, cotton and oilseeds (soybeans and canola), and for small crops, such as vegetables.

Today, we are working to meet the needs of farmers in two ways. First, through our work in breeding, we deliver superior genetics that allow farmers to get more out of each seed, resulting in higher yield potential. Second, by inserting one or more genes in the seed to create a biotechnology trait, we provide farmers with a novel way to combat insects and control weeds, so yield is preserved throughout the growing season.

We remain committed to licensing our germplasm and trait technologies broadly, so that farmers can purchase these products under a variety of seed brand names.

BENEFITS OF OUR PRODUCTS

Our products and products in our development pipeline have three broad categories of benefits for farmers, processors and consumers.

- **Farmer benefits** increase productivity or reduce cost by increasing yield, improving protection from insects and disease, and increasing crop tolerance to heat, drought, and other environmental stresses. For many farmers, our products also help improve lives. Farmers can produce more while saving time and inputs.
- **Processor benefits** improve the quality and content of animal feed, human food, and energy sources.
- **Consumer benefits** are advantages such as increased protein, healthier oils, and carbohydrate enhancements.

OUR PERSPECTIVE:

Product Pipeline Highlights

STEVE PADGETTE, Monsanto Biotechnology Lead

The progress we have had in our pipeline this year is fantastic. In fact, in my 24 years with Monsanto, I can't remember being so excited about the movement in our pipeline.[1]

Two of the most remarkable products in our pipeline are *Genuity SmartStax* corn and drought-tolerant corn.

The progress we have made in soybeans is also impressive. We just introduced our second-generation *Roundup Ready* soybean, called *Genuity Roundup Ready 2 Yield*. As someone who was on the original team that developed first-generation *Roundup Ready* soybeans, I am thrilled with this new product, which sets a new standard in soybean yield potential.

In addition, our intrinsic soybean yield product moved into Phase III of development this year. This is the first intrinsic yield product that could provide a significant yield boost on top of what farmers can gain from *Genuity Roundup Ready 2 Yield* soybeans. These soybean products are going to create a new standard for yield in soybean, which creates significant value for the farmer. Another product that has moved into Phase II this year is dicamba- and glufosinate-resistant cotton, which we plan to add to our *Roundup Ready Flex* cotton product to give farmers more flexibility in cotton weed control.

PIPELINE HIGHLIGHTS:

Corn

GENUITY SMARTSTAX

Genuity SmartStax combines the industry's best-performing trait package of herbicide-tolerance and insect-protection traits in a single multistacked corn trait product. It is designed to offer farmers eight different modes of herbicide tolerance and insect protection in top-performing hybrids, which will provide the most comprehensive control system available.

Genuity SmartStax is expected to be the platform on which future corn traits will be stacked and introduced to the market. We expect to reach 32 million U.S. acres with a triple-stack corn offering in 2009, thus setting the stage for the broadest possible launch of *Genuity SmartStax* in 2010.[14] Longer term, this technology can also provide value to Latin American farmers. We are working hard to get this technology to market two years ahead of our competitors. In June 2008, Monsanto requested that the Environmental Protection Agency (EPA) set a refuge requirement for *Genuity SmartStax* at 5 percent in the northern Corn Belt and at 20 percent for southern states where cotton is planted. Both are reductions from the refuge requirements for currently available technology. The EPA has already granted reduced refuge requirements for the product's above-ground insect protection, a key step in the process.

Refuges are plots of conventional crops that are planted near improved crops, as a haven for displaced insect pests.

DROUGHT-TOLERANT CORN

In general, the drought-tolerance gene works by mitigating the impact of low soil-moisture content on the plant's physiology. In response to inadequate water, corn plants typically begin to shut down their metabolism, which slows photosynthesis and growth. The lead gene we submitted for regulatory approval enables the corn plant to maintain its metabolism for a longer time during drought stress. Ongoing efficacy and quality testing has shown that when the product is used according to specifications, the crop experiences no negative effects in conditions of adequate moisture.

Monsanto's drought-tolerant technology is also expected to improve farm productivity in other parts of the world — such as Africa — where rainfall is insufficient or irregular. Monsanto's drought-tolerance technology promises to give corn crops worldwide a better opportunity to achieve their yield potential.

OUR PERSPECTIVE:

Corn in the Coming Years

DUSTY POST, Monsanto Corn Technology Lead

Our corn product pipeline will give farmers a lot to look forward to in the coming years. For example, our first-generation drought-tolerant corn product is expected to launch in the next three or four years.

This product is in Phase IV, which means that we have started regulatory submissions. This is monumental, because it will be the first biotech drought-tolerance product to be offered by any company. It will give farmers an improved tool against drought-stressed plants, allowing for better yields under conditions where water is limited.

For example, in the dryland markets where corn yields are typically 70 to 130 bushels per acre, farmers can expect an improvement of 6 percent to 10 percent, which translates into a 7- to 10-bushel-per-acre yield enhancement.[14] Another product coming from Monsanto's R&D pipeline is *Genuity SmartStax*. This will be our platform product for insect protection and herbicide tolerance. It will provide multiple modes of action to thwart both above-ground and below-ground insects, as well as multiple modes of action for herbicide tolerance. This product is even closer to farmers' fields, with an expected launch in 2010.

PIPELINE HIGHLIGHTS:

Oilseeds

GENUITY ROUNDUP READY 2 YIELD SOYBEANS

Genuity Roundup Ready 2 Yield was developed through gene mapping: We identified specific DNA regions in soybeans that have a positive effect on yield. Using advanced selection and insertion technologies, we added the *Genuity Roundup Ready 2 Yield* gene to one of these high-yield DNA regions. Advances in innovative science give *Genuity Roundup Ready 2 Yield* soybeans high yield potential.

Four years of field trials comparing the new product with first-generation *Roundup Ready* technology showed a yield advantage of 7 percent to 11 percent for *Roundup Ready 2 Yield* soybeans.[14] Hundreds of soybean farmers across the Corn Belt had the chance to preview *Genuity Roundup Ready 2 Yield* in 2008.

SOY INTRINSIC YIELD DEVELOPMENT

This product has demonstrated consistent yield enhancement during several seasons of testing in different environments. Higher-yielding soybeans are expected to offer farmers the opportunity for increased productivity. Once they are commercially available, higher-yielding soybeans will build upon our *Genuity Roundup Ready 2 Yield* platform and enable soybean farmers to boost the yield advantage from that product line.

This project is part of our R&D collaboration with chemical and plant biotechnology company BASF on yield and stress. It also is reflective of the growing rate of "genetic gain" in seeds — the improvement in important characteristics such as yield and tolerance to environmental stress — through the use of innovative biotechnology and breeding methods.

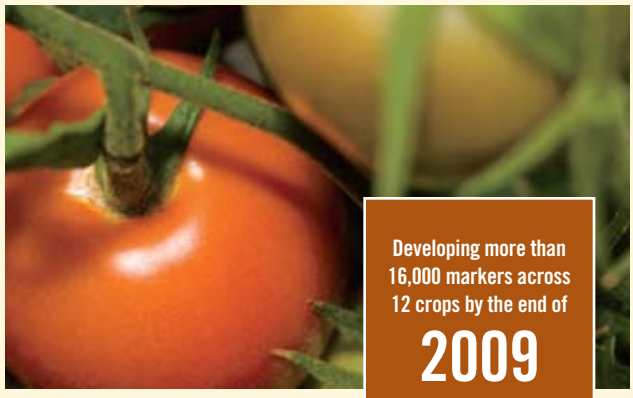
OUR PERSPECTIVE:

Yield Increases in Soybeans

ROY FUCHS, Monsanto Oilseeds Technology Lead

For soybeans at Monsanto, now is a very exciting time. In 2009 we introduced our newest product, *Genuity Roundup Ready 2 Yield* soybeans, which will provide farmers with a 7 percent to 11 percent increase in yield over first-generation *Roundup Ready* soybeans.[14]

After this product, we plan to introduce soy intrinsic yield, a higher-yielding soybean product that will be stacked on top of *Roundup Ready 2 Yield* soybeans. This will provide an additional 6 percent to 10 percent increase in soybean yield. By the middle of the next decade, we'll be looking at soybeans that are producing 15 percent to 20 percent higher yields than the soybeans that farmers are growing today.



