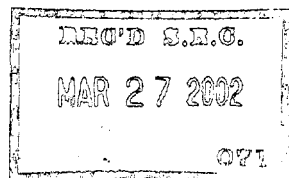




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Deliver on
Promises

Sustain
Performance

Build for
Growth

PROCESSED

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FINANCIAL

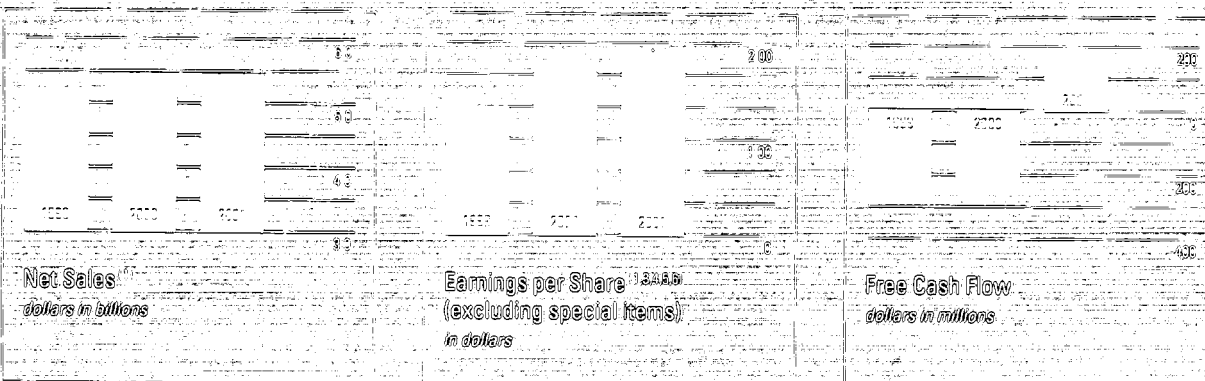
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2001 FINANCIAL HIGHLIGHTS

(Dollars in millions, except share and per share amounts)

	2001	2000	Change
Operating Results			
Net Sales	\$5,462	\$5,493	(1)%
EBIT (excluding special items) ^{1,2}	\$ 809	\$ 779	4 %
EBITDA (excluding special items) ^{1,3}	\$1,359	\$1,325	3 %
Reported Net Income ⁴	\$ 295	\$ 149	98 %
Reported Diluted Earnings per Share ^{4,5}	\$ 1.12	\$ 0.58	93 %
Net Income (excluding special items) ^{1,6}	\$ 473	\$ 440	8 %
Diluted Earnings per Share (excluding special items) ^{1,5,6}	\$ 1.80	\$ 1.70	6 %
Other Selected Data			
Free Cash Flow	\$ 183	\$ (264)	N/A
Capital Expenditures	\$ 382	\$ 582	(34)%
Depreciation and Amortization	\$ 554	\$ 546	1 %
Shares Outstanding (year-end, in millions)	258.1	258.0	

See page 25 for footnotes 1-6 for items above and items 25-26 on



In 2001, net sales for Monsanto decreased 1 percent, to \$5.5 billion. Sales were negatively affected by foreign currency exchange rates, particularly in Brazil. Without the currency effects, sales would have increased 3 percent.

Monsanto's earnings per share excluding special items increased 6 percent in 2001, to \$1.80. Growth in 2002 will depend largely on improved business, economic and weather conditions in Latin America, as well as continued strong performance across the company's seed, herbicide, biotechnology trait, and other base businesses.

Monsanto achieved its goal of positive free cash flow in 2001. Free cash flow — cash flows from operations less cash required for investing activities — improved by \$447 million in 2001, from a negative \$264 million to \$183 million. Monsanto's goal is to improve free cash flow in 2002 by managing working capital and driving income growth.

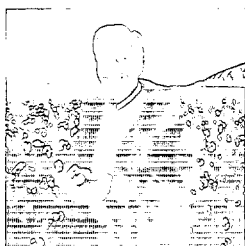
COMPANY PROFILE:

Monsanto is a leading provider of agricultural products and integrated solutions for farmers. We make *Roundup*, the world's best-selling herbicide, and other crop protection products. We produce leading seed brands, including *DEKALB* and *Asgrow*, and we provide our seed partners with biotechnology traits for insect protection and herbicide tolerance. With our unique combination of products and our unparalleled resources in plant biotechnology, we create integrated solutions that bring products and technologies together to improve productivity and to reduce the costs of farming.

In its first full year as a separate business devoted exclusively to agriculture, Monsanto took steps to deliver on promises, to sustain strong performance, and to lay the groundwork for long-term growth.

Since October 2000, Monsanto has been an 85 percent-owned subsidiary of Pharmacia Corporation. Recently, Pharmacia announced its intention to spin off its remaining stake in Monsanto via a tax-free dividend to Pharmacia shareowners in the fourth quarter of 2002.

This report is organized around six drivers identified in our 2000 annual report as key to creating additional value for farmers and shareowners. We provide a performance update (see page 6) on the value drivers, detailing progress toward specific targets we established last year. We then explain how the value drivers are helping Monsanto to achieve three overriding goals:



Deliver on promises

In 2001, Monsanto achieved positive free cash flow and increased earnings.

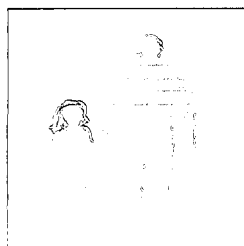
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Sustain strong performance

Monsanto is applying its unmatched capabilities to offer farmers integrated solutions that combine seeds, traits, and crop protection products.

10



Build for long-term growth

Monsanto is using its leading position in technology to develop higher-value products.

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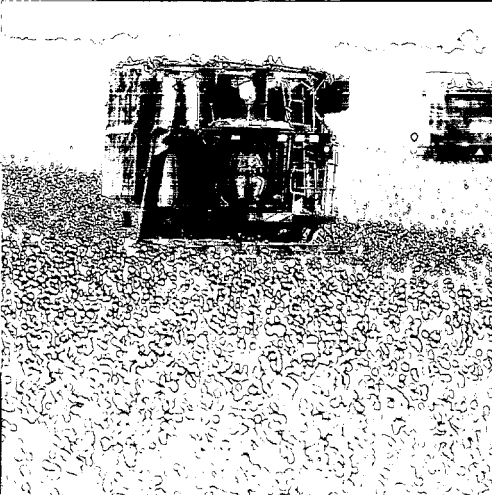
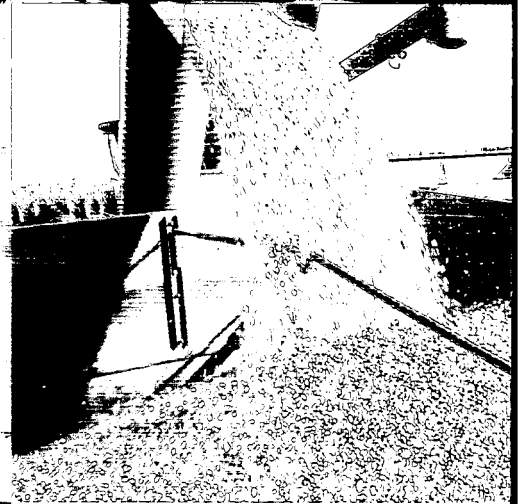
The New Monsanto Pledge
An update on our commitments embodied in the New Monsanto Pledge.

ABOUT THE COVER:

This report features farmers who count on Monsanto for products that work and for integrated solutions that reduce the costs and complications of farming. Wayne Stouder is a farmer and an *Asgrow* and *DEKALB* seed dealer in Pacific Junction, Iowa. In 1996, Mr. Stouder was the first farmer in his area to plant *Roundup Ready* soybeans, our first product developed through biotechnology to tolerate *Roundup* herbicide. Today, he plants 100 percent *Roundup Ready* soybeans and 80 percent *Roundup Ready* corn. (See page 10.)

Roundup
FAMILY OF HERBICIDES

Roundup
ULTRA



Monsanto Company is a leading global provider of agricultural products and integrated solutions that bring together chemicals, seeds, and biotechnology traits to improve farm productivity and food quality. We manage our business in two segments: Agricultural Productivity, and Seeds and Genomics. Our Agricultural Productivity segment includes *Roundup* herbicide and other crop protection products, and our animal agriculture business. The Seeds and Genomics segment consists of global businesses in seeds and related biotechnology traits, and technology platforms based on plant genomics, which increases the speed and power of genetic research.

	KEY PRODUCTS	MARKET POSITION	BUSINESS STRATEGY
Agricultural Productivity	□ <i>Roundup</i> herbicide and our other glyphosate products offer effective nonselective weed control; they form the basis of integrated solutions with other Monsanto products. □ Selective herbicides, such as <i>Harness Xtra</i>, <i>Machete</i>, and <i>Maverick</i>, control specific weeds in corn, rice and wheat. □ Products for animal agriculture focus on improving dairy cow productivity and swine genetics.	□ Global sales of <i>Roundup</i> herbicide exceed those of the next six leading herbicides combined. □ Monsanto's acetanilide-based selective herbicides hold the No. 2 U.S. position for control of grassy weeds in corn. □ <i>Posilac</i> bovine somatotropin is the largest-selling dairy-related animal health product in the world.	□ <i>Roundup</i> continues to provide strong cash flow with product enhancements and manufacturing cost leadership, as conservation tillage and <i>Roundup Ready</i> crops support growth. □ Monsanto continues to deliver improved selective herbicide formulations that offer farmers more value. □ New product formulations and more efficient manufacturing capacity support the growth of <i>Posilac</i>.
Seeds and Genomics	□ Monsanto serves farmers with high-quality brand-name seeds, such as <i>DEKALB</i> and <i>Asgrow</i>, and a broad, high-quality collection of genetic material — called germplasm — used to develop new varieties for Monsanto and many seed partner brands. □ Biotechnology traits, such as herbicide tolerance in <i>Roundup Ready</i> soybeans and insect protection in <i>YieldGard</i> corn, give farmers more input options to produce crops more efficiently.	□ Monsanto holds the No. 1 or No. 2 position in key corn and soybean markets in North America, Latin America, and Asia. Monsanto also holds a leading position in the European wheat market. □ Monsanto is the world leader in biotechnology crops. Seeds with Monsanto traits accounted for more than 90 percent of the acres planted worldwide with herbicide-tolerant or insect-resistant traits in 2001.	□ Monsanto uses genomics-based capabilities both to breed improved hybrids and varieties, and to identify biotechnology traits. Its strong germplasm base allows it to commercialize high-quality seeds and to launch new trait products. □ Monsanto develops new products while building public acceptance of biotechnology and gaining regulatory approvals to expand existing seeds and biotechnology traits to new markets.

OPPOSITE PAGE: Monsanto's business focuses on four key crops: corn, soybeans and other oilseeds, cotton, and wheat. Our seed brands include *Asgrow* and *DEKALB*, and our products include seeds that have been improved with one or more traits through biotechnology. Monsanto sales representative Edison Proença and farmer Manoel Henrique Pereira (second row, center) inspect soybeans near Ponta Grossa in Paraná state, a large soybean-growing region in Brazil. Monsanto representative Bill Backhaus and Iowa farmer Wayne Stouder (third row, left) examine *Residue Proven Roundup Ready* soybeans — varieties particularly well suited for planting in the crop residue left on conservation tillage fields. Larry McClendon (bottom row, center) harvests *Bollgard* and *Roundup Ready* cotton on his Arkansas farm. This cotton product was developed through biotechnology with stacked traits to provide both insect protection and herbicide tolerance.

Dear Shareowners: In this report on Monsanto's first full year as a company completely focused on agriculture, we're providing a detailed accounting of how we're (1) delivering on our promises, (2) sustaining our performance, and (3) building for growth. Last year, I wrote about the compelling future of agriculture. That future is driven by the growing need for food and fiber to keep up with an expanding world population, more nutritious diets, and increased spendable income. Monsanto is uniquely positioned to take advantage of these opportunities.

We're at the forefront in developing products and technologies based on biotechnology and genomics to improve both the quantity and quality of food, feed and fiber. We're also well positioned to bring these products to the market. We've developed a unique business model that offers total solutions to the farmer. That model integrates seeds, biotechnology traits, and *Roundup* herbicide. The elements that I discussed last year all hold true today.

Our long-term success, however, starts with today's results. That's why it's appropriate to discuss what our company achieved — and where we fell short of our goals — during 2001.

Delivering on Our Promises

Financially, in 2001 we did all right in a tough climate — a tribute to the hard work of our people. The economic slump in agriculture, exacerbated by economic turmoil and currency devaluation in Latin America, made the year even more challenging than we anticipated. Still, we increased earnings per share by 6 percent. Our results were highlighted by (1) significant acreage expansion of crops improved with our biotechnology traits, (2) continued volume growth of *Roundup* products, albeit at a slower pace, and (3) especially good cost management.

Our focus on cost and capital management — together with greater discipline in the collection of receivables — resulted in positive free cash flow of \$183 million. We also lowered our receivables as a percent of sales by

one-and-a-half percentage points to 42.2 percent. Our long-term goal is to reduce receivables to 38 percent of sales.

We didn't meet every financial goal we set for ourselves in 2001. However, given the significant downturn in our industry and the economic conditions in our key markets, our 2001 results were solid.

We expect that the agricultural economic environment will remain difficult and that accelerating growth from our traditional products will remain challenging. To improve our income in 2002, we'll place even more emphasis on cost containment. To increase our cash flow, we'll put even greater efforts into the management of receivables and capital preservation.

Sustaining Our Performance

Our franchise for *Roundup* continued to perform well in the first full year following U.S. patent expiration. Our global brand position for *Roundup* also remained stable. The integrated use of *Roundup* with our branded seeds and biotechnology traits in conservation tillage (con-till) systems remains our largest near-term growth opportunity. Farmers who use con-till methods are dramatically reducing the rate of soil erosion, thereby meeting a major need in agricultural sustainability.

Our biotechnology and seed business grew significantly in 2001, as farmers planted 14 percent more acres of crops improved with our biotechnology traits. This growth came despite continuing

controversy regarding agricultural biotechnology in Europe. Indeed, lower input costs, greater convenience, environmental benefits, and higher yields make biotechnology a very attractive alternative for farmers.

I have mixed feelings about the progress we made during 2001 in the biotechnology arena. On one hand, biotech acres expanded significantly, and our insect-protected *Bollgard* cotton and *YieldGard* corn borer technologies received renewed approvals in the United States. Several countries added biotech approvals during the year, including approvals for farmers to plant *Roundup Ready* cotton in Argentina, insect-protected cotton in Indonesia, and *Roundup Ready* soybeans in South Africa. On the other hand, I'm very disappointed that we didn't obtain approval to import *Roundup Ready* corn into Europe and that we didn't obtain approvals for farmers to plant *Roundup Ready* soybeans in Brazil and *Bollgard* cotton in India. Gaining these approvals will be key steps toward global acceptance of biotechnology.

Notwithstanding these disappointments, I'm encouraged by the momentum building in favor of biotechnology. Last summer, the United Nations Development Programme's Human Development Report highlighted the benefits that agricultural biotechnology can bring to the developing world. The evidence of pesticide reduction provided by our *Bollgard* cotton technology is receiving widespread notice, not only from farmers and scientists, but also from a growing number of environmentalists. The

European Community's Framework Programmes for Research and Technological Development issued late in 2001 its findings that crops and food derived from biotechnology are as safe as traditional crops, perhaps even safer. Indeed, six years of commercial production and hundreds of millions of acres planted to biotech crops have shown no evidence of human or environmental harm.

We're also seeing the beginning of a turnaround in consumer acceptance of biotechnology in Europe, and a further strengthening of the positive attitude toward biotechnology in the United States and other parts of the world. An informed consumer is a positive consumer. In the New Monsanto Pledge, we committed to open dialogue, transparency, and respect. This attitude led to a more open and balanced dialogue with our customers, food companies, environmentalists, and members of nongovernmental organizations.

Building for Growth

The greatest upside opportunity for Monsanto is the development and marketing of products and technologies derived from biotechnology and genomics used in our own seed varieties or licensed to other seed producers. These technologies will help us (1) to develop more productive crops, (2) to develop more nutritious food and feed, and (3) ultimately to develop therapeutic compounds in plants. This has the potential to create accelerated income growth and significant shareowner value. To make these opportunities a reality, we must do two things well: first, gain global acceptance of biotechnology; second, keep our robust pipeline flowing.

We're making good progress with our pipeline. In 2001, we refreshed our seed portfolio by introducing a significant number of improved corn, soybean and wheat seed varieties derived from our molecular breeding program. We also advanced our *Bollgard II* cotton and *YieldGard* rootworm-protected corn in the regulatory process. Although we don't expect to have final regulatory approvals on either of these products prior to the

2002 North American planting season, we do expect to be in a position to launch both products in 2003.

I'm excited about the speed with which we're able to identify important plant genes — such as genes that increase yield or help plants resist droughts or cold climates. I'm also encouraged by our progress in shortening the total time from discovery to field testing to introducing desirable traits into our seeds and the germplasm used by our seed partners. Our combination of genomics, biotechnology, and molecular breeding gives me confidence that we can sustain our current market leadership in biotechnology as its applications multiply.

In conclusion, our three-phased strategy remains valid. In the short term, we're committed to delivering income growth through enhanced performance of our base businesses and smart cost management. In the medium term, we plan to sustain our performance with the expansion of our commercialized biotech traits and with new seed varieties. We're also building for growth so that in the long term we can further accelerate growth with the next generation of biotechnology traits, genomics, and downstream opportunities.

Finally, I'm happy that we'll be able to deliver these results as an independent, free-standing company totally focused on this endeavor. Pharmacia has announced that it will spin off the remaining 85 percent of the Monsanto shares it owns in the fourth quarter of this year. This has given our people further motivation to excel and to create shareowner value. Thank you for your interest and investment in our company.

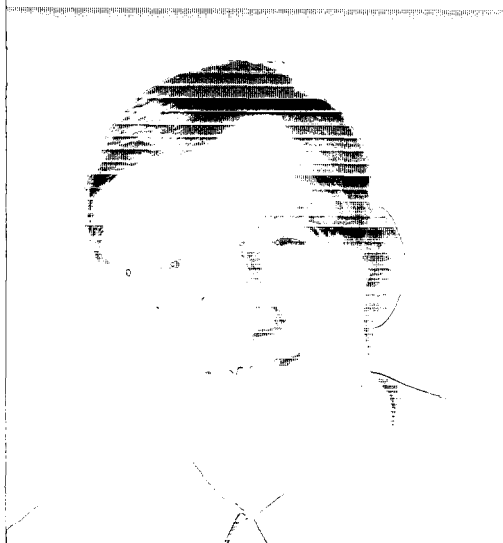


Hendrik A. Verfaillie
President and Chief Executive Officer

March 10, 2002

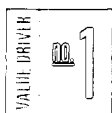
"Our combination of genomics, biotechnology, and molecular breeding gives me confidence that we can sustain our current market leadership in biotechnology as its applications multiply."

HENDRIK VERFAILLIE
PRESIDENT AND
CHIEF EXECUTIVE OFFICER



In our 2000 annual report, Monsanto identified six value drivers — objectives critical to the company's performance. We also listed specific targets to achieve those objectives. This table provides a year-end 2001 snapshot of our progress toward the targets and next steps in achieving them.

Deliver on Promises



Deliver strong financial performance from integrated operations

Through a continued focus on business growth and cost and cash management, achieve positive free cash flow in 2001.

PROGRESS: Monsanto achieved its goal of positive free cash flow in 2001 by recording free cash flow of \$183 million.

NEXT STEPS: We intend to continue to improve free cash flow, primarily by reducing working capital and by maintaining earnings growth.

Achieve revenue growth of 5 percent in 2001 and net income growth of 9 percent to 13 percent.

PROGRESS: Revenues decreased by 1 percent, and net income increased by 8 percent in 2001. Revenues would have increased 3 percent if foreign currency effects were excluded. Net income fell short of our goals, primarily because of difficult economic conditions in Latin America, particularly in Argentina.

NEXT STEPS: Our goal is to increase earnings in 2002 with strong performances across our base businesses, especially in Latin America, where 2001 results were negatively affected by adverse weather and economic conditions.

Reduce manufacturing and overhead costs.

PROGRESS: In 2001, unit manufacturing costs for *Roundup* declined by more than 3 percent. Selling, general and administrative (SG&A) costs, as a percent of sales, declined from 22.8 in 2000 to 21.7 in 2001. Research and development (R&D) spending, as a percent of sales, declined from 10.7 to 10.3, within the expected range for the year. With the completion of our four-year program to expand and improve manufacturing capacity for *Roundup*, we reduced capital expenditures by \$200 million in 2001.



NEXT STEPS: We expect capital spending in 2002 to be roughly flat with 2001 spending, which totaled \$382 million. In 2002, we'll continue to pursue reductions of 3 percent to 5 percent in unit costs of manufacturing *Roundup*. We're also maintaining a sharp focus on managing overhead costs.

Sustain Performance



Create integrated solutions for farmers

Support conservation tillage growth with new-product development, particularly in soybeans and corn, and with farmer programs.

PROGRESS: In 2001, con-till acreage grew by roughly 8 percent, or 30 million acres worldwide, to more than 415 million acres. Monsanto shifted its focus to earning more on each acre by developing integrated con-till solutions that combine our seeds, traits and chemicals. We offered new *Residue Proven Roundup Ready* soybean and corn seeds for con-till, and we introduced *RT Master* herbicide for con-till wheat in the United States.

NEXT STEPS: While maintaining the success of *Roundup* in con-till, Monsanto will focus on expansion of seeds and traits to increase gross margins on each con-till acre. We'll continue to promote con-till expansion, which is expected to be about 10 percent a year. Farmer education and programs, such as *Acres of Opportunity*, encourage farmers to adopt con-till.

Introduce integrated solutions targeted at downstream businesses.

PROGRESS: Our *Processor Preferred* soybean program identifies soybean varieties that contain high levels of oil and protein. It offers farmers and processors a way to share in the increased value of the crop. The program was launched for the 2002 season with

nine *Asgrow* varieties and four *DEKALB* varieties.

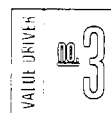
NEXT STEPS: Monsanto's pipeline includes products developed both through conventional breeding and through biotechnology to create value for downstream feed and food processing businesses.

Introduce enhancements that increase the value of existing products to farmers.

PROGRESS: In 2001, Monsanto expanded distribution of its high-value *Roundup UltraMAX*. We offered additional value through programs such as *Roundup Rewards*, which helps farmers manage risk with benefits tailored

to the needs of farmers in various regions.

NEXT STEPS: Monsanto will introduce new products and services to farmers, and expand successful programs to additional markets.



Sustain strong growth for *Roundup* herbicide and other products

Continue growth of *Roundup* by developing new branded formulations and by increasing volumes with selective price reductions.

PROGRESS: Global sales volumes of *Roundup* increased 2 percent in 2001, while revenues decreased 8 percent, primarily because of the effect of foreign currency exchange rates and lower average selling prices. In the United States, branded volumes increased 9 percent.

NEXT STEPS: We'll continue to introduce significant enhancements to *Roundup*, with a goal of making improvements every 18 to 24 months, to maintain our technology and brand leadership.

Achieve plant breeding targets by refreshing current seed portfolio in corn, soybeans and wheat.

PROGRESS: We're on track to surpass our plant breeding goals for the 2001-2002 period. In 2001, we developed 73 new corn hybrids, toward a two-year target of 130; we developed 92 new soybean varieties, toward a two-year target of 150; and we registered 14 wheat varieties, toward a two-year target of 20.

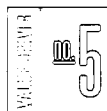
NEXT STEPS: In 2002, we expect to complete our two-year goals for refreshing our commercial seed portfolio with improved varieties and hybrids. Monsanto will continue to improve its seed portfolio by using marker-assisted breeding. Marker-assisted breeding allows us to accelerate improvement, thereby maintaining our leading market position in germplasm.

Increase branded seed share and market penetration of Monsanto traits.

PROGRESS: Monsanto traits achieved increased penetration globally in corn, soybeans, canola and cotton in 2001. Half of our U.S. branded corn seeds carried our biotechnology traits, and our branded soybean seeds gained roughly two share points in the U.S. market.

NEXT STEPS: Monsanto will advance its successful efforts to build strong global brands and to create an integrated field sales force, while promoting expanded use of our traits in both branded and licensed seed.

Build for Growth



Use biotechnology capabilities to speed product development

Maintain technology leadership through Monsanto's network of biotechnology and genomics research capabilities.

PROGRESS: Monsanto's genomics-based research has moved from the basic study of plant genes to applied genomics — using our knowledge to develop new products. In 2001, we completed the expansion of our marker-assisted breeding laboratory in Ankeny, Iowa, where plants are screened for genetic markers of key traits.

NEXT STEPS: With our biotechnology research capabilities largely in place — including a network of research partnerships — we're focusing on product development. Our goal is to move 10 new-product leads forward to field testing in 2003.

Advance 20 projects involving input, yield and quality traits.

PROGRESS: Monsanto exceeded its targets for identifying and developing potentially valuable plant traits. More than 50 corn and soybean projects, products of marker-assisted breeding, will be in precommercial trials in 2002.

NEXT STEPS: We're screening vast numbers of plants for valuable traits. Our focus is on traits that meet customer demands in our key crops, such as drought tolerance for better yields and higher oil content for processing efficiency.

Help develop products for the grain processing and animal feed industries to be commercialized by Renessen.

PROGRESS: Renessen LLC, our joint venture with Cargill Incorporated, commercialized a high-oil corn product in Argentina in 2000. Additional products to serve the feed grain industry are advancing through the pipeline.

NEXT STEPS: Renessen is developing new products through both biotechnology and conventional breeding. The pipeline includes corn enhanced with essential amino acids for feed grain and high-oil soybeans for improved processing efficiency.



Commercialize products in our pipeline

Launch *YieldGard* rootworm-protected corn and *Bollgard II* insect-protected cotton.

PROGRESS: Regulatory processes are under way to obtain approvals for expected 2003 U.S. launches of a new *YieldGard* corn that is

protected against corn rootworm and our *Bollgard II* cotton, which will provide farmers with a broader spectrum of insect control.

NEXT STEPS: To commercialize these and other biotechnology products, we'll seek additional regulatory approvals.

We're pursuing launches of *Bollgard II* cotton in Australia in 2002 and in Mexico in 2003.

Accelerate growth through rapid, effective commercialization of products in the pipeline.

PROGRESS: We accelerated development of new hybrids and varieties by expanding our marker-assisted plant breeding capacity. This allows us to commercialize these improved seeds and to use this improved germplasm to launch new trait products.

NEXT STEPS: Pipeline candidates moving toward launch include higher-yielding soybeans and canola, additional new hybrids and varieties in key crops, and enhancements to existing biotechnology products.

Accelerate the next wave of biotechnology traits, including quality traits for downstream businesses.

PROGRESS: Products actively under development include a new wave of agronomic traits, such as cold and drought tolerance, and corn and soybeans with quality traits that create value for downstream food processing businesses.

NEXT STEPS: We're implementing a market-driven program to develop better food. The program applies marker-assisted breeding to our germplasm base, so that Monsanto can identify traits that meet consumers' needs and then breed crops with those qualities.



At our new facility in Camaçari, Brazil, lab technician Maria Lorena Souza performs a quality check on a compound used to make glyphosate, the active ingredient in *Roundup*. The intermediate products manufactured here are shipped to other Monsanto sites and converted into *Roundup* to serve the growing Latin American market.



Broaden commercialization of biotechnology products

Expand *Roundup Ready* crops, insect-protected corn and cotton, and stacked-trait products as biotechnology crops gain public acceptance and regulatory approvals.

PROGRESS: In 2001, Monsanto traits were planted on 14 percent more acres worldwide than in 2000. Monsanto herbicide-tolerant or insect-protected biotechnology crops received approvals or reregistrations for planting or import in eight countries, including South Africa,

Argentina, and the United States.

NEXT STEPS: Monsanto will work to expand current products by promoting their use on additional acres in countries where they are approved for planting and by seeking approvals in more countries.

Broaden acceptance for biotechnology crops and gain key regulatory approvals in Brazil, India, and the European Union.

PROGRESS: We didn't achieve our regulatory goals in 2001. India granted permission for bulk production of *Bollgard* insect-protected cotton seed, but it has not yet granted commercial planting approval. We're still awaiting approval to plant *Roundup Ready* soybeans in Brazil. And despite regulatory and scientific progress, *Roundup Ready* corn hasn't yet received import approval from the European Union (EU).

NEXT STEPS: We're producing seed in anticipation of Indian approval to commercialize *Bollgard* cotton in 2002. We continue to pursue Brazilian approval of *Roundup Ready* soybeans and EU import approval of *Roundup Ready* corn, and to communicate the safety and benefits of biotechnology to gain wider public acceptance.



At Monsanto's research facility in Chesterfield, Missouri, field biotechnologist Bernie Sammons, Ph.D., takes leaf tissue samples from corn seedlings for lab analysis of plant genes. As the team leader for discovery and specialty crops, Dr. Sammons works to develop better plant traits, such as improved herbicide tolerance in *Roundup Ready* crops.



"The benefits of *Bollgard* and *Roundup Ready* cotton go beyond the insecticide and herbicide savings. Monsanto technology has allowed me to change the way I manage my farm and to reduce the manpower and equipment per acre."

LARRY MCCLENDON
COTTON FARMER
MARIANNA, ARKANSAS



For the past five years, Larry McClendon has planted *Roundup Ready* cotton, developed through biotechnology to tolerate Monsanto's *Roundup* herbicide. In the past three years, most of the cotton on his Arkansas farm has also contained the *Bollgard* trait that gives it protection against several insects.

Monsanto products and technologies have allowed Mr. McClendon and fellow cotton farmer Ramey Stiles (at left) to reduce the cost of chemicals, equipment, fuel, and the time they spend in the field. *Roundup Ready* cotton allows in-crop use of *Roundup* for effective weed control, and *Bollgard* insect protection reduces insecticide applications.



Our goal is to achieve continued progress on cash flow primarily by reducing receivables and increasing income.

We're working to maintain the downward trend in receivables. We intend to repeat our 2001 performance by reducing year-end receivables as a percentage of sales by another one to two percentage points in 2002. We're aggressively managing inventory in Latin American distribution channels as part of a concerted effort to operate profitably in that region.

TERRY CREWS
EXECUTIVE VICE PRESIDENT AND
CHIEF FINANCIAL OFFICER



"The great thing about *Roundup Ready* corn and soybeans is that I can use *Roundup* all season. Using *Roundup* is simple, it's economical, and I know it will work."

WAYNE STOUDER
SOYBEAN AND CORN FARMER
PACIFIC JUNCTION, IOWA



TOP: Three generations of the Stouder family — Wayne, his father, Fay, and son, John — plant Monsanto brand corn and soybean seeds on their Iowa farm.

ABOVE: Mr. Stouder — seen here with James Russmann of the Farm Service Company, a farm supply firm — likes the simplicity of the *Roundup Ready* program and the dependability of *Roundup*. "With other corn, I may have to use three different chemicals to control weeds, and if one doesn't work, I have to come back again with another," he says.



ABOVE: Wayne Stouder is a Monsanto seed dealer. As a corn and soybean farmer, he has firsthand experience with the *DEKALB* and *Asgrow* products he sells.

LEFT: Bill Backhaus (at left), a Monsanto seed systems manager, joins Mr. Stouder in examining *Residue Proven Roundup Ready* soybeans in a no-till field. No-till offers farmers significant savings in planting time, fuel use, and machinery wear and maintenance costs. Environmental benefits include reduced soil erosion, reduced runoff and improved surface water quality, and reduced release of greenhouse gas into the atmosphere because carbon is held in the mulch on the soil surface.

Monsanto is sustaining strong performance with an unmatched ability to offer farmers integrated solutions that combine seeds, traits, and crop protection products. We're making the most of our strengths and maintaining growth, despite delays in commercialization of biotechnology products.



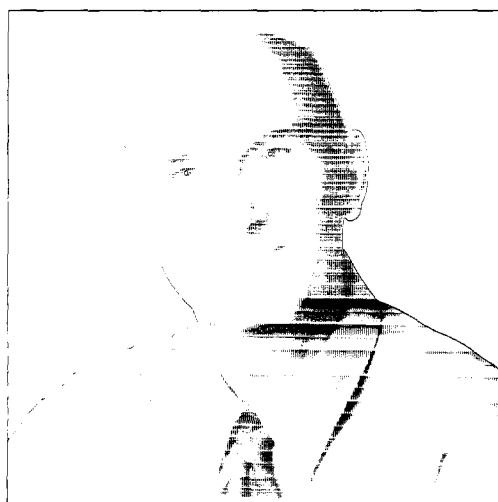
Create integrated solutions for farmers

Monsanto uses its unmatched capabilities to create integrated solutions for farmers. We add to the value of our products by bringing them together to help farmers succeed in a tough market.

