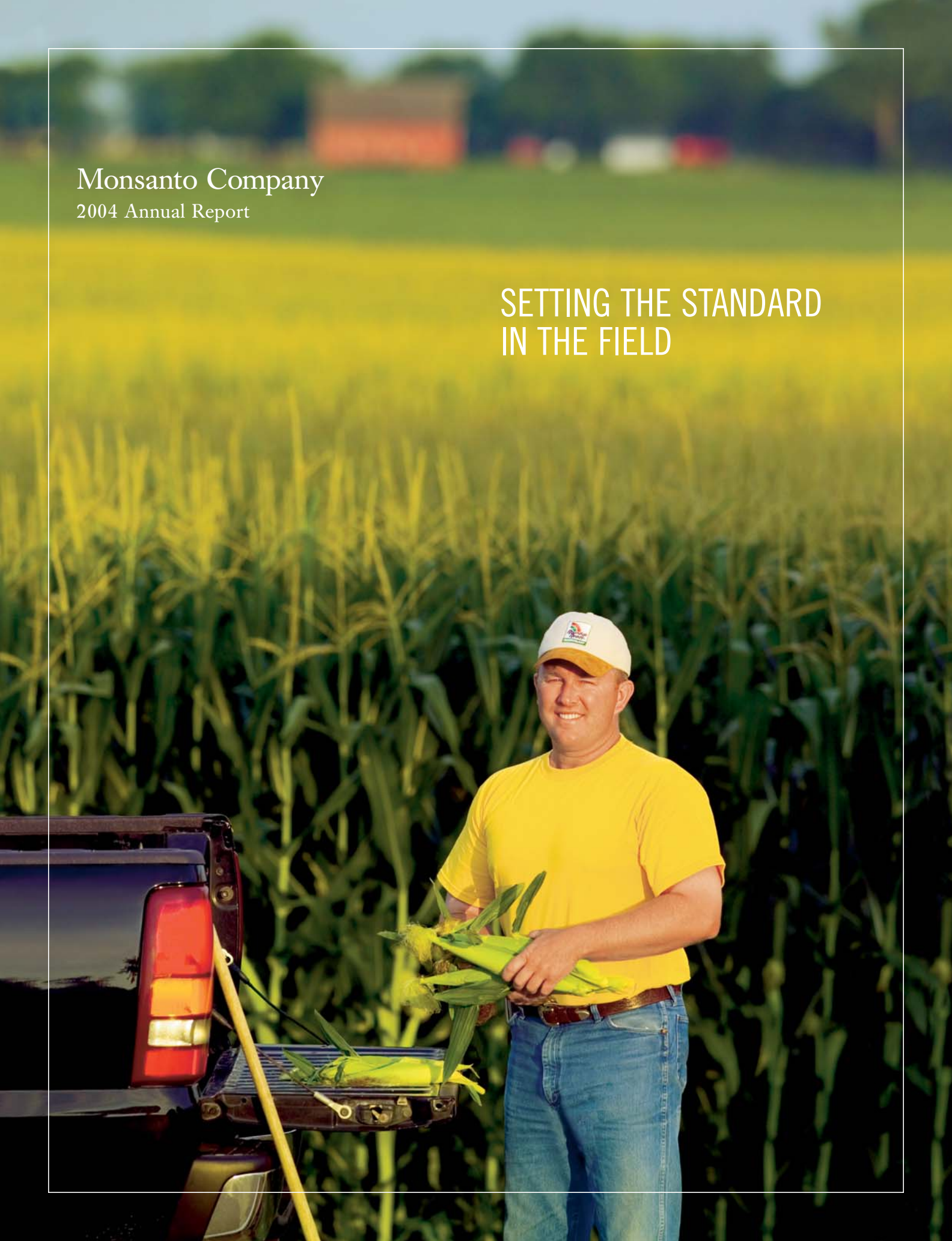
Monsanto Company

2004 Annual Report

SETTING THE STANDARD IN THE FIELD



RAISING THE BAR FOR OUR SUCCESS

ABOUT THE COVER: Monsanto is a leader in bringing the first generation of biotechnology traits to growers. Today, our products are SETTING THE STANDARD IN THE FIELD. Monsanto has developed more new traits that offer farmers more new choices than any other company in the industry. The strength of Monsanto's products is measured in the market. Allan Anderson of Williams, Iowa, (on the cover) and other farmers have planted more than 175 million acres with Monsanto traits in 2004, up 16 percent from 2003. They report satisfaction levels with Monsanto's products of more than 90 percent.

The momentum from the success of our first-generation biotechnology traits is carrying forward the next round of projects from our research-and-development pipeline. With more traits being tested in the field this year than ever before, Monsanto is RAISING THE BAR FOR OUR SUCCESS with our next-generation products. At the Frederick Farm test field in Iowa (this page), researchers Amy Curtis (foreground) and Tom Horejsi from Monsanto's Ames Soybean Research facility work in a plot of Monsanto's *Vistive* low-linolenic soybeans. Now in the final phases of field testing, these soybeans will be commercialized for the 2005 growing season. Low-linolenic soybeans reduce the need for hydrogenation in food processing, helping to reduce the amount of trans fats in processed foods.

Contents

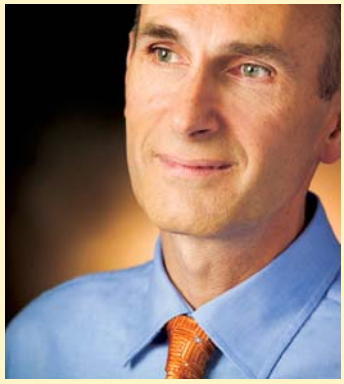
Our story is increasingly one of momentum – in the field and in the lab. We've earned our leadership position in this industry because we made a big bet on biotechnology. We invested early. The technologies we pioneered set us apart from others in the industry.

The strength of our commitment to biotechnology and our early focus on delivering new technology via quality seeds has transformed Monsanto from a company built around our agricultural chemical business to one fueled by our seeds and traits business.

I'm excited by our progress in seeds and traits this year. More importantly I'm excited about our prospects. There are two reasons for that:

- First, farmers had a good year, and so did we. With good overall agricultural conditions and strong markets helping farmers, our global business performed better than expected. What really matters is not that we had a good year, but that we set aggressive goals at the beginning of the fiscal year and we surpassed them. That allowed us to raise the bar for our future expectations as well;
- Second, by meeting our goals consistently, quarter after quarter, we believe we're earning the right to focus on the future. That future lies in our product pipeline (see page 6). We're investing nearly $1.5 million a day to develop the next generation of products. This year we've seen real progress in that pipeline as many of these next-generation products have made the transition from the lab to the field.

This progress not only allows us to grow in the mid-term; it sets us up to carry our leadership into the next generation of products. This year, we are testing more pipeline prospects in the field than ever before. That's very important momentum because the field is our proving ground. It is the signpost along the pipeline track that differentiates potential products from project concepts.



"The simple reality is that we succeed when the farmer succeeds. Our strategy is built on bringing farmers new choices, connecting them to innovation that is coming at an unprecedented rate, and helping farmers, processors, and food companies to be as efficient as possible in producing food, feed and fiber."

Hugh Grant
Chairman, President, and Chief Executive Officer

The seeds and traits evolution isn't unique to Monsanto. We're seeing a shift in the whole industry. An increasing number of companies are moving toward seeds and traits. We view that as a validation of the strategy we pioneered. But we also recognize that maintaining our leadership in the evolving seeds and traits industry will require capitalizing on our momentum with continued innovation, commercial focus and financial discipline.

Setting the standard in the field

History has made farmers some of the most adept businesspeople I've ever encountered. After each harvest, a farmer sits at his computer and makes some profound decisions about what he is going to do on his farm the next season. He's not responding to novelty or generalities. He's making very calculated judgments about which products will help him make his particular farm as productive and profitable as it can be.

The simple reality is that we succeed when the farmer succeeds. Our strategy is built on bringing farmers new choices, connecting them to innovation that is coming at an unprecedented rate, and helping farmers, processors, and food companies to be as efficient as possible in producing food, feed and fiber. With a seeds and traits strategy, we wrap all of those things into something as familiar as the farmer's seed.

I think you can look at the field to gauge our progress. This year, farmers worldwide planted more than 175 million acres of biotechnology crops. More than 90 percent of those acres were planted with Monsanto's technology.