Developing more than 16,000 markers across 12 crops by the end of **2009**

PIPELINE HIGHLIGHTS:

Cotton

DICAMBA GLUFOSINATE COTTON

Protection against weeds is an important part of preserving and enhancing yields for farmers. We see adding modes of herbicide tolerance as a strong example of good product stewardship and a reflection of our commitment to providing growers with the best value.

In its first year of trials, dicamba- and glufosinate-tolerant cotton demonstrated excellent tolerance to dicamba and glufosinate with no impact on yield.[14] This is the first three-way stack of herbicide-tolerant technologies in our pipeline. It adds two new unique modes of action to the *Genuity Roundup Ready Flex* system, thus providing the greatest flexibility in weed management.

This product, using innovations in modern ag biotechnology, will create new options for farmers. To give farmers more alternatives to solve evolving weed control issues, we need to be looking at new ways to use existing tools continually.

PIPELINE HIGHLIGHTS:

Vegetable Seeds

Last year, we pointed to the identification of 10,000 molecular markers in our top 10 crops by the end of 2009 as an important growth driver for this business. Markers are tags we use to identify genetic features of vegetables and other plants. We are well on our way toward finding more than 1,300 markers for each of nine crops by the end of 2009, and more than 2,500 markers for each of six crops. With these molecular markers, we are working to develop seeds that will grow vegetables and fruits that offer better nutrition, convenience and flavor. In addition, we are creating products that help farmers make the most of their land by growing crops with greater uniformity, disease resistance, earlier maturity, and better shipping ability.

We are always looking for new traits that are still locked in the vast reservoir of the wild relatives of cultivated vegetables. For example, we are working on a variety of broccoli with three times more cancer-fighting compounds than varieties currently grown.[14] This breakthrough resulted from a trait discovered in wild broccoli.

One of the biggest challenges tomato farmers face today is the fact that there is no pesticide available to control bacterial wilt, one of the most damaging diseases in tomatoes. We are developing a tomato with resistance to this costly disease. Another challenge with tomatoes, as well as with other vegetable seeds, is to make them more appealing and more nutritious. We are working on this as well as breeding for improved flavor in fresh market tomatoes.

OUR PERSPECTIVE:

Herbicide Flexibility for Cotton

JOHN PURCELL, Monsanto Cotton Technology Lead

The most exciting product that cotton farmers have to look forward to is dicamba- and glufosinate-tolerant cotton.

This is a product that combines dicamba resistance and glufosinate resistance with *Roundup Ready Flex*. This product is currently in Phase II, which means we have conducted field trials demonstrating good levels of resistance to these herbicides. The success of these field trials indicated to us that this product has good potential for commercialization. We believe this innovative cotton product will meet farmers' needs for more herbicide flexibility in their cotton crops.

Living Our Commitment to Product Stewardship

We are committed to the responsible management of technologies and products across our seeds, traits and chemical businesses, from concept to discontinuation.

We apply the principles of the Monsanto Pledge to our products, actions and business. This commitment aligns our product offerings with the commitments Monsanto employees make to follow our Code of Business Conduct.

Monsanto and other Biotechnology Industry Organization (BIO) member companies have collaborated to create a program called Excellence through Stewardship. This industry program is designed to promote responsible management of all plant products around the world during each phase of a product's life cycle. It includes common objectives, principles, and management practices. Members use a Guide to Understanding and Implementing Quality Management Program, which includes BIO's previously adopted Containment Analysis and Critical Control Point for plant-made pharmaceuticals and plant-made industrial products. Members participate in a Stewardship Third-Party Audit Program, a checks-and-balances system of outside audits.

BIO also adopted a Product Launch Stewardship Policy in 2007. It provides market assessments, dialogue with stakeholders, appropriate approvals, and market management plans. This policy is specifically designed to address issues that might arise when different trading partners approve products at different times.

Monsanto supports such industry and trade group stewardship efforts. But it is deeply committed to maintaining its own leadership in responsible management of products and technologies. Our product stewardship programs are designed to ensure the integrity of our products and the processes used to develop, produce and manage them. These programs cover the entire life cycle of our products, from gene discovery and plant development through seed production, marketing and distribution. They extend to crop production and crop utilization in the marketplace and even to the responsible disposal of discontinued products.

TECHNOLOGY AND FIELD TESTING

Starting at the earliest stages of a product's life, Monsanto ensures that its products will be safe for people and the environment, as well as useful for our customers. This overarching policy, often called "premarket stewardship," includes comprehensive project and technology program reviews and quality reviews.

SEED PRODUCTION AND DISTRIBUTION

Product stewardship is critical to ensure that Monsanto's seeds deliver the product identity, integrity, and trait purity (quality) that farmers expect. We practice responsible management by following guidelines to ensure seed quality and trait purity, by complying with labeling regulations, and by ensuring that our seed licensees comply with contract requirements.

CROP SALES AND MARKETING

As the main points of contact between Monsanto and its customers, our sales and marketing force plays a major role in product stewardship. This includes ensuring that customers and licensees use biotech crops properly, clearly establishing stewardship expectations with our farmer customers, and educating farmers about the importance of following best practices and Monsanto recommendations for chemical products and weed- and insect-resistance management.

CHEMICAL PRODUCTS

Chemistry stewardship ensures that all chemical ingredients used meet Monsanto criteria for human health and environmental safety. Stewardship requires that product marketing be accurate, set reasonable expectations, and comply with the laws and regulations that govern marketing claims.

Stewardship also conveys good practices for chemical product use, including appropriate application rates, times, conditions, and equipment. Monsanto is introducing a labeling initiative that, where it can be implemented, will include a 24-hour emergency number and a backup number. This will help provide timely technical support, including advice on the disposal of pesticides and used containers.

OUR PEOPLE

Utilizing the **talents** of our most valuable natural resource.

Our people are what make Monsanto the leader in our industry. That is why this company is dedicated to finding talented individuals, providing them with competitive benefits and compensation, and encouraging them to continue to grow throughout their careers.

Our company reflects the cultures, ideas and interests of Monsanto's diverse team of 20,000 people working in more than 60 countries worldwide.

Fostering a Diverse and Talented Work Force

Monsanto believes in a team-oriented, nonhierarchical and entrepreneurial business culture. This gives people a chance to make bigger, earlier and more frequent contributions than would be the case in many companies. The degree to which we emphasize and encourage personal and group development is unusual in the business world. This is an integral part of our belief that how we work together and develop as people and as an organization is as important as what we produce.

TALENT

Monsanto seeks employees who are willing to reach higher and grow personally. As a company, we are committed to recruiting and retaining the best individuals. This commitment is viewed as a strategic business imperative and is an important part of our Pledge. We value and respect all of the many talents, skills and experiences our people bring to work each and every day.

Our belief is that to progress as a company, we must help individuals progress. **We provide employees with opportunities and programs that support their professional and personal growth.** These programs include Monsanto's Development, Performance and Rewards (DPR) management system; people review and succession planning; tuition reimbursement; and training opportunities.[30] Our DPR process provides a framework in which Monsanto people can develop themselves in ways that contribute to our business success and gain increasing rewards. Goal setting, coaching, and feedback are essential components of DPR. We also encourage the continuous professional growth of our employees through a variety of internal and external seminars and conferences that increase their technical, professional and managerial skills.

Our practice of promoting from within with cross-functional assignments provides our employees with the opportunity to expand their careers. In addition, Monsanto supports a system of open job postings for most positions that become available.

We have numerous ways to encourage and recognize employees' good work and extra effort. Awards include rapid recognition awards, Monsanto Excellence Awards, Science and Technology Career Awards, Queeny Awards, Master Sales and Distinguished Development Awards and service awards. There are also specific function, region and business awards.