An example of our integrated solutions is the combination of *Roundup* herbicide and *Roundup Ready* crops — corn, soybeans, canola and cotton — that have been developed through biotechnology to tolerate *Roundup*.

We're applying our integrated solutions to promote conservation tillage (con-till), a farming practice that replaces plowing with the judicious use of herbicides to control weeds. Growers benefit from reduced soil erosion and save time and energy on plowing. Con-till acreage expanded 82 percent between 1997 and 2001, when farmers worldwide practiced con-till on more than 415 million acres.

Monsanto benefits from the expansion of con-till. By providing integrated con-till solutions that combine our



"We're listening to farmers, and we're continually developing products, programs and integrated solutions that can make the critical difference for them in this challenging agricultural economy. When farmers succeed, we succeed."

HUGH GRANT
EXECUTIVE VICE PRESIDENT AND
CHIEF OPERATING OFFICER

seeds, traits, and chemical products, we can produce greater value for farmers and earn more of the input expenditures on each acre (Graph 2).

Our *Residue Proven Roundup Ready* seeds are soybean varieties and corn hybrids that have been identified as particularly well suited for planting in the crop residue left on con-till fields. In 2001, Monsanto offered 12 soybean varieties and six corn hybrids as *Residue Proven*. Demand for these seeds outstripped supply.

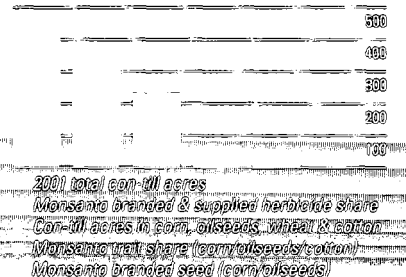
Monsanto also supports con-till expansion through programs that encourage adoption. *Acres of Opportunity* is a program we sponsor with Deere & Company that makes it more convenient for farmers to acquire the equipment necessary for con-till.

OUTLOOK:

We'll continue to develop new solutions by working closely with farmers.

In the United States, Monsanto operates 41 research and testing facilities called Centers of Excellence, most on

Opportunity for seed and trait growth in conservation tillage
acres in millions



GRAPH 2: Monsanto's integrated solutions for con-till — including seeds, traits and *Roundup* herbicide — provide economic and environmental benefits to farmers. In 2001, more than half of the global con-till acres were planted in four key crops — corn, wheat, cotton and oilseeds. Although *Roundup* and other Monsanto-supplied glyphosate-based herbicides are used on roughly 80 percent of all con-till acres, there is strong growth potential in those four key crops. When farmers choose seeds containing a Monsanto biotechnology trait for their con-till acres, we earn a higher margin than when farmers use only a glyphosate-based herbicide on their con-till acres. Our greatest potential for margin growth on con-till acres is in markets where we can offer *Roundup* and a Monsanto-branded seed containing one or more of our biotechnology traits.

actual farms. Sixty Monsanto agronomists are working today with farmers to find new ways to improve productivity.

We continue to help farmers adopt conservation tillage. For 2002, we're doubling our U.S. offerings of *Residue Proven* seeds. This is an example of why, when U.S. farmers were recently asked to cite the company most committed to meeting farmers' needs, Monsanto received the highest ratings among the top five agricultural companies.

A growing focus is identifying and developing products that create value for downstream industries. Monsanto is expanding the *Processor Preferred* soybean program introduced in 2001. This program certifies soybean varieties with high levels of oil and protein. Those varieties then are eligible for a premium price from food processors. The program allows both the farmer and processor to share the increased value of the crop while boosting our sales of certified seeds.



Sustain strong growth for Roundup herbicide and other products

Volumes of *Roundup* continued to grow in 2001 in global markets, including the United States. Monsanto seeds increased their share of key markets, and Monsanto biotechnology traits were planted on more acres.

Roundup continued its history of volume growth (Graph 3), although foreign currency effects and lower average selling prices resulted in lower revenues. Branded volumes in the United States increased 9 percent.

Monsanto's postpatent strategy is to promote growth in the overall U.S. market, to maintain the position of our *Roundup* brands, and to develop more, higher-value formulations. Nearly 80 percent of U.S. farmers surveyed in 2001 agreed that it's better to use *Roundup UltraMAX* than other herbicides that are said to be as good, but cost less.

Our recently completed four-year expansion and upgrade of our glyphosate capacity achieved dramatic reductions in waste and energy costs, and it strengthened Monsanto's low-cost position. Glyphosate is the active ingredient in *Roundup*.

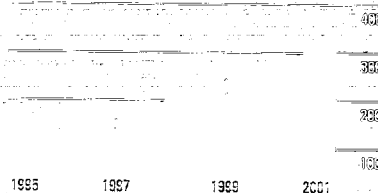
Both our branded seeds and licensed traits have maintained or gained share in key crops and markets. The gains are from our improved germplasm — the genetic material used to develop new seeds — and strong sales teams in the field. In the United States, *Roundup Ready* soybeans were planted on 22 percent more acres in 2001 than in 2000. Our cotton traits and corn traits were planted on 16 percent and 9 percent more U.S. acres, respectively.

Monsanto's acetanilide-based products for weed control in corn increased their share of the U.S. market by more than two-and-a-half percentage points, through brand innovation and strong customer relationships. *Posilac*, the largest-selling brand of recombinant bovine growth hormone, maintained consistent sales and income growth in its seventh year on the market.

Growth of glyphosate demand and Monsanto's share

in percent, 1995 - 100

Non-Monsanto glyphosate market share
Monsanto brand and supplied market share



GRAPH 3 The global market for glyphosate, the active ingredient in *Roundup*, tripled between 1995 and 2001 — remarkable growth for a crop protection chemical that has been on the market for more than 25 years. That growth was driven primarily by farmer adoption of *Roundup Ready* crops and conservation tillage. Throughout this six-year period, the global market share held by Monsanto branded glyphosate products and the glyphosate we supply to other providers has remained at 80 percent or above.

PHOTO: Stephen McGrew (at right) discusses field conditions on his family farm with Gary Coates of the Council Bluffs, Iowa-based Farm Service Company. Mr. McGrew depends on Monsanto's integrated solutions for consistent results in soybeans and corn.



OUTLOOK:

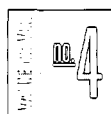
We'll work to sustain performance of current products through innovative product enhancements and expansion into new markets.

Monsanto intends to introduce significant enhancements to *Roundup* every 18 to 24 months to maintain technology and brand leadership. We're also developing new formulations of *Roundup* to serve untapped markets. For example, *RT Master* — a mixture of *Roundup* and another herbicide — was designed exclusively for the con-till wheat market in the United States. It was introduced in 2001 for the 2002 season.

In seeds and traits, Monsanto will build on its leading germplasm position — with rapid development of new varieties and hybrids — to gain share and to launch new biotechnology traits. Our seed business will benefit from recent investments in manufacturing that improve the quality of our products, improve the safety of our operations, and lower the cost of our seed production. We will pursue growth by building global seed brands, such as

DEKALB and *Asgrow*, and by licensing seeds and traits to our seed partners.

In our animal agriculture business, expanded manufacturing capacity at our new plant in Augusta, Georgia, will support continued growth in sales of *Posilac*. Our December 2001 acquisition of Unipork Genetics strengthens the efforts of our Monsanto Choice Genetics business to improve swine genetics.



Broaden commercialization of biotechnology products

Monsanto's biotechnology products were planted on more acres in more countries in 2001, but we did not meet our goals for regulatory approvals.

Total global acreage of Monsanto biotechnology crops increased 14 percent in 2001 (Graph 4). India granted permission for production of *Bollgard* insect-protected cotton seed, but it has not yet granted commercial approval. Brazil did not approve planting of *Roundup Ready*

soybeans for the 2001–2002 growing season. Although the European Union has a science-based regulatory approval process in place, no agricultural biotechnology product has been approved there in nearly four years. The fact that the European Union has not yet approved imports of *Roundup Ready* corn limits acreage expansion in the United States.

Several other countries approved planting of Monsanto biotechnology crops, including *Roundup Ready* cotton in Argentina, *Bollgard* cotton in Indonesia and *Roundup Ready* soybeans in South Africa. In addition, a new *Roundup Ready* corn product was approved for planting in the United States and for import in Japan. The U.S. Environmental Protection Agency completed an extensive environmental and product stewardship reassessment of Monsanto's insect-protected *YieldGard* corn borer corn and *Bollgard* cotton during 2001, and it renewed registrations for both products.

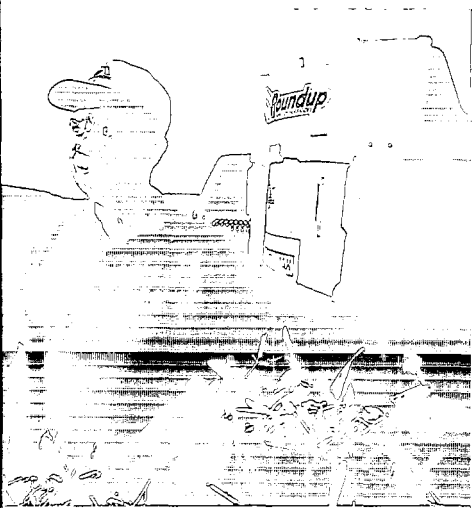
OUTLOOK:

We'll continue to pursue regulatory approvals for biotechnology products worldwide, while demonstrating the safety and benefits of these products.

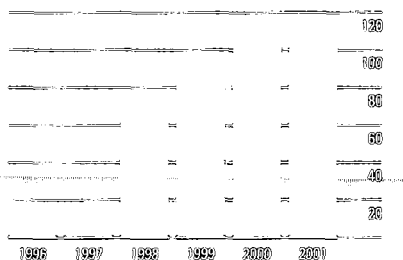
Monsanto expands biotechnology products into new markets as approvals are secured. The global market for products already approved in the United States is estimated to be \$3.5 billion a year.

We'll reiterate to the public the safety and benefits of biotechnology. A recent International Food Information Council survey found that 61 percent of Americans can cite ways they believe that biotechnology will benefit them or their families in the next five years. Continued factual reports from the industry will enhance consumers' understanding of biotechnology.

To earn the public's trust, we'll continue to fulfill the New Monsanto Pledge, a set of commitments we made in 2000 to address concerns about biotechnology. (See back cover.) In keeping with the pledge, we'll continue to share technology that can benefit farmers and consumers. In 2001, for example, we contributed valuable genetic information to the United Soybean Board's Better Bean Initiative, which is developing improved varieties for U.S. farmers.



Global acreage of Monsanto biotechnology crops
acres in millions



GRAPH 4: Plantings of commercialized Monsanto biotechnology crops grew from approximately 103 million acres in 2000 to 118 million acres in 2001. Monsanto first commercialized crops improved through biotechnology in 1996.

FIGURE 1: The McGrew Brothers Farm in Emerson, Iowa, uses Monsanto's *YieldGard* insect-protected corn and *Field Master* corn herbicide.

FIGURE 2: Larry Carlson in Blanchard, Iowa, applies *Roundup UltraMAX* to *Roundup Ready* soybeans. With its patented *Transorb* technology, *Roundup UltraMAX* is absorbed into weeds more quickly than other glyphosate products. Our *Roundup Rewards* program guarantees that *Roundup UltraMAX* will provide commercially acceptable weed control if it is applied at least one hour before rainfall.



"I know when the new *YieldGard* product with corn rootworm protection is available that it's going to work because I've tested it on my farm. I'll be able to get good yields with less risk and more safety."

TROY ERICKSON
CORN AND SOYBEAN FARMER
STORDEN, MINNESOTA



For Troy Erickson takes a walk with his daughter, Cassandra. When Monsanto's new *YieldGard* rootworm-protected corn comes to market, Mr. Erickson won't have to use certain chemical insecticides on his farm to control corn rootworm.

AGW: The Erickson farm in Minnesota plants 100 percent Monsanto brand seeds, including *Asgrow Roundup Ready* soybeans and *DEKALB Roundup Ready* corn.

WCH: With Monsanto agronomist Michelle Starky, Mr. Erickson inspects roots from a test plot of *YieldGard* rootworm-protected corn. He looks forward to commercialization of the product, which performed well against insecticide-treated corn on his farm.



Monsanto is building for long-term growth, using its leading position in technology to develop higher-value products. We're focusing our research and development (R&D) on seeds and traits. We develop new seeds both through biotechnology and through conventional breeding.



Use biotechnology capabilities to speed product development

Our focused R&D investment is rapidly increasing our ability to identify key traits and develop new products. We surpassed our 2001 targets for plant breeding and development of traits.

Monsanto has established a strong competitive position in plant genomics — technologies that increase the speed and power of genetic research — and a network of partners in academic, public and private research. By helping us identify important genes in crop plants, genomics leads to improved varieties, both through genetic modification and through marker-assisted breeding.

We completed the expansion of our marker-assisted breeding laboratory in Ankeny, Iowa, in 2001. Breeders there screen plants for genetic markers that indicate the presence of particular traits. This significantly reduces the time it takes to bring new varieties to the market. In 2001, we dramatically increased the volume of plant data collected at the Ankeny facility, the largest

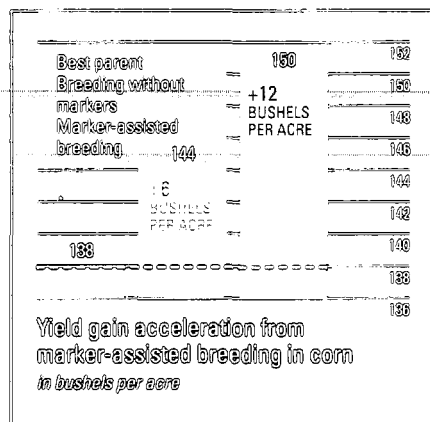
of our seven marker-assisted breeding labs worldwide.

Monsanto's R&D capacity is exceeding our expectations as to the number of valuable traits we can identify and the speed with which we can improve plants through breeding (Graph 5). We expected to advance 20 projects involving input, yield and quality traits in the next few years. We're well ahead of that. We'll have more than 50 corn and soybean projects, products of marker-assisted breeding, in precommercial trials in 2002.

OUTLOOK:

We're capitalizing on our biotechnology R&D capacity to identify and develop plant traits that respond to our customers' needs.

The dramatic increase in the speed of our marker-assisted breeding makes it possible for us to screen a vast amount of germplasm for traits that meet customer needs. We've identified multiple genes that can advance our products. A key area of focus is yield-related traits, including drought and cold resistance, and nitrogen efficiency. We're rapidly developing new hybrids and varieties to maintain a leading



GRAPH 5: Through marker-assisted breeding, Monsanto can accelerate yield gains. First, we identify plant traits that affect yield. Then we breed a population of plants with a high frequency of markers associated with favorable yield traits. Research suggests that marker-assisted breeding can produce two or three times the yield gains achieved through traditional breeding without markers.

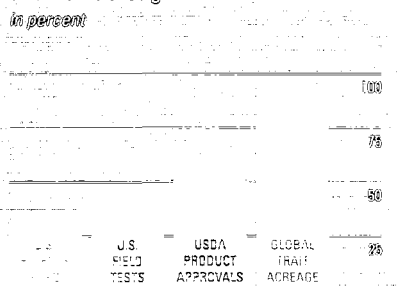


"Our long-term growth is built on unsurpassed capabilities to identify plant traits that meet the real and specific needs of farmers and consumers, and to develop plants with those traits."

ROBB FRALEY, PH.D.
EXECUTIVE VICE PRESIDENT AND
CHIEF TECHNOLOGY OFFICER

GRAPH 1 Monsanto has submitted more than a quarter of the plant biotechnology-oriented patent applications received by the U.S. Patent and Trademark Office. We've also submitted more than 40 percent of the field test applications received by the U.S. Department of Agriculture (USDA). And, we've earned more than half of all approvals of biotechnology products granted by the USDA. In 2001, Monsanto traits accounted for more than 80 percent of all acreage planted in biotechnology crops.

Monsanto share of biotechnology patents, field tests, product approvals, and trait acreage

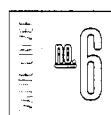


11: At Monsanto's marker-assisted breeding facility in Ankeny, Iowa, project leader Lori Bonnycastle, Ph.D., screens plant tissue for genetic markers that indicate the presence of key traits. Conducting genetic tests for disease tolerance can cost less than one tenth as much as examining plants in a greenhouse for signs of disease.

12: Monsanto's Cláudio Villas Boas analyzes Roundup Ready soybeans, which were developed to tolerate Roundup herbicide, on a test plot near Ponta Grossa, Brazil. Brazil is the world's second-largest soybean market, and Monsanto is seeking Brazilian approval to commercialize this biotechnology product.



seed position and to introduce biotechnology traits in the most advanced germplasm on the market.



Commercialize products in our pipeline

Monsanto is expanding existing products in new markets and commercializing new products in the near term, while maintaining a robust medium- and long-term product pipeline.

In 2001, we expanded existing products into new markets — such as taking *Roundup Ready* cotton to Argentina. We introduced improved seed varieties and hybrids and enhancements to our crop protection products, including *RT Master*, a new formulation of *Roundup* for the U.S. con-till wheat market.

We advanced two products for possible approval by U.S. and Japanese regulatory authorities in 2002: *YieldGard* rootworm-protected corn, and *Bollgard II* cotton, which will provide a broader spectrum of insect control. We're pursuing U.S. commercial introductions of both products in 2003.

OUTLOOK:

Long-term initiatives include the next wave of agronomic traits to improve crop yields and quality traits that benefit consumers.

A key initiative is a market-driven program that begins with identifying desired qualities for food crops. We then apply our powerful marker-assisted breeding to our deep germplasm base so that we can breed crops with traits that meet consumers' needs.

Successful, timely commercialization of Monsanto's medium- and long-term product pipeline requires action on three fronts:

- providing the base for launching new products by maintaining a leading market position and financial strength;
- building public acceptance and securing regulatory approvals to broaden commercialization of biotechnology products; and
- maintaining technology leadership and applying that technology to the most promising product candidates.

Pages 17–19 discuss Monsanto's R&D pipeline in greater detail. We've invested roughly 85 percent of our R&D dollars in technologies and capabilities that can lead to improved agricultural solutions delivered to our customers through seeds. The rest of the agricultural industry is collectively investing more than 70 percent of R&D dollars in the declining crop protection chemicals market.

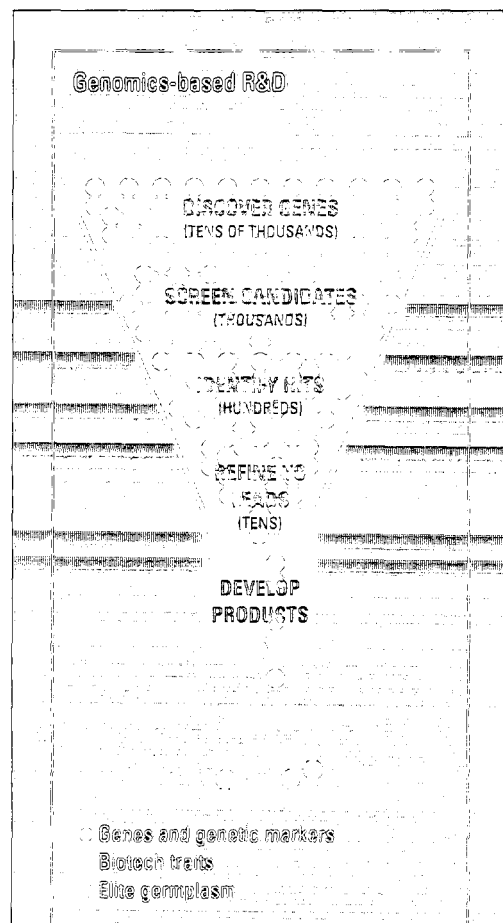
Our research and development (R&D) pipeline has a proven track record of products that are proprietary, first-to-market, and profitable. Monsanto's R&D is based on an unmatched technology platform of genomics, biotechnology, and plant breeding.

Monsanto's product pipeline includes seeds with improved traits. We develop them through both biotechnology and conventional plant breeding, often using genetic markers to enhance the speed and precision of the process. The following pages present these products in development. The format is similar to that traditionally applied to a pharmaceutical product pipeline, because seeds with improved traits follow a similar path of scientific testing and regulatory review.

Genomics creates a step-change in our pipeline throughput, in two key ways. First, genomics dramatically expands the universe of genes that can be screened for valuable traits, with a 100-fold increase in the number of genes we've been able to identify. Second, genomics accelerates screening of these genes. We can more quickly analyze results from the lab and the field to winnow out all but the most valuable and promising product candidates (Graph 7).

The pipeline on pages 18–19 indicates the average probability of success for all product candidates at each phase of the process. It also highlights in each phase several candidates that we believe are among the most promising.

The pipeline also indicates the duration of each phase of the pipeline based on available information — including our experience and technical progress to date. The time frames indicated are rough averages; total time from discovery to market typically varies from six to 13 years. While genomics helps speed R&D, other factors limit the pace of product development. One factor is biological — the time it takes to grow plants for breeding and for bulk seed production. Even with the use of genetic markers, for example, a program for breeding new corn hybrids usually takes six years. Another factor is the regulatory approval process for biotechnology products, and, in some countries, for new plant varieties.



GRAPH 7 By using our strong capabilities in genomics — technologies that increase the speed and power of genetic research — Monsanto discovers tens of thousands of genes. We then apply genomics to accelerate a winnowing process that screens thousands of genes to find those with valuable functions. We can then identify hundreds of "hits" that demonstrate the desired results and refine the best product leads. The products of Monsanto's genomics-based research include genes and genetic markers for further research and development, biotechnology traits used to improve plants, and elite germplasm developed through marker-assisted conventional breeding.

Product Pipeline

The product pipeline chart comprises seeds developed with improved input and output traits through Monsanto's integrated genomics, biotechnology, and breeding capabilities. The boxes below the chart outline additional R&D for products in three areas: crop protection chemicals, animal agriculture, and germplasm (the genetic material used to develop new seeds).

INPUT TRAITS

R&D: on-farm productivity improvement

Monsanto R&D for input traits is aimed at improving yields. One way to do that is to expand the basic capacity of the plant itself to produce grain. Another way is to improve the plant's tolerance to environmental stresses — such as cold, drought, weeds and insects — so that it can produce a greater share of its full potential. Typically, plants produce only about one-third of their yield potential in the field. We continue to develop and enhance *Roundup Ready* crops as well as crops that can protect themselves against insects.

OUTPUT TRAITS

R&D: consumer benefits

Monsanto R&D for output traits is aimed primarily at increasing value for consumers, and thereby for food and feed processors and manufacturers. We're focusing on enhancing compounds that occur naturally in the plant and have nutritional value, such as proteins, lipids and carbohydrates. We're also screening bioactive compounds in plants — substances with therapeutic value that can be developed as dietary supplements or used to produce more nutritious foods.

Description
Key activities and milestones in each phase of product development

Average duration⁽¹⁾

Average probability of success⁽²⁾

Input Trait Candidates⁽³⁾
Input traits provide value to farmers by increasing productivity and reducing costs.

Output Trait Candidates⁽³⁾
Output traits provide consumer benefits and create value for manufacturers and processors.

GRAIN YIELD: CORN

Grain yield: corn

Monsanto is developing corn products with a yield advantage of 5 percent to 10 percent over elite hybrids. These corn products provide farmers with increased profitability and choice, earlier planting, reduced irrigation costs, increased drought and cold tolerance, enhanced soil conservation practices with increased yield, and multiple traits stacked in a single plant to maximize value.

Discovery

Gene/trait identification
Conduct high-throughput screening of genetic database to identify valuable plant traits for conventional breeding or valuable genes that can be used to improve plants through biotechnology.

24 – 48+ months

5 percent

- ☐ Grain yield
- ☐ Environmental stress tolerance
- ☐ Insect control
- ☐ *Roundup Ready*

Phase 1

Proof of concept
For conventional breeding, breed plants from parents with desired traits; for biotechnology products, test gene configurations in plants to screen for desired performance.

12 – 24+ months

25 percent

- ☐ Higher-yielding corn
- ☐ *YieldGard II* insect-protected corn
- ☐ Specialized corn

- ☐ Protein enhancements
- ☐ Lipid enhancements
- ☐ Carbohydrate enhancements
- ☐ Bioactive compounds

- ☐ Improved-oil soybeans for feed⁽⁴⁾
- ☐ Improved-energy corn III for feed⁽⁴⁾
- ☐ Healthier oil for food uses

Crop Protection Chemicals

R&D in crop protection chemicals focuses on three areas:

- ☐ New formulations of *Roundup* and other crop protection products to increase value to farmers and to expand use to new crops and geographies;

- ☐ Seed treatments to enhance trait offerings, such as an extended control seed treatment that will enhance *YieldGard* rootworm-protected corn, by protecting it against other insects; and
- ☐ Continued manufacturing process improvements to drive gains in efficiency and cost position.

Animal Agriculture

R&D in animal agriculture focuses on products to improve swine genetics and dairy cow productivity:

- ☐ Advanced genetics for swine to provide high-health genetics to customers; and
- ☐ Second- and third-generation formulations of *Posilac* bovine somatotropin to address the needs of dairy producers and support continued growth.

OUTPUT TEAM

Improved-protein soybeans for feed

Renessen LLC, Monsanto's joint venture with Cargill Incorporated, is developing soybeans with increased protein and a better balance of essential amino acids. The soybeans are being improved through biotechnology to provide more nutritious soy meal for poultry feed. The improved feed protein soybeans are designed to offer an economical replacement for animal byproducts in poultry feed, and to provide environmental benefits by reducing the amount of solid waste in poultry production.

Phase 2

Early product development

For conventional breeding, conduct field trials of plants bred from parents with desired traits; for biotechnology products, conduct lab and field testing of genes in plants to select commercial product candidates, meet preregulatory requirements.

12 – 24+ months

50 percent

- ☐ Enhanced *Roundup Ready* cotton
- ☐ Higher-yielding soybeans
- ☐ *Roundup Ready* and insect-protected soybeans

- ☐ Improved-protein soybeans for feed⁽⁴⁾

Phase 3

Advanced development

Demonstrate performance of hybrid/variety developed through conventional breeding or efficacy of biotechnology trait in elite germplasm. Develop regulatory data as appropriate.

12 – 24+ months

75 percent

- ☐ *Roundup Ready/YieldGard* rootworm-protected corn
- ☐ *Roundup Ready* wheat
- ☐ Hybrid *Roundup Ready* canola

- ☐ High-starch/ethanol corn
- ☐ Improved-energy corn II for feed⁽⁴⁾

INPUT TEAM

Conservation tillage elite germplasm

Monsanto develops new products by extending existing products to new crops and geographies. Monsanto recently commercialized elite germplasm — for soybeans and for corn — particularly well suited to conservation tillage by U.S. farmers. We're building on the success of these *Residue Proven Roundup Ready* crops, not only by developing more U.S. varieties, but also by commercializing elite germplasm for con-till in other global markets, under the *CT Elite* brand, among others.

Phase 4

Final regulatory submission

Produce bulk seed for potential sale, develop plans for commercialization/launch, respond to regulatory process as appropriate.

12 – 36+ months

90 percent

- ☐ *YieldGard* rootworm-protected corn
- ☐ *Bollgard II* insect-protected cotton
- ☐ Conservation tillage elite germplasm

- ☐ *Processor Preferred* soybeans
- ☐ Improved-energy corn I for feed⁽⁴⁾

⁽¹⁾ Time periods represent an estimated average range based on our experience; they can overlap. Total development time for any particular product can be shorter or longer than the sum of the estimated time periods here.

⁽²⁾ This is the estimated average probability, based on our experience, for all product candidates in each phase, not just the candidates listed here. These probabilities may change over time.

⁽³⁾ Candidates include research platforms in the discovery phase and specific product projects in phases 1 through 4 with higher-than-average probability of success and/or market potential based on available information and technical progress to date.

⁽⁴⁾ These product candidates are in the Renessen pipeline. Renessen is a Monsanto/Cargill joint venture.

Germplasm

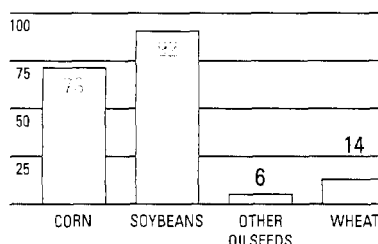
At the same time that we're developing new plant products through our integrated research platforms in genomics, biotechnology and plant breeding, we're applying those capabilities to continuous improvement in our base germplasm.

- ☐ Our two-year (2001-2002) plant breeding goals are as follows (the 2001 achievement appears

in parentheses): Develop 130 new corn hybrids (73), develop 150 new soybean varieties (92), and register 20 wheat varieties (14).

- ☐ Monsanto intends to continue to improve its seed portfolio — with marker-assisted breeding to accelerate improvement — to maintain a leading market position in germplasm.

Hybrid and variety launches in 2001
in numbers launched



MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

MONSANTO COMPANY

Overview

Monsanto Company and its subsidiaries (here referred to as Monsanto, Monsanto Company, or the company) is a global provider of technology-based solutions and agricultural products for growers and downstream customers, such as grain processors, food companies, and consumers, in agricultural markets. Our herbicides, seeds, and related genetic trait products can be combined to provide growers with integrated solutions that help them produce higher-yield crops, while controlling weeds, insects and diseases more efficiently and cost-effectively. We also provide *Roundup* lawn and garden products for the residential market.

We manage our business in two segments: Agricultural Productivity, and Seeds and Genomics. The Agricultural Productivity segment consists of the crop protection products, animal agriculture, residential lawn and garden products, and environmental technologies businesses. The Seeds and Genomics segment consists of the global seeds and related traits businesses, and genetic technology platforms.

Monsanto comprises the operations, assets and liabilities that were previously the agricultural business of Pharmacia Corporation (Pharmacia). On Sept. 1, 2000, the assets and liabilities of the agricultural business were transferred from Pharmacia to Monsanto, pursuant to the terms of a separation agreement dated as of that date. The consolidated financial statements for all periods prior to Sept. 1, 2000, were prepared on a carve-out basis to reflect the historical operating results, assets, liabilities, and cash flows of the agricultural business operations. The costs of certain services provided by Pharmacia included in the Statement of Consolidated Income for these periods were allocated to Monsanto based on methodologies that management believes to be reasonable, but which do not necessarily reflect what the results of operations, financial position, or cash flows would have been had Monsanto been a separate, stand-alone public entity before Sept. 1, 2000.

Beginning Sept. 1, 2000, the consolidated financial statements reflect the results of operations, financial position, and cash flows of the company as a separate entity responsible for procuring or providing the services previously provided by Pharmacia. The consolidated financial statements also include the costs of services purchased from Pharmacia and the reimbursement for services provided to Pharmacia pursuant to a transition services agreement.

On Oct. 23, 2000, Monsanto sold approximately 38 million shares of its common stock at \$20 per share in an initial public offering (IPO). The total net proceeds to Monsanto were \$723 million. Subsequent to the offering, Pharmacia owned and continues to own 220 million shares of common stock, representing 85.2 percent ownership of Monsanto as of Feb. 22, 2002. Pharmacia has announced that its board of directors has authorized

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a plan to spin off its remaining interest in Monsanto. Under the plan, Pharmacia will distribute its entire ownership of Monsanto stock to Pharmacia shareowners by means of a tax-free dividend during the fourth quarter of 2002.

Diluted earnings per share for 2001 take into account the effect of dilutive common share equivalents (5.5 million shares). Diluted earnings per pro forma share for 2000 were calculated using 258 million weighted-average common shares outstanding plus the effect of dilutive common share equivalents totaling 0.5 million, consisting of outstanding stock options. For all periods prior to 2000, diluted earnings per pro forma share were calculated using 258 million weighted-average common shares, the number of common shares outstanding immediately after the IPO.

The primary operating performance measure for our two segments is earnings before extraordinary item, cumulative effect of accounting change, interest and income taxes (EBIT). Total company EBIT for the year ended Dec. 31, 2001, increased 3 percent to \$536 million from \$518 million in the prior year. However, in 2001 and in prior years, special items significantly affected our results. Additionally, our seed company acquisitions in 1998 and 1997 affected results by substantially increasing amortization expense associated with goodwill and other intangible assets recorded at the time of acquisition. Accordingly, management believes that earnings before extraordinary item, cumulative effect of accounting change, interest, income taxes, depreciation, amortization, and special items [EBITDA (excluding special items)] is an appropriate measure for evaluating the operating performance of our business. EBITDA (excluding special items) eliminates, among other things, the effects of depreciation of tangible assets and amortization of intangible assets, most of which resulted from the seed company acquisitions accounted for under the purchase method of accounting. In addition, this measure also eliminates the effects of the special items. For further details see Note 5 — Special Items — to the consolidated financial statements. The presentation of EBITDA (excluding special items) is intended to supplement investors' understanding of our operating performance. EBITDA (excluding special items) may not be comparable to other companies' EBITDA performance measures. EBITDA (excluding special items) is not intended to replace net income, cash flows, financial position, or comprehensive income, as determined in accordance with accounting principles generally accepted in the United States. In June 2001, the Financial Accounting Standards Board (FASB) approved Statement of Financial Accounting Standards (SFAS) No. 142, *Goodwill and Other Intangible Assets*. Upon adoption of SFAS No. 142 on Jan. 1, 2002, Monsanto no longer amortizes goodwill. See "New Accounting Standards" in Management's Discussion and Analysis (MD&A) for further details.