Less than a decade ago, we introduced the first major biotechnology trait. In the next planting year, we should

2004 Financial Highlights

Years ended Aug. 31 (in millions, except per share amounts)	**2004**	2003	Change
Operating Results			
Net Sales	**$5,457**	$4,910	11%
EBIT [1]	**$ 469**	$ 206	128%
Net Income	**$ 267**	$ 68	293%
Diluted Earnings Per Share	**$ 0.99**	$ 0.26	281%
Other Selected Data			
Free Cash Flow [2]	**$ 999**	$ 646	55%
Capital Expenditures	**$ 210**	$ 206	2%
Depreciation and Amortization	**$ 452**	$ 453	0%
Diluted Shares Outstanding	**269.2**	261.8	3%

See page 18 for notes 1 and 2 above and in charts on page 3.

see biotechnology traits reach the billion-acre milestone. This is a resounding endorsement of the value of biotechnology to farmers.

Recently, we've seen the approval of our *Roundup Ready* Corn 2 for food and feed consumption in Europe (see page 10). This approval is another step toward expanding our base in the United States, where farmers have planted *Roundup Ready* corn since 1998. It is also another broad recognition of the safety of biotechnology coming from Europe.

But, the heavy lifting isn't done yet. We still have to earn farmers' business each year. In our strategy and early success, I believe there are a number of aspects that set us apart from others in the industry.

First, our industry is increasingly about which company can offer farmers the most efficient, convenient tools to manage their operations. Even though the first-generation biotechnology traits were successful, using just one trait can be a tradeoff for the farmer. He doesn't want to choose between dead weeds or dead bugs; he wants both. The more we can package multiple traits together by "stacking" them, the more we're able to combine multiple benefits in just one seed. So, with an emphasis on helping the farmer do more with each seed, we're offering more stacked-trait products this year than ever before.

Second, while the first-generation traits have made a remarkable difference to farmers and helped us earn a leadership position, we have more work to do. Part of our commitment to research and development is investing in upgrades of technology. In fiscal year 2003, we launched *Bollgard II* cotton, the first second-generation product that improves upon the performance of a first-generation biotechnology product. We're already testing several other second-generation traits in the field, including *Roundup Ready* Flex cotton (see pages 8-9) and second-generation *YieldGard* Corn Borer (see page 10).

Raising the bar for our success

We saw significant progress this year in our product pipeline. As a result, this report focuses more on the pipeline than any previous report did.

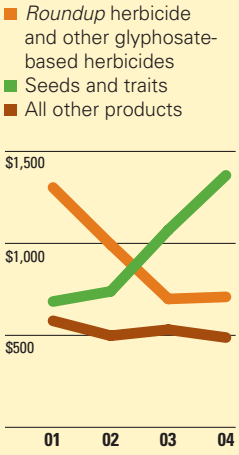
Throughout the pipeline, we had a number of projects progress from the lab to the field. That's more than a subtlety. I walked through a number of our research fields this year. When you can walk down the rows and spread your arms over the leaves of the plants, it really strikes you that many of the projects in the pipeline are more than just good ideas; they are very real.

Two of our targets for future research are in the areas of environmental stress tolerance and healthier oils for consumer uses. We have interesting prospects in both areas, and we saw both make important strides in the field this year.

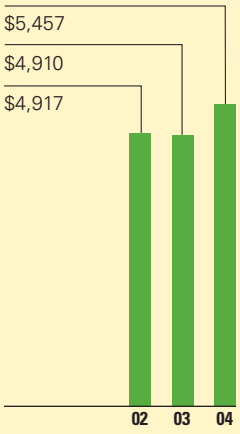
We announced a significant breakthrough in the area of drought tolerance a couple of years ago. At that time, our genomics work helped us uncover genes in model plants – called Arabidopsis – that demonstrated protection from heat stress in the greenhouse. Today, we have test fields of corn showing that same drought protection (see page 12). Although our drought-tolerant corn is still in the first phase of our pipeline, it is a good example of the movement we see in many parts of the pipeline: from labs to fields, from models to our core crops, and, most significant, from concept to reality.

This year, some of the consumer-benefit projects in our pipeline took a big step closer to the farmer, the food company, and the consumer. For the 2005 growing season, we're launching a new soybean that could help reduce or eliminate trans fats in processed foods. These soybeans are the first products in our new *Vistive* brand, and will be one of the first products in the industry to offer direct consumer benefits (see page 7).

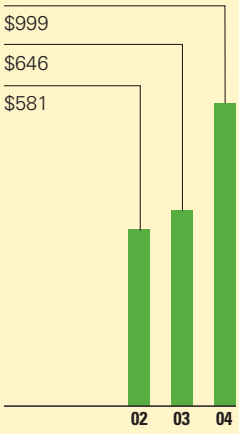
Gross profit transition
in millions for years ended Aug. 31



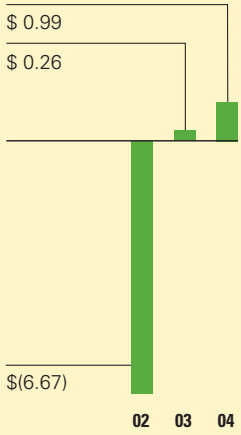
Net sales
in millions for years ended Aug. 31



Free cash flow[2]
in millions for years ended Aug. 31



Earnings per share (as reported)
for years ended Aug. 31



Year-over-year improvements in key financial metrics, charted at left, reflect the way Monsanto is managing our transition from a chemicals business to one focused on seeds and traits. Tighter controls over inventories and accounts receivable in our U.S. *Roundup* agricultural herbicides business are yielding improvements in free cash flow, which allow us to return cash to shareowners through dividends and share repurchases.

Our long-term growth will come from the continued progress we'll see in our pipeline, as more and more projects advance into the field. This progress is in part a return on our early investment. But, it's also something that we owe to the dedication of the many people who work on these projects at Monsanto. You'll see a few of these researchers highlighted throughout this report.

Managing for long-term growth

Our pipeline holds tremendous potential. To realize that potential, I believe we have to do a couple of things well. We have to continue to translate great science into great products. We have to maintain our commitment to innovation. And we have to keep delivering on the near-term strategy of growing our seeds and traits business.

How are we doing? Very well. In fiscal year 2004, we saw great growth in our seeds and traits business, and we were able to refocus our *Roundup* brand herbicide business to make sure it continues to be an important contributor to our strategy.

With this performance, we were able to raise our guidance for both earnings per share (EPS) from ongoing business and free cash flow throughout fiscal year 2004. We were able to improve our outlook for EPS growth and to base that outlook on a higher starting point. We expect EPS growth in fiscal year 2005 to be 10 percent to 18 percent above our fiscal year 2004 base. In fiscal year 2006, we expect 10 percent EPS growth, again from a higher base.

We are seeing our strategy in action. We've been consistent in delivering what we say we will. As a result, our seeds and traits strategy is providing momentum toward our long-term growth.

Are there still challenges? Absolutely. But today we're in a better position than ever before to address them. We took the initiative to start capturing value for the Monsanto biotechnology seeds used in Brazil even while the Brazilian regulatory process remains unresolved (see page 10). And in fiscal year 2004, Solutia Inc. declared bankruptcy, creating some new challenges that we continue to work through. However, I believe that, with discipline and character, we can make tough calls when we have to and still maintain our focus on our growth strategy.

Ultimately, we gain our focus from the farmer. As the farmer sits down to make his purchase decisions each year, he's facing some real challenges. He's searching for the tools that will help him in his annual battle with weeds and bugs. He's also keeping his eye on the horizon for the new technologies that will help his business evolve. As a seeds and traits company, we're looking to be a part of that farmer's options. We've made significant investments in technology because we believe that innovation is rewarded. Our strategy is validated each year when the farmer chooses our products.

We've created a lot of momentum in 2004. In fiscal year 2005, we'll accelerate our growth as we continue our seeds and traits evolution. We established the seeds and traits category, where we continue to be the leader. But we don't take leadership for granted. We measure our progress each year in the field, and I remain very confident that this strategy will continue our leadership and propel our growth.

Hugh Grant
Chairman, President, and Chief Executive Officer

Nov. 3, 2004

MONSANTO AT A GLANCE

Monsanto is an agricultural company. We apply innovation and technology to make our farmer customers more productive and profitable by improving the ways they can produce food, fiber and feed. We've built our business on a seeds and traits strategy. We use the tools of modern biology to make seeds easier to grow, to allow farmers to do more with fewer resources, and to produce healthier foods for consumers and better feed for animals. Our biotechnology products also bring environmental benefits such as reduced pesticide use and improved agricultural practices.

We manage our business in two segments

Seeds and Genomics

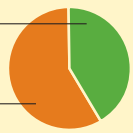
Our Seeds and Genomics segment generated 42 percent of sales and 53 percent of our gross profit in fiscal year 2004. We sell our seeds and traits through our branded seed business, including our *DEKALB* and *Asgrow* brands. We license our traits and basic germplasm to other seed companies through our Holden's/Corn States and Cotton States businesses. Monsanto has the most biotechnology products in the market in our three crop focus areas: corn, cotton and oilseeds, such as soybeans and canola.