Hugh Grant meets with the Black Growers Council, sponsored by Monsanto's diversity network for African American employees and its U.S. Commercial business.

DIVERSITY

We believe that diversity and an inclusive culture are essential to our success. As a company that does business in many countries and cultures, we want to reflect diversity in our employees and in the way we do business. We strive for our work to reflect and respect the cultures, ideas and interests of all the customers we serve and all the communities we touch.

Our commitment to diversity extends to external contacts, such as suppliers, as well as our employees. Programs supporting diversity among employees include employee resource groups and people teams. Recognizing that people have broad and varied needs, Monsanto encourages and supports employee-organized resource groups organized in a variety of functional and technical areas. A common focus of these teams is ongoing professional and technical education and development.

These employee resource groups include networks for people of African, Asian, and Latin heritage, women, scientists who work in different disciplines, and gay, lesbian, bisexual and

transgendered employees. In addition to these corporatewide groups, several manufacturing and research sites have organized people teams, which are chartered to assess local developmental needs and to design learning and networking experiences that meet those specific needs.

BENEFITS AND COMPENSATION

Competitive compensation and benefits are essential to attracting and retaining the most talented people. Our approach is to be locally competitive on a global basis. We offer family-oriented benefits, performance-based rewards, and incentives that help foster an increased sense of ownership among our employees.

Monsanto offers highly competitive pay and benefits around the world, excellent development opportunities, and a great working environment. Our compensation and benefits philosophy is to provide competitive rewards that attract and retain the best talent and foster a greater sense of ownership in the company. Monsanto's incentive reward program is tied to performance at individual, team and business levels.

Employee benefits are an important part of our culture. Through flexible benefits with coverage options, our people can choose medical and dental care and insurance tailored to their needs.[30] Our plans vary by world region; but all are designed to meet employee needs while keeping Monsanto competitive. In the United States, we maintain a savings and investment plan and a cash-balance pension plan as tools for employees to manage their financial strategy.

Our goal is to help employees keep the right balance of work and family. Monsanto's U.S. vacation schedule gives full-time employees four weeks in their third calendar year of service, in addition to 13 or 14 holidays a year. Benefit packages vary from country to country. For benefits information in other countries, please consult the local Monsanto personnel.

Distribution of Employment, 2008

WORLD AREA	EXECUTIVES	SENIOR MANAGERS	MANAGERS	SALES	OTHER	TOTAL
Asia / Pacific	4	40	78	258	937	1,317
Brazil	5	36	114	245	1,702	2,102
Canada	1	15	35	61	140	252
China	1	2	6	3	27	39
Europe / Africa	9	67	169	358	2,689	3,292
India	1	17	42	159	398	617
Latin America North	2	17	51	84	1,106	1,260
Latin America South	4	27	64	75	901	1,071
United States	146	631	938	1,041	7,747	10,503
Total	**173**	**852**	**1,497**	**2,284**	**15,647**	**20,453**

TURNOVER	
Voluntary	4.4%
Involuntary	4.3%
Retirement	1.0%

HIRE RATE	
New Hire	15.0%
Rehire	0.8%
Temp to Regular	1.3%

TENURE[1]	
Under 2 years	22.9%
2 to 5 years	22.6%
6 to 10 years	22.6%
11 to 15 years	12.1%
16 to 25 years	11.5%
25+ years	8.3%

WORK FORCE COMPOSITION	
Salaried	82.4%
Hourly	17.6%
Female	30.0%
People of Color (U.S. only)	23.0%

AGE	
Under 25	4.0%
25 to 34	31.2%
35 to 44	30.9%
45 to 54	23.2%
55 to 64	9.6%
65 and older	1.1%

COMPENSATION	
Base pay (median)	$51,800

People Who Deliver Excellence, at Work and in the Community

Monsanto is privileged to have employees who excel at what they do and who want to make a difference. Our employees demonstrate their commitment to customers, community members, and our stakeholders through our Pledge.

The Pledge Awards

Each year, Monsanto honors several people through the Monsanto Pledge Awards. The Pledge Awards recognize people, projects and programs that exemplify Pledge values while meeting or exceeding business goals. In 2007, an external panel of distinguished experts selected seven projects that best demonstrate our commitment to our customers and communities, and our commitment to delivering value. We congratulate the winners. Their stories are told below.

Empowering Smallholder Corn Farmers in Mexico, India and Indonesia

Commercial teams in Mexico, India and Indonesia helped improve economic self-sufficiency and quality of life for smallholder farmers by sharing Monsanto technologies and modern agricultural practices. Historically, these smallholder farmers mainly grew saved-seed or open-pollinated varieties. The Monsanto teams saw opportunities to benefit the farmers by upgrading their crops to hybrid seed. Through partnership with local organizations, dialogue, transparency and respect, the teams overcame farmers' uncertainties about unfamiliar crops and commercial programs. As a result, some of the poorest growers in each of the countries have witnessed significant gains in yield. Many have gone from subsistence farming to commercial farming.

Beyond Education: Transforming Dreams into Reality in Camaçari, Brazil

Because of the high cost of books and a lack of public libraries in certain parts of Brazil, including the area near Monsanto's Camaçari manufacturing facility, 73 percent of books are concentrated among just 16 percent of the population. As a result, illiteracy is a significant problem. The Monsanto team at Camaçari started a program to help democratize literacy in the communities of Camaçari and Dias d'Ávila in Bahia state. The team members worked with nongovernmental organizations, volunteered their own time, distributed 70,000 children's books, and supported the training of teachers to work with the donated material. Now teachers have more tools to increase literacy, and students have greater access to cultural materials and knowledge.

Improving the Lives of Migrant Workers in Williamsburg, Iowa

Monsanto's Williamsburg, Iowa, seed production site (previously operated as Holden's Foundation Seeds, LLC) has initiated many practices to attract and retain seasonal migrant workers. The Williamsburg team's innovations include offering outstanding housing and transportation to and from work, collaborating with a health care provider for low-cost medical consulting to workers and their families, and partnering with educational services to provide a Head Start and early education program for children of migrant laborers. Because of the team's efforts, the site attracts an 85 percent return rate among seasonal migrant workers, with an average length of employment of six or seven years. In 2007, the Association of Farmworker Opportunity Programs recognized Williamsburg as its Agricultural Employer of the year.

Transparency with the Soda Springs, Idaho, Community Enhances Phosphorus Supply

The Soda Springs team invited environmental advocacy groups, neighboring landowners, and members of the media to engage in dialogue about Monsanto's mining properties. The team also collaborated with Idaho State University to gather a decade's worth of soil- and water-monitoring data and plant and animal tissue-test results. The data were made public and cross-referenced with the Geological Information Survey. Because of these activities, most of the neighboring landowners have taken public positions in support of Monsanto's operations. The team's openness to third-party observation will enhance Monsanto's reputation and its ability to identify and address environmental concerns.

The Biotech Endorsement: Innovation in Crop Insurance and Risk Management

The Monsanto crop insurance team recognized that the Monsanto biotech traits contained in *YieldGard* triple-stack corn (*YieldGard* Plus with *Roundup Ready* Corn 2 and *YieldGard VT* Triple) can significantly reduce production risk under adverse growing conditions. Working closely with Monsanto Agri-Services, LLC, which provides growers with information products, they developed a mathematical rating method and gathered data demonstrating how *YieldGard* triple stack technologies both reduce production risks and increase yield probability. Collaborating with the Western Agricultural Insurance Company/Crop 1, the team submitted this crop insurance concept, called the Biotech Endorsement, to the Federal Crop Insurance Corporation (FCIC). The FCIC board approval of the Biotech Endorsement represents the first crop insurance discount based on the performance of advanced biotechnology. As a result, corn producers in four pilot states received $25 million in crop insurance savings, an average of $4.50 an acre. The program also saved taxpayers $27 million in subsidies. The program has expanded to 11 states for 2009.