MD&A should be read in conjunction with Monsanto's consolidated financial statements, the accompanying footnotes, and the "Market Risk Management" section. Unless otherwise indicated, "earnings (loss) per share" and "per share" mean diluted earnings (loss) per share; "earnings (loss) per pro forma share" and "per pro forma share" mean basic and diluted earnings (loss) per pro forma share. Unless otherwise indicated, "Monsanto," "Monsanto Company" and "the company," and

references to "we," "our" and "us," are used interchangeably to refer to Monsanto Company or to Monsanto Company and consolidated subsidiaries, as appropriate to the context. With respect to time periods prior to the separation of Monsanto's businesses from those of Pharmacia on Sept. 1, 2000, these terms refer to the agricultural division of Pharmacia. In the tables, all dollar amounts are in millions, except per share and per pro forma share amounts.

Results of Operations

Year Ended Dec. 31,	2001	2000	1999
Net Sales	\$5,462	\$5,493	\$5,248
Income before extraordinary item and cumulative effect of accounting change	297	175	150
Add: Interest expense — net	73	184	243
Income tax provision	166	159	113
EBIT ⁽¹⁾	536	518	506
Add: Special items — net	273	261	101
EBIT (excluding special items)	809	779	607
Add: Depreciation	311	270	238
Amortization of goodwill and other intangible assets	239	276	309
EBITDA (excluding special items) ⁽²⁾	\$1,359	\$1,325	\$1,154

Diluted earnings per share (per pro forma share prior to 2001):

Income before extraordinary item and cumulative effect of accounting change	\$ 1.13	\$ 0.68	\$ 0.58
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(1) Earnings before extraordinary item, cumulative effect of accounting change, interest and income taxes.

(2) Earnings before extraordinary item, cumulative effect of accounting change, interest, income taxes, depreciation, amortization, and special items.

Net sales for 2001 were \$5.5 billion, down \$31 million, or 1 percent, from last year's sales. The effects of exchange rates for foreign currency, particularly the Brazilian real and to a lesser extent the Japanese yen and the euro, unfavorably affected sales by 3 percent. Increased sales in the Seeds and Genomics segment were more than offset by an overall decline in sales in the Agricultural Productivity segment. Seeds and Genomics net sales in 2001 benefited from higher biotechnology trait revenues and from our Latin American grain sales program, while higher-than-anticipated conventional corn seed returns in Latin America reduced sales. The increased trait revenues were attributable primarily to a shift in timing. Our decision to change trait fees from a technology fee system to a royalty system has shifted certain trait revenues from the first half of 2002 to the last half of 2001. This new structure contributed approximately \$90 million, or \$0.34 per share, to 2001 net income (with approximately \$25 million, or \$0.09 per share, recognized in the third quarter, and approximately \$65 million, or \$0.25 per share, recognized in the fourth quarter). See "Seeds and Genomics Net Sales for 2001" in MD&A for further details. The higher trait revenues also reflect a royalty payment related to the resolution of issues regarding our *YieldGard* corn trait, the effects of a higher royalty rate for *Roundup Ready* soybeans, and the increased demand for

our biotechnology traits. In the Agricultural Productivity segment, our animal agriculture and *Roundup* lawn and garden products businesses delivered sales increases. But these increases were more than offset by lower sales of *Roundup* and other glyphosate products. Continued growth of *Roundup Ready* crops and further expansion of conservation tillage practices drove up sales volumes of *Roundup* and other glyphosate herbicides, but the effects of lower average selling prices resulted in lower sales dollars.

Cost of goods sold in 2001 increased 2 percent, or \$47 million, to \$2.8 billion from cost of goods sold in 2000. Start-up expenses in 2001 associated with our new manufacturing facility in Camaçari, Brazil, led to an increase in cost of goods sold. Our investments in improved technologies are part of our plan to increase overall glyphosate production capacity and to operate more cost-effectively. Both years included charges to cost of goods sold related to our restructuring plan to focus on key crops and to streamline certain of our glyphosate manufacturing facilities. Excluding the costs related to our restructuring plan, we reduced unit manufacturing costs of *Roundup* and other glyphosate herbicides by 3 percent.

Gross profit declined 3 percent, or \$78 million, to \$2.6 billion. An increase in high-margin trait revenues was more than mitigated by the negative effects of corn seed returns in Latin America and an overall decline in net selling prices of *Roundup* products. As a result of these factors, gross profit as a percent of sales declined one percentage point from 2000 to 2001.

As a stand-alone company focused solely on agriculture, we've taken steps to make worldwide operations more focused, productive, and cost-efficient. Selling, general and administrative (SG&A) expenses decreased approximately 6 percent to \$1.2 billion in 2001, compared with \$1.3 billion in 2000. This decline was attributable to our continued cost management efforts and the absence of amortization expense related to certain assets that became fully amortized during 2000 and lower employee-related expenses. Research and development (R&D) expenses decreased 5 percent to \$560 million for 2001 from \$588 million for 2000. Our reduced R&D spending reflects our actions to focus on our key crops and to eliminate certain research projects. As a percent of net sales, both SG&A and R&D expenses improved when compared with 2000 percentages: SG&A expenses declined to 21.7 percent from 22.8 percent, and R&D declined to 10.3 percent from 10.7 percent.

Amortization and adjustments of goodwill declined 43 percent to \$121 million in 2001, compared with \$212 million in the prior year. In 2000, we wrote down \$88 million of goodwill, primarily associated with a decision to terminate certain nutrition programs. Excluding this write-down, amortization was relatively unchanged in a year-over-year comparison.

Net interest expense in 2001 decreased 60 percent to \$73 million in 2001 from \$184 million in the prior year. This decrease largely reflects the \$2.9 billion debt reduction that resulted from our separation from Pharmacia and our IPO in 2000. We also benefited from lower interest rates during 2001, as our borrowings are primarily in commercial paper.

A number of factors affected other expense — net in 2001, which increased substantially to \$123 million, compared with

\$49 million in 2000. Three separate legal matters affected other expense — net in 2001, resulting in a net charge of \$60 million. See "Special Items" in MD&A for further details. In 2001, we recognized \$15 million of other expense to reflect the devaluation of the Argentine peso. The new Argentine government has begun to implement several reforms intended to stabilize the economic environment in the country, including the devaluation of the Argentine peso in January 2002. As a result, the portion of our net assets denominated in Argentine pesos was adjusted, resulting in the \$15 million charge. See "Financial Condition, Liquidity and Capital Resources" and "Outlook" in MD&A for further discussion of our exposure in Argentina. Other expense in 2001 also included impairments of equity investments; other expense in 2000 reflected a write-down of our investment in marketable equity securities. The effects of these expenses were slightly offset in 2001 by other income from a deferred payout provision related to a past business divestiture and gains on the sale of equity securities.

Pretax income increased approximately 39 percent, or \$129 million, primarily because of reduced operating expenses and lower interest expense during 2001. The absence of the \$88 million goodwill write-down in 2000 also contributed to the higher pretax income in 2001. The effective tax rate decreased to 36 percent from 48 percent in the prior year, primarily because the aforementioned write-down of goodwill in 2000 was not deductible. See "Special Items" in MD&A for further details. Improved expectations of the recovery of certain Brazilian deferred tax assets also contributed to the lower effective tax rate in 2001. See Note 9 — Income Taxes — to the consolidated financial statements for further details.

Net income totaled \$295 million, or \$1.12 per share, for the year ended Dec. 31, 2001, compared with \$149 million, or \$0.58 per pro forma share, for 2000. Both periods included special items. Net income for 2001 included net aftertax charges of \$176 million, while 2000 net income included net aftertax charges of \$197 million. See "Special Items" in MD&A for further details. Net income for 2001 was also affected by an extraordinary loss of \$2 million aftertax, or \$0.01 per share, related to the early retirement of Employee Stock Ownership Plan (ESOP) debt, while 2000 results included a cumulative effect of accounting change of \$26 million aftertax, or \$0.10 per pro forma share. This cumulative effect of accounting change resulted from Monsanto's adoption of Staff Accounting Bulletin (SAB) No. 101, *Revenue Recognition in Financial Statements*, the Securities and Exchange Commission interpretation of accounting guidelines on revenue recognition. Monsanto's adoption of SAB 101 in 2000 primarily affected its recognition of license revenues from biotechnology traits sold through competitor seed companies. Monsanto restated license revenues in 2000 to be recognized when a grower purchases seed as compared with the previous practice of recognizing the license revenue when the third-party seed company sold the seed into the distribution system. As a result, no license revenues from biotechnology traits sold by third-party seed companies were recognized in the fourth quarter of 2000, whereas the fourth quarter of 1999 included \$42 million of such license revenues.

As required by the provisions of SAB 101, Monsanto adopted its provisions as an accounting change in accordance with Accounting Principles Board (APB) Opinion No. 20, *Accounting Changes*, and the company recognized the cumulative effect of a change in accounting principle as a loss of \$26 million, net of taxes of \$16 million, effective Jan. 1, 2000.

Excluding the special items in both periods, the extraordinary item in 2001, and the cumulative effect of an accounting change in 2000, net income for 2001 would have been \$473 million, or \$1.80 per share, a 27 percent increase over net income of \$372 million, or \$1.44 per pro forma share, for 2000.

Prior-Year Review

Net sales increased to \$5.5 billion in 2000, compared with \$5.2 billion in 1999. This increase was due primarily to a 6 percent increase in *Roundup* herbicide and other glyphosate product sales, and to a lesser degree, increased sales of our selective chemistries and of *Roundup* lawn and garden products, as well as an increase in technology royalty revenues. Offsetting these gains were the effect of weaker foreign currencies, primarily the euro, and a 3 percent decline in our seed business revenue, due primarily to the divestiture of the Stoneville Pedigreed Seed business (Stoneville) in December 1999 and lower sales of conventional seeds.

Cost of goods sold increased 8 percent to \$2.8 billion in 2000 from \$2.6 billion in 1999. The primary reason for this increase was an 18 percent increase in glyphosate product sales volumes. Start-up expenses associated with our new manufacturing facility for *Posilac* bovine somatotropin in Augusta, Georgia, also contributed to increased cost of goods sold. Gross profit of \$2.7 billion in 2000 remained relatively flat compared with 1999. Increased gross profit for the family of *Roundup* products and for seed sales that included biotechnology traits was primarily offset by lower gross profit in our conventional seed and environmental technologies businesses, which reported lower net sales in 2000 than in 1999.

SG&A expenses increased slightly to \$1.3 billion for 2000, compared with \$1.2 billion for 1999. This increase was attributable primarily to increased spending on biotechnology acceptance and education programs in 2000. Also contributing to the increase in SG&A expenses were increased agency fees payable to The Scotts Company (Scotts) in our *Roundup* lawn and garden business because of the increase in sales in 2000. See "Our Agreement with The Scotts Company" in MD&A for further details.

R&D expenses decreased 15 percent to \$588 million in 2000, compared with \$695 million in 1999. This decrease was due primarily to our decision to reduce our spending on noncore programs and to focus our research programs on certain key crops.

Amortization and adjustments of goodwill increased 66 percent to \$212 million in 2000, compared with \$128 million in the prior year as a result of an \$88 million write-down of goodwill, primarily associated with our decision to terminate the nutrition programs at Calgene. In 1999, we incurred an \$8 million charge to amortization and adjustments of goodwill related to the termination of several research programs. Excluding these charges, amortization and adjustments of goodwill were relatively flat in 2000 compared with 1999.

Net interest expense in 2000 decreased 24 percent to \$184 million from \$243 million in 1999, primarily reflecting the \$2.9 billion reduction in debt resulting from our separation from Pharmacia and our IPO. Other expense — net decreased 53 percent to \$49 million in 2000, compared with \$104 million in 1999, primarily because of the inclusion in 1999 of \$85 million in cost associated with the failed merger with Delta and Pine Land Company (Delta and Pine Land), partially offset by increased equity losses from affiliates (\$16 million) and the write-down of our investment in a marketable equity security (\$7 million) in 2000.

Pretax income increased approximately 27 percent, or \$71 million, primarily because of an increase in net sales and a decrease in operating expenses in 2000, which resulted in an increase in income tax expense of \$46 million compared with the prior year. The increase in the effective tax rate to 48 percent from 43 percent in 1999 was primarily because the \$88 million write-down of goodwill in 2000 was not deductible. See "Special Items" in MD&A for further details.

Net income totaled \$149 million, or \$0.58 per pro forma share, for the year ended Dec. 31, 2000, compared with \$150 million, or \$0.58 per pro forma share, for 1999. However, net income for 2000 included a cumulative effect of accounting change of a loss of \$26 million aftertax, or \$0.10 per pro forma share. In addition, net income for 2000 and 1999 included special aftertax charges of \$197 million and \$81 million, respectively. Without these special charges in both periods and the cumulative effect of an accounting change in 2000, net income for 2000 would have been \$372 million, or \$1.44 per pro forma share, a 61 percent increase over net income of \$231 million, or \$0.90 per pro forma share, for 1999. See "Special Items" in MD&A for further details.

Special Items

For 2001 and each of the prior two years, our results included special items that significantly affected net income. The pretax income (expense) components of special items were as follows:

Year Ended Dec. 31,	2001	2000	1999
Restructuring charges	\$ (99)	\$ (70)	\$ —
Reversal of restructuring reserves	8	4	11
Write-offs of:			
Trade receivables	—	(12)	—
Inventories	(45)	(60)	—
Property, plant and equipment	(57)	(22)	—
Goodwill	(2)	(88)	(8)
Other intangible assets	(3)	(3)	—
Other assets	(9)	—	—
Accelerated integration costs	—	—	(53)
Other — net	(6)	(10)	(1)
Total restructuring and other special items	(213)*	(261)*	(51)
Litigation matters — net	(60)	—	—
Failed merger costs	—	—	(85)
Gain on the sale of Stoneville	—	—	35
Total pretax special items	\$(273)	\$(261)	\$(101)

* These components represent the net charges for the 2000 restructuring plan, with an aggregate total of \$474 million for the two-year plan.

2000 Restructuring Plan: In 2000, Monsanto's management formulated a plan as part of the company's overall strategy to focus on certain key crops and to streamline operations. Restructuring and other special items, primarily associated with the implementation of this plan, were recorded in 2000 and 2001. These charges totaled \$474 million pretax (\$334 million aftertax), with \$261 million (\$197 million aftertax) recorded in 2000 and \$213 million (\$137 million aftertax) recorded in 2001.

The 2001 restructuring and other special items were associated mainly with the streamlining of manufacturing operations, the discontinuation of certain seed hybrids, the elimination of noncore activities, and the exit from certain research programs. This plan also involved the closure and downsizing of certain agricultural chemical manufacturing facilities to eliminate duplicate manufacturing capacity for formulating and packaging herbicides. Due to geographical location and cost considerations, improved technologies were installed at our other manufacturing sites. These sites, by incorporating technological advancements, have been able to increase their production capacity to meet current and expected future demand for *Roundup* and other herbicides. The 2001 pretax charges consisted of asset impairments of \$116 million, work force reductions of \$50 million, and other exit costs of \$49 million. Asset impairments consisted of \$45 million for inventories, \$5 million for intangible assets (including \$2 million of goodwill), \$9 million for other assets, and \$57 million for property, plant and equipment. The entire inventory impairment and \$37 million of the property, plant and equipment impairment (representing manufacturing site closures) were included in cost of goods sold. The remaining \$20 million in property, plant and equipment impairments was recorded in restructuring charges — net, and related to the consolidation of agricultural chemical distribution sites and various corporate assets. The work force reduction charges during 2001 reflected involuntary separation costs for approximately 805 employees worldwide. Other exit and facility closure costs included expenses associated with contract terminations (\$28 million), property, plant and equipment dismantling and disposal costs (\$18 million), and other shutdown costs (\$3 million). In 2001, other special items totaling \$6 million were recorded to recognize impairments of equity investments because of adverse business developments of the investees. Restructuring and other special items were partially offset by an \$8 million reversal of previously established reserves, largely because actual severance expenses were lower than originally estimated.

The net pretax charges in 2000 related primarily to the decision to focus more stringently on our key crops and to eliminate certain food and biotechnology research programs, and the shutdown of certain administrative and manufacturing facilities. These charges were net of a \$4 million reversal of previously established restructuring reserves, largely because actual severance expenses were lower than originally estimated. Of the \$261 million of charges, \$79 million was for the write-off of goodwill associated with the nutrition programs acquired from Calgene, \$9 million was for the write-off of goodwill associated with a European seed business, \$30 million was included in cost of goods sold for the write-off of laureate oil inventories, and

\$30 million was included in cost of goods sold for the write-off of discontinued seed and other inventories. Other asset impairments consisted of equipment write-offs of \$22 million, accounts receivable write-offs of \$12 million, and various license and germplasm write-offs associated with the eliminated research programs of \$3 million. The restructuring charges of \$70 million included \$61 million of involuntary separation costs for 695 employees worldwide, including positions in administration, manufacturing, and research and development. The remaining \$9 million of restructuring charges consisted of contract terminations of \$5 million, dismantling costs of \$2 million, and other shutdown costs of \$2 million. Also included in the total charge were other special items of \$10 million, consisting of \$3 million for costs associated with a failed joint venture and \$7 million for the recognition of an impairment of a marketable equity security that was classified as available for sale.

Cash payments to complete this plan will be funded from operations and are not expected to significantly affect our liquidity. We expect to complete these actions by the end of 2002. We anticipate that they will yield annual cash savings of more than \$100 million. See Note 5 — Special Items — to the consolidated financial statements for further details.

Litigation Matters: Three separate legal matters affected other expense — net in 2001, resulting in a net pretax charge of \$60 million. In January 2002, Monsanto and Central Garden and Pet (Central Garden) announced settlement of all litigation related to Central Garden's distributorship of lawn and garden products during the 1990s for the former Monsanto's divested Ortho business. The resolution included the dismissal of three lawsuits. Monsanto is dismissing a lawsuit relating to the payment of receivables due from Central Garden, and Central Garden is dismissing two other lawsuits. As a result of the settlement of the receivables lawsuit, we recorded a net pretax charge of \$32 million to other expense — net, in our fourth-quarter financial statements. Under the settlement agreement, Central Garden will pay Monsanto \$5.5 million for products shipped to Central Garden under the distribution agreement. These products related primarily to the Ortho lawn and garden business, which the former Monsanto divested in 1999. Central Garden's Pennington subsidiary also agreed to purchase \$2 million of Monsanto's glyphosate material during the next 30 months under an existing supply agreement with Monsanto.

In November 2001, a federal appeals court upheld a 1999 judgment against DEKALB Genetics Corporation (DEKALB Genetics), now a wholly owned subsidiary of Monsanto, in a licensing dispute brought by Aventis CropScience S.A. (Aventis). As a result, we established a reserve related to punitive damages, resulting in a \$50 million pretax charge to other expense — net.

In October 2001, Monsanto and E.I. du Pont de Nemours & Co. (DuPont) announced the resolution of issues related to Monsanto's MON810 *YieldGard* insect-protected corn trait used in corn hybrids sold by Pioneer Hi-Bred International Inc. (Pioneer). The resolution includes the dismissal of several lawsuits regarding the development, licensing and sale of MON810 *YieldGard* products. Under this agreement, Pioneer, a DuPont subsidiary, will continue to sell MON810 *YieldGard* insect-protected corn hybrids under a royalty-bearing license

from Monsanto. In addition, Monsanto received a one-time fee of approximately \$56 million. The major components of this fee relate to Pioneer's past use of Monsanto's MON810 *YieldGard* product, and royalties related to Pioneer's sales of MON810 *YieldGard* products during 2001. The portion of the fee related to Pioneer's past use of the product and settlement of other issues (\$22 million) was recorded as a reduction to other expense — net during the fourth quarter of 2001. Royalties related to MON810 *YieldGard* products sold during 2001 were recorded as trait revenues, also in the fourth quarter of 2001.

Special Items for 1999

In 1999, we recorded a net pretax charge of \$101 million (\$81 million aftertax) that included \$61 million of costs associated with the accelerated integration of our agricultural chemical and seed operations and \$85 million related to a failed merger with Delta and Pine Land. These costs were partially offset by a pretax gain of \$35 million on the divestiture of Stoneville and an \$11 million reversal of restructuring liabilities established in 1998.

Cash payments to complete the actions were funded from operations and did not significantly affect our liquidity. The accelerated integration actions were substantially completed by Dec. 31, 2000, and we estimate that these actions resulted in annual pretax cash savings of \$24 million. Our prior restructuring plans are complete.

Offsetting the restructuring and special charges in 1999 was a pretax gain of \$11 million from the reversal of restructuring reserves established in 1998. These restructuring reversals were required principally as a result of actual severance and facility shutdown costs that were lower than originally estimated. In addition, we recognized a pretax gain of \$35 million on the sale of Stoneville and miscellaneous other expense of \$1 million, which was recorded in other expense — net. See Note 5 — Special Items — to the consolidated financial statements for further details.

Agricultural Productivity Segment

Our Agricultural Productivity segment consists of our crop protection products (*Roundup* and other glyphosate products and selective chemistries) and our animal agriculture, *Roundup* lawn and garden products, and environmental technologies businesses. We are a leading worldwide developer, producer and marketer of crop protection products, including *Roundup* herbicide.

Year Ended Dec. 31,	2001	2000	1999
Net Sales			
<i>Roundup</i> and other glyphosate products, excluding <i>Roundup</i> lawn and garden products	\$2,422	\$2,625	\$2,482
All other	1,333	1,260	1,104
Total net sales	\$3,755	\$3,885	\$3,586

Agricultural Productivity Net Sales for 2001

In the Agricultural Productivity segment, net sales decreased 3 percent to \$3.8 billion in 2001, from \$3.9 billion in 2000. Lower herbicide sales offset higher sales from other Agricultural Productivity businesses, including *Roundup* lawn and garden products and animal agriculture.

Worldwide net sales of our *Roundup* herbicide and other glyphosate products (excluding *Roundup* lawn and garden products) of \$2.4 billion in 2001 declined 8 percent from 2000 net sales of \$2.6 billion. Sales volumes of these products grew 2 percent, with *Roundup* volumes relatively unchanged and volumes of glyphosate that we manufacture and supply to third parties up 9 percent. The United States, Europe, and Latin America posted volume gains on the growth of *Roundup Ready* acres and increased adoption of conservation tillage practices. However, major flooding and economic uncertainty in Argentina negatively affected volumes, as did adverse weather conditions in Australia and Canada. In certain world areas (Brazil and the United States, in particular), market conditions have increased distribution channel inventories. The effect of generic competition in certain ex-U.S. markets brought *Roundup* sales prices down. The effects of currency fluctuations in Brazil and Asia also unfavorably affected sales prices. Excluding the effects of currency fluctuations, worldwide prices of *Roundup* and other glyphosate products declined nearly 6 percent.

Sales volumes of *Roundup* in the United States increased 9 percent during our first full year without patent protection, while a decline in the prices of these products, driven primarily by the mix of products sold, resulted in an overall decline in net sales. In addition to *Roundup Ready* acres and conservation tillage growth, expanded distribution of higher-value *Roundup UltraMAX* and successful introductions of unique formulations of *Roundup* (such as *RT Master*) contributed to the U.S. volume increase. These volume increases are consistent with our strategy to provide a range of products within the *Roundup* portfolio to encourage new uses. We are also able to offer integrated solutions that give the farmer a choice to use a combination of seeds, traits and herbicides.

Net sales of our other Agricultural Productivity products totaled \$1.3 billion, a 6 percent increase from last year's net sales. The *Roundup* lawn and garden business delivered a strong sales performance, driven by volume growth. Our animal agriculture business also contributed to the growth, led by an increase in sales of *Posilac* bovine somatotropin. This year's results also benefited from the inclusion of sales from a previously unconsolidated investment, which was consolidated during the first half of 2000, when we acquired a controlling interest. This business supplies a key raw material for the manufacture of our herbicides, including *Roundup*, but also has third-party sales. Global sales of acetanilide and other selective herbicides were lower in 2001, primarily because of adverse weather conditions in Argentina and Canada.

Prior-Year Net Sales Review

Net sales for our Agricultural Productivity segment increased 8 percent in 2000 to \$3.9 billion, compared with \$3.6 billion in 1999. Lower prices for our family of *Roundup* herbicides, excluding *Roundup* lawn and garden products, were more than offset by higher sales volumes of these products. Sales were also affected by an increase in other Agricultural Productivity revenues because of increases in selective chemistry sales and *Roundup* lawn and garden product sales, partially offset by a slight decline in net sales in our animal agriculture and environmental technologies businesses.

Net sales of our *Roundup* herbicide and other glyphosate products (excluding *Roundup* lawn and garden products) in 2000 increased 6 percent to \$2.6 billion, compared with \$2.5 billion in 1999, primarily due to an 18 percent increase in *Roundup* herbicide and other glyphosate product volumes partly offset by lower selling prices. The increase in volumes was consistent with our strategy of selectively reducing prices to encourage new uses and increase sales volumes. *Roundup* herbicide and other glyphosate product sales increased, primarily in the United States, Argentina, and Europe, because of an incremental number of acres planted with *Roundup Ready* traits and the continued adoption of conservation tillage.

Net sales of our other Agricultural Productivity products increased 14 percent in 2000 to \$1.3 billion, from \$1.1 billion in 1999, primarily because of increased net sales in our selective chemistries and *Roundup* lawn and garden businesses. Sales of selective chemistries increased 18 percent in 2000 over 1999 because of increased corn herbicide sales, primarily *Harness Xtra* in the United States, and our new wheat herbicide for control of brome grass. *Roundup* lawn and garden sales increased 47 percent over 1999, when sales dropped, reflecting a change in distribution method that caused distribution channel inventories to decline for these products in 1999. Partially offsetting these increases in 2000 were slight declines in net sales in our animal agriculture and environmental technologies businesses.

Agricultural Productivity EBIT and EBITDA (excluding special items)

Year Ended Dec. 31,	2001	2000	1999
EBIT ⁽¹⁾	\$ 775	\$1,099	\$ 897
Add: Special items — net	169	22	27
EBIT (excluding special items)	944	1,121	924
Add: Depreciation	220	205	178
Amortization of goodwill and other intangible assets	5	4	7
EBITDA (excluding special items) ⁽²⁾	\$1,169	\$1,330	\$1,109

(1) Earnings before extraordinary item, cumulative effect of accounting change, interest and income taxes.

(2) Earnings before extraordinary item, cumulative effect of accounting change, interest, income taxes, depreciation, amortization, and special items.

EBIT for 2001

EBIT for the Agricultural Productivity segment declined 29 percent to \$775 million in 2001, compared with \$1.1 billion in 2000. This decrease was because of lower gross profit and a higher level of special items in 2001, including the effects of a litigation settlement with Central Garden. See "Special Items" in MD&A for further details. EBIT (excluding special items) declined 16 percent to \$944 million in 2001, from \$1.1 billion in 2000.

Gross profit for the segment declined approximately 11 percent, and gross profit as a percent of sales declined 4 percentage points. Lower *Roundup* prices, including the effects of foreign currency exchange rates and mix of products sold, were the primary contributors to this decline. Although we reduced glyphosate unit manufacturing costs in 2001, gross profit was adversely affected by our actions to streamline manufacturing

facilities. Strong performances from our *Roundup* lawn and garden and animal agriculture businesses slightly mitigated these margin shortfalls. EBIT improvement for the animal agriculture business can be attributed to increased sales of *Posilac* bovine somatotropin and more efficient manufacturing performance.

Operating expenses declined 1 percent, partially attributable to lower employee-related costs. Operating expenses as a percent of sales increased by one percentage point, primarily because of lower sales. Other expense — net increased by approximately \$50 million, as a result of the Central Garden litigation settlement and the devaluation of the Argentine peso.

EBIT for 2000

EBIT (excluding special items) for the Agricultural Productivity segment increased 21 percent to \$1.1 billion in 2000, from \$924 million in 1999. This increase was due primarily to increased sales and decreased operating expenses from the prior year.

Gross profit for the Agricultural Productivity segment increased 6 percent for 2000, as compared with 1999, driven by increased sales of *Roundup*, selective chemistries, and *Roundup* lawn and garden products. However, gross margin for the segment declined one percentage point, primarily because of an overall decline in the net selling price of *Roundup* and other glyphosate products as a result of our continued strategy to selectively reduce the prices of *Roundup* products to encourage increased uses.

Operating expenses for the Agricultural Productivity segment decreased approximately 6 percent in 2000 from 1999, despite the increase in net sales for the segment. This decrease in operating expenses was primarily because of cost reductions in research and development, as we increased focus on core research and development programs. Other expense — net decreased \$6 million in 2000 from 1999, primarily because of decreased losses from equity affiliates in 2000.

Seeds and Genomics Segment

The Seeds and Genomics segment consists of our global seeds and related trait business, and genetic technology platforms. We produce leading seed brands, including *DEKALB* and *Asgrow*, and we provide our seed partners with biotechnology traits for insect protection and herbicide tolerance.

Seeds and Genomics Net Sales for 2001

Net sales for the Seeds and Genomics segment totaled \$1.7 billion in 2001, topping last year's sales of \$1.6 billion by more than 6 percent. Revenues from our biotechnology traits increased significantly compared with year-ago sales, because of a number of factors. Higher trait revenues, primarily in the United States, were driven by increased demand for our technologies (including higher-value stacked traits), a higher *Roundup Ready* soybean royalty rate, and to a greater extent, a shift in timing. A new pricing structure and approach to the market starting with the 2002 selling season resulted in a shift in the recognition of certain trait revenues from third-party seed companies from the first

half of 2002 to the last half of 2001. We decided to change from a technology fee system to a royalty system to simplify the purchase of seed with our traits and to allow seed companies to have more flexibility in pricing their products. This marketing change contributed approximately \$90 million, or \$0.34 per share, to 2001 net income (with approximately \$25 million, or \$0.09 per share, recognized in the third quarter and approximately \$65 million, or \$0.25 per share, recognized in the fourth quarter). Net sales in 2001 also included trait revenues received from Pioneer upon resolution of issues related to our MON810 *YieldGard* products. These revenues reflect royalties related to MON810 *YieldGard* products sold during 2001. See "Special Items" in MD&A for further details. Stronger cotton revenue reflected higher demand for and use of biotechnology traits, particularly our stacked *Bollgard* and *Roundup Ready* traits. Conventional soybean seed sales also increased, as more U.S. acres were planted in soybeans in 2001. More than 70 percent of the U.S. planted soybean acres contained our *Roundup Ready* trait in 2001. Worldwide, the number of acres planted with our biotechnology traits increased approximately 14 percent to 118 million acres in 2001, from 103 million acres in 2000.

Our 2001 sales results also benefited from approximately \$65 million in net sales related to our Latin American grain sales program. This program, which helped reduce our credit risk during 2001, increased net sales but contributed minimally to gross profit and EBIT. We are considering a change to our commercial agreements, which may change the method by which we account for our Latin American grain sales program to no longer record revenues and cost of goods sold of essentially the same amount on the conversion of grain to cash. See "Outlook" in MD&A for further details.

Lower conventional corn seed sales in Latin America offset these net sales increases, as higher-than-anticipated returns of relatively high-priced corn seed affected sales by approximately \$120 million. These seed returns resulted from our strategic decision last year to sell higher-performance corn seed. Many farmers chose not to plant that seed, which resulted in substantial returns of relatively high-priced corn seed in 2001. Corn seed sales in the United States also decreased. Fewer acres were planted in corn this year, partly because many U.S. farmers chose to plant more acres in soybeans.

Prior-Year Net Sales Review

Net sales for the Seeds and Genomics segment declined to \$1.6 billion in 2000, from \$1.7 billion in 1999. Seed net sales declined 3 percent in 2000, primarily because of lower sales of conventional seed varieties and the absence of sales from Stoneville, which was sold in late 1999. This decrease was partially offset by a 14 percent increase in sales of seeds that included biotechnology traits, as the company continued to strategically shift more of its seed offerings to such seeds. The number of acres planted with *Roundup Ready* traits increased 17 percent in 2000, with *Roundup Ready* soybean acres increasing 18 percent over planted acres in 1999.

Seeds and Genomics EBIT and EBITDA (excluding special items)

Year Ended Dec. 31,	2001	2000	1999
EBIT ⁽¹⁾	\$(239)	\$(581)	\$(391)
Add: Special items — net	104	239	74
EBIT (excluding special items)	(135)	(342)	(317)
Add: Depreciation	91	65	60
Amortization of goodwill and other intangible assets	234	272	302
EBITDA (excluding special items) ⁽²⁾	\$ 190	\$ (5)	\$ 45

(1) Earnings (loss) before extraordinary item, cumulative effect of accounting change, interest and income taxes.