Agricultural Productivity

Our Agricultural Productivity segment accounted for 58 percent of sales and 47 percent of our gross profit in fiscal year 2004. Our *Roundup* agricultural herbicides, the world's best-selling herbicides, complement our biotechnology products as part of our *Roundup Ready* weed control system.

Seeds and traits drive growth
Seeds and traits were the greatest contributor to Monsanto's growth in 2004. These sales reflect increased adoption of biotechnology traits by growers, as well as improved profit margins due to the cost-effectiveness of trait stacking.

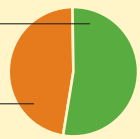
Sales by business segment
by percent



42% Seeds and Genomics

58% Agricultural Productivity

Gross profit by business segment
by percent



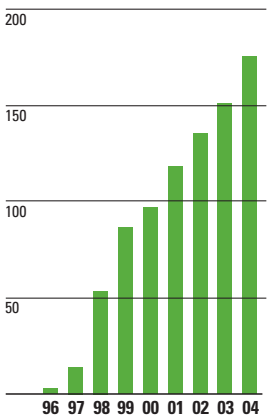
53% Seeds and Genomics

47% Agricultural Productivity

The products and choices we offer farmers set us apart in the industry

Providing benefits to the market
We use the power of biotechnology, genomics and breeding to deliver valuable products to farmers. Monsanto has led the industry in developing effective easy-to-use seeds improved with traits that meet multiple needs. Our product solutions for weed and insect control have benefits for growers, consumers and the environment, including a reduction in the number of pesticide sprays and reduced environmental exposure, reduced labor, higher yields, and compatibility with sustainable agricultural practices. The value farmers see in these solutions is shown by the growth in acreage planted with our trait products (see chart at right). We expect to continue to provide value to growers by stacking multiple traits in single seeds, developing improved germplasm, and making traits and germplasm widely available through our licensing partners. Our research is generating a rich product pipeline (see page 6) that will drive long-term growth.

Global Monsanto planted biotech acres
in millions



Stacking traits
We not only develop biotechnology traits — desirable characteristics such as weed and insect control — but increasingly we're combining these first-generation traits in a single seed. This combination of traits, called "stacking," allows farmers to do more with each seed. As we introduce next-generation traits, we expect to stack them with our first-generation traits, which have quickly become industry standards. During the 2005 growing season, we expect that stacked traits will account for 60 percent of our branded corn sold with traits and 25 percent of licensed corn sold with traits.

Seeds and Genomics

Key products

Biotechnology traits, such as herbicide tolerance in *Roundup Ready* soybeans, corn and cotton, and insect protection in *YieldGard* corn and *Bollgard* cotton, give farmers more ways to produce crops efficiently. Monsanto traits help farmers reduce their tillage and their pesticide use. Monsanto serves farmers with high-quality brand-name seeds, such as *DEKALB* and *Asgrow*. We also use a broad, high-quality collection of genetic material to develop new varieties for our brands and other seed companies' brands.

Business position

Monsanto is the world leader in biotechnology crops. In 2004, seeds with Monsanto traits accounted for more than 90 percent of the acres worldwide planted with herbicide-tolerant or insect-protected crops. In 2004, Monsanto branded and licensed seeds held the No. 1 or No. 2 position in key corn and soybean markets.

Agricultural Productivity

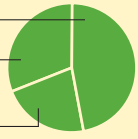
Key products

Roundup agricultural herbicides and our other glyphosate-based herbicides offer effective nonselective weed control. They form the basis of integrated solutions that include other Monsanto products. Selective herbicides, such as *Harness* Xtra, *Machete* and *Maverick*, control specific weeds in corn, rice and wheat. Products for animal agriculture improve dairy cow productivity and swine genetics. We also produce lawn-and-garden herbicides for the residential market.

Business position

Roundup agricultural herbicides remain the world's No. 1 selling herbicides. Monsanto intends to maintain its market leadership and brand position for *Roundup* agricultural herbicides. *Posilac* bovine somatotropin is one of the leading dairy-related products in the animal health industry worldwide.

Seeds and Genomics gross profit
by percent

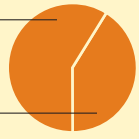


47% Corn seeds and traits

31% Soybean seeds and traits

22% All other crops seeds and traits

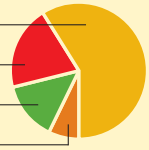
Agricultural Productivity gross profit
by percent



59% *Roundup* and other glyphosate-based herbicides

41% All other agricultural productivity products

Sales by geographic region
by percent



59% North America

20% Latin America

14% Europe-Africa

7% Asia-Pacific

Broadly licensing

Our strategy of giving farmers more choice is built on a broad licensing program that ensures farmers can get the traits they want in the seed varieties and hybrids they prefer. Through our Holden's/Corn States business, Monsanto licenses seed germplasm or biotechnology traits to more than 300 seed partners. By successfully breeding high-performance germplasm and continually improving in the quality of our seeds, we expect to meet the growing demand for our branded and licensed seed products.

Developing elite germplasm

We offer seeds and traits to growers through our leading *DEKALB* and *Asgrow* brands. Our skill in developing germplasm — the genetic material used in new seed varieties — drives market share gains for our seed brands and provides a vehicle for introducing new trait products. Seed and trait expansion has allowed us to gain more than four share points in the U.S. corn market since 2001. In 2004, we launched 36 new corn hybrids and 30 new soybean varieties in our U.S. brands.

Delivering value to farmers with the *Roundup Ready* system

We support the continued U.S. market leadership of our *Roundup* agricultural herbicides with product innovations, superior customer service, unparalleled logistics, and further expansion of *Roundup Ready* crops. Monsanto has applied biotechnology to a number of important crops, including corn, cotton and oilseeds, so that they are tolerant to over-the-top applications of *Roundup* agricultural herbicides. Since they were first introduced in 1996, *Roundup Ready* soybeans have shown consistent and reliable performance. Reduced input and operational costs mean that *Roundup Ready* soybeans, used in a weed control system with *Roundup* agricultural herbicides, offer growers outstanding yields and increased profit opportunities. In 2003, *Roundup Ready* soybeans accounted for more than 80 percent of all soybeans planted in the United States and provided $1.2 billion in net return to growers because of reduced production costs.

SETTING THE STANDARD IN THE FIELD

Monsanto products now on the market have set the standard by which all others are measured.

Monsanto's focus as an agricultural company is on the farmer. We've built our business by offering farmers new choices that make them more productive and profitable. Today, our strategy is focused on our seeds and traits business. We currently invest almost $1.5 million a day to look for and bring to market the innovative technologies that our customers tell us make a difference.

Our first products with biotechnology input traits – like *Roundup Ready*, *Bollgard* and *YieldGard* – have proved their worth in the field for almost a decade. Monsanto's technology has set the standard. It is a leadership position Monsanto has earned. Driven by the success of our products and technology in the field, our seeds and traits business has prospered. Our initial success sets the stage for our growth and for the next generation of innovation.

Making seeds do more

Our strategy for the trait business is driven by a simple concept: Farmers want options; they choose the seed that offers the best results for their particular needs. Monsanto uses new technology to help that seed do more. The more it can do, the more useful it is to the farmer.

Monsanto was the first company to get to market with a seeds and traits approach. Today, we continue to lead the industry because of our early investment, our continued innovation, and our commitment to farmer needs.

PRODUCT PIPELINE

We track the next generation of products through the pipeline

(Product pipeline as of Aug. 31, 2004)

The heart of Monsanto's research and development is our product pipeline. Our pipeline is an engine for discovering and developing the next generation of commercial products. We take our ideas through five phases — from early discovery work through four precommercial preparation stages.

Pipeline phases

The pipeline product examples in this section are shown in reverse chronological order, beginning with the products that are closest to potential commercial launch and tracking deeper into the research phases.

Farmer, processor and consumer benefits [1]

We sort projects in the pipeline in categories by those that offer benefits to farmers, processors or consumers. Farmer benefits are those that increase productivity or reduce cost by increasing yield, improving protection from insects and disease, or increasing tolerance to heat, drought, and other stress. Processor benefits include better value in food and feed nutrition. Consumer benefits are advantages such as increased protein or oil, improved fatty-acid balance, or carbohydrate enhancements.

You can download a copy of the combined product pipeline at: www.monsanto.com.