Science Education Helps Students Prepare for the Future of Agriculture

Over the past four years, Dannette Ward, a Monsanto information resources specialist, shared information about agriculture and biotechnology with more than 250,000 students throughout the United States. She enlightened thousands of teachers, advisors and parents with information about the benefits of plant biotechnology. She served as an educational and motivational speaker around the country. Schools and universities recognize her scientific knowledge and teaching abilities. Ward also assembled a series of classroom exercises, simple scientific experiments, and demonstrations to share with Monsanto employees and others who want to share their excitement about plant biotech with children.

Seminis Helps Kenyan Farmers Invest in Greenhouse Tomato Production

Most years, smallholder farmers in Kenya struggle because of tomato shortages. Devastating rains can cause increased disease, poor yield, and poor quality. The resulting shortage causes tomato prices to shoot drastically higher. The *Seminis* team in East Africa developed and implemented a solution to this problem. Coordinating a joint project with Kenya Horticultural Development Program (KHDP), they helped local farmers grow high-yielding, top-quality tomatoes in simple greenhouses with drip irrigation. The project resulted in excellent-quality produce during the rains, and yields up to 500 percent greater than those from the open fields did.

Investing in Our Communities

Volunteerism and philanthropy are two ways we act on the Pledge. Monsanto is committed to giving back to the communities where our businesses operate and our people live. Because each community is unique, we work in partnership with local Monsanto employees and community representatives to align our support with community needs.

In 2008, the Monsanto Fund, the philanthropic foundation of Monsanto Company, awarded $13.9 million in grants for nutrition, education, and environmental and community projects. Among those grants were the following projects:

United Way: Awarded $1.1 million to local United Ways in the communities where Monsanto has a presence.

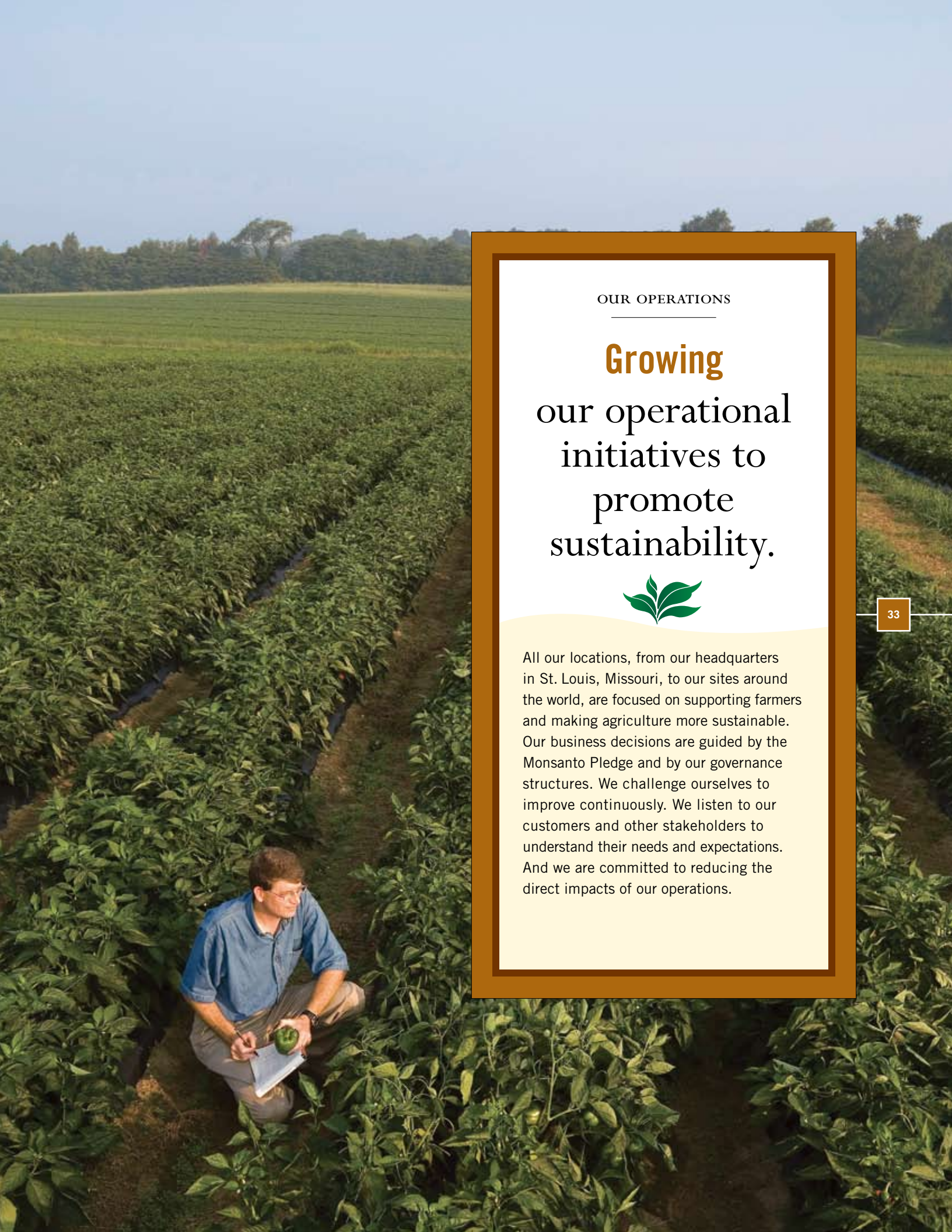
Fundação Arthur Bernardes, Brazil: Awarded $162,000 over three years for a project aimed at helping smallholder farmers in 20 rural districts in San Francisco Xavier in São Paulo state. The goal is to help farmers make better production choices so they can generate more income while conserving the environmental integrity of the region and preserving their native culture.

Ducks Unlimited, Inc., Tennessee: Awarded $45,000–$50,000 annually over the past nine years, Monsanto Fund has provided financial support to Ducks Unlimited's Wetlands for Kids Day, an educational event full of unique hands-on activities. This grant emphasizes wetland appreciation and provides inserts to Puddler magazine, whose mission is to nurture a commitment to wetland preservation among young readers.

Africare House, Burkina Faso: Awarded $400,000 over two years to improve the quality of life in 10 cotton- and cereal-producing villages in Houet Province in western Burkina Faso by building stronger and more diversified farming and nutrition systems based on local resources and markets.

Habitat for Humanity, Indonesia: Awarded $60,000 to rehabilitate and purchase equipment for a village school in Sumberwono, Mojokerto, in East Java Province. The grant will provide a safe, earthquake-resilient environment where children can study. Employees of Monsanto Indonesia lent a hand in the building.

Ready Readers was awarded $15,000 for a program that inspires St. Louis area preschool children through books to become lifelong readers.



Growing our operational initiatives to promote sustainability.

All our locations, from our headquarters in St. Louis, Missouri, to our sites around the world, are focused on supporting farmers and making agriculture more sustainable. Our business decisions are guided by the Monsanto Pledge and by our governance structures. We challenge ourselves to improve continuously. We listen to our customers and other stakeholders to understand their needs and expectations. And we are committed to reducing the direct impacts of our operations.

Strong Governance Leads the Way

Monsanto's leaders and its people are committed to the highest ethical standards. We live the Pledge values every day through our governance procedures, which include strong board oversight and rigorous financial policies and procedures.

In 2008, Monsanto received an award from Corporate Secretary Magazine in the Best Overall Governance, Compliance and Ethics Program category, which included Pfizer and Microsoft, among others, as nominees. The award recognizes Monsanto for displaying integrity and skill in upholding the highest standards of a publicly traded company. Monsanto was also recognized by Corporate Responsibility Officer magazine as number 20 of the 100 Best Corporate Citizens in 2008.

"As a leader in global agricultural biotechnology, our company operates at the confluence of food, energy and sustainability," says Monsanto's Senior Vice President, Secretary and General Counsel, David Snively. "This public spotlight raises our governance profile to a high level. I am pleased that our efforts in corporate governance position us to participate in that arena."