(2) Earnings (loss) before extraordinary item, cumulative effect of accounting change, interest, income taxes, depreciation, amortization, and special items.

EBIT for 2001

Seeds and Genomics segment EBIT improved to a loss of \$239 million in 2001, from a loss of \$581 million in 2000. Higher net sales and continued cost management drove the EBIT improvement. Special items affected EBIT during 2000 and, to a lesser extent, during 2001. The 2000 special items included a significant write-down of goodwill, and also higher net charges than those recorded in 2001 related to our plan to focus on certain key crops. Other special items in 2001 also included the net effects of two separate legal matters. We established a \$50 million reserve related to punitive damages awarded to Aventis from a licensing dispute with DEKALB Genetics. This charge was partially offset by \$22 million of other income recorded in connection with the resolution of litigation matters with DuPont and its Pioneer subsidiary. See "Special Items" in MD&A for further details. EBIT (excluding special items) for the segment improved to a loss of \$135 million in 2001, compared with a loss of \$342 million in 2000, due primarily to the factors discussed above.

Gross profit for the Seeds and Genomics segment increased 19 percent from 2000 gross profit. As a percentage of net sales, gross profit improved 6 percentage points. This improvement was fueled by higher sales of relatively high-margin trait revenues, which more than mitigated the negative effects of the corn seed returns in Latin America and lower corn seed sales in the United States. As previously discussed, our 2001 results benefited from a change in the marketing approach on trait fees.

Declines in operating expenses reflected our cost management efforts as we narrowed our focus to certain key crops. SG&A expenses declined 12 percent in 2001, and R&D expenses declined 7 percent. The SG&A improvement also benefited from the absence of amortization related to certain seed assets that became fully amortized during 2000, as well as lower employee-related expenses. As a percentage of net sales, operating expenses improved by 9 percentage points.

Other expense — net increased \$25 million in 2001, largely because of the aforementioned litigation matters. The devaluation of the Argentine peso and impairments of equity investments also drove other expenses higher. These items were slightly offset by the gain on the sale of equity investments.

EBIT for 2000

EBIT for the Seeds and Genomics segment in 2000 was a loss of \$581 million, compared with a loss of \$391 million in 1999. The increased loss was largely because of one-time operating charges related to our plan to focus on specific key crops, combined with lower gross profit. The decrease in gross profit was the result of lower sales volumes combined with higher costs associated with inventory management initiatives. In addition, the company incurred higher legal fees and increased spending for promotions and education associated with biotechnology acceptance. Partly offsetting these increased costs was a reduction in research and development expense as we focused our efforts on our key crops.

The one-time operating charges included the elimination of certain food and biotechnology research programs, and the shutdown of certain administrative and manufacturing facilities. We also wrote down \$88 million of goodwill, primarily associated with the decision to terminate the nutrition program at Calgene. Excluding this write-down, amortization and adjustments of goodwill decreased 10 percent in 2000 compared with 1999.

EBIT (excluding special items) was a loss of \$342 million, compared with a loss of \$317 million in 1999. The increased loss was primarily attributable to a lower total gross profit from seed sales, partly offset by a higher gross profit from trait licensing revenues. However, operating expenses were 8 percent lower compared with those in the previous year and, in addition to lower amortization expense, research and development spending decreased 7 percent.

Our Agreement with The Scotts Company

In 1998, Monsanto entered into an agency and marketing agreement with Scotts with respect to our *Roundup* lawn and garden business. Under the agreement, beginning in the fourth quarter of 1998, Scotts was obligated to pay us a \$20 million fixed fee each year to defray costs associated with the *Roundup* lawn and garden business. Scotts' payment of a portion of this fee owed in each of the first three years of the agreement was deferred and is required to be paid at later dates, with interest. Monsanto is accruing the \$20 million fixed fee per year owed by Scotts ratably over the periods during which it is being earned as a reduction of selling, general and administrative expenses. We are also accruing interest on the amounts owed by Scotts and are including such amounts in interest income. The total amounts owed by Scotts, including accrued interest, were \$48 million in 2001 and \$42 million in 2000. Scotts is required to begin paying these deferred amounts at \$5 million per year in monthly installments beginning Oct. 1, 2002.

Financial Condition, Liquidity and Capital Resources

As of Dec. 31,	2001	2000
Working capital	\$2,420	\$2,216
Current ratio	2.02:1	1.80:1
Debt-to-total capitalization	18.6%	19.3%

Working Capital and Financial Condition

Our balance sheet as of Dec. 31, 2001, reflects working capital of \$2.4 billion, a \$204 million increase from the prior year-end. Our cash and cash equivalents balance increased by \$176 million, largely because significant customer payments were received prior to year-end. Inventories also increased, mainly because our manufacturing facility in Camaçari, Brazil, was completed during 2001. Accounts payable declined \$68 million, primarily because of the payment of significant payables outstanding in 2000 related to the construction of the Camaçari facility. Miscellaneous short-term accruals decreased \$272 million, reflecting a change in agreements that allowed us to net U.S. customer prepayments and certain marketing allowances against trade receivables. In 2000, these prepayments and marketing allowances were recorded as miscellaneous short-term accruals.

These working capital increases were partly offset by the effect of lower trade receivables at year-end 2001 compared with year-end 2000. The shift in trait revenues increased trade receivables in 2001, but several other factors led to an overall decline in trade receivables. This net decline reflects the netting of customer prepayments and marketing allowances against trade receivables (as discussed above) and increased collections. As part of our focus on receivables management, 2001 worldwide collections related to trade receivables and prepayment programs increased 9 percent over 2000 collections.

Our year-end trade receivables position in Argentina is \$573 million, net of allowances. These receivables are denominated in U.S. dollars. Given the economic uncertainties in that country, our receivables are exposed to a change from a dollar value to a peso value given certain government regulation. See "Outlook" in MD&A for further details.

Cash Flow

In 2001, we achieved our goal of positive free cash flow. Free cash flow, representing cash flows from operations less cash required for investing activities, totaled \$183 million in 2001. Our operations generated \$616 million of cash in 2001, compared with \$671 million in 2000. This decrease in cash from operations reflects higher inventory levels and payments of significant amounts of payables, offset by improved collections related to trade receivables and prepayment programs. Cash required by investing activities declined dramatically, from \$935 million in 2000 to \$433 million in 2001. Several seed production facilities and glyphosate expansion projects, including the facility in Camaçari, Brazil, were completed during the year. Expenditures for these projects were higher in 2000 and 1999. During 1999 we invested \$108 million in joint ventures and equity investments in manufacturing technology. Also during 1999, Monsanto received \$335 million of cash from Cargill Incorporated (Cargill), as a refund of a portion of the original 1998 purchase price for certain international Cargill seed operations.

Seasonality

Our businesses are seasonal. Historically, we have recorded our highest levels of sales and income in the first half of the year, consistent with the purchasing and growing patterns in North America, our largest market, and net losses during the second half of the year. Our recent change to a royalty-based system has shifted

the recognition of certain trait revenues from the first half of the year to the last half of the previous year. Sales and income may shift somewhat between quarters depending on growing conditions.

Consistent with industry practice, we regularly extend credit to enable our customers to acquire crop protection products and seeds at the beginning of the growing season. Because of the seasonality of our business and the need to extend credit to customers, we use short-term borrowings to finance working capital requirements. Our need for short-term financing is generally highest in the second quarter and lowest in the fourth quarter.

Capital Resources and Liquidity

Cash provided by operations is a major source of working capital funds. To the extent the company's cash provided by operations was not sufficient to fund its cash needs, generally during the first half of the year, short-term commercial paper borrowings were used to finance these requirements. Our earnings and cash flow benefited from lower interest rates in 2001, but it is not certain whether these rates will be sustained.

We have committed external borrowing facilities amounting to \$1.5 billion that were unused as of Dec. 31, 2001. These facilities largely exist to support commercial paper borrowings, and covenants under these credit facilities restrict maximum borrowings. See Note 10 — Debt and Other Credit Arrangements — to the consolidated financial statements for further details. These credit facilities give us the financial flexibility to satisfy short- and medium-term funding requirements. One facility is a \$1 billion 364-day facility that expires in August 2002, and the other is a \$500 million five-year facility that expires in August 2005.

Downgrades in our short-term credit rating could limit our ability to access commercial paper financing or require that we issue commercial paper for shorter terms, increase our interest costs, and increase the costs of maintaining our credit facilities. Our liquidity could also be affected if there were significant decreases in cash provided by operations. For example, any significant reductions in the prices of our products or our sales volumes, or significant unanticipated expenses (for example, uninsured contingent liabilities) could have an adverse effect on cash provided by operations. In addition, from time to time concerns affecting the credit markets generally have made it difficult for commercial paper issuers, including Monsanto, to issue commercial paper with longer-term maturities. Having a larger portion of our commercial paper outstanding for shorter terms exposes a larger portion of our debt to refinancing risks such as changes in interest rates. Other factors that could affect our liquidity are discussed in "Outlook" in MD&A.

As of Dec. 31, 2001, our total borrowings of \$1.7 billion included a related-party loan payable of \$254 million, a \$381 million decrease from Dec. 31, 2000. Our net borrowing position with Pharmacia decreased \$206 million from \$430 million as of Dec. 31, 2000, to \$224 million as of Dec. 31, 2001. Our maximum net borrowing position with Pharmacia in 2001 totaled approximately \$625 million during the first quarter. Pharmacia has announced its intention to spin off its remaining interest in Monsanto, and after such spinoff, we will no longer have access to borrowings from Pharmacia. This could affect our liquidity, as our capital structure would likely be affected by a shift from short-term to long-term borrowings and a resulting increase in interest costs.

Related-party transactions, excluding treasury cash management, during 2001 and the last four months of 2000 resulted in a net payable (excluding dividends payable) of \$43 million as of Dec. 31, 2001, and a net receivable (excluding dividends payable) of \$99 million as of Dec. 31, 2000. Federal taxes, transition services provided by and associated with our separation from Pharmacia, capital project costs, employee benefits, and information technology costs accounted for the outstanding balances.

Contractual Obligations and Commitments

We have certain obligations and commitments to make future payments under contracts, such as debt and lease agreements, and under contingent commitments, such as guarantees. As of Dec. 31, 2001, we had \$817 million of short-term debt outstanding. Annual maturities of our medium-term notes are \$351 million in 2003, \$16 million in 2004, \$16 million in 2005, and \$10 million in 2006. Commitments, principally in connection with uncompleted additions to property, were approximately \$21 million, and commitments to purchase seed inventories were approximately \$70 million, as of Dec. 31, 2001. Future minimum payments under noncancelable operating leases, unconditional inventory purchases, joint ventures, and R&D alliances are \$119 million for 2002, \$35 million for 2003, \$20 million for 2004, \$13 million for 2005, and \$18 million thereafter. As of Dec. 31, 2001, we were contingently liable as a guarantor for bank loans and for miscellaneous receivables directly attributable to Monsanto totaling approximately \$107 million. As of Dec. 31, 2001, we had no other relationships with unconsolidated entities that are reasonably likely to have a material effect on our liquidity or the availability of, or requirements for, capital resources.

Shareowner Matters

On Dec. 19, 2001, Monsanto announced a quarterly dividend on its common stock of \$0.12 per share payable on Feb. 1, 2002, to shareowners of record on Jan. 10, 2002. On Feb. 21, 2002, Monsanto declared a quarterly dividend on its common stock of \$0.12 per share payable on May 1, 2002, to shareowners of record on April 10, 2002. The dividend rate reflects a policy adopted by the board of directors following the IPO. Monsanto's common stock is traded principally on the New York Stock Exchange. The number of shareowners of record as of Feb. 22, 2002, was 302. The largest shareowner, Pharmacia, owns approximately 85 percent of Monsanto common stock outstanding.

Euro Conversion

On Jan. 1, 1999, 11 of the 15 member countries of the European Union established fixed conversion rates between their national currencies and the euro. Greece joined the original 11 in early 2001. The transition period for conversion to the euro was from Jan. 1, 1999, to Jan. 1, 2002, at which time the euro became legal tender for the 12 participating member countries.

On Jan. 1, 1999, we began to engage in euro-denominated transactions and were legally compliant. All affected information

systems were fully converted by December 2001. We have not experienced, nor do we expect to experience, a material effect on our competitive position, business operations, financial position, or results of operations as a result of the euro conversion.

Use of Estimates and Critical Accounting Policies

Monsanto regularly reviews its selection and application of significant accounting policies and related financial disclosures. The discussion of past performance in MD&A is based upon Monsanto's consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. Our significant accounting policies are described in Note 2 — Significant Accounting Policies — to the consolidated financial statements. The application of these accounting policies requires that management make estimates and judgments. On an ongoing basis, Monsanto evaluates its estimates, which are based on historical experience and market and other conditions, and on assumptions that we believe to be reasonable. Actual results may differ from these estimates due to actual market and other conditions, and assumptions being significantly different than was anticipated at the time of the preparation of these estimates. Such differences may affect financial results. We believe the following estimates affect the application of our most critical accounting policies and require our most significant judgments.

We maintain an allowance for doubtful trade accounts receivable for estimated losses resulting from the inability of our customers to make required payments. In determining the adequacy of the allowance for doubtful accounts, we consider historical bad debt experience, customer credit worthiness, market conditions, and economic conditions. While we perform ongoing evaluations of our allowance for doubtful accounts, if the financial condition of our customers deteriorates more than expected, an increase in the allowance may be required.

Where the right of return exists in our seed business, sales revenues are reduced at the time of sale to reflect expected returns. In evaluating the adequacy of the sales return allowance, management analyzes historical returns, economic trends, market conditions and changes in customer demand. In addition, we establish allowances for obsolescence of inventory equal to the difference between the cost of inventory and the estimated market value, based on assumptions about future demand and market conditions. Changes in economic and market conditions could result in actual returns and inventory obsolescence being materially different from the amounts provided for in our consolidated financial statements.

We record asset impairment charges, employee termination benefits and other exit costs when management having the appropriate level of authority approves and commits to the exit plan, and when the amounts are estimable. Management uses estimated cash flows, appraisals or sales contracts in determining asset impairment charges. Severance benefits are determined pursuant to established company severance policies or government labor regulations. We regularly review and reevaluate the assumptions used for accrual of exit costs and adjust the remaining accrual balance as necessary.

New Accounting Standards

In June 2001, the FASB simultaneously approved SFAS No. 141, *Business Combinations*, and SFAS No. 142, *Goodwill and Other Intangible Assets*. SFAS No. 141 requires that the purchase method of accounting be used for all business combinations initiated after June 30, 2001, thereby eliminating the pooling-of-interests method. The *Business Combinations* statement also provides broader criteria for identifying which types of acquired intangible assets must be recognized separately from goodwill and which must be included in goodwill. We adopted the provisions of SFAS No. 141 on Jan. 1, 2002, with the exception of the immediate requirement to use the purchase method of accounting for all business combinations initiated after June 30, 2001. SFAS No. 141 also requires us to evaluate our existing goodwill and other intangible assets and to make any reclassifications necessary to conform with the separation requirements at the date of adoption.

SFAS No. 142 changes the accounting for goodwill from an amortization method to an impairment-only method. Under SFAS No. 142, all goodwill amortization ceased effective Jan. 1, 2002. Goodwill will now be tested for impairment in conjunction with a transitional goodwill impairment test to be performed in 2002 and at least annually thereafter. Under the new rules, our goodwill will be tested for impairment at a level of reporting referred to as reporting units. We determined that our reporting units are components of our Agricultural Productivity and Seeds and Genomics reporting segments.

We have completed the first step of the transitional goodwill impairment test, which compares the fair value of a reporting unit with its net book value, including goodwill. The fair values of each reporting unit were determined using a discounted cash flow methodology. In connection with the first step of the impairment test, we identified two reporting units that may be impaired. Any resulting impairment charge will be specific to the corn and wheat reporting units, relating to goodwill that resulted primarily from the 1998 acquisitions of DEKALB Genetics and Plant Breeding International Cambridge Limited, respectively. Unanticipated delays in biotechnology acceptance and regulatory approvals, and a change in valuation method required by SFAS No. 142 (from an undiscounted cash flow methodology to a discounted cash flow methodology), are the primary factors leading to the indication of impairment. The second step of the transitional goodwill impairment test, which will determine the actual impairment charge, if any, is expected to be completed in the first half of 2002. As required by SFAS No. 142, any transitional impairment charge will be recorded as an accounting change in accordance with APB No. 20, effective Jan. 1, 2002. Any such impairment charge will have no effect on our liquidity or cash flow.

Upon adoption of SFAS No. 142, we reassessed the useful lives, residual values, and classification of all identifiable and recognized intangible assets and made any necessary prospective amortization period adjustments, effective Jan. 1, 2002. SFAS No. 142 requires recognized intangible assets with definite useful lives to be amortized over their respective estimated lives and reviewed for impairment in accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*.

The absence of goodwill amortization and the net effects of changes to intangible asset classifications and useful lives are expected to affect our 2002 diluted earnings per share positively in the range of \$0.35 per share to \$0.38 per share.

In July 2001, the FASB issued SFAS No. 143, *Accounting for Asset Retirement Obligations*. SFAS No. 143 addresses financial accounting for and reporting of costs and obligations associated with the retirement of tangible long-lived assets. This statement will become effective for Monsanto on Jan. 1, 2003. Monsanto has not yet determined the effect adoption of this standard will have on its consolidated financial position or its results of operations.

In August 2001, the FASB issued SFAS No. 144, which replaces SFAS No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of*. SFAS No. 144, which was effective for Monsanto on Jan. 1, 2002, establishes an accounting model for long-lived assets to be disposed of by sale. It applies to all long-lived assets, including discontinued operations. The adoption of SFAS No. 144 is not expected to have a material effect on our consolidated financial position or results of operations.

Market Risk Management

We are exposed to the effect of interest rate changes, foreign currency fluctuations, and changes in commodity and equity prices. Market risk represents the risk of a change in the value of a financial instrument, derivative or nonderivative, caused by fluctuations in interest rates, currency exchange rates, and commodity and equity prices. Monsanto handles market risk in accordance with established policies by engaging in various derivative transactions. Such transactions are not entered into for trading purposes.

The sensitivity analysis discussed below presents the hypothetical change in fair value of those financial instruments held by the company as of Dec. 31, 2001, that are sensitive to changes in interest rates, currency exchange rates, and commodity and equity prices. Actual changes may prove to be greater or less than those hypothesized.

Because the company's short- and long-term debt exceeds cash and investments, the interest-rate risk exposure pertains primarily to the debt portfolio. To the extent that we have cash available for investment to ensure liquidity, we will invest that cash only in short-term money market instruments. The majority of our debt consists of short-term obligations.

Market risk with respect to interest rates is estimated as the potential change in fair value resulting from an immediate hypothetical one percentage point parallel shift in the yield curve. The fair values of the company's investments and loans are based on quoted market prices or discounted future cash flows. We currently hold only debt and investments that mature in less than 270 days, variable rate medium-term notes, and medium-term notes that are effectively hedged. The company entered into certain interest rate hedging arrangements, which effectively exchange the fixed interest rate to variable interest. As the carrying amounts on short-term loans and investments maturing in less than 270 days, and the carrying amount of variable rate medium-term notes approximate their respective fair values,

a one percentage point change in the interest rates would not change the fair value of our debt and investments portfolio. Any change in the fair value of the medium-term notes is offset by the change in the fair value of the related hedge.

The company's management of currency exposure is primarily focused on reducing the negative effects that currency fluctuations have on consolidated cash flow and earnings. We use forward contracts and currency options to manage the net exposure in accordance with established hedging policies. Monsanto hedges recorded commercial transaction exposures, intercompany loans, net investments in foreign subsidiaries, and forecasted transactions. The company's significant hedged positions included Brazilian reals, Canadian dollars, euros, Philippine pesos, and Polish zlotys. Unfavorable currency movements of 10 percent would negatively affect the fair market values of the derivatives held to hedge currency exposures by \$52 million.

Monsanto uses futures contracts to protect itself against commodity price increases, mainly in the Seeds and Genomics segment. The majority of these contracts hedge the committed or future purchases of, and the carrying value of payables to growers for, soybean and corn inventories. A 10 percent decrease in soybean or corn prices would have a negative effect on the fair value of those futures by \$11 million and \$3 million, respectively.

The company also has investments in equity securities. All such investments are classified as long-term available-for-sale investments. The fair market value of these investments is \$61 million. The majority of these securities are listed on a stock exchange or quoted in an over-the-counter market. If the market price of the traded securities should decrease by 10 percent, the fair value of the equities would decrease by \$6 million. See Note 8 — Investments — to the consolidated financial statements for further details.

On Jan. 1, 2001, Monsanto adopted SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, and its amendments. See Notes 2 and 11 to the consolidated financial statements for further details regarding our adoption of SFAS No. 133, and disclosure of our derivative instruments and hedging activities.

Outlook

Focused Strategy

We believe that our focused approach to the business and the value we bring to our customers will allow us to maintain an industry leadership position. We continue to face a difficult agricultural and economic environment, especially in Latin America. While growth from our traditional products will be challenged in these conditions, we believe that our portfolio of integrated products and services continues to offer farmers cost-effective and value-added solutions. Our current business and continued cost management are important in the near-term, while gaining biotechnology acceptance and continued development of our research pipeline are important to our future growth.

We remain committed to managing our operating costs and improving our cash position through working capital and capital expenditure management. Our investments in improved technologies are part of the plan to increase overall glyphosate

capacity and to operate in a more cost-effective manner. As part of our emphasis on working capital, we have focused on receivables collections and also have instituted more stringent credit policies. Our working capital challenges in 2002 will be in receivables management in Latin America, particularly in Argentina and Brazil.

Latin America

Our receivables focus has been centered on, and continues to remain centered on, the key agricultural markets of Argentina and Brazil. We have a strong presence in these countries, and we will continue to operate there because of their importance to our business.

On Feb. 3, 2002, the new government in Argentina announced several reforms intended to stabilize the economic environment. The government's programs continue to evolve at a rapid pace. At this time, it is unclear what effect existing and new regulations and conditions might have on our business in Argentina, although they could increase our risk of collecting our accounts receivable and have a material adverse effect on our financial position, profitability and liquidity. While we prepared our 2001 financial statements relating to our Argentine operations on a U.S. dollar functional basis, the functional currency designation in Argentina may change based on new government economic reforms. While we cannot determine how government actions will affect the outcome, we will aggressively pursue collection of the \$573 million of net outstanding receivables at full U.S. dollar value as they become due, principally in May and June 2002. Based on the government policies announced in February 2002, all outstanding receivables, including those outstanding as of Dec. 31, 2001, were converted from U.S. dollars to pesos at a one-to-one ratio. In addition, the government introduced the following regulations: 1) accounts receivable balances will be adjusted for inflation based on a local government index; and 2) differences between the inflation-adjusted peso accounts receivable and the originally-invoiced U.S. dollar accounts receivable may be negotiated between the company and the customer, and if not agreed upon, will be decided by the Argentine courts. Although the Argentine agricultural markets are primarily export-oriented, the amount that we eventually collect could be significantly less than the recorded amounts. Furthermore, the exchange rate between the U.S. dollar and peso will fluctuate during the period when the accounts receivable become due for collection. Due to the unpredictability of these variables, it is not possible to estimate a range of loss exposure related to the collectibility of accounts receivable. In addition, our ability to repatriate funds from Argentina may be restricted. The peso-to-U.S. dollar exchange rate is 2.13-to-1.00 as of March 1, 2002. We may also have additional exposure beyond increased collectibility risk. For example, our sales, margins and foreign-currency transactional gains/losses may be adversely affected based on fluctuations in foreign-currency exchange rates and the level of inflation experienced.

We continually evaluate our approach to the business, especially in light of current economic conditions. Until there is more clarity in the economic policies, future sales in Argentina will be made for either cash or grain, and we are considering a change to our commercial agreements, which may change the method by which we account for our Latin American grain sales program to

no longer record revenues and cost of goods sold of essentially the same amount on the conversion of grain to cash. Results for 2001 included net sales of approximately \$65 million related to this program, with minimal contribution to gross margin and EBIT.

The Brazilian real fluctuated considerably during 2001. As of Dec. 31, 2001, we implemented a hedging program to mitigate the risk of further devaluation. In Brazil, distributors have increased their levels of inventories. We have been reducing these inventory levels and expect to continue to do so. Although we continually monitor grower use of our products and related distribution inventory levels, high levels of product at our distributors could adversely affect our future sales.

Roundup Herbicide

Roundup herbicide is key to our integrated strategy. Primary drivers for *Roundup* growth in the future will be *Roundup* use in conjunction with conservation tillage systems and growth in *Roundup Ready* crops. Conservation tillage helps farmers reduce soil erosion by replacing plowing with the judicious use of herbicides to control weeds. We believe that there is significant value yet to be gained through conservation tillage and in *Roundup Ready* applications.

We expect to continue to selectively reduce prices through new formulations, discounts, rebates or other promotional strategies to encourage new uses and to increase our sales volumes. This strategy likely will result in a reduction in our gross margin, consistent with the reduction in recent years, as we have implemented a price-elasticity strategy. Without patent protection worldwide, *Roundup* continues to face competition from generic producers and marketers, whose pricing policies in some instances cause downward pressure on our prices. Since the expiration of our glyphosate patent in 2000, we also face these pressures in the United States. *Roundup* prices are expected to decline in the United States, as they have outside the United States. Our brands, new formulations, support by distributors, logistics and manufacturing capabilities are key factors in this competitive environment. Although we continually monitor grower use of our products and related distribution inventory levels, distribution channel inventories are higher in the United States than they were prior to expiration of our patent for *Roundup*. Higher product levels at our distributors could adversely affect our future sales. Further, an unanticipated rate of reduction in prices of competitive glyphosate products could materially adversely affect *Roundup* pricing and the company's financial results. However, we have faced similar issues in a postpatent environment in other world areas, and expect to be able to address these issues in the U.S. market.

Seed Biotechnology

Global acreage of Monsanto traits increased in 2001, and this trend is expected to continue in 2002. Biotechnology traits offer growers several benefits: lower costs, greater convenience, and higher yields. Gaining global acceptance of biotechnology is another key part of our strategy.

During 2001, we received new approvals in several countries. Officials in Argentina approved *Roundup Ready* cotton and South African officials approved the commercial use of *Roundup Ready* soybeans. We also received renewals for *Bollgard* and *YieldGard* insect-protection traits in the United States. We are focused on completing the steps necessary for approval in Brazil (planting of *Roundup Ready* soybeans), Europe (importing of corn which may

contain a *Roundup Ready* trait), India (planting of *Bollgard* cotton) and the United States (planting of *Bollgard* II and *YieldGard* corn rootworm-protected products).

We continue to address concerns raised by consumers and public interest groups and questions raised by government regulators regarding agricultural and food products developed through biotechnology. We are committed to addressing these issues, and to achieving greater acceptance, efficient regulation, and timely commercialization of biotechnology products.

We also continue to address concerns about the unintended or adventitious presence of biotechnology materials in seed, crops or food. We expect these types of issues to continue. We are addressing the issue of adventitious presence through our own seed quality programs, by working with others in seed, feed and food industry associations, by developing information to improve both understanding and management of seed quality, and by continuing to press for regulations which recognize and accept the adventitious presence of biotechnology traits.

A new pricing structure and approach to the market in place starting with the 2002 selling season has resulted in a shift in the recognition of certain trait revenues from the first half of 2002 to the last half of 2001. We decided to change from a technology fee system to a royalty system to simplify the purchase of seed with our traits and to allow seed companies to have more flexibility in pricing their products. This marketing change contributed approximately \$90 million, or \$0.34 per share, to 2001 net income (with \$25 million, or \$0.09 per share, recognized in the third quarter and \$65 million, or \$0.25 per share, recognized in the fourth quarter).

Other Information

As discussed in Note 18 — Commitments and Contingencies — to the consolidated financial statements, Monsanto is involved in a number of lawsuits and claims relating to a variety of issues. Many of these lawsuits relate to intellectual property disputes. We expect that such disputes will continue to occur as the agricultural biotechnology industry evolves.

For additional information about the outlook for Monsanto, see "Cautionary Statements Regarding Forward-Looking Information."

Cautionary Statements Regarding Forward-Looking Information

Under the Private Securities Litigation Reform Act of 1995, companies are provided with a "safe harbor" for making forward-looking statements about the potential risks and rewards of their strategies. We believe it is in the best interest of our shareowners to use these provisions in discussing future events. However, we are not required to, and you should not rely on us to, revise or update these statements or any factors that may affect actual results, whether as a result of new information, future events or otherwise. Forward-looking statements include: statements about our business plans; statements about the potential for the development, regulatory approval, and public acceptance of new products; estimates of future financial performance; predictions of national or international economic, political or market condi-

tions; statements regarding other factors that could affect our future operations or financial position; and other statements that are not matters of historical fact. Such statements often include the words "believes," "expects," "anticipates," "intends," "plans," "estimates," or similar expressions.

Our ability to achieve our goals depends on many known and unknown risks and uncertainties, including changes in general economic and business conditions. These factors could cause our actual performance and results to differ materially from those described or implied in forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed below.

Competition for *Roundup* Herbicide: *Roundup* herbicide is a major product line. Patents protecting *Roundup* in several countries expired in 1991, and compound *per se* patent protection for the active ingredient in *Roundup* herbicide expired in the United States in 2000. *Roundup* herbicide is likely to face increasing competition in the future, including in the United States. In order to compete successfully in this environment, we rely on a combination of (1) marketing strategy, (2) pricing strategy, and (3) decreased production costs.

Marketing Strategy: We expect to increase *Roundup* sales volumes by encouraging new uses (especially conservation tillage), providing unique formulations and services, and offering integrated seed and biotech solutions. The success of our *Roundup* marketing strategy will depend on the continued expansion of conservation tillage practices and of *Roundup Ready* seed acreage, and on our ability to develop services and marketing programs that are attractive to our customers.

Pricing Strategy: Historically, we have selectively reduced the net sales price of *Roundup* worldwide in order to increase volumes and penetrate new markets. This price elasticity strategy is designed to increase demand for *Roundup* by making *Roundup* more economical, encouraging both new uses of the product and expansion of the number of acres treated. However, there can be no guarantee that price reductions will stimulate enough volume growth to offset the price reductions and increase revenues.

Production Cost Decreases: We also believe that increased volumes and technological innovations will lead to efficiencies that will reduce the production cost of glyphosate. As part of this strategy, we have entered into agreements to supply glyphosate to other herbicide producers. Such cost reductions will depend on realizing such increased volumes and innovations, and securing the resources required to expand production of *Roundup*.

Realization and Introduction of New Products: Our ability to develop and introduce new products to market, particularly new agricultural biotechnology products, will depend on, among other things, the availability of sufficient financial resources to fund research and development needs; the success of our research efforts; our ability to gain acceptance through the chain of commerce (e.g., by processors, food companies, and consumers); our ability to obtain regulatory approvals; the demonstrated effectiveness of our products; our ability to produce new products on a large scale and to market them economically; our ability to develop, purchase or license required technology; and the existence of sufficient distribution channels.

Governmental and Consumer Acceptance: The commercial success of agricultural and food products developed through biotechnology will depend in part on government and public acceptance of their cultivation, distribution and consumption. We continue to work with consumers, customers and regulatory bodies to encourage understanding of modern biotechnology, crop protection and agricultural biotechnology products. Biotechnology has enjoyed and continues to enjoy substantial support from the scientific community, regulatory agencies and many governmental officials around the world. However, public attitudes may be influenced by claims that genetically modified plant products are unsafe for consumption or pose unknown risks to the environment or to traditional social or economic practices, even if such claims have little or no scientific basis. The development and sales of our products have been, and may in the future be, delayed or impaired because of adverse public perception or extreme regulatory caution in assessing the safety of our products and the potential effects of these products on other plants, animals, human health and the environment.

Securing governmental approvals for, and consumer confidence in, products developed through biotechnology poses numerous challenges, particularly outside the United States. If crops grown from seeds that were developed through biotechnology are not yet approved for import into certain markets, growers in other countries may be restricted from introducing or selling their grain. In addition, because some markets have not approved these products, some companies in the food industry have sought to establish supplies of non-genetically-modified crops, or have refused to purchase crops grown from seeds developed through biotechnology. Resulting concerns about trade and marketability of these products may deter farmers from planting them, even in countries where planting and consumption have been fully approved.

Regulatory Approvals: The field testing, production and marketing of our products are subject to extensive regulations and numerous government approvals, which vary widely among jurisdictions. Obtaining necessary regulatory approvals can be time consuming and costly, and there can be no guarantee of the timing or granting of approvals. Regulatory authorities can block the sale or import of our products, order recalls, and prohibit planting of seeds containing our technology. As agricultural biotechnology continues to evolve, new unanticipated restrictions and burdensome regulatory requirements may be imposed. In addition, international agreements may also affect the treatment of biotechnology products.