Soybeans can reduce trans fats

In response to the growing demand for healthier foods, in 2005, Monsanto will launch one of the first products in the industry with direct consumer benefits: soybeans that can reduce or eliminate the amount of trans fats in processed foods.

These soybeans, produced using marker-assisted breeding, have low levels of linolenic acid. Soybeans low in linolenic acid reduce or eliminate the need for partial hydrogenation, a process routinely used to increase shelf life and flavor stability in fried foods, baked goods, snack products, and other processed foods. The partial-hydrogenation process also creates trans fatty acids in the foods. These trans fats are linked to heart disease, because they raise LDL (bad) cholesterol while lowering HDL (good) cholesterol.

Monsanto researchers Amy Curtis (foreground) and Tom Horejsi are keeping a close eye on a demonstration plot of low-linolenic soybeans, which are in prelaunch testing at a test field in Iowa. "It's exciting to work on a project that can eventually help people lead a healthier lifestyle," Curtis said.

Monsanto's low-linolenic soybeans will be the first product launched to carry our *Vistive* brand name. This brand will be used for enhanced food-grade oils and other new products with direct consumer benefits.

PRODUCT PIPELINE | **PHASE 4** • 3 • 2 • 1 • D

Prelaunch

In Phase 4, we produce bulk seed for potential sale, develop plans for commercialization/launch, and respond to regulatory processes as appropriate.

AVERAGE DURATION [2]
12 to 36 months

AVERAGE PROBABILITY OF SUCCESS [3]
90 percent

See page 18 for notes to the product pipeline.

FARMER BENEFITS

- ***Residue Proven* soybeans**
  Residue Proven products are suited for conservation-tillage farming practices. These soybeans provide disease and pest resistance as well as strong emergence in conservation-tillage conditions.

PROCESSOR BENEFITS

- ***Processor Preferred* soybeans**
  Processor Preferred soybean varieties contain high protein or oil levels or a combination of higher protein and oil content, which are properties valued by soybean processors.
- ***Processor Preferred* corn**
  Processor Preferred corn hybrids yield more of the valuable traits that processors want or can mill more economically. These hybrids include:
  — High-fermentable starch corn for ethanol
  — High-extractable starch corn

CONSUMER BENEFITS

- ***Vistive* low-linolenic soybeans**
  See the sidebar above.

The marketplace has confirmed the effectiveness of our approach. Including our *DEKALB* and *Asgrow* branded seeds and those licensed through our seed partners, germplasm developed by Monsanto was used on 49 percent of U.S. corn acres in 2004, up from 43 percent in 2001.

Since we introduced our first-generation *Roundup Ready* soybeans and *Bollgard* cotton in 1996, Monsanto's trait business reached annual penetration of more than 175 million acres in 2004 in corn, cotton and soybeans. In the 12 months ended Aug. 31, 2003, gross profit from seeds and traits surpassed that of *Roundup* agricultural herbicides, marking a key step in our evolution to a traits-led business. Gross profit from traits accounted for 53 percent of Monsanto's total in fiscal year 2004, up from 33 percent in 2002.

Roundup agricultural herbicides continue to be the world's largest-selling crop protection products, valued by growers as part of an integrated weed control system. For Monsanto, *Roundup* agricultural herbicides remain an important source of funding for research and development (R&D) in seeds and traits. The decline in their contribution to our gross profit was anticipated; it is being offset by the increase from seeds and traits.

Early research rewarded

As a result of our early commitment to the seeds and traits business, Monsanto's biotechnology portfolio has set the industry standard for first-generation traits. In 2004, more than 80 percent of U.S. soybean acres were planted in Monsanto trait-based products, as were more than 75 percent of cotton acres and more than 40 percent of corn acres.

Monsanto's success in seeds and traits was the result of a lengthy and complex process, from gene insertion in the laboratory to regulatory approval, to getting that product packaged in a bag of seed that's right for the farmer. Today, we are better prepared than anyone else in the industry to apply the lessons of success with the current commercial products to the next generation of products.

PRODUCT PIPELINE | **PHASE** 4 • **3** • 2 • 1 • D

Advanced development

In Phase 3, we demonstrate the performance of the hybrid or variety developed through conventional breeding, or we demonstrate the efficacy of a biotechnology trait in elite germplasm. We develop regulatory data as appropriate.

AVERAGE DURATION [2]
12 to 24 months

AVERAGE PROBABILITY OF SUCCESS [3]
75 percent

FARMER BENEFITS

- ***Roundup Ready* Flex cotton**
  See the sidebar above.
- **Second-generation *Roundup Ready/YieldGard* Rootworm corn**
  This second-generation offering combines *YieldGard* Rootworm with *Roundup Ready*. This second-generation stacked-trait product would offer control of corn rootworm larvae and tolerance to *Roundup* agricultural herbicides.

PROCESSOR BENEFITS

- **Feed corn with improved energy** [4]
  See the sidebar at the bottom right of page 9.

See page 18 for notes to the product pipeline.

More flexibility for farmers means better weed control

When *Roundup Ready* cotton was first introduced in 1997, it helped revolutionize the way cotton growers controlled weeds. Today, we're working on a second generation of *Roundup Ready* cotton — called *Roundup Ready* Flex cotton — that has the potential to revolutionize cotton growing again.

Roundup Ready Flex cotton would allow cotton growers to spray *Roundup* agricultural herbicides over their cotton during more of the growing season. This increased flexibility is extremely important, because weather and other conditions that allow weeds to grow unchecked late into the mature cotton crop can rob growers of significant yield.

According to Bob Montgomery (at left), a field researcher at Monsanto's research and technical service facility in Union City, Tennessee, "Tough weeds are not just an inconvenience for farmers. They affect their bottom line. With *Roundup Ready* Flex cotton, we believe cotton growers will see the best control of traditionally tough weeds they've ever experienced."

At a field trial of *Roundup Ready* Flex cotton, Montgomery inspects tarps used in the field to monitor for potential crop injury after the crop has been sprayed with *Roundup* agricultural herbicides, confirming the ability to use *Roundup* agricultural herbicides to control weeds later in the maturity of the cotton crop.

Roundup Ready Flex cotton, and other Monsanto second-generation products give farmers even more choices. This year, we conducted more than 200 field trials of *Roundup Ready* Flex cotton, involving Monsanto and eight other cotton seed companies. With the 2004 field trials, *Roundup Ready* Flex cotton is moving out of Phase 3 testing and into pre-launch preparation in Phase 4.

Our original second-generation product — *Bollgard II* insect-protected cotton — was commercialized in Australia and the United States in 2003. We estimate the available market for *Roundup Ready* Flex cotton to be up to 14 million acres in the United States and nearly one million acres in Australia.

Other second-generation trait products in the pipeline include:

- Second-generation *YieldGard* Corn Borer corn, which broadens the spectrum of insect control and further reduces insecticide use (see page 10).
- Second-generation *Roundup Ready/YieldGard* Rootworm corn, which will make the insect-protection and herbicide-tolerant traits more readily available for new hybrids. This product will also make it easier for our licensed seed partners to offer farmers these stacked traits in their newest seeds.

We're already building on the platform created by our first-generation products. We're combining individual traits in a single seed to form stacked trait offerings. With the 2004 approval of our *YieldGard Plus* product, the first biotech product on the market that stacks two traits to control two classes of insect pests, we plan to offer the industry's first triple stack – *YieldGard Plus* with *Roundup Ready* Corn 2 – for planting in 2005.

Taken individually, the first generation of trait products made farmers more productive and profitable. In combination as stacks, those traits are even more compelling because they allow farmers to do more with one seed. The new traits in the pipeline will also be stacked with the first-generation traits because farmers have come to see those first-generation traits as a cornerstone of their operations.

Driving the growth of our seeds and traits business, our advanced capabilities in genomics enable us to identify crop traits and to accelerate plant breeding. With a diverse global base of germplasm and an extensive network of breeders, we can rapidly evaluate elite germplasm varieties and hybrids and then quickly adapt new seeds to local growing conditions. Ultimately, that means a higher probability of success and faster delivery of new and better seed varieties to farmers. Thus, farmers have access to better germplasm combined with the best trait package to maximize crop yields.

Building on early innovation

Our success in bringing the first generation of biotech traits to market uniquely positioned us to be the first to introduce the next generation. We're bringing second-generation traits to the market while some competitors have yet to launch their first-generation products. In 2003, Monsanto launched *Bollgard II* insect-protected cotton, an upgraded and improved version of our original *Bollgard* cotton launched in 1996. This year we're field-testing even more second-generation products, and we believe our commercial head start is helping us move new products through pipeline development to market faster.