ECONOMIC PERFORMANCE, 2008
(in millions)

Net Sales	$11,365
Cost of Goods Sold	$ 5,188
Operating Expenses	$ 3,456
Interest Expense	$ 110
Interest Income	$ (132)
Cash Paid for Dividends	$ 419
Income Tax Provision	$ 899

Our board believes that Monsanto's Pledge values and its commitment to integrity are conducive to long-term performance. Our board reevaluates our policies on an ongoing basis to ensure they sufficiently meet the company's needs.

Currently, our board has fixed the number of directors at 11 members. Upon joining the board, directors are provided with an initial orientation about the company, including its business operations, strategy and governance.

Elements that contribute to our strong governance include:

1 **An independent board:** Our board charter requires that no more than two board members may be nonindependent under criteria set by the New York Stock Exchange (NYSE). Under the NYSE listing standards, for a director to be considered independent, the board must affirmatively determine that the director has no direct or indirect material relationship with Monsanto. In determining director independence, the board considers the NYSE categorical independence standards and relevant facts and circumstances, including any direct or indirect transactions, relationships, and arrangements between a director and Monsanto. In 2008-2009, all Monsanto board members, except the CEO, were considered independent.

2 **Stakeholder dialogue:** Monsanto regularly meets with major investors to share governance procedures and to discuss areas of interest or concern. Our board of directors has also adopted a policy that provides a process for shareowners to send communications to the board. Shareowners may contact our board through our Web site at www.monsanto.com. We also meet regularly with stakeholders in several grower and industry advisory councils.

3 **Transparency:** Monsanto publishes this *Corporate Responsibility and Sustainability Report*. Our corporate Web site includes extensive details about our corporate governance and ethics policies. Included are copies of our certificate of incorporation, bylaws, board charter and corporate governance guidelines, board committee charters, code of business conduct, code of ethics for our chief executive officer and senior financial officers, statement on board leadership roles, the Monsanto Pledge, and our human rights policy.[31]

4 **Committed employees:** Monsanto has grown with people committed to our values. Today we employ more than 20,000 people, many of whom were hired in the last five years. Quickly acclimating new employees is a priority, to help them understand and adopt our culture of integrity.

Ethical Business Conduct

Our leaders wrote the Monsanto Code of Business Conduct to reflect the values embodied in our Pledge, to clarify expectations, and to promote business that operates with integrity. By presenting guidelines for appropriate business behavior, the code helps employees deal responsibly with the dynamics and range of complex business practices that affect the company's reputation.[32]

Integrity and the Business Conduct program are taken seriously throughout Monsanto, from the lowest to the highest levels.

Integrity and the Business Conduct program are taken seriously throughout Monsanto, from the lowest to the highest levels. Our Business Conduct Office (BCO) provides ongoing support for employee engagement with the code. The BCO Web site offers access to handbooks that provide greater detail on subjects such as antitrust, conflicts of interest, and the giving and receiving of gifts.

The Ethical Moments computer video series provides training for typical ethical dilemmas that might occur in the workplace. New hires receive training in the code, as well as antiharassment instruction.

Our Business Conduct Office maintains a global support system to investigate allegations and to respond to requests for guidance. It reports these communications and its efforts to resolve these matters directly to Monsanto's board of directors. The BCO looks into every matter of concern that it receives.

The BCO receives hundreds of questions through its Voice Your Concern online system, through its guidance line telephone program, and through e-mails and visits from employees. When employees report that the code may have been violated, the Core Response Team, which is made up of representatives from senior Internal Audit, Human Resources, Global Security, Legal, Commercial, IT Security, and BCO, responds. It manages the investigation and resolves the issue. Most issues brought to BCO's attention are simple requests for guidance about policy or compliance requirements. The BCO researches the matter and provides answers to the employees who submit the questions.

Monsanto Connection, our online news portal for employees, interviews Monsanto leaders about what integrity means to them. It also invites members of the BCO to conduct case studies and presentations at departmental town hall meetings and other forums. We expect our managers to create an open environment, one in which employees feel comfortable raising questions within their work group as well as with the BCO, free from fear of retaliation.

Human Rights Program

Respect for human rights is essential to who we are at Monsanto. Our human rights work is aligned with the values prescribed in the Monsanto Pledge. We have a long history of exemplary labor conditions and outstanding safety, health, and environmental performance within our facilities.

Human rights are expressions of basic human values that societies have embraced and codified to protect people from abuse and exploitation. As an agricultural technology company, Monsanto has a unique opportunity to protect and advance human rights. In 2004 we began to codify a policy on human rights that would reflect our beliefs and describe our expectations for our employees and business partners. We conducted an 18-month dialogue with key business leaders and external stakeholders. We sought guidance from the United Nations' Universal Declaration on Human Rights, a document that provides the most widely recognized definition of human rights and the responsibilities of national governments. We also consulted the International Labor Organization's Declaration on Fundamental Principles and Rights at Work.

IMPLEMENTATION OF OUR HUMAN RIGHTS POLICY

Our Monsanto Human Rights Policy was adopted in 2006. Then we began a three-year human rights training initiative designed to raise awareness and to educate our employees about their rights at work and the expectations we have of them. Every employee received a copy of our human rights policy in 2006. It was made available in the 26 languages spoken where we operate.[33] The following year we published our Human Rights Employee Guidebook, also in 26 languages. It is our goal that every Monsanto employee will receive a letter of commitment and the Human Rights Guidebook, which details our policy, the application of the policy, and examples of best practices.

In 2008, we introduced a unique human rights training program that is required of all Monsanto employees. The training is designed to help employees understand human rights, what human rights mean to Monsanto, and what employees should do if they have questions or concerns. The training is tracked centrally; course completion is based on correctly answering all examination questions.

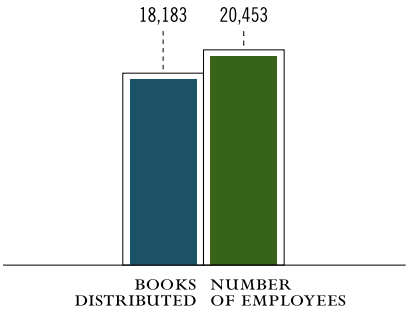
In May 2009, our Human Rights Information Center launched an online site for employees. Through it, employees can access real-time information on human rights news, events and projects around the world.

All new employees receive a copy of our policy and our human rights employee guidebook. Additionally, they must complete the Monsanto Human Rights Training and test. We encourage employees to use our Voice Your Concern system, which allows them to ask questions anonymously and to report concerns confidentially. The system is available online or by phone in 26 languages.

IN OUR OPERATIONS

One of the most difficult challenges we face is working in emerging markets, where the local laws or customs may be at odds with our employment policy, the Universal Declaration on Human Rights, or the Declaration on Fundamental Principles and Rights at Work. Operationalizing human rights and including our supply chain partners is a long and complex process. Through

MONSANTO HUMAN RIGHTS EMPLOYEE GUIDEBOOK DISTRIBUTION, 2008



HUMAN RIGHTS EMPLOYEE TRAINING

95%
Employees trained

9,730
Total hours of training

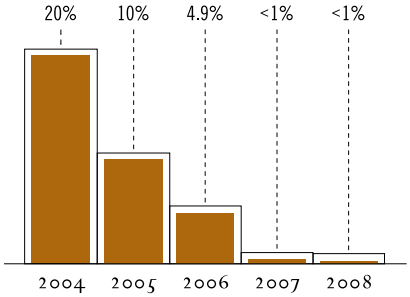
a continuous-improvement approach, we are committed to meeting these challenges.

The awareness and education system we have used with our employees has been so successful that we are developing a human rights training initiative for our business partners. It will focus on making our expectations clear, demonstrating best practices, and identifying continuous improvement opportunities. Business partner training tools are expected to be available in 2009. Critical to our effort is a comprehensive human rights database connected to our business operating system, which will allow all human rights efforts, including those of our business partners, to be reported and tracked.