Seed Quality and Adventitious Presence: The detection of unintended (adventitious) biotechnology traits in precommercial seed, commercial seed varieties, or the crops and products produced can negatively affect our business or results of operations. The detection of adventitious presence can result in the withdrawal of seed lots from sale, or in governmental regulatory compliance actions such as crop destruction or product recalls in some jurisdictions. Concerns about seed quality related to biotechnology could also lead to additional requirements such as seed labeling and traceability. Concerns about unintended biotechnology traits in grain or food could lead to additional

government regulations and to consumer concerns about the integrity of the food supply chain from the farm to the finished product. Together with other seed companies and industry associations, we are actively seeking sound, science-based rules and regulatory interpretations that would clarify the legal status of trace adventitious amounts of biotechnology traits in seed, crops and food. This may involve the establishment of threshold levels for the adventitious presence of biotechnology traits, and standardized sampling and testing methods. Although we believe that thresholds are already implicit in some existing laws, the establishment of appropriate regulations would provide the basis for recognition and acceptance of the adventitious presence of biotechnology traits.

Intellectual Property: We have devoted significant resources to obtaining and maintaining our intellectual property rights, which are material to our business. We rely on a combination of patents, copyrights, trademarks and trade secrets, confidentiality provisions, Plant Variety Protection Act registrations, and licensing arrangements to establish and protect our intellectual property. We seek to preserve our intellectual property rights and to operate without infringing the proprietary rights of third parties. Intellectual property positions are becoming increasingly important within the agricultural biotechnology industry.

There is some uncertainty about the value of available patent protection in certain countries outside the United States. Moreover, the patent positions of biotechnology companies involve complex legal and factual questions. Rapid technological advances and the number of companies performing such research can create an uncertain environment. Patent applications in the United States may be kept secret, or if published like those outside the United States, published 18 months after filing. Accordingly, competitors may be issued patents from time to time without any prior warning to us. That could decrease the value of similar technologies that we are developing. Because of this rapid pace of change, some of our products may unknowingly rely on key technologies already patent-protected by others. If that should occur, we must obtain licenses to such technologies to continue to use them.

Certain of our seed germplasm and other genetic material, patents, and licenses are currently the subject of litigation, and additional future litigation is anticipated. Although the outcome of such litigation cannot be predicted with certainty, we will continue to defend and litigate our positions vigorously. We believe that we have meritorious defenses and claims in the pending suits.

Technological Change and Competition: A number of companies are engaged in plant biotechnology research. Technological advances by others could render our products less competitive. In addition, the ability to be first to market a new product can result in a significant competitive advantage. We believe that competition will intensify, not only from agricultural biotechnology firms but also from major agrichemical, seed and food companies with biotechnology laboratories. Some of our agricultural competitors have substantially greater financial, technical and marketing resources than we do.

Planting Decisions and Weather: Our business is subject to weather conditions and natural disasters that affect commodity prices, seed yields, and grower decisions about purchases of seeds, traits and herbicides. In addition, crop commodity prices continue to be at historically low levels. There can be no assurance that this trend will not continue. These lower commodity prices affect growers' decisions about the types and amounts of crops to plant and may negatively influence sales of our herbicide, seed and biotechnology products.

Need for Short-Term Financing: Like many other agricultural companies, we regularly extend credit to our customers to enable them to acquire agricultural chemicals and seeds at the beginning of the growing season. Our credit practices, combined with the seasonality of our sales, make us dependent on our ability to obtain substantial short-term financing to fund our cash flow requirements, our ability to collect customer receivables, and our ability to repatriate funds from ex-U.S. operations. Our need for short-term financing typically peaks in the second quarter. Downgrades in our credit rating or other limitations on our ability to access short-term financing, including our ability to refinance our short-term debt as it becomes due, would increase our interest costs and adversely affect our sales and our profitability.

Litigation and Contingencies: We are involved in numerous major lawsuits regarding contract disputes, intellectual property issues, biotechnology issues, antitrust allegations and other matters. Adverse outcomes could subject us to substantial damages or limit our ability to sell our products. In addition, in connection with the separation of our businesses from those of Pharmacia Corporation on Sept. 1, 2000, and pursuant to a Separation Agreement entered into on that date (the "Separation Agreement"), we assumed, and agreed to indemnify Pharmacia for, any liabilities primarily related to Pharmacia's former agricultural or chemical businesses. Under the Separation Agreement, we agreed to indemnify Pharmacia for any liabilities that Solutia Inc. had assumed from Pharmacia in connection with the spinoff of Solutia on Sept. 1, 1997, to the extent that Solutia fails to pay, perform or discharge those liabilities. This indemnification obligation applies to litigation, environmental and all other liabilities that were assumed by Solutia.

Distribution of Products: In order to successfully market our products, we must estimate growers' needs, and successfully match the level of product at our distributors to those needs. If distributors do not have enough inventory of our products at the right time, our current sales will suffer. On the other hand, high product inventory levels at our distributors may cause revenues to suffer in future periods as these distributor inventories are worked down, particularly in the event of unanticipated price reductions.

Cost Management: Our ability to meet our short- and long-term objectives requires that we manage our costs successfully, without adversely affecting our performance. Changing business conditions or practices may require us to reduce costs to remain competitive. If we are unable to identify cost savings opportunities and successfully reduce costs and maintain cost reductions, our profitability will be affected.

Accounting Policies and Estimates: In accordance with generally accepted accounting principles, we adopt certain accounting policies, such as policies related to the timing of revenue recognition and other policies described in our financial statements. Changes to these policies may affect future results. There may also be changes to generally accepted accounting principles, which may require adjustments to financial statements for prior periods and changes to the company's accounting policies and financial results prospectively. In addition, we must use certain estimates, judgments and assumptions in order to prepare our financial statements. For example, we must estimate matters such as levels of returns, collectibility of receivables, and the probability and amount of future liabilities. If actual experience differs from our estimates, adjustments will need to be made to financial statements for future periods, which may affect revenues and profitability. Finally, changes in our business practices may result in changes to the way we account for transactions, and may affect comparability between periods.

Operations Outside the United States: Sales outside the United States make up a substantial portion of our revenues, and we intend to continue to actively explore international sales opportunities. In addition, we engage in manufacturing, seed production, sales, and/or research and development in many parts of the world. Although we have operations in virtually every region, our ex-U.S. sales are principally in Argentina, Brazil, Canada, France, Mexico, Australia and Japan. Accordingly, developments in those parts of the world generally have a more significant effect on our operations than developments in other places. Operations outside the United States are potentially subject to a number of unique risks and limitations, including, among others, fluctuations in currency values and foreign-currency exchange rates; exchange control regulations; changes in a specific country's or region's political or economic conditions; weather conditions; import and trade restrictions; import or export licensing requirements and trade policy; unexpected changes in regulatory requirements; and other potentially detrimental domestic and foreign governmental practices or policies affecting United States companies doing business abroad. Weakened economies may cause future sales to decrease because customers may purchase fewer goods in general, and also because imported products could become more expensive for customers to purchase in their local currency. Changes in exchange rates may affect our earnings, the book value of our assets outside the United States, and our equity.

STATEMENT OF CONSOLIDATED INCOME

MONSANTO COMPANY

(Dollars in millions, except per share and per pro forma share amounts) Year Ended Dec. 31,	2001	2000	1999
Net Sales	\$5,462	\$5,493	\$5,248
Cost of goods sold	2,817	2,770	2,556
Gross Profit	2,645	2,723	2,692
Operating Expenses:			
Selling, general and administrative expenses	1,183	1,253	1,237
Research and development expenses	560	588	695
Amortization and adjustments of goodwill	121	212	128
Restructuring charges — net	122	103	22
Total Operating Expenses	1,986	2,156	2,082
Income From Operations	659	567	610
Interest expense (net of interest income of \$26, \$30 and \$26 in 2001, 2000 and 1999, respectively)	(73)	(184)	(243)
Other expense — net	(123)	(49)	(104)
Income Before Income Taxes, Extraordinary Item and Cumulative Effect of Accounting Change	463	334	263
Income tax provision	(166)	(159)	(113)
Income Before Extraordinary Item and Cumulative Effect of Accounting Change	297	175	150
Extraordinary loss on early retirement of debt, net of tax benefit of \$2	(2)	—	—
Cumulative effect of a change in accounting principle, net of tax benefit of \$16	—	(26)	—
Net Income	\$ 295	\$ 149	\$ 150
Basic Earnings (Loss) per Share (per Pro Forma Share in 2000 and 1999):			
Income before extraordinary item and cumulative effect of accounting change	\$ 1.15	\$ 0.68	\$ 0.58
Extraordinary item	(0.01)	—	—
Cumulative effect of accounting change	—	(0.10)	—
Net Income	\$ 1.14	\$ 0.58	\$ 0.58
Diluted Earnings (Loss) per Share (per Pro Forma Share in 2000 and 1999):			
Income before extraordinary item and cumulative effect of accounting change	\$ 1.13	\$ 0.68	\$ 0.58
Extraordinary item	(0.01)	—	—
Cumulative effect of accounting change	—	(0.10)	—
Net Income	\$ 1.12	\$ 0.58	\$ 0.58
Pro Forma Amounts Assuming Change in Accounting Principle Is Applied Retroactively:			
Net income	\$ 295	\$ 175	\$ 124
Basic earnings per share (per pro forma share in 2000 and 1999)	\$ 1.14	\$ 0.68	\$ 0.48
Diluted earnings per share (per pro forma share in 2000 and 1999)	\$ 1.12	\$ 0.68	\$ 0.48

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CONSOLIDATED FINANCIAL POSITION

MONSANTO COMPANY

(Dollars in millions, except share amounts) As of Dec. 31,	2001	2000
Assets		
Current Assets:		
Cash and cash equivalents	\$ 307	\$ 131
Trade receivables (net of allowances of \$177 in 2001 and \$171 in 2000)	2,307	2,412
Miscellaneous receivables	449	386
Related-party loan receivable	30	205
Related-party receivable	44	261
Deferred tax assets	251	225
Inventories	1,357	1,253
Other current assets	52	100
Total Current Assets	4,797	4,973
Property, Plant and Equipment:		
Land	68	69
Buildings	947	766
Machinery and equipment	3,127	2,688
Computer software	233	190
Construction in progress	362	746
Total Property, Plant and Equipment	4,737	4,459
Less Accumulated Depreciation	2,110	1,800
Net Property, Plant and Equipment	2,627	2,659
Goodwill (Net of Accumulated Amortization of \$398 in 2001 and \$290 in 2000)	2,748	2,827
Other Intangible Assets (Net of Accumulated Amortization of \$619 in 2001 and \$506 in 2000)	691	779
Other Assets	566	488
Total Assets	\$11,429	\$11,726
Liabilities and Shareowners' Equity		
Current Liabilities:		
Short-term debt	\$ 563	\$ 158
Related-party short-term loan payable	254	635
Accounts payable	457	525
Related-party payable	87	162
Accrued compensation and benefits	136	172
Restructuring reserves	69	38
Accrued marketing programs	197	181
Miscellaneous short-term accruals	614	886
Total Current Liabilities	2,377	2,757
Long-Term Debt	893	962
Postretirement Liabilities	365	367
Other Liabilities	311	299
Commitments and Contingencies (see Note 18)		
Shareowners' Equity:		
Common stock (authorized: 1,500,000,000 shares, par value \$0.01)		
Shares issued: 258,112,408 in 2001 and 258,043,000 in 2000	3	3
Additional contributed capital	8,056	7,853
Retained earnings	173	2
Accumulated other comprehensive loss	(716)	(479)
Reserve for ESOP debt retirement	(33)	(38)
Total Equity	7,483	7,341
Total Liabilities and Shareowners' Equity	\$11,429	\$11,726

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CONSOLIDATED CASH FLOWS

MONSANTO COMPANY

(Dollars in millions) Year Ended Dec. 31,	2001	2000	1999
Operating Activities:			
Income before income taxes, extraordinary item and cumulative effect of accounting change	\$ 463	\$ 334	\$ 263
Adjustments to reconcile to cash provided (required) by operations:			
Items that did not require cash:			
Depreciation and amortization	554	546	547
Restructuring and other special items (excluding litigation matters)	213	261	50
Working capital changes that provided (required) cash:			
Trade receivables	(182)	(560)	(370)
Inventories	(187)	118	(35)
Accounts payable and accrued liabilities	(445)	14	(108)
Related-party transactions	161	(35)	—
Other working capital changes	12	(54)	(29)
Brazil currency devaluation	—	—	(223)
Other items	27	47	25
Net Cash Provided by Operations	616	671	120
Investing Activities:			
Property, plant and equipment purchases	(382)	(582)	(632)
Acquisitions and investments	(81)	(148)	(108)
Loans with related-party	20	(205)	—
Investment and property disposal proceeds	10	—	325
Net Cash Required by Investing Activities	(433)	(935)	(415)
Financing Activities:			
Net change in short-term financing	372	(993)	(233)
Loans from related-party	(226)	635	—
Long-term debt proceeds	57	—	—
Long-term debt reductions	(94)	(58)	(110)
Dividend payments	(116)	—	—
Issuance of stock	—	723	—
Net transactions with parent	—	62	627
Net Cash Provided by (Used In) Financing Activities	(7)	369	284
Net Increase (Decrease) in Cash and Cash Equivalents	176	105	(11)
Cash and Cash Equivalents:			
Beginning of year	131	26	37
End of year	\$ 307	\$ 131	\$ 26

The effect of exchange rate changes on cash and cash equivalents was not material. All interest expense on debt issued by or specifically attributable to Monsanto is included in the Statement of Consolidated Income. However, Monsanto made no cash payments for interest or taxes during 1999 and the eight months ended Aug. 31, 2000, because all interest and tax payments during these periods were made by Pharmacia. Cash payments for interest and taxes for the last four months of 2000 were \$21 million and \$8 million, respectively. Cash payments for interest and taxes during 2001 totaled \$113 million and \$174 million, respectively.

Noncash transactions for 2000 included a reclassification of \$1.1 billion of long-term debt to short-term debt. In addition, \$2.2 billion of debt transferred to Pharmacia in exchange for additional equity in Monsanto was partially offset by net obligations of approximately \$500 million assumed by Monsanto. Noncash transactions with Pharmacia included approximately \$180 million in 2001 and \$200 million in 2000. There were no noncash transactions with Pharmacia in 1999.

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CONSOLIDATED SHAREOWNERS' EQUITY

MONSANTO COMPANY

(Dollars in millions)	Common Stock	Additional Contributed Capital	Parent Company Net Investment	Retained Earnings	Accumulated Other Comprehensive Income (Loss) ⁽¹⁾	Reserve for ESOP Debt	Total
Balance as of Jan. 1, 1999	\$—	\$ —	\$ 4,149	\$ —	\$ (24)	\$ —	\$4,125
Net income	—	—	150	—	—	—	150
Net transactions with Pharmacia	—	—	627	—	—	—	627
Foreign currency translation	—	—	—	—	(250)	—	(250)
Net unrealized loss on investments	—	—	—	—	(7)	—	(7)
Balance as of Dec. 31, 1999	\$—	\$ —	\$ 4,926	\$ —	\$ (281)	\$ —	\$4,645
Net income through Aug. 31, 2000	—	—	124	—	—	—	124
Net transactions with Pharmacia ⁽²⁾	—	—	318	—	(104)	—	214
Capitalization of Monsanto from Pharmacia (1,000 shares) ⁽³⁾	2	5,366	(5,368)	—	—	—	—
Debt exchanged for additional Pharmacia capital contribution	—	1,765	—	—	(15)	(38)	1,712
Common stock issued on Oct. 23, 2000 (38,033,000 shares)	1	722	—	—	—	—	723
Grant of restricted stock (10,000 shares)	—	—	—	—	—	—	—
Net income from Sept. 1, 2000, through Dec. 31, 2000	—	—	—	25	—	—	25
Cash dividend of \$0.09 per common share	—	—	—	(23)	—	—	(23)
Foreign currency translation	—	—	—	—	(107)	—	(107)
Net unrealized gain on investments	—	—	—	—	27	—	27
Minimum pension liability	—	—	—	—	1	—	1
Balance as of Dec. 31, 2000	\$ 3	\$7,853	\$ —	\$ 2	\$ (479)	\$ (38)	\$7,341
Net income	—	—	—	295	—	—	295
Net transactions with Pharmacia ⁽⁴⁾	—	201	—	—	(13)	—	188
Grants of restricted stock (45,500 shares)	—	2	—	—	—	—	2
Cash dividends of \$0.48 per common share	—	—	—	(124)	—	—	(124)
Foreign currency translation	—	—	—	—	(197)	—	(197)
Net unrealized loss on investments	—	—	—	—	(24)	—	(24)
Accumulated derivative loss	—	—	—	—	(8)	—	(8)
Allocation of ESOP shares	—	—	—	—	—	5	5
Minimum pension liability	—	—	—	—	5	—	5
Balance as of Dec. 31, 2001	\$ 3	\$8,056	\$ —	\$ 173	\$ (716)	\$ (33)	\$7,483

(1) The components of accumulated other comprehensive income (loss) included: accumulated foreign currency translations of \$(714) million, \$(504) million and \$(293) million for 2001, 2000 and 1999, respectively; net unrealized gains on investments, net of taxes, of \$15 million, \$39 million and \$12 million for 2001, 2000 and 1999, respectively; net accumulated derivative loss, net of taxes, of \$(8) million for 2001; and minimum pension liability, net of taxes, of \$(9) million in 2001 and \$(14) million in 2000. There was no minimum pension liability directly attributable to Monsanto in 1999.

(2) Includes adjustments to reflect determination of the historical amounts of net assets related to accumulated foreign currency translation adjustments.

(3) In September 2000, Monsanto shares were split; Pharmacia received 219,999 shares for each share held. After the separation, Pharmacia held 220 million shares.

(4) Includes adjustments to reflect determination of deferred tax assets and accumulated foreign currency translation adjustments.

STATEMENT OF CONSOLIDATED COMPREHENSIVE INCOME (LOSS)

(Dollars in millions) Year Ended Dec. 31,	2001	2000	1999
Net Income	\$ 295	\$ 149	\$ 150
Other Comprehensive (Loss) Income:			
Foreign currency translation adjustments	(197)	(107)	(250)
Unrealized net holding gains (losses) (net of tax of \$(13) in 2001, \$15 in 2000 and \$(4) in 1999)	(20)	23	(7)
Reclassification adjustment for (gains) losses included in income (net of tax of \$(2) in 2001 and \$3 in 2000)	(4)	4	—
Accumulated derivative losses on cash-flow hedges not yet realized (net of tax of \$5)	(8)	—	—
Additional minimum pension liability adjustment (net of tax of \$3 in 2001 and \$1 in 2000)	5	1	—
Total Other Comprehensive Loss	(224)	(79)	(257)
Total Comprehensive Income (Loss)	\$ 71	\$ 70	\$ (107)

The accompanying notes are an integral part of these financial statements.



Background and Basis of Presentation

Monsanto Company and its subsidiaries (here referred to as Monsanto, Monsanto Company or the company) is a global provider of technology-based solutions and agricultural products for growers and downstream customers, such as grain processors, food companies and consumers, in agricultural markets. The company's herbicides, seeds, and related genetic trait products can be combined to provide growers with integrated solutions that help them produce higher-yield crops, while controlling weeds, insects and diseases more efficiently and cost effectively. Monsanto manages its business in two segments: Agricultural Productivity, and Seeds and Genomics. The Agricultural Productivity segment consists of the crop protection products, animal agriculture, residential lawn and garden products, and environmental technologies businesses. The Seeds and Genomics segment consists of the global seeds and related traits businesses, and genetic technology platforms.

Monsanto comprises the operations, assets, and liabilities that were previously the agricultural business of Pharmacia Corporation (Pharmacia). On Sept. 1, 2000, the assets and liabilities of the agricultural business were transferred from Pharmacia to Monsanto, pursuant to the terms of a separation agreement dated as of that date. The consolidated financial statements for all periods prior to Sept. 1, 2000, were prepared on a carve-out basis to reflect the historical operating results, assets, liabilities, and cash flows of the agricultural business operations.

Pharmacia provided and continues to provide certain general and administrative services to Monsanto, including finance, legal, treasury, information systems, public affairs, regulatory, and human resources. Although prior to Sept. 1, 2000, it was not practicable to determine what the cost of certain services would have been on a stand-alone basis, these costs were allocated to Monsanto based on methodologies that management believes to be reasonable, but which do not necessarily reflect what the results of operations, financial position, or cash flows would have been had Monsanto been a separate, stand-alone public entity before Sept. 1, 2000. Costs associated with finance, information systems and human resources were allocated based on the number of people in those functions assigned to support Monsanto, while public affairs, legal, and regulatory costs were driven by work effort and projects specific to the business. Treasury costs were allocated based on Monsanto's sales as a percentage of total sales.

As described in Notes 12, 13, 14 and 15 to the consolidated financial statements, Monsanto employees and retirees participate in various pension, health care, savings, and other benefit plans. The costs related to those plans attributable to Monsanto

included in the consolidated financial statements for the periods prior to Sept. 1, 2000, generally are based upon the percentage of Monsanto's payroll costs of total payroll costs. Subsequent to Sept. 1, 2000, Monsanto employees are covered by pension and stock-based compensation plans sponsored either by Monsanto or Pharmacia. Monsanto employees participate in health care and other benefit plans sponsored by Monsanto.

Beginning Sept. 1, 2000, the consolidated financial statements reflect the results of operations, financial position, and cash flows of the company as a separate entity responsible for procuring or providing the services previously provided by Pharmacia, and include the costs of services purchased from Pharmacia pursuant to a transition services agreement.

In October 2000, Monsanto sold 38,033,000 shares of its common stock at \$20 per share in an initial public offering (IPO). The total net proceeds to Monsanto were \$723 million. Subsequent to the offering, Pharmacia owned and continues to own 220 million shares of common stock, representing 85.2 percent ownership as of Dec. 31, 2001. Pharmacia has announced that its board of directors has authorized a plan to spin off its remaining interest in Monsanto. Under the plan, Pharmacia will distribute its entire ownership of Monsanto stock to Pharmacia shareowners by means of a tax-free dividend during the fourth quarter of 2002.

Unless otherwise indicated, "Monsanto" and "the company" are used interchangeably to refer to Monsanto Company or to Monsanto Company and consolidated subsidiaries, as appropriate to the context. With respect to periods prior to the separation of Monsanto's business from those of Pharmacia on Sept. 1, 2000, references to "Monsanto," "Monsanto Company" or "the company" also refer to the agricultural division of Pharmacia.



Significant Accounting Policies

Basis of Consolidation

The consolidated financial statements are presented in accordance with accounting principles generally accepted in the United States of America. The consolidated financial statements pertain to the company and its majority-owned subsidiaries. Intercompany accounts and transactions have been eliminated in consolidation. Investments in other companies over which Monsanto has the ability to exercise significant influence (generally through an ownership interest greater than 20 percent) are included in other assets in the Statement of Consolidated Financial Position. Monsanto's share of these companies' net earnings or losses is included in other expense — net in Monsanto's Statement of Consolidated Income.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make certain estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Estimates are adjusted to reflect actual experience when necessary. Significant estimates and assumptions are used to account for allowances for doubtful

accounts receivable, inventory obsolescence, sales returns and allowances, marketing program liabilities, restructuring reserves, self-insurance reserves, environmental reserves, employee benefit plan liabilities, income tax liabilities and assets and related valuation allowances, asset impairments, contingencies, and the allocation of corporate costs to segments. Significant estimates and assumptions are also used to establish useful lives of goodwill and other intangibles. Actual results may differ from those estimates and assumptions, which may affect income, financial position or cash flows.

Revenue Recognition

Revenues are recognized when title to finished-goods inventories is transferred and the goods are delivered to customers. Where the right of return exists, sales revenues are reduced at the time of sale to reflect expected returns, which are estimated based on historical experience and current market conditions. License revenues are recognized when the rights have been contractually conferred to the licensee or purchaser. In 2000, Monsanto adopted Staff Accounting Bulletin (SAB) No. 101, *Revenue Recognition in Financial Statements*, the Securities and Exchange Commission interpretation of accounting guidelines on revenue recognition. The adoption of SAB 101 primarily affected the company's recognition of license revenues from biotechnology traits sold through competitor seed companies. Monsanto restated license revenues in 2000, recognizing them when a grower purchases seed as compared with the previous practice of recognizing the license revenue when the third-party seed company sold the seed into the distribution system. SAB 101 required companies to report any change in revenue recognition related to adopting its provisions as an accounting change in accordance with Accounting Principles Board Opinion (APB) No. 20, *Accounting Changes*. Monsanto recognized the cumulative effect of a change in accounting principle as a loss of \$26 million, net of taxes of \$16 million, effective Jan. 1, 2000.

Starting with the 2002 selling season, which began in the third quarter of 2001, Monsanto changed its marketing approach on trait fees and eliminated the technology fee paid by growers who plant *YieldGard* insect-protected corn, *Roundup Ready* corn and *Roundup Ready* soybeans, and replaced it with a royalty paid by the seed companies licensed to market those products. This change resulted in trait revenues being recognized earlier — from the first half of 2002 to the second half of 2001, which had a \$0.34 positive effect on 2001 diluted earnings per share, or \$90 million on net income.

Additional conditions for recognition of revenue are that the collection of sales proceeds reasonably be assured based on historical experience and current market conditions, and that there be no further performance obligations under the sale or license agreement. For example, revenue is recognized when seed is sold to seed distributors, and appropriate allowances for returns and allowances for doubtful accounts are established based on historical trends and current market conditions. Interest income from providing customers extended financing terms is included in revenues as earned, generally based upon the passage of time, with appropriate reductions for amounts whose collection is considered doubtful.

During 2001, to reduce credit exposure in Latin America, the company began to collect payments on certain customer

accounts in grain. In accordance with Emerging Issues Task Force Issue 99-19, *Reporting Revenue Gross As a Principal and Net As an Agent*, the company recorded revenues of approximately \$65 million in the Seeds and Genomics segment during the year ended Dec. 31, 2001, for the sale of grain received as payment on account from customers. Such payments in grain, negotiated at the time the company's products were sold to the customers, were valued at the prevailing grain commodity prices on that day. By entering into forward sales contracts with grain merchants, the company hedged the commodity price exposure 100 percent for the full term until the grain was collected from the customer and was sold to a grain merchant. Revenue on sale of grain was virtually offset by cost of sales, with minimal contribution to gross profit.

Income Taxes

Monsanto's operating results historically have been included in the consolidated federal and state income tax returns filed by Pharmacia and its subsidiaries in various U.S. and ex-U.S. jurisdictions. Following completion of the IPO described in Note 1 — Background and Basis of Presentation — Monsanto will continue to be included in the Pharmacia consolidated group for all taxable periods during which Pharmacia beneficially owns at least 80 percent of the total voting power and value of Monsanto's common stock. The tax provisions reflected in Monsanto's Statement of Consolidated Income have been computed as if Monsanto were a separate taxpayer. Deferred tax assets and liabilities are recognized for the expected tax consequences of temporary differences between the tax bases of assets and liabilities and their reported amounts. Monsanto reduces deferred tax assets by valuation allowances if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized.

Marketing and Advertising Costs

Marketing and advertising costs are expensed as incurred. Marketing program accrued liabilities are based upon specific performance criteria achieved by distributors, dealers and farmers, such as purchase volumes, promptness of payment, and market share increases. The associated cost of marketing programs is recognized as a reduction of gross sales in the Statement of Consolidated Income. Advertising costs are included in selling, general and administrative expenses in the Statement of Consolidated Income.

Cash and Cash Equivalents

All highly liquid investments (investments with a maturity of three months or less at date of purchase) are considered cash equivalents. Beginning in 2001, cash equivalents include customer payments in transit as of the end of the reporting period.

Accounts Receivable

The company provides an allowance for doubtful accounts equal to the estimated uncollectible amounts. The company's estimate is based on historical collection experience, current economic and market conditions, and a review of the current status of each customer's trade accounts receivable.

Investments

Monsanto has investments in equity securities, all of which are considered to be available for sale. They are classified as other assets in the Statement of Consolidated Financial Position and are carried at fair value, with unrealized gains and losses reported in the Statement of Consolidated Shareowners' Equity in accumulated other comprehensive income (loss).

Fair Values of Financial Instruments

The recorded amounts of cash, trade receivables, investments in securities, miscellaneous receivables, third-party guarantees, commodity futures contracts, accounts payable, related-party receivables and payables, related-party loans/advances, and short-term debt approximate their fair values. Fair values are estimated by the use of quoted market prices, estimates obtained from brokers, and other appropriate valuation techniques based on information available at year-end. The fair value estimates do not necessarily reflect the values that could be realized in the current market on any one day. See Note 11 — Financial Instruments — for further details.

Inventory Valuation

Inventories are stated at the lower of cost or market. Actual cost is used to value raw materials and supplies. Standard cost, which approximates actual cost, is used to value finished goods and goods in process. Standard cost includes direct labor and raw materials, and manufacturing overhead based on practical capacity. The cost of certain inventories (approximately 32 percent as of Dec. 31, 2001) is determined by using the last-in, first-out (LIFO) method, which generally reflects the effects of inflation or deflation on cost of goods sold sooner than other inventory cost methods. The cost of other inventories generally is determined by the first-in, first-out (FIFO) method.

Inventories at FIFO approximate current cost.

Goodwill and Other Intangible Assets

Goodwill, the excess of cost over the fair value of net assets acquired, is amortized using the straight-line method over the asset's estimated useful life, not exceeding 40 years. Prior to Jan. 1, 2002, Monsanto periodically reviewed goodwill to evaluate whether changes had occurred that would suggest that goodwill had been impaired based on the estimated undiscounted cash flows of the assets acquired over the remaining amortization period. If this review indicated that the goodwill was not recoverable or that the remaining estimated useful life of goodwill required revision, the carrying amount of the goodwill was reduced by the estimated shortfall of cash flows on a discounted basis. Upon adoption of SFAS No. 142, *Goodwill and Other Intangible Assets*, on Jan. 1, 2002, goodwill is no longer amortized; rather, it will be tested for impairment at least annually and in conjunction with a transitional goodwill impairment test to be conducted in 2002. See Note 3 — New Accounting Standards — for further details.

Patents obtained in a business acquisition are recorded at the present value of estimated future cash flows resulting from patent ownership. The cost of patents is amortized over their remaining legal lives (or useful lives, if shorter), and the cost of other intangible assets is amortized over their estimated useful

lives. Other intangibles include seed germplasm, product rights, trademarks, and other intellectual property. Included in other intellectual property are intangible assets related to purchased research and development, which have alternative future uses. All intangibles are assessed for impairment whenever events indicate a possible loss. Such assessment involves a review of undiscounted cash flows over the remaining useful life of the intangible. If this review indicates that the remaining estimated useful life of the intangible requires revision, the carrying amount of the intangible is reduced by the estimated cash-flow shortfall on a discounted basis.

Property, Plant and Equipment

Property, plant and equipment is recorded at cost. Additions and improvements are capitalized, and include all material, labor and engineering costs to design, install or improve the asset. Interest costs are also capitalized on construction projects. These costs are carried in construction in progress until the asset is ready for its intended use, at which time the costs are transferred to land, buildings or machinery and equipment. Routine repairs and maintenance are expensed as incurred. The cost of plant and equipment is depreciated using the straight-line method over weighted-average periods of 18 years for buildings and 10 years for machinery and equipment. Long-lived assets are reviewed for impairment whenever conditions indicate a possible loss. Such impairment tests compare undiscounted cash flows to the recorded value of the asset. If an impairment is indicated, the asset is written down to its fair market value, or if fair market value is not readily determinable, to its discounted cash flows.

Environmental Remediation Liabilities

Monsanto follows Statement of Position 96-1, *Environmental Remediation Liabilities*, which provides guidance for recognizing, measuring and disclosing environmental remediation liabilities. Monsanto accrues these costs in the period that responsibility is established and when such costs are probable and reasonably estimable based on current law and existing technology. Post-closure and remediation costs for hazardous waste sites and other waste facilities at operating locations are accrued over the estimated life of the facility, as part of its anticipated closure cost.

Foreign Currency Translation

The financial statements for most of Monsanto's ex-U.S. operations are translated into U.S. dollars at current exchange rates. The year-end rate is used for assets and liabilities, and the average rate for the period for revenues, expenses, gains and losses. Unrealized currency adjustments in the Statement of Consolidated Financial Position are accumulated in equity as a component of accumulated other comprehensive income (loss). The financial statements of ex-U.S. operations in highly inflationary economies are translated at either current or historical exchange rates, in accordance with SFAS No. 52 *Foreign Currency Translation*. These currency adjustments are included in net income. As of Jan. 1, 2001, Monsanto identified Turkey, Russia, Romania, Ukraine, Colombia and Venezuela as hyperinflationary countries.