CONSUMER BENEFITS

- **Improved-protein soybeans for food** [4]
  Created through breeding, these soybeans are enriched in the proteins called beta-conglycinins. The new composition has been identified for applications such as beverages and in meat alternatives. Soybeans with these improved organoleptic (taste and feel) properties will enable more people to enjoy the health benefits of soy protein.

FEED CORN WITH IMPROVED ENERGY

Poultry feed with enhanced lysine

Lysine, a limiting amino acid, is a building block for proteins; it helps animals to produce various enzymes, hormones, and disease-fighting antibodies. Because lysine cannot be synthesized by animals, it must be provided by their food. Two products in our pipeline, both results of our Renessen joint venture with Cargill, are expected to enhance lysine in poultry feed and reduce the need for synthetic lysine supplements. Feed corn with improved energy is expected to reduce feed cost and increase metabolizable energy by displacing some of the synthetic lysine supplements. Feed corn with increased amino acids, which is expected to launch about five years after Feed corn with improved energy, would have higher levels of lysine and could displace all of those supplements.

Improved protection thwarts a damaging pest

Another promising trait product that is advancing in the pipeline is second-generation *YieldGard* Corn Borer corn, which broadens the spectrum of insect control and reduces the need for insecticides.

Now in the early development phase in the product pipeline, second-generation *YieldGard* Corn Borer corn would build on the success of the original *YieldGard* Corn Borer, the first biotechnology solution for the corn borer. *YieldGard* Corn Borer corn contains a protein from *Bacillus thuringiensis* (Bt), a common soil microbe that targets the European corn borer. This protein allows the corn plant to protect its stalks from the damaging pest.

Heather Anderson (above), a Monsanto researcher at a Jerseyville, Illinois, field test, points out that second-generation *YieldGard* Corn Borer would provide an even broader spectrum of insect control than today's *YieldGard* Corn Borer. "Besides controlling the European and southwestern corn borer, field trials indicate it will provide better control of the corn earworm and fall armyworm, which are important pests in the United States and other parts of the world, especially Latin America." In addition, second-generation *YieldGard* Corn Borer corn will provide enhanced durability of the *YieldGard* Corn Borer trait.

Monsanto estimates the available market for second-generation *YieldGard* Corn Borer to be up to 40 million acres in the United States and nearly 20 million acres in Brazil and Argentina.

Opening global markets with innovative business solutions accelerates growth

In an uncertain regulatory environment, we have to concentrate on the factors we can control. For example, in Brazil, where official sale of *Roundup Ready* soybean varieties has been hampered by the lack of regulatory progress, we've developed a unique value-capture system that enables us to collect royalties from farmers who use unauthorized soybeans that can be identified as *Roundup Ready*. With more than 95 percent of the grain originators in the two southern states of Brazil now under contract, we have established a model that can be applied in other markets.

The Brazilian government has made interim provisions to recognize the planting of unauthorized *Roundup Ready* soybeans. Pending permanent approval of genetically modified crops in Brazil, this value-capture system is our best opportunity to generate revenue in a region where some 50 million acres are planted in soybeans. We expect the system to be a modest contributor to earnings in fiscal year 2005.

Progress in the European Union

Half a world away, the European Commission approved the import and food and feed uses of Monsanto's *Roundup Ready* corn in the European Union (EU), which is marketed as *Roundup Ready* Corn 2. While the decision did not include approval of *Roundup Ready* Corn 2 for EU cultivation, it helped to expand the markets available to U.S. growers.

We are working closely with U.S. growers and grain elevators to better identify domestic market opportunities

PRODUCT PIPELINE | **PHASE** 4 • 3 • **2** • 1 • D

Early product development

In Phase 2, for conventional breeding, we conduct field trials of plants bred from parents with the desired traits. For biotechnology products, we conduct lab and field-testing of genes in plants to select the product candidates that can be commercialized and can meet regulatory requirements.

AVERAGE DURATION [2]
12 to 24 months

AVERAGE PROBABILITY OF SUCCESS [3]
50 percent

FARMER BENEFITS

- **Second-generation *YieldGard* Corn Borer**
  See the sidebar above.

PROCESSOR BENEFITS

- **High-value soybeans for feed** [4]
  This new nutrient-dense soybean has oil content and grain yield equivalent to the comparable commodity soybeans. But this new soybean can be processed into meal that has more protein and is more readily metabolized by poultry.
- **High oil soybeans for processing** [4]
  These are soybeans whose oil content is substantially increased and whose protein and grain yield is equivalent to comparable commodity soybeans.

See page 18 for notes to the product pipeline.

RAISING THE BAR FOR OUR SUCCESS

Monsanto is aggressively developing innovative products to maintain our leadership in the industry we revolutionized.

for *Roundup Ready* Corn 2 hybrids marketed under the *Market Choices* mark. *Market Choices* identifies hybrids that are fully approved for food and feed use in the United States and Japan, but are still awaiting the necessary approvals in the European Union.

Meanwhile, growers like Allan Anderson of Williams, Iowa (above), are finding it convenient to store *Roundup Ready* Corn 2 on their farms for use as animal feed. That strategy has allowed the U.S. acreage of *Roundup Ready* Corn 2 to increase by more than one-third in 2004 compared to 2003, even while full European import approvals were pending.

Monsanto created our own competitive edge in seeds and traits by using advanced technology to develop high-quality products, and then by using our strong brands and partnerships to bring them to market ahead of competitors' products. To keep that advantage, we need to keep our spirit of innovation.

A robust pipeline

Monsanto's early investment in R&D for seeds and traits and the lessons we've learned with the first generation of products have contributed to an increasingly robust product pipeline. Because we have the most experience in shepherding projects through the process from discovery to commercialization, we are advancing more product candidates through the pipeline more quickly than we once thought possible. Products that were only research concepts two or three years ago are being tested in the field today.

The product pipeline is expected to drive mid-term and long-term growth, led by corn seed, stacked traits, and second-generation traits. As technological developments advance through the pipeline, we expect they will power our long-term growth.

The next generation of pipeline projects signals a different era with different opportunities. The first generation of products was essentially about substitution: substituting insect-control traits for pesticides or substituting *Roundup Ready* traits and *Roundup* agricultural herbicides for less

CONSUMER BENEFITS

- **Improved-oil soybeans for food**
  See sidebar at the right.
- **Omega-3 soybeans for food uses**
  Monsanto scientists are researching ways to enrich soybeans with higher levels of omega-3 fatty acids. Omega-3 fatty acids are the components traditionally associated with the fish oil that makes seafood diets heart-healthy.

IMPROVED-OIL SOYBEANS FOR FOOD

Health properties of food-grade oils improve

This year, we launched the *Vistive* brand — a new line of products coming out of our pipeline, providing direct consumer benefits by improving the health properties of food-grade oils. We're working on several products in the *Vistive* family, including a soybean that can reduce or eliminate trans fats (see page 7), and soybeans high in healthy monounsaturated fat that lowers LDL (bad) cholesterol.

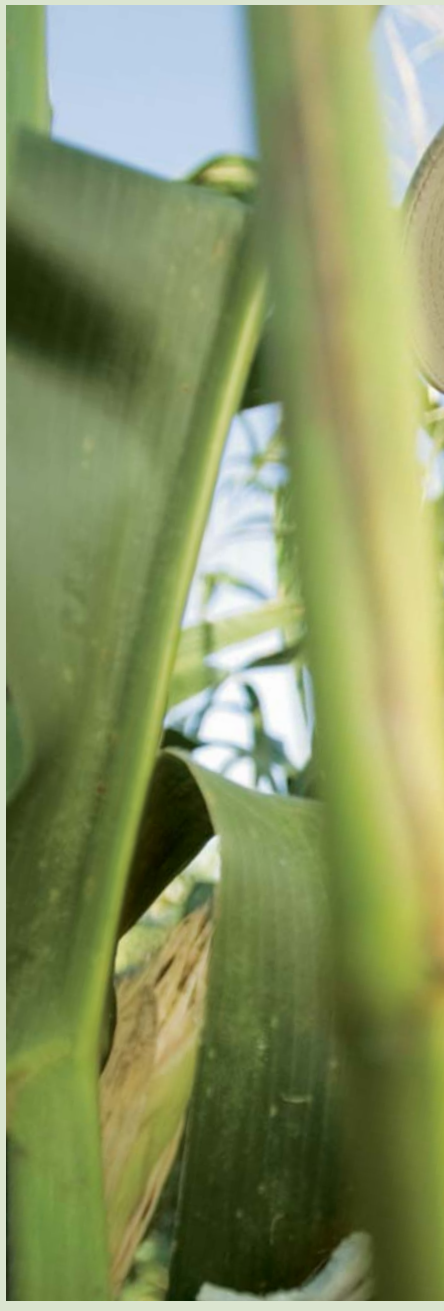
More efficient water use brings higher yields

The next generation of traits in our pipeline includes crop plants with improved tolerance of environmental stress, such as cold and drought. An especially promising trait is now in Phase 1 of development. Drought-tolerant corn would offer yield and environmental benefits on all corn acres by improving water use. It would also offer cost savings on irrigated acres.