THE PEOPLE INVOLVED

Every Monsanto employee is involved in our human rights effort — by participating in human rights training, by working on a continuous improvement project with suppliers, or by serving as a human rights champion. Our human rights champions connect Monsanto's strategic plan to operations on the ground. As part of their continuing training, they participate in periodic one-week sessions dedicated to human rights. During that week, they receive advanced human rights training, share best practices both internally and externally, engage with stakeholders, provide input to the strategic plan, and work on regional operational plans.

CHILD LABOR IN SUPPLIER HYBRID COTTONSEED PRODUCTION, INDIA



EXTERNAL PERSPECTIVE:

Why Now?

MICHAEL POSNER, President, Human Rights First

The rapid expansion of the global economy in the past 20 years has made the role of multinational corporations increasingly important.

Globalization and expanded market economies have spurred sudden economic growth and development in many parts of the world. Multinational companies now find themselves active in jurisdictions where local enforcement of laws cannot be relied upon and where violations of human and labor rights are common.

The very presence of multinational corporations in those jurisdictions raises questions about their association with those violations and their role as socially responsible companies. This global economic integration also has focused greater public attention on social and economic problems in less developed countries and the role companies can play in addressing them.

EXTERNAL PERSPECTIVE:

Establishing Governance

NORGES BANK INVESTMENT MANAGEMENT

Monsanto is a company that shares our concerns regarding child labor practices in the hybrid seed sector in India. It has devoted considerable resources to establishing governance structures for systematically reducing child labor.

Norges Bank Investment Management truly values Monsanto as a working partner in our quest against child labor and our quest to make markets more sustainable. We look forward to continuing our productive relationship with Monsanto through regular dialogue.

Working Safely, On and Off the Job

Monsanto is committed to establishing and maintaining work site safety around the world for its employees, including its seasonal agricultural workers.

In 2008, Monsanto achieved the best injury and illness performance in its history. Our total recordable rate (TRR) was 0.66. TRR is a standard safety measurement used by the U.S. Occupational Safety and Health Administration (OHSA). **Our company-wide TRR of 0.66 for 2008 is well below the U.S. industry average of 4.2.**[34]

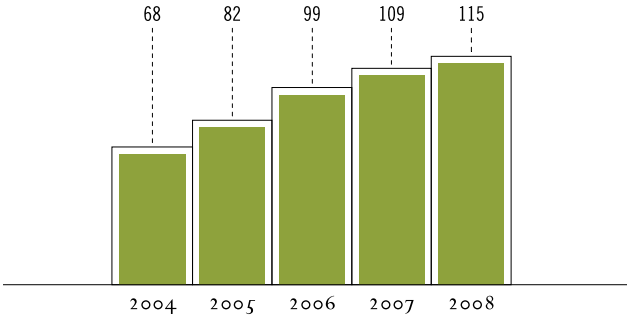
Our safety performance has reached a world-class level. Most new associates and acquisitions quickly adopt our culture and look forward to moving the organization to the next level of safety excellence. "We believe that we can achieve zero injuries and fatalities on and off the job and make a step change in safety performance," says Paul Shelton, Global Safety and Health lead.

Monsanto has a program to certify its operational sites for safety performance. These sites can earn the Monsanto star only by strict compliance with Monsanto's safety standards. In the United States, these high-performing sites have also been certified by OSHA and awarded its Voluntary Protection Program (VPP) Star. Over the past several years, all Monsanto seed production and R&D sites have undertaken the goal of achieving VPP Star status, or the equivalent certification at international sites. More than 75 percent of our seed sites have attained this goal.

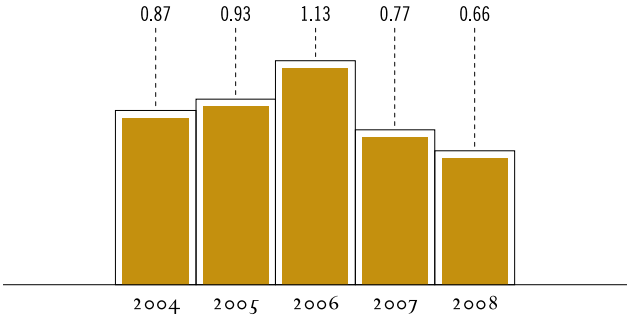
Several of our sites have been honored as exemplars of occupational safety. The VPP Participants' Association recognized our Luling, Louisiana, manufacturing plant for outstanding safety performance in 2007. Luling received the highest regional VPP recognition, the Super Star among Stars. Our Chesterfield and Creve Coeur sites in St. Louis received the regional VPP recognition, the Star of Excellence, for maintaining injury and illness rates lower than those reported by 50 percent participating U.S. companies. Our site in Soda Springs, Idaho, received the Sentinels of Safety certificate from the U.S. Mining Safety and Health Administration (MSHA). Our site in Pasir Gudang, Malaysia, received the Malaysian Society for Occupational Safety and Health award, Gold, Class I. **In Thailand, our Phitsanulok site was selected as winner of the 2007 National Safety and Health Award given by the Thai Ministry of Labor and Social Welfare.** This award recognizes the organization that best continued its commitment to maintaining excellent safety and health management systems.

We have also taken many steps to improve conditions for seasonal agricultural workers. In many countries, we transport seasonal workers to the work site in school buses. We prefer this safety-conscious step to the common industry practice of using cargo trucks to transport workers. Many of our sites also work diligently to provide better housing and safe drinking water for our seasonal workers.

MONSANTO STAR SITES



MONSANTO COMPANYWIDE INJURY/ILLNESS RATE (TRR)



OFF-THE-JOB SAFETY

In 2008, Monsanto launched an off-the-job safety (OTJS) program. This is a global outreach to educate and influence our employees' and contractors' safety behavior even when they're away from work. OTJS complements our work site safety programs by extending safety training to our employee families and our communities. For years, many Monsanto sites have promoted OTJS, but this formal companywide program provides a global focus and allows us to reach even more individuals.

As part of this global program, we implemented a reporting and tracking system for OTJS fatalities and injuries. In 2008, more than 500 OTJS incidents were submitted by employees. Through these reports — and our willing employees — we were able to share people's stories with our 20,000 employees around the world, allowing our people to learn from each other. As a result, we have identified opportunities for improvement in three key areas: transportation, home and recreation.

Outreach to our employees and their families in 2008 included numerous educational tips and tools. We created an internal OTJS Web site where our employees and contractors can find information specifically about safety away from work. We held a global OTJS promotional campaign focused on tire safety. Additionally, we began mailing our quarterly Family Safety and Health magazine to the homes of more than 10,000 U.S. employees. Monsanto's OTJS program also incorporates the Global Vehicle Safety program we have conducted for several years, which includes teen driving safety. In our Asia-Pacific region, we initiated OTJS motorcycle training, and more than 400 employees participated. In the United States, we launched a pilot motorcycle safety training class for Monsanto employees and contractors who are experienced riders.

Employee Health and Safety Training Hours, 2008

	EMPLOYEES	CONTRACTORS	SEASONAL HELP	FAMILY MEMBERS
CPR	22,267	2,100	2,590	527
Emergency Preparedness	60,554	95,387	38,380	175
Environment, Safety and Health	20,000	0	8,000	0
First Aid	35,374	4,301	11,513	100
Health Program	92,282	9,483	33,514	59
Off-the-job Safety	45,522	5,887	16,388	6,106
Pandemic	25,096	69,995	18,261	1,784
PSM (Process Safety)	7,571	410	864	2
Safety Program	188,092	54,315	130,851	2,000
Vehicle Safety	131,267	8,427	9,431	3,806
Workers Protection Program	8,151	41,822	35,174	229
Safety training	10,944	894	0	0
Health training	4,560	298	0	0
Total	**651,680**	**293,319**	**304,966**	**14,788**

Throughout our OTJS program, we have shared best practices with other organizations. We have collaborated with the National Safety Council, and we are a member of its Off-the-Job Safety Advisory Panel. We have shared our OTJS program at several national safety conferences. And we are partnering with the U.S. Army and the U.S. Air Force to share OTJS initiatives.