Significant translation exposures are the Brazilian real, the euro and the Canadian dollar. Other translation exposures

include the Polish zloty, the U.K. pound sterling, and the Australian dollar. For all periods presented, the company designated the functional currency in Argentina the U.S. dollar. In January 2002, Argentina formally abandoned the fixed exchange rate regime between the Argentine peso and the U.S. dollar, and devalued its peso by approximately 40 percent. Argentina simultaneously imposed various banking and exchange controls, and the government has added additional controls since that time. At this time, it is unclear what effect these controls may have on Monsanto's business in Argentina, including the designation of the U.S. dollar as the functional currency. Included in the 2001 net transaction loss was a loss of \$15 million, which represents the effect of this devaluation on Argentine peso-denominated transaction exposures (primarily value-added taxes and other taxes due to or recoverable by Monsanto). See Note 18 — Commitments and Contingencies — for further details on the Argentine devaluation. Other than possibly in Argentina, currency restrictions are not expected to have a significant effect on Monsanto's cash flow, liquidity, or capital resources.

Derivatives and Other Financial Instruments

Monsanto uses derivative financial instruments to limit its exposure that may arise from changes in commodity prices. Monsanto participates in a foreign-currency risk management program sponsored by Pharmacia. Monsanto does not use derivative financial instruments for trading purposes, nor does it engage in commodity or interest rate speculation. Monsanto monitors its underlying market risk exposures on an ongoing basis and believes that it can modify or adapt its hedging strategies as needed.

In accordance with SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, all derivatives, whether designated in hedging relationships or not, are recognized in the Statement of Consolidated Financial Position at their fair value. At the time a derivative contract is entered into, Monsanto designates the derivative as: (1) a hedge of the fair value of a recognized asset or liability (a fair-value hedge); (2) a hedge of a forecasted transaction or of the variability of cash flows that are to be received or paid in connection with a recognized asset or liability (a cash-flow hedge); (3) a foreign-currency fair-value or cash-flow hedge (a foreign-currency hedge); (4) a foreign-currency hedge of the net investment in a foreign subsidiary; or (5) a derivative that does not qualify for hedge accounting treatment.

Changes in the fair value of a derivative that is highly effective as, and that is designated and qualifies as a fair-value hedge, along with changes in the fair value of the hedged asset or liability that are attributable to the hedged risk, are recorded currently in earnings. Changes in the fair value of a derivative that is highly effective as, and that is designated and qualifies as a cash-flow hedge, to the extent that the hedge is effective, are recorded in accumulated other comprehensive income (loss), until earnings are affected by the variability from cash flows of the hedged item. Any hedge ineffectiveness is included in current-period earnings. Changes in the fair value of a derivative that is highly effective as, and that is designated and qualifies as a foreign-currency hedge are recorded in either current-period earnings or accumulated other comprehensive income (loss), depending on whether the hedging relationship satisfies the criteria for a fair-value or cash-flow hedge. Changes in the fair value of a

derivative that is highly effective as, and that is designated as a foreign-currency hedge of the net investment in a foreign subsidiary are recorded in the accumulated foreign currency translation. Changes in the fair value of derivative instruments not designated as hedges are reported currently in earnings.

Monsanto formally documents all relationships between hedging instruments and hedged items, as well as its risk management objective and its strategy for undertaking various hedge transactions. This process includes linking all derivatives that are designated as fair-value, cash-flow, or foreign-currency hedges either to specific assets and liabilities on the balance sheet, or to firm commitments or forecasted transactions. Monsanto formally assesses a hedge at its inception and on an ongoing basis to determine whether the hedge relationship between the derivative and the hedged item is highly effective, and whether it is expected to remain highly effective in future periods, in offsetting changes in fair value or cash flows. When derivatives cease to be highly effective hedges, Monsanto discontinues hedge accounting prospectively.

Interest rate swap agreements are used to reduce interest rate risks and to manage interest exposure. By entering into these agreements, the company changes the interest rate mix (fixed/variable) of its debt portfolio. In 2001, the company also used natural gas swaps to manage energy input costs. Gains and losses were recorded in cost of goods sold and were immaterial to the consolidated financial statements. There were no open natural gas swaps as of Dec. 31, 2001.

Reclassifications

Certain prior-year amounts have been reclassified to conform with the current-year presentation.



New Accounting Standards

In June 2001, the Financial Accounting Standards Board (FASB) simultaneously approved SFAS No. 141, *Business Combinations*, and SFAS No. 142, *Goodwill and Other Intangible Assets*. SFAS No. 141 requires that the purchase method of accounting be used for all business combinations initiated after June 30, 2001, thereby eliminating the pooling-of-interests method. The *Business Combinations* statement also provides broader criteria for identifying which types of acquired intangible assets must be recognized separately from goodwill and those which must be included in goodwill. Monsanto adopted the provisions of SFAS No. 141 on Jan. 1, 2002, with the exception of the immediate requirement to use the purchase method of accounting for all business combinations initiated after June 30, 2001. SFAS No. 141 also requires the company to evaluate its existing goodwill and other intangible assets and to make any reclassifications necessary to conform with the new separation requirements at the date of adoption.

SFAS No. 142 changes the accounting for goodwill from an amortization method to an impairment-only method. Under SFAS No. 142, all goodwill amortization ceased effective Jan. 1, 2002. Goodwill will now be tested for impairment in conjunction with a transitional goodwill impairment test to be performed in 2002 and at least annually thereafter. Under the new rules, Monsanto's

recorded goodwill will be tested for impairment at a level of reporting referred to as reporting units, which are components of the Agricultural Productivity, and Seeds and Genomics reporting segments.

Monsanto has completed the first step of the transitional goodwill impairment test, which compares the fair value of a reporting unit with its net book value, including goodwill. The fair values of each reporting unit were determined using a discounted cash flow methodology. In connection with the first step of the impairment test, the company identified two reporting units that may be impaired. Any resulting impairment charge will be specific to the corn and wheat reporting units, relating to goodwill that resulted primarily from the 1998 acquisitions of DEKALB Genetics Corporation (DEKALB Genetics) and Plant Breeding International Cambridge Limited, respectively. Unanticipated delays in biotechnology acceptance and regulatory approvals, and a change in valuation method required by SFAS No. 142 (from an undiscounted cash flow methodology to a discounted cash flow methodology) are the primary factors leading to the indication of impairment. The second step of the transitional goodwill impairment test, which will determine the actual impairment charge, if any, is expected to be completed in the first half of 2002. As required by SFAS No. 142, any transitional impairment charge will be recorded as an accounting change in accordance with APB No. 20, effective Jan. 1, 2002. Any such impairment charge will have no effect on our liquidity or cash flow.

Upon adoption of SFAS No. 142, the useful lives, residual values, and classification of all identifiable and recognized intangible assets were reassessed, and any necessary prospective amortization period adjustments were made Jan. 1, 2002. SFAS No. 142 requires recognized intangible assets with definite useful lives to be amortized over their estimated lives and reviewed for impairment in accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. The absence of goodwill amortization and the net effects of changes to intangible asset classifications and useful lives are expected to affect 2002 diluted earnings per share positively by approximately \$0.35 per share to \$0.38 per share.

In July 2001, the FASB issued SFAS No. 143, *Accounting for Asset Retirement Obligations*. SFAS No. 143 addresses financial accounting for and reporting of costs and obligations associated with the retirement of tangible long-lived assets. This statement will become effective for Monsanto on Jan. 1, 2003. Monsanto has not yet determined the effect adoption of this standard will have on its consolidated financial position or its results of operations.

In August 2001, the FASB issued SFAS No. 144, which replaces SFAS No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of*. SFAS No. 144, which was effective for Monsanto on Jan. 1, 2002, establishes an accounting model for long-lived assets to be disposed of by sale. It applies to all long-lived assets and discontinued operations. The adoption of SFAS No. 144 is not expected to have a material effect on our consolidated financial position or results of operations.



Principal Acquisitions, Mergers and Divestitures

On Dec. 29, 1999, Monsanto completed the sale of Stoneville Pedigreed Seed Company. Proceeds were \$92 million, which resulted in a pretax gain of \$35 million.

On Dec. 20, 1999, Monsanto withdrew its filing for U.S. antitrust clearance of its proposed merger with Delta and Pine Land Company (Delta and Pine Land) in light of the U.S. Department of Justice's unwillingness to approve the transaction on commercially reasonable terms. On Jan. 3, 2000, Monsanto paid Delta and Pine Land \$80 million in cash, equal to the amount of a termination fee set forth in the merger agreement, plus expense reimbursement of \$1 million. In addition, Monsanto incurred \$4 million of other expenses in 1999 related to the failed merger with Delta and Pine Land, which resulted in a total charge of \$85 million.



Special Items

Special items include restructuring and other special items, and litigation matters:

Special Items for 2000 and 2001

2000 Restructuring Plan: In 2000, Monsanto's management formulated a plan as part of the company's overall strategy to focus on certain key crops and to streamline operations. Restructuring and other special items, primarily associated with the implementation of this plan, were recorded in 2000 and 2001. These charges totaled \$474 million pretax (\$334 million aftertax), with \$261 million (\$197 million aftertax) recorded in 2000 and \$213 million (\$137 million aftertax) recorded in 2001. These net charges were recorded in the Statement of Consolidated Income as follows:

Dollars in millions	2001	2000
Cost of Goods Sold	\$ (82)	\$ (60)
Amortization and Adjustments of Goodwill	(2)	(88)
Selling, General and Administrative Expenses	(1)	—
Restructuring Charges — Net ⁽¹⁾	(122)	(103)
Other Expense — Net	(6)	(10)
Income (Loss) Before Income Taxes	(213)	(261)
Income Tax Benefit	76	64
Net Income (Loss)	\$ (137)	\$ (197)

(1) Net of reversals of \$8 million and \$4 million, respectively.

The initiatives related to the 2001 net charges primarily related to the streamlining of manufacturing operations, the discontinuation of certain seed hybrids, the elimination of noncore activities, and the exit of certain research programs. This plan also involved the closure and downsizing of certain agricultural chemical manufacturing facilities to eliminate duplicate manufacturing capacity to formulate and package herbicides. Due to geographical location and cost considerations, improved technologies were installed at other Monsanto manufacturing sites. These sites, by incorporating technological advancements,

have been able to increase their production capacity to meet current and expected future demand for *Roundup* herbicide and other herbicides.

The pretax charge of \$213 million was partially offset by the reversal of \$8 million of restructuring liabilities recorded during 2000 and 2001, primarily because severance expenses were lower than originally estimated.

The 2000 charges were associated with the elimination of certain food and biotechnology research programs, including laureate oil and certain wheat programs. The plan also encompassed the realignment of commercial and administrative operations in Western Europe and in the Commonwealth of Independent States. These charges were partially offset by the reversal of \$4 million of the 1998 restructuring liability, primarily because severance expenses were lower than originally estimated.

The pretax components of these net charges were as follows:

Dollars in millions	2001	2000
Work Force Reductions	\$ 50	\$ 61
Facility Closures/Exit Costs	49	9
Asset Impairments:		
Trade receivables	—	12
Inventories	45	60
Other current assets	6	—
Property, plant and equipment	57	22
Goodwill	2	88
Other intangible assets	3	3
Other assets	3	—
Reversal of Restructuring Reserves	(8)	(4)
Other	6	10
Total Pretax Charge	\$213	\$261

The work force reduction charges in 2001 and 2000 included involuntary separation costs for approximately 1,500 employees worldwide (805 in 2001 and 695 in 2000), including positions in administration, research and development, and manufacturing. The affected employees are entitled to receive severance benefits pursuant to established company severance policies or government labor regulations. As of Dec. 31, 2000, 460 of the planned employee terminations were completed; 358 of these employees received cash severance payments totaling \$28 million during 2000, and 102 employees elected deferred payments of \$9 million, which were paid during the first quarter of 2001. Planned employee terminations were completed for 526 employees during 2001, including 27 employees who elected deferred payments of \$3 million, which will be paid during the first quarter of 2002. The work force reduction payments for the remaining 514 employees will be completed by the end of 2002.

Facility closures and other exit costs in 2000 included contract termination costs (\$5 million), equipment dismantling and disposal costs (\$2 million), and other shutdown costs (\$2 million). Facility closures and other exit costs in 2001 included contract termination costs (\$28 million), property, plant and equipment dismantling and disposal costs (\$18 million), and other shutdown costs (\$3 million). The inventory write-offs in 2000 related to laureate oil, seed and other inventories. The inventory write-offs in 2001 related to discontinued seed hybrids (\$31 million), unused raw materials on closed agricultural chemical manufacturing facilities (\$6 million), and other inventories, including certain discontinued agricultural chemical products (\$8 million).

Inventory write-offs for both years, as well as \$37 million in property, plant and equipment impairments in 2001 were recorded in cost of goods sold. The remaining \$20 million in property, plant and equipment impairments in 2001 were recorded in restructuring charges — net, and related to the consolidation of agricultural chemical distribution sites and various corporate assets. The intangible asset impairment in 2000 included a \$79 million goodwill impairment associated with the decision to terminate certain nutrition programs. The company expects these asset dispositions and other exit activities to be completed by Dec. 31, 2002. The remaining restructuring actions will be funded from operations; these actions are not expected to significantly affect the company's liquidity.

Also included in these charges were special items. In 2001, a total charge of \$6 million was recorded in other expense — net, to reflect the impairment of equity investments caused by adverse business developments of the investees. In 2000, other special items of \$10 million consisted of \$3 million for costs associated with a failed joint venture and \$7 million for the recognition of an impairment of a marketable equity security that was classified as available for sale.

Activities related to restructuring and other special items recorded in 2000 and 2001 were as follows:

Dollars in millions	Work Force Reductions	Facility Closures	Asset Impairments	Other	Total
Jan. 1, 2000, Reserve Balance	\$ —	\$ —	\$ —	\$ —	\$ —
Additions	61	9	185	10	265
Costs Charged Against Reserves	(28)	(3)	—	—	(31)
Reclassification of Reserves to Other Balance Sheet Accounts:					
Trade receivables	—	—	(12)	—	(12)
Inventories	—	—	(60)	—	(60)
Property, plant and equipment	—	—	(22)	—	(22)
Goodwill	—	—	(88)	—	(88)
Other intangible assets	—	—	(3)	—	(3)
Other assets	—	—	—	(1)	(1)
Miscellaneous accruals	(3)	—	—	—	(3)
Accumulated other comprehensive loss	—	—	—	(7)	(7)
Dec. 31, 2000, Reserve Balance	\$ 30	\$ 6	\$ —	\$ 2	\$ 38
Additions	50	49	116	6	221
Costs Charged Against Reserves	(37)	(21)	—	(2)	(60)
Reversal of Reserves Related to 2000 Plan	(8)	—	—	—	(8)
Reclassification of Reserves to Other Balance Sheet Accounts:					
Inventories	—	—	(45)	—	(45)
Other current assets	—	—	(6)	—	(6)
Property, plant and equipment	—	—	(57)	—	(57)
Goodwill	—	—	(2)	—	(2)
Other intangible assets	—	—	(3)	—	(3)
Other assets	—	—	(3)	(6)	(9)
Dec. 31, 2001, Reserve Balance	\$ 35	\$ 34	\$ —	\$ —	\$ 69

During 2000, costs charged against prior established reserves were \$21 million, primarily for work force reductions. These charges were partially offset by the reversal of \$4 million of the 1998 restructuring liability, primarily because severance costs were lower than originally estimated. All restructuring plans established prior to 2000 are substantially complete.

Litigation Matters: The company recorded pretax charges of \$82 million (\$53 million aftertax) and a pretax gain of \$22 million (\$14 million aftertax) in 2001 related to litigation matters. The net charge was recorded in other expense — net in the Statement of Consolidated Income.

In November 2001, a federal appeals court upheld a 1999 judgment against DEKALB Genetics (which is now a wholly owned subsidiary of Monsanto) in a licensing dispute brought by Aventis CropScience S.A. As a result, a reserve of \$50 million for punitive damages was recorded in other expense in 2001. The reserve is included in miscellaneous short-term accruals in the Statement of Consolidated Financial Position. See Note 18 — Commitments and Contingencies — for further details.

In January 2002, Monsanto and Central Garden and Pet (Central Garden) announced settlement of all litigation related to Central Garden's distributorship of lawn and garden products for the former Monsanto during the 1990s. The resolution includes the dismissal of three lawsuits. Monsanto is dismissing a lawsuit relating to the payment of receivables due from Central Garden, and Central Garden is also dismissing two other lawsuits. Under the settlement agreement, Central Garden will pay Monsanto \$5.5 million for products shipped to Central Garden under the distribution agreement. These products related primarily to the Ortho lawn and garden business, which the former Monsanto divested in 1999. Central Garden's Pennington subsidiary also agreed to purchase \$2 million of Monsanto's glyphosate material during the next 30 months under an existing supply agreement with Monsanto. As a result of the settlement of the receivables lawsuit, the company recorded a net pretax charge of \$32 million in other expense in 2001.

In October 2001, Monsanto and E.I. du Pont de Nemours & Co. (DuPont) announced the resolution of issues related to Monsanto's MON810 *YieldGard* insect-protected corn trait used in corn hybrids sold by Pioneer Hi-Bred International Inc. (Pioneer). The resolution includes the dismissal of several lawsuits regarding the development, licensing and sale of MON810 *YieldGard* products. Under this agreement, Pioneer, a DuPont subsidiary, will continue to sell MON810 *YieldGard* insect-protected corn hybrids under a royalty-bearing license from Monsanto. In addition, Monsanto received a one-time fee of approximately \$56 million. The major components of this fee relate to Pioneer's past use of Monsanto's MON810 *YieldGard* product and royalties related to Pioneer's sales of MON810 *YieldGard* products during 2001. The portion of the fee related to Pioneer's past use of the product and settlement of other issues (\$22 million) was recorded as other income; the royalties related to MON810 *YieldGard* products sold during 2001 were recorded as trait revenues.

Special Items for 1999

In 1999, Monsanto recorded a net pretax charge for restructuring and other special items of \$101 million (\$81 million aftertax), which resulted from the failed merger between Monsanto and Delta and Pine Land, and for costs associated with the accelerated integration of agricultural chemical and seed operations. These charges were net of the reversal of restructuring liabilities established in 1998 and the gain on the sale of Stoneville Pedigreed Seed Company. The 1999 net special items were recorded in the Statement of Consolidated Income in the following categories:

Dollars in millions	
Cost of Goods Sold	\$ (20)
Amortization and Adjustments of Goodwill	(8)
Restructuring Charges — Net ⁽¹⁾	(22)
Other Expense — Net	(51)
Income (Loss) Before Income Taxes	(101)
Income Tax Benefit	20
Net Income (Loss)	\$ (81)

(1) Net of reversals of \$11 million.

During 1999, Monsanto recorded in other expense — net a one-time pretax charge of \$85 million equal to the amount of a termination fee and other expenses associated with the failed merger between Monsanto and Delta and Pine Land. Monsanto also recorded a pretax charge of \$61 million, principally for improving operating efficiency through accelerated integration of its agricultural and seed operations (the accelerated integration plan). The charge of \$61 million included facility shutdown charges of \$39 million, work force reduction costs of \$12 million, and asset impairments of \$10 million, and was recorded in the Statement of Consolidated Income as cost of goods sold of \$20 million, amortization of intangible assets of \$8 million, and restructuring expense of \$33 million.

The facility shutdown charges included \$14 million for contractual research and other commitments, \$9 million for intangible assets, \$8 million for inventories, \$6 million for leasehold termination costs, and \$2 million for property, plant and equipment write-offs. The work force reduction charge reflected involuntary employee separation costs for 305 employees worldwide, including positions in administration and in research and development. Offsetting the restructuring and special items in 1999 was a pretax gain of \$11 million from the reversal of restructuring reserves established in 1998. These restructuring reversals were required principally because severance and facility shutdown costs were lower than originally estimated. In addition, Monsanto recognized a pretax gain of \$35 million for the sale of Stoneville Pedigreed Seed Company and miscellaneous other expense of \$1 million, which was recorded in other expense — net.

The accelerated integration plan was completed in 2000. Cash payments to complete the plan were funded from operations; these payments did not significantly affect Monsanto's liquidity.



Trade Accounts Receivable

The following table displays a roll-forward of the allowance for doubtful trade accounts receivable for the three years ended Dec. 31, 2001:

Dollars in millions	
Balance Jan. 1, 1999	\$ 83
Additions — charged to expense	70
— acquisitions and adjustments	9
Deductions	(11)
Balance Dec. 31, 1999	151
Additions — charged to expense	58
Deductions	(38)
Balance Dec. 31, 2000	171
Additions — charged to expense	42
Deductions	(36)
Balance Dec. 31, 2001	\$177



Inventories

Components of inventories were:

Dollars in millions	2001	2000
Finished Goods	\$ 700	\$ 753
Goods In Process	357	267
Raw Materials and Supplies	329	259
Inventories at FIFO Cost	1,386	1,279
Excess of FIFO Over LIFO Cost	(29)	(26)
Total	\$1,357	\$1,253

Commodity futures and options contracts are used to hedge the price volatility of certain commodities, primarily soybeans and corn. This hedging activity is intended to manage the price paid to production growers for corn and soybean seeds. The excess of FIFO over LIFO cost increased \$3 million, primarily because of increased prices, negatively affecting 2001 net income.



Investments

Dollars in millions	Cost	Gross Unrealized Gains	Gross Unrealized (Losses)	Fair Value
Long-Term Investments:				
Dec. 31, 2001, Equity Securities				
Available for Sale	\$37	\$27	\$(3)	\$61
Dec. 31, 2000, Equity Securities				
Available for Sale	33	67	(4)	96

The total of unrealized gains and losses (net of deferred taxes) included in shareowners' equity amounted to \$15 million as of Dec. 31, 2001, and \$39 million as of Dec. 31, 2000. In 2001, proceeds from sales of equity securities were \$10 million, and realized gains of \$5 million, net of \$3 million tax expense, were determined using the specific identification method and were included in net income in 2001. Realized losses of \$1 million, net of \$1 million tax benefit, and \$4 million, net of a \$3 million tax benefit, were determined using the specific identification method, and were included in net income in 2001 and 2000, respectively.



Income Taxes

The components of income (loss) before income taxes, extraordinary item, and cumulative effect of accounting change were:

Dollars in millions	2001	2000	1999
United States	\$ 635	\$333	\$198
Outside United States	(172)	1	65
Total	\$ 463	\$334	\$263

The components of income tax provision (benefit) were:

Dollars in millions	2001	2000	1999
Current:			
U.S. federal	\$ 189	\$ (9)	\$ 14
U.S. state	17	2	4
Outside United States	(8)	26	53
Total Current	198	19	71
Deferred:			
U.S. federal	24	158	74
U.S. state	(2)	10	7
Outside United States	(54)	(28)	(39)
Total Deferred	(32)	140	42
Total	\$ 166	\$159	\$113

Factors causing Monsanto's effective tax rate to differ from the U.S. federal statutory rate were:

	2001	2000	1999
U.S. Federal Statutory Rate	35%	35%	35%
U.S. Export Earnings	(6)	(3)	(8)
U.S. R&D Tax Credit	(1)	(4)	(2)
Higher (Lower) Ex-U.S. Rates	3	1	(3)
Nondeductible Goodwill	5	17	17
Valuation Allowances	(3)	(2)	—
State Income Taxes	2	2	3
Other	1	2	1
Effective Tax Rate	36%	48%	43%

Deferred income tax balances were related to:

Dollars in millions	2001	2000
Employee Fringe Benefits	\$162	\$ 20
Allowance for Doubtful Accounts	66	50
Net Operating Loss and Tax Credit Carryforwards	133	147
Inventories	70	75
Intangible Assets	35	74
Other	148	129
Valuation Allowance	(63)	(69)
Total Deferred Tax Assets	\$551	\$426
Property, Plant and Equipment	\$270	\$234
Other	12	47
Total Deferred Tax Liabilities	\$282	\$281
Net Deferred Tax Assets	\$269	\$145

As of Dec. 31, 2001, Monsanto had available approximately \$405 million in net operating loss carryforwards outside the United States, the majority of which relate to Brazilian operations and do not expire. Monsanto has recorded a valuation allowance totaling \$63 million against the Brazilian tax loss carryforwards, a decrease of \$6 million in 2001. This decrease is the result of the company's analysis of the likelihood of realizing the future tax benefit of the loss carryforwards. Realization of the net deferred tax asset is dependent on profitable operations. Although realization is not assured, Monsanto management believes that it is more likely than not that this net asset will be realized through the generation of future taxable income. The amount of the net deferred tax asset considered realizable, however, could be adjusted in the future if the expectation of taxable income changes.

Income taxes and remittance taxes have not been recorded on \$365 million of undistributed earnings of foreign operations of Monsanto, either because any taxes on dividends would be substantially offset by foreign tax credits, or because Monsanto intends to reinvest those earnings indefinitely. It is not practicable to estimate the income tax liability that might be incurred if such earnings were remitted to the United States.

Monsanto's current and deferred tax amounts are presented as if Monsanto had been a separate company for the years 2001, 2000 and 1999. Monsanto did not make any cash payments for taxes for the periods through Aug. 31, 2000, because Monsanto's operating results were included in Pharmacia's consolidated federal and state income tax returns for those periods. Effective Sept. 1, 2000, Monsanto and Pharmacia entered into a tax-sharing agreement. To the extent that Monsanto's results are included in any Pharmacia income tax return, Monsanto, in general, is obligated to pay Pharmacia the amount of taxes that would be due as if Monsanto had filed its own tax returns. As of Dec. 31, 2001, Monsanto had \$9 million due from Pharmacia and as of Dec. 31, 2000, Monsanto owed \$12 million to Pharmacia, related to income taxes payable.

With the completion of the 2000 income tax returns, an adjustment was made in 2001 to correct the deferred tax balances that were estimated on Sept. 1, 2000, when the assets and liabilities of the agricultural business were transferred from Pharmacia to Monsanto. The offset to this net increase in deferred tax assets

was reflected as an adjustment to additional contributed capital in the Statement of Consolidated Shareowners' Equity. The net deferred tax assets as of Dec. 31, 2001, represent the estimated future tax benefits to be received from the taxing authorities.



Debt and Other Credit Arrangements

Monsanto's committed borrowing facilities amounting to \$1.5 billion were unused as of Dec. 31, 2001. Expiration periods occur as follows: \$1.0 billion in August 2002, and \$500 million in 2005. The facilities exist largely to support commercial paper borrowings. Covenants under these credit facilities restrict maximum borrowings. There are no related compensating balances, but the facilities are subject to various fees. The company had aggregate short-term loan facilities of \$338 million with unrelated parties, under which loans totaling \$39 million were outstanding as of Dec. 31, 2001.

Short-Term Debt

Dollars in millions	2001	2000
Commercial Paper	\$320	\$ 50
Current Maturities of Long-Term Debt	95	58
Notes Payable to Banks	39	22
Bank Overdrafts	109	22
Current Maturities of ESOP Guaranteed Debt	—	6
Subtotal	563	158
Related-Party Short-Term Loans Payable		
— Pharmacia (see Note 22 — Related-Party Transactions)	254	635
Total Short-Term Debt	\$817	\$793

Long-Term Debt

Dollars in millions	2001	2000
Commercial Paper	\$500	\$500
Medium-Term Notes at 12.9%, Due 2003 ⁽¹⁾	336	424
Variable Rate Medium-Term Notes, Due 2006 ⁽²⁾	57	—
Noncurrent Maturities of ESOP Guaranteed Debt	—	38
Total Long-Term Debt	\$893	\$962

(1) In connection with this debt, the company entered into certain interest rate hedging contracts, which effectively exchange the fixed interest rate to variable interest at a rate of the six-month London Interbank Offered Rate (LIBOR) less a weighted-average spread of 1.169 percent.

(2) The interest rate for borrowings under these agreements is the Brazil Development Bank (BNDES) funding interest rate, as adjusted quarterly, plus a 4 percent spread, and the long-term interest rate (TJLP), as set quarterly by the Central Bank of Brazil, plus a 3 percent spread.

Annual aggregate maturities of medium-term notes are \$351 million in 2003, \$16 million in 2004, \$16 million in 2005, and \$10 million in 2006. The commercial paper balance of \$500 million as of Dec. 31, 2001, was classified as long-term debt because Monsanto has the ability and intent to renew these obligations beyond 2002. Per the terms of the agreement with the lender, a decline in LIBOR rates in December 2001 caused \$35 million of the medium-term notes due in 2003 to be payable in 2002. During 2001, in connection with the restructuring of

the Employee Stock Ownership Plan (ESOP), the guaranteed ESOP debt that had been attributed to the company was retired and Monsanto loaned \$42.7 million to the new Monsanto ESOP. To the extent necessary, the company financed the new loan to the ESOP with commercial paper. See Note 14 — Employee Savings Plans — for further details on the early retirement of the ESOP debt.

The information regarding interest expense and weighted-average interest rates below reflects Monsanto's interest expense, interest expense on debt, or interest amounts specifically attributable to Monsanto in 2001, 2000 and 1999:

Dollars in millions	2001	2000	1999
Interest Cost Incurred	\$129	\$251	\$292
Less: Capitalized on Construction	(30)	(37)	(23)
Interest Expense	\$ 99	\$214	\$269

Weighted average interest rate on short-term borrowings (excluding related-party borrowings) at end of period	3.2%	7.7%	12.8%
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Financial Instruments

The notional amounts, carrying amounts, and estimated fair values of the company's financial instruments were as follows as of Dec. 31:

Dollars in millions	2001			2000		
	Notional Amount	Carrying Amount	Fair Value	Notional Amount	Carrying Amount	Fair Value
Financial Assets:						
Forward-currency exchange contracts:						
Contracts purchased	\$469	\$ (6)	\$ (6)	\$350	\$ 16	\$ 16
Contracts sold	110	(1)	(1)	449	(13)	(13)
Commodity futures:						
Futures purchased	146	(11)	(11)	126	3	3
Futures sold	—	—	—	8	—	—
Financial Liabilities:						
Short-term debt	—	817	817	—	787	787
Long-term debt	—	893	893	—	924	924
Guaranteed ESOP debt	—	—	—	—	44	45

The forward-currency exchange contracts generally have maturities of less than 12 months and require Monsanto to exchange currencies at agreed-upon rates at maturity. Pharmacia is the counterparty for most of the company's foreign-currency exchange contracts. The company does not expect any losses from credit exposure related to these instruments. Prior to Sept. 1, 2000, the date of the separation of Monsanto's businesses from those of Pharmacia, Monsanto's foreign-currency risk was managed by Pharmacia jointly with the foreign-currency risks of other Pharmacia businesses, and it was not practicable to determine foreign currency amounts and risks specifically attributable to Monsanto.

Monsanto's business and activities expose it to a variety of market risks, including risks related to the effects of changes in commodity prices, foreign-currency exchange rates, interest rates, and to a lesser degree security prices. These financial exposures

are monitored and managed by the company as an integral part of its market risk management program. This program focuses on the unpredictability of financial markets and seeks to reduce the potentially adverse effects that volatility in these markets could have on operating results. Monsanto's overall objectives for holding derivatives are to minimize the risks using the most effective methods to eliminate or reduce the effects of these exposures.

Monsanto's commodity price risk management strategy uses derivative instruments to minimize significant, unanticipated earnings fluctuations that may arise from volatility in commodity prices. Price fluctuations in commodities, mainly corn and soybeans, can cause the actual prices paid to production growers for corn and soybean seeds to differ from anticipated cash outlays. Monsanto uses commodity futures and options contracts to manage these risks. The company also uses commodity futures and option contracts to manage the value of its corn and soybean inventories.

The company's market risk management strategy uses derivative instruments to protect fair values and cash flows from fluctuations that may arise from volatility in currency exchange rates and commodity prices. This volatility affects cross-border transactions that involve sales and inventory purchases denominated in foreign currencies. The company is exposed to this risk both on an intercompany basis and a third-party basis. Additionally, the company is exposed to foreign-currency exchange risks for recognized assets and liabilities, royalties, and net investments in subsidiaries that are denominated in currencies other than its functional currency. The company uses forward-currency exchange contracts, swaps and options to manage these risks.

Monsanto's interest rate risk management strategy uses derivative instruments to minimize significant, unanticipated earnings fluctuations that may arise from volatility in interest rates of the company's borrowings. The company's specific goals are to manage interest rate sensitivity of debt and, where possible, to lower the cost of its borrowed funds.

By using derivative financial instruments to manage exposures to changes in commodity prices, exchange rates, and interest rates, the company exposes itself to the risk that the counterparty might fail to perform its obligations under the terms of the derivative contract. Monsanto minimizes this risk in derivative instruments by entering into transactions with high-quality counterparties and by limiting the amount of exposure to each.