Since drought and heat stress can account for significant yield reduction in U.S. corn crops, the market potential for drought-tolerant corn in North America and other drought-prone regions is significant. For Monsanto, the ability to stack drought-tolerance traits with weed- and insect-control traits enhances our margin opportunity.

"Drought-tolerant corn has the potential to allow crops to be grown on land where it wasn't thought possible," said Adrian Lund, a Monsanto researcher in Wichita, Kansas. "That ability to make a positive impact on farmers' livelihoods is what gets me excited about my job."

We are working on drought tolerance in corn, soybeans and cotton. After demonstrating drought tolerance in corn in greenhouses in 2003, we advanced to field trials in which rows of corn containing the drought-tolerant trait were grown next to rows without the trait. In the photo at right, Lund checks an ear of corn to gauge how effectively it is tolerating a lack of water.



Stacked traits let farmers do more with each seed

A key factor in unlocking the value of our seeds and traits business, trait stacking provides tangible cost and yield advantages to farmers. In addition, trait stacking allows the grower to have the value of multiple traits, instead of having to choose between them. Trait stacking also creates opportunities for us to improve our gross profit margin, because adding a trait to a seed is more cost-effective than producing another seed.

In the United States, the use of our stacked traits in corn increased by about 60 percent in 2004. We expect growth to accelerate in 2005 and 2006, with stacked traits representing 35 percent of all corn trait units sold by the end of 2006. As the chart on this page shows, the number of traits per acre for corn in the United States has increased.

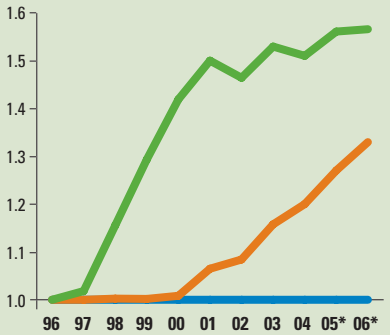
Even with the rapid adoption of first-generation traits, Monsanto is building on and improving the choices we offer so that farmers can do more with one seed. Projects such as our drought-tolerance research (above) would be commercialized as a stacked-trait offering, building on the platform of the current first-generation traits farmers rely on today.

This intensity index shows significant penetration of multiple Monsanto traits for our key crops on each trait acre planted. For instance, in cotton, for the 2004 planting season we estimate an intensity index of 1.5. (1.5 of our traits being planted on every cotton acre growing cotton with traits). For 2004, the estimated intensity index for corn is 1.2. We expect continued growth in 2005 and 2006, as we see increased penetration of stacked traits.

U.S. trait intensity index
Average number of traits per trait acre

- Cotton (2 traits available today)
- Corn (3 traits available today)
- Soybeans (1 trait available today)

*Forecast



PRODUCT PIPELINE | **PHASE** 4 • 3 • 2 • **1** • D

Proof of concept

In Phase 1, for conventional breeding products, we breed plants from parents with desired traits. For biotechnology products, we test gene configurations in plants to screen for desired performance. We determine which leads show the most promise for application to core crop plants.

AVERAGE DURATION [2]
12 to 24 months

AVERAGE PROBABILITY OF SUCCESS [3]
25 percent

FARMER BENEFITS

- **Drought-tolerant corn, soybeans and cotton**
  See the sidebar above.
- **Higher-yielding corn and soybeans**
  Monsanto research focuses on boosting crop productivity for growers. Innovative new technologies are able to isolate traits for crop features, such as stress tolerance, vigor, nutrient use, photosynthesis, and harvest components.

PROCESSOR BENEFITS

- **Feed corn with increased amino acids** [4]
  See the sidebar on page 9.
- **Feed corn with balanced proteins** [4]
  Renessen high-value feed corn could increase the nutritional profile of each corn kernel. This feed corn offers more total protein for higher energy. A better balance of essential amino acids could eventually allow animal feeders to replace their higher-cost feed components.

See page 18 for notes to the product pipeline.

environmentally sound weed control options. In contrast, the second generation is about offering solutions for problems that haven't yet been solved. For example, Monsanto scientists are working on drought-tolerant crops that may extend the conditions under which farming is possible (see page 12).

Farmers are not the only beneficiaries of Monsanto's efforts to make seeds more robust. Consumers will also benefit from the healthier crops that could result, such as soybeans that are low in linolenic acid. Linolenic acid, a precursor to trans fats, may contribute to cardiovascular disease (see page 7).

Our investment in biotechnology traits is expanding from first-generation products to second- and third-generation applications. So, as we are at this R&D crossroads, we're concentrating our resources on projects in the pipeline that anticipate the needs of farmers and consumers and that will define the next generation of products.

Momentum in the pipeline

In 2004, we tested more product candidates in the field than ever before. This movement from the laboratory to the field not only signals continuing momentum in the pipeline, but it also creates commercial opportunities. The products that have emerged are expanding our core crop markets and allowing us to reach new ones.

For instance, our plant breeding, including genomics-based marker-assisted breeding continues to produce strong yield gains in commercial corn and soybean seeds. By showcasing the best of our technologies through our branded and licensed seeds, we gained seed market share for the third season in a row in fiscal year 2004. Our U.S. branded corn business increased to approximately 14 share points for the year, more than 1 point higher than in fiscal year 2003.

One of the most significant choices we offer to growers – and the one that differentiates us most dramatically from the competition – is stacked traits. In fiscal year 2004, we received final Japanese import approval for *YieldGard Plus*, the newest of our stacked-trait products. That approval sets the stage for the fiscal year 2005 launch of the industry's first triple-stacked product, *YieldGard Plus* with *Roundup*

CONSUMER BENEFITS

- **Healthier oil II for food uses**
  Soybeans with an improved fatty-acid profile are designed to improve both the nutritional and performance aspects of oil quality. Compositional changes, such as reduced saturated fat or increased monounsaturated fat, will result in soybean oil with more uses and broad industry and consumer appeal.

Renessen delivers value to farmers and processors

Renessen, Monsanto's joint venture with Cargill, is taking farm crops beyond the commodity business and delivering differentiated, high-value solutions for the world's feed and processing industries. It combines agricultural biotechnology processes and products with efficient and reliable delivery systems from farm to processor, creating value along the chain with customized products geared to a customer's specific needs.

Ready Corn 2, which is currently pending final Japanese regulatory approval.

YieldGard Plus, our first double-insect protection trait in corn, protects the corn plant from insect attacks both in the stalk and in the roots. We conducted an extensive on-farm demonstration program of *YieldGard Plus* in the United States in fiscal year 2004. We will launch it throughout the U.S. Corn Belt in 2005.

YieldGard Plus will add to the already growing number of stacked-trait acres in corn. We estimate that corn growers in the United States planted more than 8 million acres of stacked-trait corn in fiscal year 2004, up from 5 million acres the prior year. That growth is giving us more revenue and gross margin opportunities on each acre.

The commercial success of biotechnology traits and new product concepts moving in our pipeline are helping to drive an overall value shift in the industry from crop chemicals to seeds and traits.

At the advent of the first commercial biotech trait in 1996, a majority of the estimated sales in the overall industry in the United States were in the crop chemicals segment. By 2003, germplasm and biotech traits collectively made up better than half the U.S. industry sales. That's a trend we expect to continue. With Monsanto's early investment in seeds and traits research, we believe we are poised to continue to grow with this industry evolution.

Near-term priorities

Just as the industry continues to evolve, so does our business. Our emphasis on seeds and traits has created significant momentum.

Our plans for fiscal years 2005 and 2006 anticipate that growers will continue to experience good value from our traits, and that more and more growers will adopt our products. In fiscal year 2005, the cumulative number of planted biotechnology acres worldwide will reach the billion-acre milestone.

With the increased contribution to gross profit of our seeds and traits business, we were able to raise our fiscal-year 2004 guidance both for our earnings per share (EPS)

FARMER BENEFITS

Monsanto provides farmers with greater productivity products

Monsanto's pipeline begins with discovery. This phase is characterized by focused investigation and screening. We consider hundreds of thousands of options for each project concept. Then we make the evaluations that will steer projects through the successive phases of the product pipeline.