Employees who spend extensive time driving are required to complete behind-the-wheel training.

PROCESS SAFETY

In addition to the safety of its work force and families, Monsanto values the safety of the communities in which it operates. Recognizing the importance of process safety management systems, we strive to improve those systems continuously. Process safety means the prevention and control of incidents that have the potential to release chemicals or energy that could affect employees or the surrounding community.

We have a Process Safety Leadership Team and a management review system to monitor the process safety systems across our operations. Also, a Process Safety Technical Team composed of representatives from each of our chemical manufacturing sites meets regularly to share process safety information and to identify and promote good practices.

We are an active member of the Center for Chemical Process Safety (CCPS). We have adopted the process safety metrics recommended by CCPS. These indicators are used to track the number and severity of releases of hazardous chemicals. Other process safety metrics are used to monitor performance of key process safety systems, such as action item follow-up, mechanical integrity, management of change, and process safety training. Employees are encouraged to report any process safety near misses, so that potential problems can be identified and addressed before an incident occurs.

When we surveyed our agricultural chemical manufacturing locations worldwide to obtain feedback from employees and contractors on their perceptions of process safety, there was an excellent return rate from all groups. Survey results show that there is a strong and positive process safety culture throughout Monsanto. Monsanto is now using the survey information to identify process safety improvement areas. Feedback continues to flow from all sites involved in the survey. A follow-up survey is planned to encourage continuous improvement and to build on the currently strong management systems.

VEHICLE SAFETY

Monsanto has a world-class vehicle safety program for employees. **Each year since its inception, our accident per million miles (APMM) performance has improved. In 2002, the APMM was 9.0; by 2008, we improved it to 3.6. In 2008, we drove 30 percent more miles than in 2007, 149 million miles versus 114 million.** Each year, all of our employees who drive complete an online driver's training module, and employees who spend extensive time driving are required to complete behind-the-wheel training. The program focuses on incident reduction, human behavior, and education.

In 2008, the Vehicle Safety team continued its emphasis on seat belt use. "This year, our seat belt use campaign reached more than 10,000 drivers, with 91 percent of them buckling up," says Renato Prestes, director of Global Safety and Health. "It's a testament to the strong safety culture of our sites, employees and families. We are definitely saving lives, and our educational program helps employees and families incorporate safety as part of their everyday thinking," he said.

On the job, Monsanto has a mandatory safe driving policy. The policy covers all employees in company vehicles and all employees in personal or rental cars on company business. Seat belts are required for the driver and all passengers, whether the driving is done on a public road, a company site, or a farm. Our employees are not allowed to use handheld cellular phones when driving company vehicles or driving on company business.

Our goal is to see all Monsanto employees actively involved in the vehicle safety program, on and off the job. To support this effort, we introduced a Teen Driver online site, which provides helpful educational information to teens and their families.

Environmental Performance and Efficiency

Monsanto's commitment to improve its environmental performance and efficiency reflects the company's respect for the communities in which we operate. Our locations around the world continue to work hard to improve our performance.

One example of environmental initiative is our Luling, Louisiana, plant. Our site there has a hydrogen-recovery project that permits it to reduce natural gas usage and to recycle waste hydrogen, a byproduct of the glyphosate manufacturing process. **This energy-reduction project is expected to allow us to reduce our annual greenhouse gas emissions at this facility by 58,000 metric tons (128 million pounds).** This reduction is equivalent to the carbon generated by 9,000 airplane trips around the world.[35]

Our facility in São José dos Campos, Brazil, has operated with exceptional compliance records and a commitment to continuous improvements in eco-efficiency. Since 1976, the site has maintained an effluent treatment station (ETS).[1] With the ETS, wastewater is processed in a biological reactor, where bacteria digest almost all the organic load. The result is inactive materials that are discarded into the Paraíba do Sul River. The efficiency achieved by the site is above 96 percent. Similar treatment units are operated by Monsanto at Antwerp, Belgium; Luling, Louisiana; Muscatine, Iowa; and Zárate, Argentina. Other Monsanto sites discharge their wastewater into similar facilities owned and operated by local municipalities or industrial consortiums.

Investment in Environmental Protection

We are committed to long-term environmental protection and compliance programs that reduce and monitor emissions of hazardous materials into the environment, and to the remediation of identified existing environmental concerns. Our operations are subject to environmental laws and regulations in the jurisdictions in which we operate.

In addition to compliance obligations at our own manufacturing locations and at offsite disposal facilities, under the terms of our September 2000 separation agreement with Pharmacia, we are required to indemnify Pharmacia for environmental and certain other liabilities related to its former agricultural and chemicals businesses.[1] We established a reserve of $274 million (on November 30, 2008) for the estimated liabilities related to our environmental and other indemnification obligations to Pharmacia, as well as to environmental and litigation liabilities related to our business.

The environmental sites for which we have financial responsibility are in various stages of environmental management. At some sites, work is in the early stages of assessment and investigation; at others the cleanup remedies have been implemented and the remaining work consists of monitoring the integrity of that remedy. No single site represents more than half of the environmental liability.

For information regarding our environmental proceedings, please see Legal Proceedings and Note 23 in the 2008 Monsanto 10-K filing and the Monsanto 10-Q filings, available online at www.monsanto.com.

2007 Monsanto Eco-Efficiency and Global Reporting Initiative Data

We measure the environmental footprint of our chemical operations through recognized reporting procedures. The eco-efficiency reporting method used on the following pages was developed in cooperation with the World Business Council for Sustainable Development. This system permits comparisons of new data to the baseline data from calendar year 2000. Product data (for example, energy use and material consumption) are recorded both by total amounts and by environmental influence per unit of output. Ozone-depleting substances are not graphed, because the total is too small to be statistically significant.

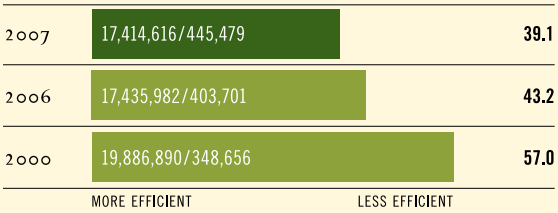
REPORTING YEAR	2007
Raw Material Consumption (mt/mt Product)	6.1
Energy Consumption (GJ/mt Product)	39.1
Direct GHG Emissions (mt CO_2 eq./mt Product)	2.91
Indirect GHG Emissions (mt CO_2 eq./mt Product)	1.78
Acidification Emissions (mt SO_2 eq./mt Product)	0.009
Photochemical Oxidant Creation (mt VOC/mt Product)	0.00024
Fresh Water Consumption (m^3/mt Product)	42.1
Chemical Oxygen Demand (mt O_2/mt Product)	0.0061
Eutrophication (mt PO_4 eq./mt Product)	0.0031
Waste Offsite (mt/mt Product)	0.040

UNITS AND SUBSTANCES KEY

GJ	= gigajoule(s)	GHG	= greenhouse gas(es)
kg	= kilogram(s)	HAP	= hazardous air pollutant(s)
m^3	= cubic meter(s)	NO_x	= mono-nitrogen oxide(s)
mgal.	= million gallons	O_2	= oxygen
mt	= metric ton(s)	PM	= particulate matter
eq.	= equivalent	PO_4	= phosphate
BOD	= biological oxygen demand	SO_2	= sulfur dioxide
CO	= carbon monoxide	VOC	= volatile organic compound(s)
CO_2	= carbon dioxide	WWT	= wastewater treatment
COD	= chemical oxygen demand		

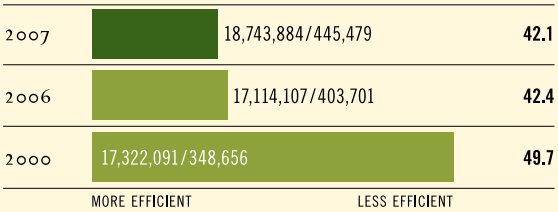
Energy Consumption

Energy (GJ)/Product Output (mt)



