

“Monsanto intends to  
be the best in whatever  
we choose to do —  
it's that simple.”

# Monsanto

Annual Report 1983

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## Monsanto at a Glance

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Monsanto Company's objective is to consistently increase shareowner value through market leadership in over 100 countries where we do business. We do this by developing and manufacturing products to meet growing customer needs in such areas as chemicals and chemical products, agricultural products, man-made fibers, electronic materials, health care, process controls, fabricated products and oil and gas — the whole linked by a strong technological heritage. And we earn the right to operate by acting as a responsible citizen in our communities and creating a healthy climate for our employees.

*Italics throughout the Annual Report  
identify Monsanto's trademarks.*

DSW 021509

## Operational Highlights

(Dollars in millions, except per share)

|                                         | 1983    | 1982    | 1981    |
|-----------------------------------------|---------|---------|---------|
| Net Sales                               | \$6,299 | \$6,325 | \$6,948 |
| Net Income                              | \$ 402  | \$ 352  | \$ 445  |
| Per Common Share: Net Income            | \$ 9.78 | \$ 8.79 | \$11.50 |
| Dividends                               | 4.15    | 3.95    | 3.75    |
| Shareowners' Equity                     | 89.66   | 85.97   | 84.37   |
| Property, Plant and Equipment Additions | \$ 560  | \$ 673  | \$ 668  |
| Depreciation and Obsolescence           | \$ 517  | \$ 439  | \$ 263  |
| Research and Development                | \$ 290  | \$ 264  | \$ 233  |

Net income for 1983 includes extraordinary tax benefits of \$33 million, or \$0.81 per share, from the utilization of ex-U.S. loss carryforwards.

Net income for 1982 includes an extraordinary gain of \$23 million, or \$0.58 per share, from an exchange of debt for common shares.

## Contents

|                                       |    |
|---------------------------------------|----|
| To Our Shareowners                    | 4  |
| The Hanley Years                      | 7  |
| The Best at What We Do                | 8  |
| Agriculture                           | 9  |
| Construction and Home Furnishings     | 14 |
| Pharmaceuticals and Personal Products | 17 |
| Capital Equipment                     | 18 |
| Motor Vehicles                        | 23 |
| Chemicals and Hydrocarbons            | 26 |
| Apparel                               | 29 |
| Other Markets                         | 30 |
| Financial Report                      | 32 |
| Directors and Officers                | 58 |

DSW 021510

**Monsanto**  
**1983 Sales by Operating**  
**Unit & Major Market**  
(Dollars in millions)

2

**Operating Units**  
Net sales of each  
Monsanto Operating Unit,  
and percent of total  
▼

**Major Markets** ▶  
Net sales of each  
Monsanto Operating Unit  
in major markets  
and percent of total

**Agriculture**  
**\$1,272**  
20.2%

**Construction  
and  
Home  
Furnishings**  
**\$1,217**  
19.3%

**Agricultural and  
Nutritional Products** **\$1,319**

Agricultural Products  
Nutrition Chemicals

**\$1,197**

**Fibers and  
Intermediates** **\$1,170**

Man-made Fibers  
Textile Intermediates

**\$23**

**\$512**

**Industrial Chemicals** **\$856**

Detergent and Fine Chemicals  
Specialty Chemicals

**\$36**

**\$54**

**Polymer Products** **\$1,830**

Plastics  
Resin Products  
Rubber Chemicals and Instruments

**\$2**

**\$623**

**Engineered Products** **\$596**

Engineered Products 9.5%  
and Materials  
Oil and Gas

**\$14**

**\$28**

**Fisher Controls** **\$528**

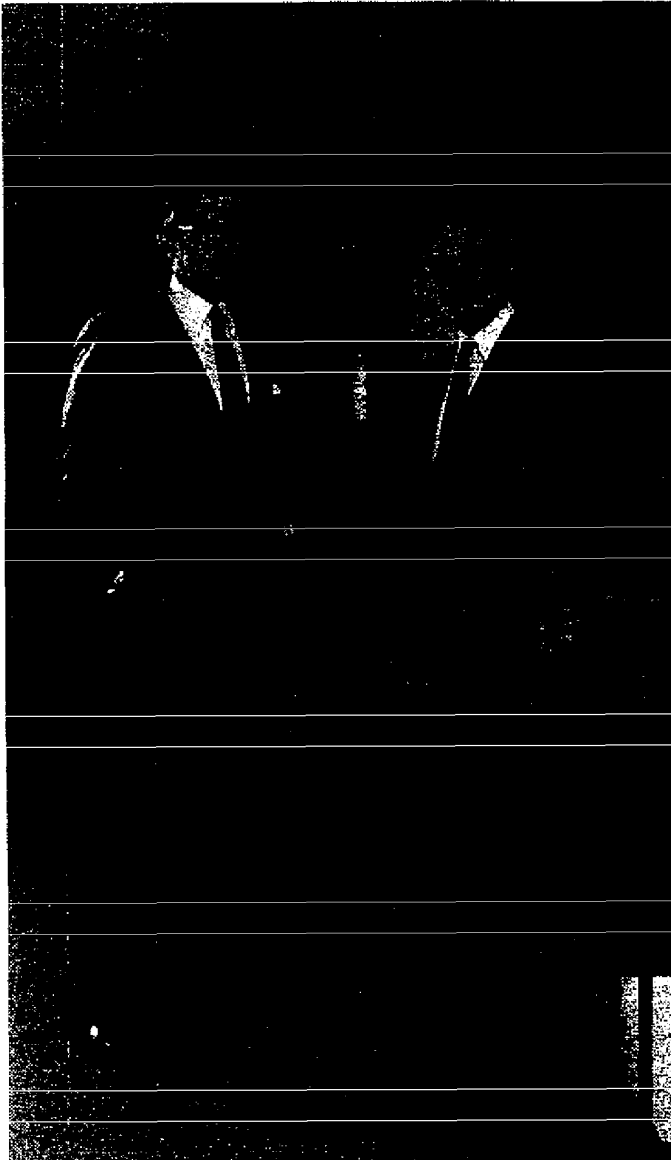
Valves, Regulators and 8.4%  
Electronic Process Controls