It is in the Discovery Phase that we use the tools in which we've invested more than 20 years of research. Keith Ta, a researcher on one of Monsanto's crop-analytics projects, works at our Ankeny, Iowa, facility — an ISO-17025 accredited laboratory for specific grain analytics. The ISO-17025 designation (awarded by an international standards organization) underscores the rich technical capability of Monsanto's crop analytics.

We use crop analytics for everything from identifying new traits to finding beneficial characteristics that we can use in our breeding program.

PRODUCT PIPELINE | **PHASE** 4 • 3 • 2 • 1 • **DISCOVERY**

Gene/trait identification

This is where R&D begins. In the Discovery Phase, we conduct high-throughput screening of genetic databases to identify valuable plant traits that can be used in conventional breeding and valuable genes that can be used to improve plants through biotechnology. We apply screens to broad categories of interest, identifying multiple leads that are then investigated.

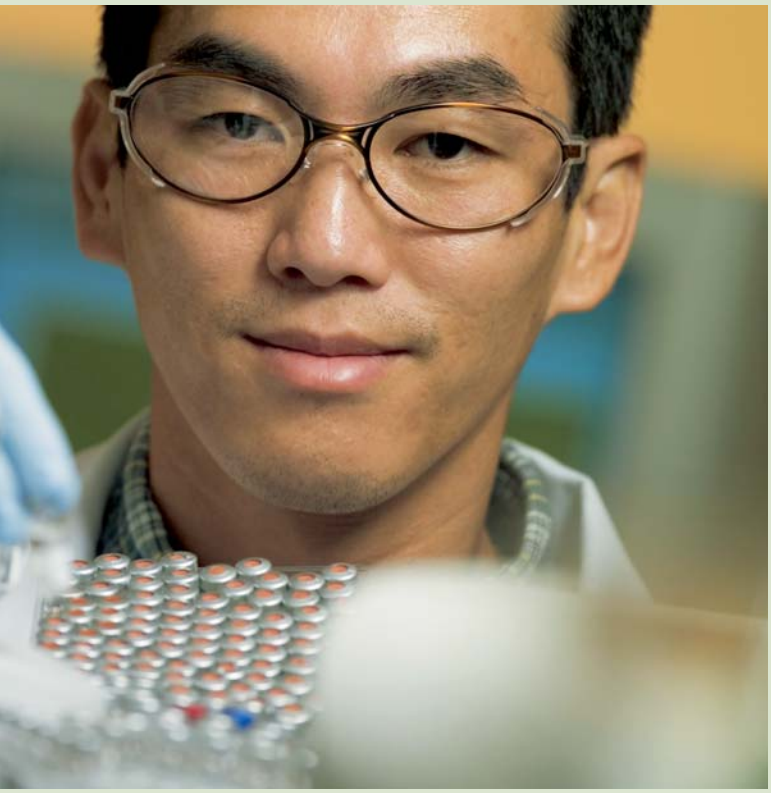
AVERAGE DURATION [2]
24 to 48 months

AVERAGE PROBABILITY OF SUCCESS [3]
5 percent

See page 18 for notes to the product pipeline.

FARMER BENEFITS

- **Grain yield**
  - — Seed size and number
  - — Nitrogen use
  - — Tolerance for higher-density planting
  - — Carbon assimilation
- **Environmental stress tolerance**
- **Pest control**
  - — Corn rootworm II
  - — Nematode control
- ***Roundup Ready***
  - — Enhanced tolerance
- **Disease resistance**



Thanks to the research done in our early-phase testing, Monsanto has more than 2,000 active genetic markers being used by our breeders, as they create the next-generation of seed products such as *Vistive* low-linolenic soybeans (see page 7) and *Processor Preferred* corn hybrids with improved ethanol yields.

We also continue to work with partners who have the expertise to identify new trait candidates and to screen for promising leads that we can carry forward in the pipeline.

In 2004, we formed a number of new partnerships, including separate technology collaborations with Divergence Inc. and Devgen N.V. We're working with Divergence to develop nematode-resistant soybeans. The nematode is a soybean pest that causes a billion dollars of yield loss for U.S. soybean growers each year. Devgen and Monsanto are cooperating on new varieties of crop plants with improved protection against insect pests.

from our ongoing business and for free cash flow. Even with a higher base, we expect to achieve a compounded annual growth rate of 10 percent to 18 percent in ongoing EPS in fiscal year 2005 and 10 percent in fiscal year 2006.

The growth in seeds and traits is balanced against the backdrop of declining revenues for *Roundup* agricultural herbicides. Although *Roundup* agricultural herbicides remain the market leader, the mix of our branded products sold to distributors and used by farmers reflects the new dynamics of the marketplace. To help offset the expected decline in the profitability of *Roundup* agricultural herbicides, we will continue to reduce costs associated with that business.

Because *Roundup* agricultural herbicides play a key complementary role in the expanding *Roundup Ready* weed control system, we are looking at the larger picture and pricing *Roundup* for the value of the overall system. We've been able to offset some of the price erosion for *Roundup* agricultural herbicides by increasing trait revenues, while maintaining the value of the system price for our customers.

Maintaining leadership

Monsanto set the standard for the seeds and traits business with our extensive early investments. Our robust pipeline puts the technology farmers need into their hands. Innovation will sustain our leadership in the business that we revolutionized. There is ample evidence that we are succeeding:

- We are expanding our potential market.
- We are seeing our traits on more acres, stacked more times on each acre, and we are gaining market share.
- We are launching new traits more often.
- We are raising the bar for our success, and in the process, raising our earnings and growth objectives.

PROCESSOR BENEFITS

- **Protein enhancements**
  - — Increased protein
  - — Improved amino-acid balance
- **Lipid enhancements**
  - — Increased oil
  - — Improved fatty-acid balance

CONSUMER BENEFITS

- **Protein enhancements**
  - — Increased protein
  - — Improved amino-acid balance
- **Lipid enhancements**
  - — Increased oil
  - — Improved fatty-acid balance
- **Carbohydrate enhancements**
- **Bioactive compounds**

Monsanto provides greater consumer and processor benefits

Pipeline projects focused on farmer benefits create tools for better yielding crops or control of insects. Consumer- and processor-focused projects provide better value in food and feed nutrition. Examples of these projects include protein enhancements such as improved amino-acid balance; lipid enhancements, including improved fatty-acid balance; and carbohydrate enhancements.

BOARD OF DIRECTORS

Frank V. AtLee III, 64, is a retired president of the former American Cyanamid Company and chairman of the former Cyanamid International. Both companies were involved in the discovery, development, manufacturing and marketing of medical and agricultural products. Mr. AtLee served Monsanto as chairman of the board and chair of the Executive Committee from June 2000 to October 2003. He was Monsanto's interim president and chief executive officer from December 2002 to May 2003. He is a member of the Public Policy and Corporate Responsibility Committee and the Science and Technology Committee. He is also on the boards of Antigenics Inc. and Nereus Pharmaceuticals Inc.

John W. Bachmann, 65, is a senior partner of Edward Jones, a major financial services firm that advises individual investors exclusively. From 1980 until 2004, Mr. Bachmann served as managing partner of Edward Jones. Mr. Bachmann was elected to the Monsanto board in May 2004 and is a member of the Audit and Finance Committee and the People and Compensation Committee. He also serves on the boards of AMR Corporation and the U.S. Chamber of Commerce, where he is the chairman of the board for 2004-2005.

Hugh Grant, 46, is chairman of the board, president, and chief executive officer of Monsanto. He joined the former Monsanto as a product development representative for the company's agricultural business in 1981. Since 1991, he held a variety of management positions, most recently as executive vice president and chief operating officer. Mr. Grant chairs the Executive Committee.

Gwendolyn S. King, 64, is president of Podium Prose, a speakers bureau. Mrs. King was senior vice president, corporate and public affairs, for PECO Energy Company, a diversified utility company. From 1989 through 1992, Mrs. King served as the 11th Commissioner of Social Security. In 2001, she was appointed to President George W. Bush's Commission to Strengthen Social Security. Mrs. King has served as a director on the Monsanto board since February 2001. She chairs the board's Public Policy and Corporate Responsibility Committee, and she is a member of the People and Compensation Committee, and the Nominating and Corporate Governance Committee. Mrs. King also serves on the boards of Lockheed Martin Corporation, Marsh and McLennan Companies Inc., and Countrywide Financial Corporation. She is also a founding member of The Directors' Council, a for-profit search firm, established in October 2003.

Sharon R. Long, Ph.D., 53, is professor of biological sciences and dean of the School of Humanities and Sciences at Stanford University. Dr. Long was also an investigator for the Howard Hughes Medical Institute. She is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, and the American Philosophical Association. Dr. Long has served as a director on the Monsanto board since February 2002. She chairs the board's Science and Technology Committee, and she is a member of the Public Policy and Corporate Responsibility Committee.