Foreign-Currency Hedges

Monsanto is exposed to currency exchange rate fluctuations related to certain intercompany and third-party transactions. The company sometimes purchases foreign-exchange options and forward-exchange contracts as hedges against anticipated sales and/or purchases denominated in foreign currencies. The company enters into these contracts to protect itself against the risk that the eventual dollar-net-cash flows will be adversely affected by changes in exchange rates. The company purchases foreign-currency exchange contracts to hedge the adverse effects that fluctuations in exchange rates may have on foreign-currency-denominated third-party and intercompany receivables and payables. Financial instruments are neither held nor issued by the company for trading purposes.

The company hedges a portion of its net investment in Brazilian subsidiaries, and recorded a loss of \$11 million to accumulated foreign currency translation in 2001.

Foreign currencies in which Monsanto has significant hedged exposures are the Canadian dollar, Brazilian real, euro, Polish zloty, and Philippine peso. The aggregate net transaction loss, net of related hedging gains and losses, included in net earnings for the year ended Dec. 31, 2001, was \$30 million.

Fair-Value Hedges

Monsanto uses futures and option contracts to manage the value of the corn and soybean seed inventories that it buys from growers. Generally, the company hedges from 70 percent to 100 percent of the corn and soybean inventory value, depending upon the crop and grower pricing.

Interest rate swap agreements are used to reduce interest rate risks and to manage interest exposure. Monsanto uses interest rate swaps to convert its fixed-rate debt to variable-rate debt. The resulting cost of funds may be lower or higher than it would have been if variable-rate debt had been issued directly. Under the interest rate swap contracts, the company agrees with other parties to exchange, at specified intervals, the difference between fixed-rate and floating-rate interest amounts, which is calculated based on an agreed-upon notional amount.

The difference between the carrying value and the fair value of hedged items classified as fair-value hedges was offset by the change in fair value of the related derivatives. Accordingly, hedge ineffectiveness for fair-value hedges, determined in accordance with SFAS No. 133, had no effect on earnings in 2001. No fair-value hedges were discontinued during 2001.

Cash-Flow Hedges

The company enters into contracts with a number of its seed growers to purchase their output at the market prices in effect when the individual growers elect to fix their contract prices. As a hedge against possible commodity price fluctuations, the company purchases futures and options contracts for corn and soybeans. The futures contracts hedge the commodity price paid for these commodity purchases while the options contracts limit the unfavorable effect that price changes could have on these purchases.

During 2001, Monsanto recognized a net loss of \$3 million in cost of goods sold, which represented the ineffectiveness of all cash-flow hedges. These amounts represent the portion of the derivatives' fair value that is excluded from the assessment of hedge effectiveness. No cash-flow hedges were discontinued during 2001.

As of Dec. 31, 2001, \$8 million of aftertax deferred net losses on derivative instruments accumulated in other comprehensive income (loss) are expected to be reclassified to earnings during the next 12 months. The actual sales of the inventory, which are expected to occur over the next 12 months, will necessitate the reclassification of the derivative losses into earnings. The maximum term over which the company is hedging exposures to the variability of cash flow (for all forecasted transactions, excluding interest payments on variable-rate debt) is 18 months.

As of Dec. 31, 2001, the company had futures contracts with notional amounts of \$114 million and \$32 million for soybeans and corn, respectively. As of Dec. 31, 2000, the company had futures contracts with notional amounts of \$95 million, \$31 million and \$(8) million for soybeans, corn and lean hogs, respectively.

Credit Risk Management

Monsanto invests its excess cash in deposits with major banks throughout the world and in high-quality, short-term debt instruments. Such investments are made only in instruments issued or enhanced by high-quality institutions. As of Dec. 31, 2001, the company had no financial instruments that represented a significant concentration of credit risk. The amount invested in any single institution is limited to minimize risk. The company has not incurred any credit risk losses related to those investments.

The company sells a broad range of agricultural products to a diverse group of customers throughout the world. In the United States, the company makes substantial sales to relatively few large wholesale customers. The company's agricultural products business is highly seasonal and is subject to weather conditions that affect commodity prices and seed yields. Credit limits, ongoing credit evaluation, and account monitoring procedures are used to minimize the risk of loss. Collateral is secured when it is deemed appropriate by the company. For example, during 2001, in order to reduce credit exposure in Latin America, the company began collecting payments on certain customer accounts in grain.

The company also regularly evaluates its business practices to minimize credit risk and as a result improved its prepayment program and one of its marketing programs. In 2001, the prepayment program was modified in the United States, allowing the company to net customer prepayments as a legal offset against the customer's current outstanding balance. The company also modified one of its U.S. marketing programs, such that any amounts payable to a customer are first applied to the customer's receivable account.



Postretirement Benefits – Pensions

Most Monsanto employees are covered by noncontributory pension plans sponsored either by Monsanto or by Pharmacia. Pursuant to a separation agreement between Monsanto and Pharmacia on Sept. 1, 2000, the plans were separated. Based on the entity that was the plan sponsor, the plan assets and liabilities were recognized on the balance sheet of the plan sponsor, either Monsanto or Pharmacia. At the time of the separation, the plans were split as follows: (1) certain Pharmacia-sponsored pension plans transferred plan assets and plan benefit obligations for Monsanto employees to Monsanto-sponsored plans; (2) Monsanto assumed sponsorship of certain plans in which a limited number of Pharmacia employees participate; and (3) certain Pharmacia-sponsored plans in which Monsanto employees participate continued. The funded status of each plan is summarized in the funded status table that follows. Prior to Sept. 1, 2000, most

Monsanto employees participated in Pharmacia-sponsored noncontributory pension plans. No detailed information about the funded status of the plans and components of net periodic pension cost, as it relates solely to Monsanto, is available for dates and periods prior to Sept. 1, 2000, or for plans in which both Monsanto and Pharmacia employees participate.

Total pension cost related to Monsanto employees in 2001, 2000 and 1999, included in the Statement of Consolidated Income from both Monsanto- and Pharmacia-sponsored plans, was \$8 million, \$24 million and \$49 million, respectively. In 2001, the expense related to Monsanto-sponsored plans for Monsanto employees only comprised service costs for benefits of \$4 million, interest cost on benefit obligation of \$11 million, assumed return on plan assets of \$(9) million, and amortization of unrecognized losses of \$1 million. For the period subsequent to Sept. 1, 2000 through Dec. 31, 2000, the expense related to Monsanto-sponsored plans for Monsanto employees only comprised service costs for benefits of \$2 million, interest cost on benefit obligation of \$3 million, assumed return on plan assets of \$1 million, and amortization of unrecognized net loss of \$1 million.

The information that follows relates to all of the Monsanto- and Pharmacia-sponsored pension plans in which Monsanto employees participated, including pension expense related to Pharmacia employees. The components of pension cost for these plans (as noted in the table in the next column) were:

Dollars in millions	2001	2000	1999
Service Cost for Benefits Earned			
During the Year	\$ 47	\$ 60	\$ 65
Interest Cost on Benefit Obligation	130	163	171
Assumed Return on Plan Assets	(151)	(168)	(200)
Amortization of Unrecognized Net Loss/(Gain)	(8)	(5)	49
Total	\$ 18	\$ 50	\$ 85

Pension benefits are based on an employee's years of service and/or compensation level. Pension plans were funded in accordance with Monsanto's and Pharmacia's long-range projections of the plans' financial conditions. These projections took into account benefits earned and expected to be earned, anticipated returns on pension plan assets, and income tax and other regulations. The assumed long-term rate of return on plan assets used in 2001, 2000 and 1999, was 9.50%. Pension costs were determined using the preceding year-end rate assumptions. The following assumptions, calculated on a weighted average basis, were used as of Dec. 31 for the principal plans in which Monsanto employees participated:

	2001	2000	1999
Discount rate	7.25%	7.50%	7.75%
Annual rates of salary increase (for plans that base benefits on final compensation level)	4.25%	4.50%	4.50%

The funded status of the pension plans in which Monsanto employees participated as of Dec. 31, 2001 and 2000, was:

Dollars in millions	2001			2000		
Plan Sponsor	Monsanto	Monsanto	Pharmacia	Monsanto	Monsanto	Pharmacia
Plan Participants	Monsanto Only	Monsanto & Pharmacia	Monsanto & Pharmacia	Monsanto Only	Monsanto & Pharmacia	Monsanto & Pharmacia
Change in Benefit Obligation:						
Benefit obligation at beginning of year	\$152	\$ 75	\$1,725	\$ —	\$ —	\$2,522
Service cost	5	—	43	2	1	57
Interest cost	11	—	119	3	1	159
Plan participants' contributions	1	—	—	—	—	2
Actuarial loss/(gain)	7	—	(61)	3	2	16
Acquisitions/divestitures	(5)	—	—	—	—	42
Benefits paid	(20)	—	(188)	(4)	(2)	(237)
Benefit obligation transferred to Monsanto plans	73	(73)	—	148	73	(221)
Benefit obligation transferred to Pharmacia-only plans	(4)	(2)	—	—	—	(615)
Benefit Obligation at Year End	\$220	\$ —	\$1,638	\$152	\$ 75	\$1,725
Change in Plan Assets:						
Fair value of plan assets at beginning of year	\$ 25	\$ 106	\$1,594	\$ —	\$ —	\$2,332
Actual return on plan assets	(1)	—	(142)	(1)	(3)	6
Employer contribution	10	—	—	3	—	19
Plan participants' contributions	1	—	—	—	—	2
Acquisitions/divestitures	(5)	—	—	1	—	42
Fair value of benefits paid	(20)	—	(188)	(4)	(2)	(237)
Fair value of plan assets transferred to Monsanto plans	104	(104)	—	26	111	(137)
Fair value of plan assets transferred to Pharmacia-only plans	—	(2)	—	—	—	(433)
Plan Assets at End of Year	\$114	\$ —	\$1,264	\$ 25	\$106	\$1,594
Unfunded Status	\$106	\$ —	\$ 374	\$127	\$ (31)	\$ 131
Unrecognized Initial Net Gain	—	—	—	3	1	1
Unrecognized Prior Service Cost	(8)	—	(37)	(7)	(2)	(44)
Unrecognized Subsequent Gain/(Loss)	(2)	—	(86)	(19)	20	151
Accrued Net Pension Liability/(Asset)	\$ 96	\$ —	\$ 251	\$104	\$ (12)	\$ 239

As of Dec. 31, 2001, the projected benefit obligation (PBO), the accumulated benefit obligation (ABO), and the fair value of plan assets for pension plans with ABOs in excess of plan assets for Monsanto-sponsored plans were \$90 million, \$84 million and zero, respectively. As of Dec. 31, 2000, the PBO, the ABO, and the fair value of plan assets for pension plans with ABOs in excess of plan assets for Monsanto-sponsored plans were \$99 million, \$98 million and zero, respectively.

In 2001, amounts recognized in the Statement of Consolidated Financial Position were included in miscellaneous accruals, accrued pension liability, additional minimum liability, accumulated other comprehensive loss, prepaid benefit cost and intangible assets in the amounts of \$5 million, \$109 million, \$20 million, \$(17) million, \$(18) million, \$(3) million, respectively, providing a net pension liability of \$96 million.

In 2000, amounts recognized in the Statement of Consolidated Financial Position for accrued pension liability, additional minimum liability, accumulated other comprehensive loss, prepaid benefit cost and intangible assets were \$99 million, \$24 million, \$(24) million, \$(5) million and \$(2) million, respectively, providing a net pension liability of \$92 million.

The company is in the process of separating these plans into Monsanto-only and Pharmacia-only sponsored plans. Effective Jan. 1, 2002, the sponsorship of a plan, in which Monsanto and Pharmacia employees participated, was transferred from Pharmacia to Monsanto. The assets attributable to Pharmacia employees and former Pharmacia employees were transferred to a new Pharmacia-sponsored plan. The approximate fair value of assets, PBO, ABO, and net pension liabilities assumed by Monsanto as of Jan. 1, 2002, were \$981 million, \$1.2 billion, \$1.1 billion, and \$125 million, respectively. The offset of the assumed net pension liabilities was reflected as an adjustment to additional contributed capital in the Statement of Consolidated Shareowners' Equity, as of Jan. 1, 2002.



Postretirement Benefits – Health Care and Other

Pursuant to a separation agreement between Monsanto and Pharmacia on Sept. 1, 2000, Monsanto created and assumed sponsorship of all medical, life, disability, and other welfare benefit plans in which its employees participate. Prior to Sept. 1, 2000, most Monsanto employees participated in certain Pharmacia-sponsored benefit plans that provided health care and life insurance benefits for retired employees. There is no detailed information available about the components of the total cost and obligations that relate solely to Monsanto for periods prior to Sept. 1, 2000. Total postretirement benefit costs for Monsanto employees, included in Monsanto's Statement of Consolidated Income in 2001, 2000 and 1999 were \$25 million, \$18 million and \$23 million, respectively.

Substantially all regular, full-time U.S. employees and certain employees in other countries become eligible for these benefits if they reach retirement age while employed by Monsanto. These postretirement benefits are unfunded and generally are based on the employees' years of service and/or compensation levels. The costs of postretirement benefits are accrued by the date the employees become eligible for the benefits.

The following information pertains to the Monsanto- and Pharmacia-sponsored postretirement benefit plans in which Monsanto employees participate, principally health care and life insurance. The cost components of these plans were:

Dollars in millions	2001	2000	1999
Plan Sponsor	Monsanto	Monsanto & Pharmacia	Pharmacia
Plan Participants	Monsanto Only	Monsanto & Pharmacia	Monsanto & Pharmacia
Service Cost for Benefits			
Earned During the Year	\$ 8	\$13	\$16
Interest Cost on Benefit Obligation	18	25	27
Amortization of Unrecognized			
Net Loss/(Gain)	(1)	(8)	15
Total	\$25	\$30	\$58

Monsanto determined postretirement costs using the preceding year-end rate assumptions. The following assumptions, calculated on a weighted-average basis, were used as of Dec. 31 for the principal plans:

	2001	2000	1999
Discount rate	7.25%	7.50%	7.75%
Initial trend rate for health care costs	5.25%	5.00%	5.25%
Ultimate trend rate for health care costs	5.25%	5.00%	5.25%

A one percent increase/decrease in the assumed trend rate for health care costs would have had a \$1 million effect on Monsanto's 2001 cost for postretirement health care benefits. It would have increased/decreased the accumulated postretirement benefit obligation by \$6 million as of Dec. 31, 2001.

As of Dec. 31, 2001 and 2000, the status of the postretirement healthcare, life insurance, and employee disability benefit plans in which Monsanto employees participated was:

Dollars in millions	2001	2000
Change in Benefit Obligation (Pharmacia Sponsored):		
Benefit obligation at beginning of year	—	\$420
Service cost	—	10
Interest cost	—	19
Acquisitions/divestitures	—	17
Actuarial loss	—	7
Plan participant contributions	—	1
Benefits paid	—	(20)
Benefit obligation transferred to Pharmacia plans	—	(200)
Change in Benefit Obligation (Monsanto Sponsored):		
Benefit obligation at beginning of year 2001 and at separation date, Sept. 1, 2000, respectively	\$250	\$254
Service cost	8	3
Interest cost	18	6
Plan amendments	—	1
Actuarial loss/(gain)	7	(7)
Plan participant contributions	1	—
Benefits paid	(19)	(7)
Benefit obligation transferred to Pharmacia plans	(4)	—
Benefit Obligation at End of Year	\$261	\$250
Unfunded Status	\$261	\$250
Unrecognized Prior Service Cost	3	4
Unrecognized Subsequent Gain/(Loss)	(11)	4
Accrued Postretirement Liability	\$253	\$258

In 2001, amounts recognized in the Statement of Consolidated Financial Position were included in miscellaneous accruals and postretirement liabilities in the amounts of \$17 million and \$236 million, respectively. In 2000, amounts recognized in the Statement of Consolidated Financial Position were included in miscellaneous accruals and postretirement liabilities in the amounts of \$14 million and \$244 million, respectively.



Note 14 Employee Savings Plans (including extraordinary item from early extinguishment of ESOP debt)

For some company employee savings and investment plans, employee contributions are matched in part by the company. Monsanto matches employee contributions with shares that are released from the Monsanto Employee Stock Ownership Plan (ESOP) component of the Monsanto Savings and Investment Plans (Monsanto SIP). As of Dec. 31, 2001, the Monsanto ESOP held 8.6 million shares of Pharmacia common stock.

In connection with the separation of Monsanto's businesses from those of Pharmacia, and pursuant to the Employee Benefits and Compensation Allocation Agreement between Pharmacia and Monsanto dated as of Sept. 1, 2000, certain assets and liabilities of the Pharmacia Corporation Savings and Investment Plan (Pharmacia SIP — formerly known as the Monsanto SIP) were transferred to the new Monsanto SIP as of July 1, 2001. Assets and liabilities of a trust (Pharmacia ESOP Trust) established under the Pharmacia SIP were restructured and divided between the Pharmacia ESOP Trust and a trust established under the Monsanto SIP (Monsanto ESOP Trust). In connection with this restructuring, the portion of guaranteed debt that had been attributed to Monsanto was retired, and Monsanto loaned \$42.8 million to the new Monsanto ESOP Trust. Certain costs associated with this debt restructuring were allocated to Monsanto, which resulted in a pretax extraordinary loss of \$4 million (\$2 million aftertax) in 2001.

At its inception, the Pharmacia ESOP Trust acquired shares by using proceeds from the issuance of long-term notes and debentures guaranteed by Pharmacia and a loan from Pharmacia. Shares released from the Monsanto ESOP are allocated each year to employee savings accounts as matching contributions. In 2001, 479,865 shares were allocated specifically to Monsanto participants. An additional 191,925 shares were released in 2001 awaiting allocation to all participants, leaving 2.6 million shares unallocated as of Dec. 31, 2001.

Compensation expense is equal to the cost of the shares allocated to participants, less cash dividends paid on the shares held by the Monsanto ESOP. Dividends on the common stock owned by the Monsanto ESOP are used to repay the Monsanto ESOP borrowings, which were \$37.7 million as of Dec. 31, 2001. Compensation expense for Monsanto employees included in the *Statement of Consolidated Income* in 2001, 2000 and 1999 was \$3 million, \$6 million and \$11 million, respectively. The following information relates to the Monsanto ESOP (including the portion of the Pharmacia ESOP attributable to Monsanto employees for the period Jan. 1 to June 30, 2001) in 2001 and

the Pharmacia ESOP plan in 2000 and 1999, in which the Monsanto employees participated for the years ended Dec. 31:

Dollars in millions	2001	2000	1999
Plan Sponsor	Monsanto	Pharmacia	
Plan Participants	Monsanto Only	Monsanto & Pharmacia	
Total ESOP Expense	\$6	\$18	\$31
Interest Portion of Total ESOP Expense	3	8	9
Net Cash Contribution	6	21	37
Dividends Paid on ESOP Shares Held	2	4	2



Note 15 Stock-based Compensation Plans

Monsanto grants its employees stock options under two fixed stock option plans it established in 2000. Under the Monsanto 2000 Management Incentive Plan (2000 Plan), the company may grant key officers, directors, and employees of Monsanto or Pharmacia stock-based awards, including stock options, of up to 22.6 million shares of Monsanto common stock. Other employees were granted options under the Monsanto Company Broad-Based Stock Option Plan (Broad-Based Plan), which permits the granting of a maximum of 2.7 million shares of Monsanto common stock to employees other than officers and other employees subject to special reporting requirements. Under the plans, the exercise price of any option must be no less than the fair market value of the company's common stock on the grant date. The plans provide that the term of any option granted may not exceed 10 years and that each option may be exercised for such period as may be specified by the people committee of the board of directors or its delegate, which administers the plans.

The Monsanto Non-Employee Director Equity Incentive Compensation Plan (Director Plan) was established in 2000 for directors who are not company employees of Monsanto or of its affiliates. Half of the annual retainer for each nonemployee director is automatically paid in the form of deferred stock — shares of common stock to be delivered at a specified time in the future. The remaining half of the director's annual retainer may be taken in the form of nonqualified stock options, restricted common stock, deferred common stock, or cash. The exercise price of any stock option is the fair market value of the company's common stock on the grant date. The term of any options granted under the Director Plan is 10 years, and the options vest in installments over the life of the director's term. The Director Plan is administered by a committee of company executives. Compensation expense recognized for the Director Plan was \$774,000 in 2001 and \$359,000 in 2000.

The 2000 Plan also authorizes Monsanto to grant restricted or unrestricted shares. In 2001, 45,500 restricted shares were granted; they vest in increments of 5 percent in 2002, 51 percent in 2003, 36 percent in 2004, 4 percent in 2005 and 4 percent in 2006. In 2000, 10,000 restricted shares were granted; 33 percent vested in 2001 and the remaining 67 percent vest in 2002. Compensation expense is based on the market price of Monsanto's common stock at the grant date and is recognized over the vesting period. Compensation expense recognized for these restricted shares was \$455,000 in 2001 and \$20,000 in 2000.

In 2000, four executives signed Phantom Share Agreements. These agreements provide each executive with a number of phantom shares of common stock equal to the cash severance and value of benefits continuation they would have received under a prior change-of-control agreement with Pharmacia, divided by the IPO offering price. The phantom shares, which give the holders the opportunity to earn a cash award equal to the fair value of the company's common stock upon the attainment of a certain performance goal, vest on Oct. 1, 2002. The company had 813,142 and 801,950 phantom shares outstanding, as of Dec. 31, 2001, and Dec. 31, 2000, respectively. Monsanto recognized \$14 million and \$3 million in compensation expense related to the phantom shares in 2001 and 2000, respectively. Compensation expense is based on the market price of Monsanto's common stock and recognized over the 24-month vesting period.

In connection with the IPO on Oct. 23, 2000, Monsanto issued a one-time founder's grant of stock options to all employees under the 2000 Plan and the Broad-Based Plan. Approximately 22.3 million options were granted on that date, each of which has an exercise price of \$20 per share. Additional grants are made to new hires eligible for option grants under the 2000 Plan on a monthly basis, and to new hires eligible for option grants under the Broad-Based Plan on a quarterly basis, with an exercise price equal to the market price on the grant date. These options vest in increments of 50 percent on the one-year anniversary of the grant date and 50 percent in 2003, with a maximum term of 10 years.

Prior to the IPO, Monsanto employees participated in Pharmacia incentive plans. Any related outstanding options held by Monsanto employees will be exercised, canceled or forfeited under the provisions of the Pharmacia plans. A summary of the status of the Monsanto plans for the year ended Dec. 31, 2001, and the period Oct. 23, 2000, through Dec. 31, 2000, follows:

	Shares	Outstanding Weighted-Average Exercise Price
Oct. 23, 2000	—	\$ —
Granted	22,607,420	20.07
Exercised	—	—
Forfeited	(40,600)	20.00
Balance Outstanding Dec. 31, 2000	22,566,820	20.07
Granted	1,588,986	33.37
Exercised	(23,908)*	20.00
Forfeited	(1,312,740)	20.15
Balance Outstanding Dec. 31, 2001	22,819,158	\$20.98

* In accordance with the provisions of the plans, shares exercised related to those of former employees who received severance benefits.

As of Dec. 31, 2001, none of the Monsanto options were exercisable.

Monsanto stock options outstanding at Dec. 31, 2001, are summarized as follows:

Range of Exercise Prices	Shares	Weighted- Average Remaining Contractual Life (Years)	Weighted- Average Exercise Price per Share
\$20.00	20,953,193	8.8	\$20.00
\$20.01-\$30.00	474,700	9.0	\$26.02
\$30.01-\$37.61	1,391,265	9.5	\$34.26

As permitted by SFAS No. 123, *Accounting for Stock-Based Compensation*, the company has elected to follow the guidance of APB No. 25, *Accounting for Stock Issued to Employees*, for measuring and recognizing its stock-based transactions with employees. Accordingly, no compensation expense was recognized in relation to any of the Monsanto or Pharmacia option plans in which Monsanto employees participate. Had compensation expense for these plans been determined based on the fair value at the grant dates for awards under these plans, consistent with the method of SFAS No. 123, Monsanto's net income would have been reduced by approximately \$43 million or \$0.17 per share in 2001 specifically attributable to Monsanto plans, and \$1 million attributable to Pharmacia Plans. Monsanto's net income would have been reduced by approximately \$113 million, or \$0.44 per pro forma share (\$37 million, or \$0.14 per pro forma share specifically attributable to Monsanto Plans) in 2000; and \$37 million, or \$0.14 per pro forma share, in 1999. Pro forma compensation expense for years presented may not be representative of compensation expense that will be incurred on a pro forma basis in future years.

In computing the pro forma compensation expense, Monsanto used the Black Scholes option-pricing model to estimate the fair value of each option on the date it was granted. The weighted-average fair value of options granted to Monsanto employees during 2001 was \$8.46 per Monsanto stock option. The weighted-average fair values of options granted to Monsanto employees during 2000 were \$7.24 for Monsanto stock options and \$15.73 for Pharmacia stock options. The weighted-average fair value of Pharmacia stock options granted during 1999 was \$13.99. The following weighted-average assumptions were used for grants:

	2001	2000	1999
	Monsanto Plans	Monsanto Plans	Pharmacia Plans
Expected dividend yield	1.46%	1.96%	1.00%
Expected volatility	45.3%	43.7%	26.0%
Risk-free interest rates	4.4%	5.7%	6.75%
Expected option lives (in years)	3.5	3.5	5.0
			4.1

Certain Monsanto employees received stock appreciation rights as part of Monsanto's and Pharmacia's stock compensation plans. These rights entitle those employees to receive a cash amount determined by the appreciation in the fair market value of the company's common stock between the date of the award and the date of exercise. Upon the closing of the merger of Pharmacia & Upjohn, Inc. with the former Monsanto Company on March 31, 2000, the rights from the Pharmacia plan vested. The company recognized compensation expense of \$13 million in 2000 and a compensation benefit of \$4 million in 2001 associated with these rights. There was no compensation expense in 1999.

16 Capital Stock

The company is authorized to issue 1.5 billion shares of common stock, \$0.01 par value, and 20 million shares of undesignated preferred stock, \$0.01 par value. The board of directors has the authority, without action by the shareowners, to designate and issue preferred stock in one or more series and to designate the rights, preferences, and privileges of each series, which may be greater than the rights of the company's common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of holders of common stock until the board of directors determines the specific rights of the holders of preferred stock.

The authorization of undesignated preferred stock makes it possible for Monsanto's board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of the company. These and other provisions may deter hostile takeovers or delay attempts to change management control.

There were no shares of preferred stock outstanding as of Dec. 31, 2001. As of that date, 258.1 million shares of common stock were outstanding, and 25.2 million shares of common stock were reserved for employee and director stock options. Dividends on common stock of \$31 million were payable as of Dec. 31, 2001.

17 Earnings per Share and per Pro Forma Share

On Oct. 23, 2000, Monsanto sold 38,033,000 shares of its common stock at \$20 per share in an IPO. Subsequent to the offering, Pharmacia owned and continues to own 220 million shares of common stock, representing 85.2 percent ownership of Monsanto as of Dec. 31, 2001. The company issued 10,000 restricted shares at the time of the IPO and an additional 45,500 restricted shares during 2001. The company sold 23,908 shares of its common stock at \$20 per share during 2001 in connection with its stock option plans. See Note 15 — Stock-based Compensation Plans — for further details.

Basic earnings per share (EPS) for 2001 were computed using the weighted-average number of common shares outstanding during the period (258.1 million shares). Diluted EPS were computed taking into account the effect of dilutive potential common shares, calculated to be 5.5 million shares. These dilutive potential common shares consist of 21.8 million outstanding stock options. One million outstanding stock options were excluded from the computation of 2001 diluted EPS because the effect was antidilutive. Basic earnings per pro forma share for 1999 and 2000 were computed using the weighted-average number of common shares outstanding (258.0 million shares) immediately after the IPO. Diluted earnings per pro forma share in 2000 were calculated using the common shares outstanding plus the dilutive effect of common share equivalents totaling 0.5 million shares, based on outstanding stock options. The options expire from 2010 through 2011.

18 Commitments and Contingencies

Commitments, principally in connection with uncompleted additions to property, were approximately \$21 million, and commitments to purchase seed inventories were approximately \$70 million, as of Dec. 31, 2001. Monsanto was contingently liable as a guarantor, primarily for bank loans and for miscellaneous receivables directly attributable to Monsanto totaling approximately \$107 million as of Dec. 31, 2001.

Future minimum payments under noncancelable operating leases, unconditional inventory purchases, joint ventures, and R&D alliances are \$119 million for 2002, \$35 million for 2003, \$20 million for 2004, \$13 million for 2005, \$8 million for 2006, \$2 million for 2007, and \$8 million thereafter. Rent expense was \$131 million, \$116 million and \$72 million for the years ended Dec. 31, 2001, 2000 and 1999, respectively.

The following table sets forth the more significant customer concentrations in Monsanto's gross trade receivables at year end:

Dollars in millions	2001	2000
U.S. Agricultural Product Distributors	\$ 798	\$ 801
Argentina*	606	525
Brazil*	473	495
European Agricultural Product Distributors	238	310
Mexico*	85	78
Asia-Pacific*	101	154
Canada*	50	61
Other	133	159
Gross Trade Receivables	2,484	2,583
Less: Allowance for Doubtful Accounts	(177)	(171)
Net Trade Receivables	\$2,307	\$2,412

* Represents customer receivables within the specified geography.

For further details on the allowance for doubtful accounts see Note 6 — Trade Accounts Receivable. The company's receivables focus has been centered on, and continues to remain centered on, the key agricultural markets of Argentina and Brazil. Net accounts receivable in Argentina and Brazil were \$573 million and \$437 million in 2001, respectively. Net accounts receivable in Argentina and Brazil were \$500 million and \$456 million in 2000, respectively.

On Feb. 3, 2002, the new government in Argentina announced several reforms intended to stabilize the economic environment. The government's programs continue to evolve at a rapid pace. At this time, it is unclear what effect existing and new regulations and conditions might have on the company's operations in Argentina, although they could increase the company's risk of collecting its accounts receivable and have a material adverse effect on the company's financial position, profitability and liquidity. While the company has prepared its 2001 financial statements relating to its Argentine operations on a U.S. dollar functional basis, the functional currency designation in Argentina may change based on new government economic reforms. Included in the 2001 foreign-currency losses — net was a loss of \$15 million, which represents the effect of this devaluation on Argentine peso-denominated transaction exposures (primarily value-added taxes and other taxes due to or recoverable by Monsanto). While the company cannot determine how government actions will affect the outcome, it will aggressively pursue collection of the outstanding receivables at full U.S. dollar value, as they become due principally in May and June 2002. Based on current government policies, all receivables as of Dec. 31, 2001, were converted from U.S. dollars to pesos at a one-to-one ratio. In addition, the government introduced the following regulations: 1) accounts receivable balances will be adjusted for inflation based on a local government index; and 2) differences between the inflation-adjusted peso accounts receivable and the originally-invoiced U.S. dollar accounts receivable may be negotiated between the company and the customer, and if not agreed upon, will be decided by the Argentine courts. Although the Argentine agricultural markets are primarily export-oriented, the amount that may be eventually collected could be significantly less than the recorded amounts. Furthermore, the exchange rate between the U.S. dollar and peso will fluctuate during the period when the accounts receivable become due for collection. Due to the unpredictability of these variables, it is not possible to estimate a range of loss exposure related to the collectibility of accounts receivable. In addition, the company's ability to repatriate funds from Argentina may be restricted. The peso-to-U.S. dollar exchange rate is 2.13-to-1.00 as of March 1, 2002. The company may also have additional exposure beyond increased collectibility risk. For example, the company's sales, margins, and foreign-currency transactional gains/losses, may be adversely affected based on fluctuations in foreign-currency exchange rates and the level of inflation experienced.

Monsanto's Statement of Consolidated Financial Position includes accrued liabilities of \$12 million as of Dec. 31, 2001, and \$11 million as of Dec. 31, 2000, for the remediation of existing and former manufacturing facilities and certain off-site disposal and formulation facilities. Monsanto's future remediation expenses are affected by a number of uncertainties. These uncertainties include, but are not limited to, the method and extent of remediation, the percentage of material attributable to Monsanto at the sites relative to that attributable to other parties, and the financial capabilities of the other potentially responsible parties. Monsanto does not expect the resolution of such uncertainties to have a material adverse effect on its financial position, profitability or liquidity.

Monsanto is defending and prosecuting litigation in its own name. In addition, Monsanto is defending and prosecuting certain cases that were brought in Pharmacia's name and for which Monsanto assumed responsibility upon the separation of its businesses from those of Pharmacia. Such matters relate to a variety of issues. Certain of the lawsuits and claims seek damages in very large amounts, or seek to restrict the company's business activities.