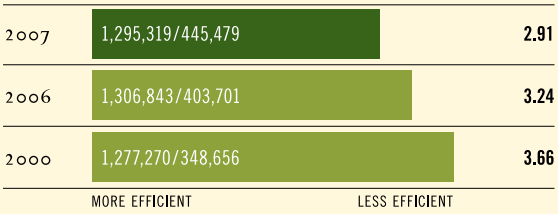
Fresh Water Consumption

Water (m^3)/Product Output (mt)



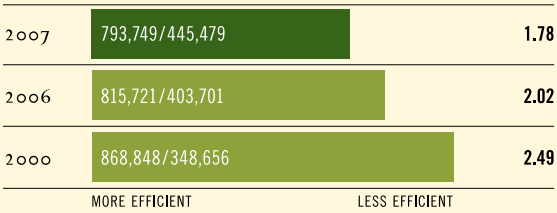
Direct Greenhouse Gas Emissions

GHG (mt CO_2 eq.)/Product Output (mt)



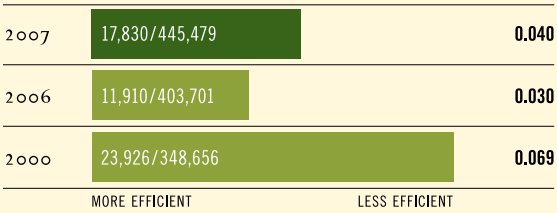
Indirect Greenhouse Gas Emissions

GHG (mt CO_2 eq.)/Product Output (mt)



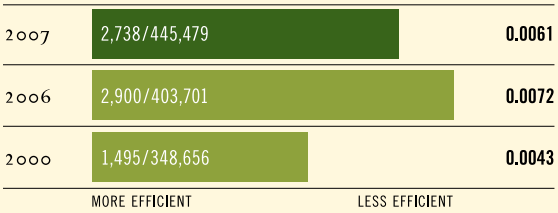
Waste Offsite

Waste (mt)/Product Output (mt)



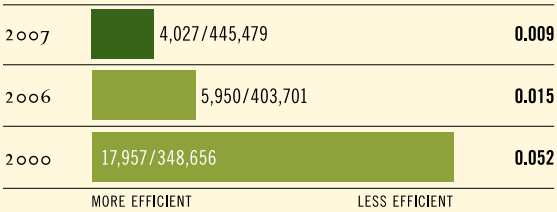
Chemical Oxygen Demand (COD)

COD to Surface Water (mt O_2 eq.)/Product Output (mt)



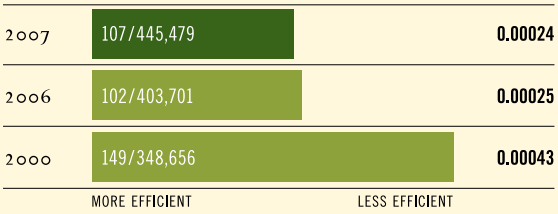
Acidification Emissions

Emissions (mt SO_2 eq.)/Product Output (mt)



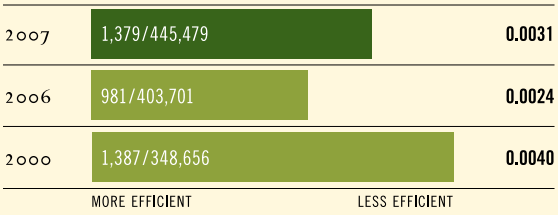
Photochemical Oxidant Creation

VOC (mt)/Product Output (mt)



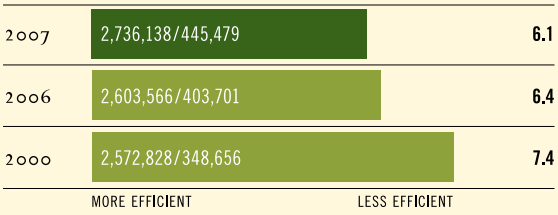
Eutrophication

Phosphates to Surface Water (mt PO_4 eq.)/Product Output (mt)



Raw Material Consumption

Materials (mt)/Product Output (mt)



DIRECT ENERGY CONSUMPTION

Source (GJ)	2006	2007
Natural Gas	6,271,368	6,462,660
Oil	70,058	94,004
Coal	1,688,492	1,623,682
Waste Fuel	2,750,393	2,678,593
Imported Steam	140,958	159,737
Renewable Energy (seed corn)	0	74,848
Total	10,921,268	11,093,525

INDIRECT ENERGY CONSUMPTION

Source (GJ)	2006	2007
Electricity	6,514,714	6,321,092

RAW MATERIALS CONSUMED

Source (mt)	2006	2007
Direct Materials	403,701	445,479
Nonrenewable Materials	2,199,864	2,290,659

TOTAL WATER DISCHARGE BY QUANTITY AND DESTINATION

Water Discharge (mgal.)	2006	2007
Biological WWT	4,101	4,009
Surface Water — Indirect	263	323
Total	4,364	4,332

TOTAL WATER WITHDRAWN BY SOURCE

Water Source (mgal.)	2006	2007
Public Water Supply	487	590
Ground Water	2,913	3,307
Surface Water — Fresh	1,121	1,139
Total	4,521	5,036

Not included is water contained in incoming raw materials (e.g. NaOH)

SURFACE WATER QUALITY AFTER TREATMENT

Water Discharge (kg)	2006	2007
BOD	59,256	54,070
COD	2,899,860	2,738,339
PO_4 eq.	980,558	1,378,730

OTHER SIGNIFICANT AIR EMISSIONS BY TYPE AND WEIGHT

Emission (kg)	2006	2007
PM	781,288	702,505
SO_2	3,779,649	1,816,673
NO_X	3,102,663	3,157,147
CO	11,575,859	11,470,604
VOC	106,897	107,398
HAP	101,058	111,223

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2.5	Countries of operation.	Page 29, and www.monsanto.com/who_we_are/locations.asp
2.6	Nature of ownership	www.monsanto.com/responsibility/corp_gov/incorporation.asp
2.7	Markets served	www.monsanto.com/who_we_are/locations.asp
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Notes

1. Monsanto Company was incorporated in 2000 as a subsidiary of Pharmacia Corporation and includes the operations, assets, and liabilities that were previously the agricultural business of Pharmacia. With respect to the time period prior to September 1, 2000, references to Monsanto in this report also refer to the agricultural business of Pharmacia.
2. Pesticides registered by the U.S. Environmental Protection Agency will not cause unreasonable adverse effects to humans or to the environment when used in accordance with label directions.
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14. Throughout this report, forward-looking statements are based on current expectations and currently available information. Undue reliance should not be placed on these statements, which are based on factors that involve risks and uncertainties. Results may differ materially from those described or implied by these forward-looking statements.
15. World Water Council. (n.d.). *Water at a glance*. Retrieved April 2009 from http://www.worldwatercouncil.org/index.php?id=5.
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30. Details of benefits, rewards, and professional development programs vary by country. For specific information on employee benefits, please contact the Monsanto human resources office in the particular country.
31. Policies and statements related to Monsanto Company's corporate responsibility and governance can be retrieved from http://www.monsanto.com/responsibility/default.asp.
32. The Monsanto Company Code of Business Conduct can be retrieved from http://www.monsanto.com/responsibility/business_conduct/code_languages.asp.
33. The Monsanto Company Human Rights Policy can be retrieved from http://www.monsanto.com/responsibility/human_rights/human_rights_policy.asp.
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Unless otherwise indicated by the context, references to *Roundup* products in this report mean *Roundup* branded herbicides and other glyphosate-based herbicides; all such references exclude lawn-and-garden products.

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MONSANTO

We want to hear from you

Tell us what you think. Please send your thoughts to the Monsanto Pledge team via e-mail: pledge@monsanto.com.

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