C. Steven McMillan, 58, is chairman of the board and chief executive officer of Sara Lee Corporation, a global consumer packaged goods company whose brands include Sara Lee, Hillshire Farms, Earth Grains, Jimmy Dean, Douwe Egberts, Hanes, and Playtex. He has served as a director on the Monsanto board since June 2000. Mr. McMillan chairs the board's People and Compensation Committee, and he is a member of the Restricted Stock Grant Committee, the Audit and Finance Committee, and the Nominating and Corporate Governance Committee. He also serves on the board of Bank of America Corporation.

From left to right: Hugh Grant, Robert J. Stevens, George H. Poste, Sharon R. Long, John W. Bachmann, Gwendolyn S. King, William U. Parfet, C. Steven McMillan, and Frank V. AtLee III.

EXECUTIVE OFFICERS

William U. Parfet, 58, is chairman of the board and chief executive officer of MPI Research Inc., a preclinical toxicology research laboratory. He has served as a director on the Monsanto board since June 2000. Mr. Parfet chairs the board's Audit and Finance Committee, and he is a member of the People and Compensation Committee and the Executive Committee. He also serves on the boards of CMS Energy Corporation, PAREXEL International Corporation, and Stryker Corporation.

George H. Poste, Ph.D., D.V.M., 60, is chief executive of Health Technology Networks. In May 2003, he was named director of the Arizona Biodesign Institute at Arizona State University. Dr. Poste is a member of the Defense Science Board of the U.S. Department of Defense, and he chairs that group's Task Force on Bioterrorism. He has served on the Monsanto board since February 2003, and he is a member of the Public Policy and Corporate Responsibility Committee and the Science and Technology Committee. Dr. Poste also serves on the boards of Exelixis, Inc. and Orchid BioSciences Inc.

Robert J. Stevens, 53, is president and chief executive officer of Lockheed Martin Corporation, a firm engaged in the research, design, development, manufacture and integration of advanced-technology systems, products and services. During 2001 and 2002, he served on President George W. Bush's Commission on the Future of the United States Aerospace Industry. Mr. Stevens has served as a director on the Monsanto board since August 2002. He chairs the board's Nominating and Corporate Governance Committee, and he is a member of the Audit and Finance Committee. He also serves as Monsanto's presiding director. Mr. Stevens also serves on the board of Lockheed Martin Corporation.

Note: Ages are current as of Nov. 1, 2004.

Chairman, President, and
Chief Executive Officer
Hugh Grant

Executive Vice President and
Chief Technology Officer
Robert T. Fraley, Ph.D.

Executive Vice President
and Chief Financial Officer
Terrell K. Crews

Executive Vice President,
Secretary, and General Counsel
Charles W. Burson

Executive Vice President,
North America Commercial
Carl M. Casale

Executive Vice President,
International Commercial
Brett D. Begemann

Executive Vice President,
Manufacturing
Mark J. Leidy

Executive Vice President,
Commercial Acceptance
Gerald A. Steiner

Senior Vice President,
Corporate Strategy
Cheryl P. Morley

Senior Vice President,
Human Resources
Steven C. Mizell

Vice President and Controller
Richard B. Clark

Vice President and
Chief Information Officer
Janet M. Holloway

Vice President and Treasurer
Robert A. Paley

This list includes executive officers as defined by the U.S. Securities and Exchange Commission. It is current as of Nov. 1, 2004. Additional information about the executive officers appears in Monsanto's Form 10-K in Part III, Item 10.

NOTES

Notes to 2004 Financial Highlights and charts

(1) EBIT is earnings (loss) from continuing operations before cumulative effect of accounting change, interest and income taxes. For 2004, net income was $267 million. With an aftertax loss on discontinued operations of $4 million, net interest expense of $67 million, and income taxes of $131 million, total company EBIT for 2004 was $469 million. For 2003, net income was $68 million. With an aftertax cumulative effect of accounting change of $12 million, an aftertax loss on discontinued operations of $15 million, net interest expense of $69 million, and income taxes of $42 million, total company EBIT for 2003 was $206 million. The financial information contained in this note refers to the 12-month periods ended Aug. 31 for the respective years.

(2) Free cash flow represents the total of net cash provided or (required) by operations and provided or (required) by investing activities. For 2004, free cash flow was $999 million, with $1,261 million provided by operations and $(262) million required by investing activities. For 2003, free cash flow was $646 million, with $1,128 million provided by operations and $(482) million required by investing activities. For 2002, free cash flow was $581 million, with $855 million provided by operations and $(274) million required by investing activities. Cash required by financing activities was $(243) million in 2004, $(502) million in 2003, and $(711) million in 2002. The financial information contained in this note refers to the 12-month periods ended Aug. 31 for the respective years.

Notes to product pipeline

(1) Candidates include research platforms in the discovery phase and specific product projects in Phases 1 through 4 with higher-than-average probability of success or market potential. The assessment is based on available information and technical progress to date.
(2) Time estimates are based on our experience; they can overlap. Total development time for any particular product may be shorter or longer than the time estimated here.
(3) This is the estimated average probability that the traits will ultimately become commercial products, based on our experience. This figure applies to all product candidates in each phase, not just the candidates listed here. These probabilities may change over time.
(4) These product candidates are in the Renessen pipeline. Renessen is a Monsanto/Cargill joint venture.

Dividend Policy

The declaration and payment of quarterly dividends is made at the discretion of Monsanto's board of directors. The dividend is reviewed by the board quarterly.

Transfer Agent and Registrar

To request or send information contact:
Mellon Investor Services LLC
P.O. Box 3315
South Hackensack, New Jersey 07606
U.S.A.

Telephone:
(888) 725-9529
Toll free within the United States and Canada

(201) 329-8660
Outside the United States and Canada

For the hearing-impaired:
(800) 231-5469
Toll free within the United States and Canada

(201) 329-8354
Outside the United States and Canada

On the Internet:
If you are a registered shareowner, you can access your Monsanto account online by using the Investor ServiceDirect feature at Mellon Investor Services. Go to https://vault.melloninvestor.com/isd/.

Direct Stock Purchase Plan

The Investor Services Program allows shareowners to reinvest dividends in Monsanto Company common stock automatically. Shareowners can also purchase common shares through an optional cash investment feature. For more information on the program, contact Mellon Investor Services (see above).

Electronic Delivery and Proxy Voting

Monsanto offers its shareowners the opportunity to receive proxy statements, annual reports, prospectuses, and other shareowner materials electronically through the Internet, instead of by mail.

If you are a registered shareowner, you can start electronic delivery by (1) marking and returning your consent on your proxy card, (2) submitting your consent when you vote over the Internet by accessing the Mellon Investor Services Web site at http://www.eproxy.com/mon, or (3) submitting your consent when you vote by telephone via Mellon Investor Services at 1-800-435-6710. In addition, you may see these materials on the Internet at any time by accessing your Monsanto shareowner account online. Contact Investor ServiceDirect, a feature of Mellon Investor Services, at https://vault.melloninvestor.com/isd/.

If your shares are held in street name by a bank or broker you nominated, you can choose electronic delivery over the Internet at http://www.proxyvote.com through your bank or broker.

Certifications

The most recent certifications by our Chief Executive and Chief Financial officers pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are filed as exhibits to our Form 10-K. Our Chief Executive Officer's most recent certification to the New York Stock Exchange was submitted March 23, 2004.

Additional Shareowner Information

Shareowner, financial and other information about Monsanto is available to you free of charge from several sources throughout the year. These materials include quarterly earnings statements, significant news releases, and Forms 10-K and 10-Q, which are filed with the U.S. Securities and Exchange Commission.

On the Internet:
You can find financial and other information, such as significant news releases, Forms 10-K and 10-Q, and the text of this annual report, on the Internet at http://www.monsanto.com.

By writing:
You can also request these materials by writing to:
Monsanto Company — Materialogic
800 North Lindbergh Boulevard
St. Louis, Missouri 63167
U.S.A.

Additional Information about Monsanto

You can read a report summarizing Monsanto's progress in fulfilling the Pledge by visiting our Web site: http://www.monsanto.com.

Annual Meeting

The annual meeting of Monsanto shareowners will be held at 1:30 p.m. on Thursday, Jan. 20, 2005, in K Building of the company's offices at 800 North Lindbergh Boulevard, St. Louis, Missouri. A formal notice of the meeting and a proxy statement are sent to each shareowner.

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Monsanto's stock is traded principally on the New York Stock Exchange. Our symbol is MON.

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