In April 1999, a jury verdict was returned against DEKALB Genetics (which is now a wholly owned subsidiary of Monsanto), in a lawsuit filed in U.S. District Court in North Carolina. The lawsuit was brought by Aventis CropScience S.A. (formerly Rhone Poulenc Agrochimie S.A.) (Aventis), claiming that a 1994 license agreement was induced by fraud stemming from DEKALB Genetics' nondisclosure of relevant information, and that DEKALB Genetics did not have the right to license, make or sell products using Aventis' technology for glyphosate resistance under this agreement. The jury awarded Aventis \$15 million in actual damages for unjust enrichment and \$50 million in punitive damages. Prior to 2001, the company had accrued actual damages of \$15 million. On Nov. 22, 2001, the U.S. Court of Appeals for the Federal Circuit upheld the damage awards. DEKALB Genetics has requested rehearing en banc on this decision. A \$50 million increase in the company's reserve for litigation has been recorded in Monsanto's 2001 consolidated financial statements with respect to the award for punitive damages.

On March 20, 1998, a jury verdict was returned against Pharmacia in a lawsuit filed in the California Superior Court. The lawsuit was brought by Mycogen Corporation (Mycogen), Agrigenetics Inc., and Mycogen Plant Science Inc. claiming that Pharmacia delayed providing access to certain gene technology under a 1989 agreement with Lubrizol Genetics Inc., a company which Mycogen subsequently purchased. The jury awarded \$174.9 million in future damages. This jury award was overturned on appeal by the California Court of Appeals. The California Supreme Court has granted Mycogen's petition requesting further review. The company will continue to vigorously pursue our position on appeal. No provision has been made in Monsanto's consolidated financial statements with respect to this verdict.

Although the results of litigation cannot be predicted with certainty, it is management's belief that the final outcome of the litigation discussed above will not have a material adverse effect on Monsanto's financial position, profitability or liquidity.

Monsanto manages its business in two segments: Agricultural Productivity, and Seeds and Genomics. The Agricultural Productivity segment consists of the crop protection products, animal agriculture, residential lawn and garden products, and environmental technologies businesses. The Seeds and Genomics segment consists of the global seeds and related traits businesses, and genetic technology platforms. Sales between segments were not significant.

Dollars in millions	Agricultural Productivity	Seeds and Genomics	Total
Net sales⁽¹⁾			
2001	\$3,755	\$1,707	\$5,462
2000	3,885	1,608	5,493
1999	3,586	1,662	5,248
EBIT⁽²⁾			
2001	775	(239)	536
2000	1,099	(581)	518
1999	897	(391)	506
Depreciation and amortization expense			
2001	226	328	554
2000	209	337	546
1999	185	362	547
Special items			
2001	169	104	273
2000	22	239	261
1999	27	74	101
Equity affiliate expense			
2001	—	(41)	(41)
2000	(3)	(31)	(34)
1999	(9)	(9)	(18)
Total assets			
2001	5,923	5,506	11,429
2000	6,104	5,622	11,726
1999	5,340	5,761	11,101
Capital expenditures			
2001	279	103	382
2000	439	143	582
1999	448	184	632
Investment in equity affiliates			
2001	1	49	50
2000	17	66	83
1999	51	75	126

(1) As discussed in Note 2 — Significant Accounting Policies (Revenue Recognition) — Monsanto changed its marketing approach on trait fees, which resulted in trait revenue being recognized earlier — in the second half of 2001 rather than in the first half of 2002.

(2) Earnings (loss) before extraordinary item, cumulative effect of accounting change, interest and income taxes.

A reconciliation of earnings before extraordinary item, cumulative effect of accounting change, interest and income taxes (EBIT) to income before extraordinary item and cumulative effect of accounting change for each year follows:

Dollars in millions	2001	2000	1999
EBIT	\$ 536	\$ 518	\$ 506
Interest Expense — Net	(73)	(184)	(243)
Income Tax Provision	(166)	(159)	(113)
Income Before Extraordinary Item and Cumulative Effect of Accounting Change	\$ 297	\$ 175	\$ 150

Although inflation is relatively low in most of Monsanto's major markets, it continues to affect operating results. To mitigate the effect of inflation, Monsanto implemented measures to control costs, to improve productivity, to manage new fixed and working capital, and to raise selling prices when government regulations and competitive conditions permit. In addition, the current costs of replacing certain assets are estimated to be greater than the historical costs presented in the financial statements. Accordingly, the depreciation expense reported in the Statement of Consolidated Income would be greater if it were stated on a current-cost basis.

Net sales and long-lived assets are attributed to the geographic areas of relevant Monsanto legal entities. For example, a sale from the United States to a customer in Latin America is reported as a U.S. export sale.

Dollars in millions	Net Sales to Unaffiliated Customers Excluding Inter-Area Sales			Long-Lived Assets		
	2001	2000	1999	2001	2000	1999
United States	\$3,358	\$3,089	\$2,895	\$4,853	\$5,127	\$5,062
Latin America	923	1,103	932	857	801	695
Europe-Africa	626	635	685	597	656	742
Asia-Pacific	370	449	460	128	131	142
Canada	185	217	276	37	14	14
Total	\$5,462	\$5,493	\$5,248	\$6,472	\$6,729	\$6,655

Other Expense — Net

The significant components of other (expense) income — net were:

Dollars in millions	2001	2000	1999
Litigation Matters — Net (see Note 5 — Special Items)	\$ (60)	\$ —	\$ —
Equity Affiliate Expense	(41)	(34)	(18)
Foreign-Currency Losses — Net	(32)	(22)	(25)
Deferred Payout Provision Related to Past Business Divestiture	8	—	—
Gains Realized Upon Sale of Equity Securities	8	—	—
Impairments of Equity Investments and Securities	(8)	—	—
Gain (Loss) on Sale of Businesses and Assets	—	(2)	37
Failed Merger Costs	—	—	(85)
Other Miscellaneous Income (Expense)	2	9	(13)
Other Expense — Net	\$(123)	\$(49)	\$(104)

Equity affiliate expense includes investments in a number of affiliates that are accounted for using the equity method. Equity affiliate expense from Renessen LLC, a 50-50 joint venture of Monsanto and Cargill Incorporated, was \$41 million in 2001, \$31 million in 2000, and \$15 million in 1999, and represented the most significant loss.



Advertising Costs

Costs for producing and communicating advertising for the various brands and products were charged to selling, general and administrative expenses as they were incurred, or expensed ratably during the year in relation to revenues or certain other performance measures. Advertising costs were \$96 million, \$103 million and \$96 million in 2001, 2000 and 1999, respectively.



Related-Party Transactions

On Sept. 1, 2000, Monsanto entered into a master transition services agreement with Pharmacia, its majority shareowner. Some agreements under this master agreement expired on Dec. 31, 2001. New agreements will be negotiated in 2002, which are not anticipated to have any material consequences. Under these agreements, Monsanto provides certain administrative support services to Pharmacia, and Pharmacia primarily provides information technology support for Monsanto. In addition, the two companies pay various taxes, capital project costs and payroll charges that are associated with the business activities of the other. Monsanto and Pharmacia also rent research and office space from each other. Since Sept. 1, 2000, each party has charged the other entity rent based on a percentage of occupancy times the cost to operate the facilities. During 2001, Monsanto recognized expenses of

\$70 million and recorded a reimbursement of \$48 million for costs incurred on behalf of Pharmacia. During the last four months of 2000, Monsanto recognized expenses of \$25 million and recorded a reimbursement of \$24 million for costs incurred on behalf of Pharmacia. As of Dec. 31, 2001, the company had a net payable balance (excluding dividends payable) of \$43 million with Pharmacia. As of Dec. 31, 2000, the company had a net receivable balance (excluding dividends payable) of \$99 million with Pharmacia. Federal taxes, transition services, capital project costs, employee benefits, and information technology costs accounted for the outstanding balances.

Since the IPO closing date of Oct. 23, 2000, Pharmacia manages the loans and deposits of Monsanto's ex-U.S. subsidiaries. Pharmacia is the counterparty for all Monsanto's foreign-currency exchange contracts. Interest rates and fees were comparable to those that Monsanto would have incurred with a third party. Effective June 30, 2001, certain Monsanto subsidiaries entered into an agency agreement to have a Pharmacia subsidiary act as their agent for certain ex-U.S. treasury transactions. Under the agreement, certain transactions, which were previously reflected as related-party loans receivable and payable, are now reflected as Monsanto inter-company transactions. As of Dec. 31, 2001, and Dec. 31, 2000, Monsanto was in a net borrowing position of \$224 million and \$430 million, respectively, with Pharmacia. On Dec. 19, 2001, Monsanto declared a quarterly dividend of \$0.12 per share and recorded a related dividend payable to Pharmacia of \$26 million, which was recorded in miscellaneous short-term accruals.



Quarterly Data (Unaudited)

Dollars in millions, except per share amounts

	Net Sales	Gross Profit	Income (Loss) Before Extraordinary Item and Cumulative Effect of Accounting Change	Extraordinary Item (Note 14)	Net Income (Loss)	Diluted Earnings (Loss) per Share*		
						Income (Loss) Before Extraordinary Item and Cumulative Effect of Accounting Change	Extraordinary Item (Note 14)	Net Income (Loss)
2001								
1st Quarter	\$1,306	\$ 607	\$ 55	\$ —	\$ 55	\$ 0.21	\$ —	\$ 0.21
2nd Quarter	2,011	1,189	391	(2)	389	1.48	(0.01)	1.47
3rd Quarter	936	384	(45)	—	(45)	(0.17)	—	(0.17)
4th Quarter	1,209	465	(104)	—	(104)	(0.40)	—	\$(0.40)
Total Year	\$5,462	\$2,645	\$ 297	\$ (2)	\$ 295	\$ 1.13	\$(0.01)	\$ 1.12

* Because Monsanto reported a loss before extraordinary item and cumulative effect of accounting change in the third and fourth quarters, generally accepted accounting principles require diluted loss per share to be calculated using weighted-average common shares outstanding, excluding common stock equivalents. As a result, the quarterly earnings (loss) per share may not total to the full-year amount.

Dollars in millions, except per share amounts

Dollars in millions, except per share amounts							Diluted Earnings (Loss) per Pro Forma Share		
			Gross Profit	Income (Loss) Before Extraordinary Item and Cumulative Effect of Accounting Change	Cumulative Effect of Accounting Change (Note 2)	Net Income (Loss)	Income (Loss) Before Extraordinary Item and Cumulative Effect of Accounting Change	Cumulative Effect of Accounting Change (Note 2)	Net Income (Loss)
2000		Net Sales							
1st Quarter	— as previously reported	\$1,441	\$ 752	\$117	\$—	\$117	\$ 0.45	\$ —	\$ 0.45
	as restated	1,321	633	43	(26)	17	0.17	(0.10)	0.07
2nd Quarter	— as previously reported	1,849	1,052	152	—	152	0.59	—	0.59
	as restated	2,007	1,206	248	—	248	0.96	—	0.96
3rd Quarter	— as previously reported	1,003	454	(66)	—	(66)	\$(0.26)	—	(0.26)
	as restated	1,006	457	(64)	—	(64)	(0.25)	—	(0.25)
4th Quarter	— as reported	1,159	427	(52)	—	(52)	(0.20)	—	(0.20)
Total Year	as restated	\$5,493	\$2,723	\$175	\$(26)	\$149	\$ 0.68	\$(0.10)	\$ 0.58

Monsanto adopted SAB 101 in the fourth quarter of 2000 and, as a result, the first three quarters of 2000 were restated to

reflect the adoption of that standard. See Note 2 — Significant Accounting Policies — for further details.

Dollars in millions

		Dividends per Share				
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total Year
2001		\$ 0.12	\$ 0.12	\$ 0.12	\$ 0.12	\$ 0.48
2000		N/A	N/A	N/A	0.09 ⁽¹⁾	0.09 ⁽¹⁾

		Common Stock Price				
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total Year
2001	High	\$35.680	\$38.470	\$38.800	\$37.900	\$38.800
	Low	26.875	28.800	30.900	28.600	26.875
2000	High	N/A	N/A	N/A	\$27.380	\$27.380
	Low	N/A	N/A	N/A	\$19.750	\$19.750

(1) Amount based on a quarterly dividend of \$0.12 per share, prorated from Oct. 23, 2000, the date of the closing of Monsanto's IPO of common stock.

Historically, Monsanto generates the majority of its sales during the first half of the year, primarily because of the timing of the planting season in the Northern Hemisphere. In each of the last two years all of Monsanto's operating income was generated in the first half of the year; the company incurred operating losses in the second half of the year.

Net income (loss) for the first, second and third quarters of 2001 included aftertax charges of \$13 million, \$30 million and \$8 million, respectively, associated primarily with the 2000 plan to focus on certain key crops and to streamline operations. This plan resulted in the termination of certain research and development programs and noncore activities. The fourth quarter of 2001 includes a net aftertax charge of \$125 million, \$86 million reflecting the final quarter of charges related to the 2000 plan and \$39 million representing litigation matters. This amount is net of an aftertax gain of \$5 million related to the reversal of restructuring reserves established in 2000, principally resulting from lower severance costs than originally estimated.

Net income for the first quarter of 2000 included a net aftertax credit of \$3 million, primarily related to the reversal of restructuring reserves established in 1998 because actual severance costs were lower than originally estimated. The second, third and fourth quarters of 2000 included net aftertax charges of \$126 million, \$21 million and \$53 million, respectively, as part of the company's ongoing plan to focus on certain key crops and to streamline operations. The second- and third-quarter charges were associated primarily with the elimination of certain research and development programs; the fourth-quarter charge primarily reflected costs for facility closures and operation consolidations.

MANAGEMENT REPORT

Monsanto Company's management is responsible for the fair representation and consistency, in accordance with generally accepted accounting principles, of all the financial information included in this annual report. Where necessary, the information reflects management's best estimates and judgments.

Management is also responsible for maintaining an effective system of accounting controls. The purpose of these controls is to provide reasonable assurance that Monsanto's assets are safeguarded against material loss from unauthorized use or disposition (taking into consideration the cost of control versus risk of loss) and that authorized transactions are properly recorded to permit the preparation of accurate financial information. The effectiveness of internal control is maintained by careful personnel selection and training, division of responsibilities, establishment and communication of policies, and ongoing internal reviews and audits. Management believes that Monsanto's system of internal control as of Dec. 31, 2001, was effective and adequate to accomplish the objectives described above. Monsanto's consolidated financial statements have been audited by Deloitte & Touche LLP, independent auditors. Their audits were conducted in accordance with auditing standards generally accepted in the United States, and included a review of financial controls, tests of accounting records and other procedures as they considered necessary in the circumstances.

The audit and finance committee, composed entirely of outside directors, meets regularly with management and the independent auditors to review accounting, financial reporting, auditing and internal control matters. The committee has direct and private access to the external and internal auditors.



Hendrik A. Verfaillie
President and Chief Executive Officer



Terrell K. Crews
Executive Vice President and Chief Financial Officer

INDEPENDENT AUDITORS' REPORT

To the Shareowners of Monsanto Company:

We have audited the accompanying statement of consolidated financial position of Monsanto Company and subsidiaries as of Dec. 31, 2001 and 2000, and the related statements of consolidated income, cash flows, shareowners' equity and comprehensive income (loss) for each of the three years in the period ended Dec. 31, 2001. These financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these financial statements based upon our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Monsanto Company and subsidiaries as of Dec. 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended Dec. 31, 2001, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 2 to the consolidated financial statements, in 2000 Monsanto Company changed its method of recognizing revenue to conform to the Securities and Exchange Commission's Staff Accounting Bulletin No. 101, *Revenue Recognition in Financial Statements*.



St. Louis, Missouri
Feb. 5, 2002

SELECTED FINANCIAL DATA (Unaudited)

MONSANTO COMPANY

(Dollars in millions, except per share and pro forma share amounts)	2001	2000	1999	1998	1997
Operating Results:					
Net sales ⁽¹⁾	\$ 5,462	\$ 5,493	\$ 5,248	\$ 4,448	\$3,673
Income from operations	659	567	610	55	13
Income (loss) before income taxes, extraordinary item and cumulative effect of a change in accounting principle ⁽²⁾	463	334	263	(60)	1
Extraordinary item ⁽³⁾	(2)	—	—	—	—
Cumulative effect of a change in accounting principle ⁽¹⁾	—	(26)	—	—	—
Net income (loss)	295	149	150	(125)	31
Pro forma net income (loss), assuming new accounting principle (SAB 101) is applied retroactively ⁽¹⁾	295	175	124	(125)	31
Diluted Earnings (Loss) per Share and per Pro Forma Share:⁽⁴⁾					
Net income (loss)	\$ 1.12	\$ 0.58	\$ 0.58	\$ (0.48)	\$ 0.12
Pro forma net income (loss), assuming new accounting principle (SAB 101) is applied retroactively ⁽¹⁾	1.12	0.68	0.48	(0.48)	0.12
Year-End Financial Position:					
Total assets	\$11,429	\$11,726	\$11,101	\$10,891	\$5,123
Working capital	2,420	2,216	2,323	1,879	1,000
Long-term debt	893	962	4,278	4,388	1,000
Debt-to-total capitalization ⁽⁵⁾	18.6%	19.3%	48.5%	53.3%	36.8%
Current ratio	2.02:1	1.80:1	2.36:1	2.01:1	1.70:1
Other Data (applicable for periods subsequent to IPO):					
Dividends per share ⁽⁶⁾	\$ 0.48	\$ 0.09	N/A	N/A	N/A
Stock price per share:					
High	38.800	27.380	N/A	N/A	N/A
Low	26.875	19.750	N/A	N/A	N/A
Year-end	33.800	27.060	N/A	N/A	N/A
Shares outstanding (year-end, in millions) ⁽⁷⁾	258.1	258.0	N/A	N/A	N/A
Employees (year-end)	14,600	14,700	N/A	N/A	N/A

The operating results data and earnings (loss) per share and per pro forma share data, set forth above for the years ended Dec. 31, 2001, 2000, 1999, 1998, and 1997, and the financial position data as of Dec. 31, 2001, 2000, 1999, and 1998, are derived from our audited financial statements. The financial position information as of Dec. 31, 1997, is derived from unaudited financial statements. In the opinion of management, this unaudited data was prepared on a basis consistent with the audited financial statements; it includes all normal recurring adjustments necessary for a fair presentation of the operating results and financial position.

(1) In 2000, Monsanto adopted Staff Accounting Bulletin (SAB) No. 101, *Revenue Recognition in Financial Statements*, the Securities and Exchange Commission interpretation of accounting guidelines on revenue recognition. Monsanto's adoption of SAB 101 primarily affected its recognition of license revenues from biotechnology traits sold through third-party seed companies. Monsanto adopted the provisions of SAB 101 as an accounting change, recognizing as a cumulative effect of a change in accounting principle a loss of \$26 million, net of taxes of \$16 million, effective Jan. 1, 2000.

(2) Results for the years presented include special items that have significantly affected pretax income. Pretax income for 2001 and 2000 included \$213 million and \$261 million, respectively, in net pretax charges primarily associated with our restructuring plan to focus on key crops and to streamline operations, net of the reversal of certain restructuring reserves. Pretax income in 2001 also included \$60 million of other expense — net, to reflect the effects of three separate litigation matters. Pretax income for the year ended 1999 included a \$101 million pretax charge associated with a failed merger and accelerated business integration costs, net of the reversal of restructuring reserves established in 1998 and a gain on a divestiture. For the year ended 1998, it included \$604 million of pretax costs for restructuring charges and for the write-off of acquired in-process research and development. For the year ended 1997, it included pretax charges of \$633 million for the write-off of acquired in-process research and development.

(3) In the second quarter of 2001, the Pharmacia Savings and Investment Plan was separated into two plans, one for Monsanto employees and one for Pharmacia employees. As a result, Monsanto recognized a \$2 million aftertax extraordinary loss related to the early extinguishment of Employee Stock Ownership Plan debt that was attributable to Monsanto.

(4) Diluted earnings per share for 2001 take into account the effect of dilutive common share equivalents (5.5 million shares). Diluted earnings per pro forma share for 2000 were calculated using 258 million weighted-average common shares outstanding plus the effect of dilutive common share equivalents totaling 0.5 million, consisting of outstanding stock options. For all periods prior to 2000, diluted earnings per pro forma share were calculated using 258 million weighted-average common shares, the number of common shares outstanding immediately after the initial public offering (IPO) on Oct. 23, 2000.

(5) Debt-to-total capitalization is the sum of total short-term and long-term debt, divided by the sum of total short-term and long-term debt and shareowners' equity.

(6) The dividend of \$0.09 per share on the company's common stock declared in the fourth quarter of 2000 is prorated. It is based on a quarterly dividend rate of \$0.12 per share, which reflects a policy adopted by the board of directors following the IPO.

(7) On Oct. 23, 2000, Monsanto sold 38 million shares of its common stock in an IPO. Subsequent to the offering, Pharmacia owned and continues to own 220 million shares of common stock.

BOARD OF DIRECTORS

MONSANTO COMPANY

Frank V. AtLee III, 61, of Scottsdale, Arizona, is chairman of the board of Monsanto. He is a retired president of the former American Cyanamid Company and chairman of the former Cyanamid International — companies involved in the discovery, development, manufacturing and marketing of medical and agricultural products. He has served Monsanto's board as a director and chairman since June 2000. Mr. AtLee chairs the board's executive committee and he is a member of the special committee. He also serves on the board of Nereus Pharmaceuticals Inc.

Hendrik A. Verfaillie, 56, of St. Louis, is president and chief executive officer of Monsanto. He joined the former Monsanto Company (now Pharmacia Corporation) in 1976, and he has served it in a variety of management positions. Mr. Verfaillie also served as director of the former company from June 1999 to March 2000, and as a director on the Monsanto board since February 2000. He is a member of the board's executive committee.

Christopher J. Coughlin, 49, of Morristown, New Jersey, is executive vice president and chief financial officer of Pharmacia Corporation, a leading global pharmaceutical company. Prior to joining Pharmacia in 1998, he was president of Nabisco International, a manufacturer of biscuits, snacks, and other premium food products. Mr. Coughlin joined the Monsanto board in March 2000. He is a member of the board's executive, and science and technology committees. Mr. Coughlin also serves on the board of Amersham Biosciences Limited.

Michael (Mickey) Kantor, 62, of Washington, D.C., is a former U.S. secretary of commerce and a former U.S. trade representative. He is currently a partner in the international law firm of Mayer, Brown, Rowe & Maw. Mr. Kantor was first elected to the board of the former Monsanto Company (now Pharmacia Corporation) in 1997, and he continues to serve on the Pharmacia board. He has served as a director on the Monsanto board since June 2000. Mr. Kantor chairs the board's public policy committee, and he is a member of the science and technology committee.

Gwendolyn S. King, 61, of Washington, D.C., is president of Podium Prose, a speakers bureau. Prior to joining Podium Prose, she was senior vice president, corporate and public affairs for PECO Energy Company, a diversified utility company. She also served as commissioner of Social Security in the administration of former President George Bush. In 2001, Mrs. King was appointed to President George W. Bush's commission to strengthen Social Security. She was first elected to the board of the former Monsanto Company (now Pharmacia Corporation) in 1993, and she continues to serve on the Pharmacia board. Mrs. King has served as a director on the Monsanto board since February 2001, and she is a member of the board's people and public policy committees. She also serves on the boards of Lockheed Martin Corporation, Marsh & McLennan Companies Inc., and Countrywide Credit Industries Inc.

Sharon R. Long, Ph.D., 50, of Palo Alto, California, 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. In recognition of her research, she has been elected to 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, and she is a member of the board's science and technology, and public policy committees.

C. Steven McMillan, 56, of Chicago, is chairman of the board, president and chief executive officer of Sara Lee Corporation, a global consumer packaged goods company whose brands include Sara Lee, Earthgrains, Ball Park, Douwe Egberts, Hillshire Farm, Hanes, and Playtex. He has served as a director of the Monsanto board since June 2000. Mr. McMillan chairs the board's people committee, and he is a member of the restricted stock grant, and audit and finance committees. He has served on the board of Pharmacia Corporation since March 2000, and on the board of Pharmacia & Upjohn Inc. since 1998. Mr. McMillan also serves on the board of Bank of America Corporation.

EXECUTIVE AND OTHER OFFICERS

MONSANTO COMPANY

Philip Needleman, Ph.D., 63, of St. Louis, is senior executive vice president and chief scientific officer of Pharmacia Corporation, a leading global pharmaceutical company. He served as chief scientist at the former Monsanto Company (now Pharmacia Corporation), and he was a professor and department head of pharmacology at the Washington University School of Medicine. Dr. Needleman has served as a director on the Monsanto board since February 2002, and he is a member of the board's science and technology, and public policy committees.

William U. Parfet, 55, of Hickory Corners, Michigan, is chairman 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, and he is a member of the board's people, and audit and finance committees. Mr. Parfet has served on the board of Pharmacia Corporation since March 2000, and on the board of Pharmacia & Upjohn Inc. since 1985. He also serves on the boards of Apogent Technologies Inc., CMS Energy Corporation, PAREXEL International Corporation, and Stryker Corporation.

John S. Reed, 63, of New York, is the retired chairman of Citigroup Inc., a global financial services company. He was first elected to the board of the former Monsanto Company (now Pharmacia Corporation) in 1985 and served on its board until February 2001. Mr. Reed has served as a director on the Monsanto board since June 2000. He chairs the audit and finance, and science and technology committees, and he is a member of the board's special committee. Mr. Reed also serves on the board of Philip Morris Companies Inc.

* Ages as of March 1, 2002.

Chairman of the Board
Frank V. AtLee III

President and Chief Executive Officer
Hendrik A. Verfaillie

Executive Vice President and
Chief Operating 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

Senior Vice President,
Government Affairs
Steven L. Engelberg

Senior Vice President,
Human Resources
John M. Murabito

Senior Vice President,
Public Affairs
Sarah Hull

Vice President, North America
Carl M. Casale

Vice President and Controller
Richard B. Clark

Vice President, Manufacturing
Mark J. Leidy

Vice President, Strategy
Gerald A. Steiner

President, Animal Agricultural Group
Cheryl P. Morley

Chief Information Officer
Janet M. Holloway

This list includes executive officers as defined by the U.S. Securities and Exchange Commission; it is current as of March 1, 2002. Additional information on executive officers appears in Monsanto's Form 10-K.

SHAREOWNER INFORMATION

MONSANTO COMPANY

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

P.O. Box 3315

South Hackensack, New Jersey 07606-1915

U.S.A.

Telephone:

(888) 725-9529

Toll free within the United States and Canada

(201) 329-8660

Outside the United States and Canada

(201) 329-8354

For the hearing-impaired

On the Internet:

If you are a registered shareowner, you can access your Monsanto account online by using the Investor ServiceDirect feature at the Mellon Investor Services Web site at <https://vault.melloninvestor.com/isd/>.

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 may consent to 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 via 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 may choose electronic delivery over the Internet at <http://www.proxyvote.com> through your bank or broker.

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 – D2000

800 North Lindbergh Boulevard

St. Louis, Missouri 63167

U.S.A.

Additional Information about Monsanto

Report on the New Monsanto Pledge

You can read a progress report summarizing Monsanto's accomplishments toward fulfilling its five-point pledge on the Internet at <http://www.monsanto.com>.

Annual Meeting

The annual meeting of Monsanto shareowners will be held at 1:30 p.m. on Wednesday, May 1, 2002, in K Building at 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.

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

Investor ServiceDirect is a service mark of Mellon Investor Services.

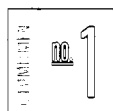
- (1) In 2000, Monsanto adopted Staff Accounting Bulletin (SAB) No. 101, *Revenue Recognition in Financial Statements*, the Securities and Exchange Commission interpretation of accounting guidelines on revenue recognition. The adoption of SAB 101 primarily affected the company's recognition of license revenues from biotechnology traits sold through third-party seed companies. Monsanto adopted the provisions of SAB 101 as an accounting change, recognizing a cumulative effect of a change in accounting principle as a loss of \$26 million, net of taxes of \$16 million, effective Jan. 1, 2000.
- (2) EBIT is net income (loss) before extraordinary item, cumulative effect of accounting change, interest and income taxes. EBITDA (excluding special items) is EBIT (excluding special items) without the effects of depreciation and amortization expense. The presentation of EBIT, EBIT (excluding special items), and EBITDA (excluding special items) is not intended to replace presentations of net income (loss), cash flows, financial position or comprehensive income (loss), and it is not a measure of financial performance as determined in accordance with generally accepted accounting principles in the United States.
- (3) Special items include restructuring and other special items, litigation matters, and the items in footnotes 1 and 6 on this page. Special items for the year ended Dec. 31, 2001, included pretax charges of \$273 million (\$176 million aftertax) primarily associated with the plan to streamline manufacturing operations, discontinue certain seed hybrids, eliminate noncore activities, and exit certain research programs. These special items of \$273 million also included the effect of three legal matters. Special items for the year ended Dec. 31, 2000, included pretax charges of \$261 million (\$197 million aftertax) primarily associated with the same plan mentioned above.
- (4) On Oct. 23, 2000, Monsanto sold 38,033,000 shares of its common stock at \$20 per share in an initial public offering (IPO). The total net proceeds to Monsanto were \$723 million. Subsequent to the offering, Pharmacia owned and continues to own 220 million shares of common stock, which represents 85.2 percent ownership of Monsanto as of Feb. 22, 2002. Earnings information was prepared on a carve-out basis for 2000; it was based on pro forma common shares outstanding immediately after the IPO.
- (5) Results for 2000 are on a pro forma basis, assuming Monsanto's reduced debt level as applied to all of 2000. Interest on a pro forma basis was reduced by \$112 million in 2000 because \$2.2 billion of debt was transferred to Pharmacia and \$723 million in proceeds from the IPO was used to repay debt. Pro forma tax expense increased \$44 million as a result of lower interest expense.
- (6) During 2001, the Pharmacia Savings and Investment Plan was separated into two plans, one that benefits employees of Pharmacia and one that benefits employees of Monsanto. As a result, Monsanto recognized a \$4 million (\$2 million aftertax) extraordinary loss related to the early retirement of Employee Stock Ownership Plan (ESOP) debt.

Some of the financial metrics (including net income and earnings per share) discussed in the front section of this publication (inside the front cover through page 19) are presented on a pro forma basis and exclude special items. See footnotes 1–6 above for further details.

This annual report is printed on recycled paper that contains at least 20 percent postconsumer waste.

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The New Monsanto Pledge Established in 2000, the pledge embodies our commitments to the growers and processors who are our customers, to the consumers who are their customers, and to everyone who cares about agriculture around the world. The pledge provides a foundation for how we'll do business for many years to come. Following is an update on our progress in 2001 and the next steps toward implementing the five commitments we made in the New Monsanto Pledge.



Dialogue

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

PROGRESS: Monsanto formed two advisory councils — the Biotechnology Advisory Council and the Grower Advisory Council — to create a network of outside experts who advise us on how we do business. During 2001, we welcomed more than 600 farmers to our research facilities, where senior man-

agers solicited ideas in small face-to-face meetings.

NEXT STEPS: Our priorities are to listen carefully to our customers, suppliers, consumers, and other stakeholders; to build strong relationships; and to make decisions that take into account stakeholder views.



Transparency

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

PROGRESS: Monsanto published on the Internet comprehensive regulatory safety summaries for the first five of our biotechnology products — an unprecedented step

in the biotechnology industry. We also posted on the Internet lists of more than 400 scientific publications about the attributes, safety and benefits of biotechnology products.

NEXT STEPS: Our priorities are to make summaries of safety information for our products available when they are com-



Respect

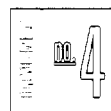
We will respect the religious, cultural and ethical concerns of people throughout the world. We will act with integrity, courage, respect, candor, honesty, humility and consistency. We will make the safety of our employees, the communities where we operate, our customers, consumers, and the environment our highest priority.

PROGRESS: Monsanto adhered to the pledge guidelines in all research and development activities and in the commercialization of our products.

NEXT STEPS: Our primary commitments are to make Monsanto a

mercialized, to share precommercial information with key stakeholders, and to support independent research on biotechnology.

great place to work, to encourage employees to take individual ownership of Monsanto's success, to maintain safety as our highest priority, and to continue to develop products conscientiously, with regard for all stakeholder interests.

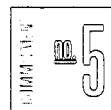


Sharing

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

PROGRESS: Monsanto shared many technologies — including our technologies for "golden" rice and mustard, virus-resistant sweet potatoes, and potentially healthier soybeans — to benefit farmers throughout the world.

NEXT STEPS: Our priorities are to improve basic scientific knowledge and understanding, to improve agricultural practices, to address humanitarian problems, and to form partnerships that assist farmers in the developing world.



Benefits

We will deliver high-quality products that are beneficial to our customers and to the environment, with sound and innovative science, thoughtful and effective stewardship, and a commitment to safety and health in everything we do.

PROGRESS: Monsanto made a commitment to biofuels by purchasing the first 100 Chevy Silverado pickup trucks that run on E85 ethanol-based fuel.

NEXT STEPS: Our priorities are to continue to offer products that benefit farmers and the environment, to help ensure that our customers have secure end-markets, and to pursue leading-edge innovation.

MONSANTO



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