**Total** **\$6,299**  
100%

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| Pharmaceuticals<br>and<br>Personal<br>Products<br>\$792<br>12.6% | Capital<br>Equipment<br>\$721<br>11.5% | Motor<br>Vehicles<br>\$597<br>9.5% | Chemicals<br>and<br>Hydrocarbons<br>\$520<br>8.2% | Apparel<br>\$437<br>6.9% | Other<br>Markets<br>\$743<br>11.8% |
|------------------------------------------------------------------|----------------------------------------|------------------------------------|---------------------------------------------------|--------------------------|------------------------------------|
|                                                                  |                                        |                                    |                                                   |                          | \$122                              |
|                                                                  | \$7                                    | \$25                               | \$42                                              | \$425                    | \$136                              |
| \$497                                                            |                                        | \$58                               | \$134                                             | \$12                     | \$67                               |
| \$193                                                            | \$18                                   | \$506                              | \$103                                             |                          | \$387                              |
| \$102                                                            | \$170                                  | \$10                               | \$241                                             |                          | \$31                               |
|                                                                  | \$638                                  |                                    |                                                   |                          |                                    |

DSW 021512



On the cover of this year's Annual Report, we make a bold assertion: "Monsanto intends to be the best in whatever we choose to do — it's that simple." It is a goal that we are convinced we can reach. In many areas, we have already reached that level of excellence. In others, we are well along the path.

That statement reflects the strategic redirection Monsanto has pursued these past few years as it moves away from a largely commodity petrochemical-based company towards a company of higher value-added, higher profit specialty products and processes. It also speaks to our role in society as a producer of safe and reliable products, a good neighbor in our plant and location communities worldwide, and an active participant in shaping the dialogue on public policy.

We are proud to report to you that, in 1983, we made significant progress towards this goal of excellence and we are continuing to actively manage our assets, technology, people, market opportunities, and products in the best traditions of Monsanto. Your company in 1990 will look quite different, but the strengths which make these changes possible

**President Richard J. Mahoney (left) with Chairman Louis Fernandez**

DSW 021513

will still be with us, particularly the creativity and dedication of our worldwide family of employees.

Fundamentally, we see the future Monsanto as a company with three roughly equal parts: a successful and profitable chemical products business; a major presence in the biological sciences including agriculture, nutrition and health care; and expanded activities in fabricated goods, process controls, electronic materials and oil and gas.

In 1983 we took steps in many areas to forge our strategies into realities, and emerged from the worldwide recession better positioned for the coming years. In this past year, our Company:

- Earned \$402 million, an increase over 1982 of 14 percent.
- Increased financial commitment to research and development by 10 percent over 1982. We intend to continue that trend.
- Carefully managed our assets, eliminating businesses which drained profits with no hope of a turnaround.
- More than tripled our polymers earnings and brought our fibers business to profitability with further improvements in hand.
- Capably managed our way through reduced demand

for farm chemicals resulting from poor weather and the government's Payment-in-Kind program, which took unprecedented crop acres out of production.

- Made excellent progress towards developing new herbicides and new seeds from plant science. Our first genetically engineered product — designed to increase animal food efficiency — moved to the advanced development stage.
- Established a Health Care Division and developed a blueprint for market entry, agreeing in principle to buy the Belgian company, Continental Pharma S.A., as an important first step.
- Took over full ownership of Fisher Controls International Inc. to permit us to accelerate this high-growth business.
- Started up the world's largest maleic anhydride plant which uses a new low-cost Monsanto process.
- Began fresh initiatives for sales in China and the USSR with results ranging from new levels of agricultural programs to expanded chemicals and mechanical goods.
- Fought off infringements and strengthened patent protection for our most profitable product, *Roundup* herbicide.

- Entered a research agreement with Oxford University, while continuing our biological effort through major agreements with Washington University in St. Louis and other institutions around the world.

- Added importantly to our Board of Directors through the election of Dr. John B. Slaughter, Chancellor of the University of Maryland at College Park and former director of the National Science Foundation.

- Completed a major corporate reorganization designed to better focus our technical strengths on worldwide market opportunities.

There is still much to be done, and, in certain areas, we were not as successful in 1983 as we would have liked. Although we have more new products entering the marketplace now than at any other time in our recent history, we need to — and will — shorten the elapsed time from idea to commercialization.

There continue to be parts of Monsanto that are not operating at acceptable profit levels, particularly in some of our remaining commodity petrochemicals. We have repaired parts of these units and are aggressively working on the rest.

The promise of a highly profitable silicon business remains

DSW 021514

only a forecast. While long-term prospects are excellent, our silicon business had unsatisfactory financial results in 1983.

Building on and accelerating our strengths and improving results on *all* of our assets will remain our operating philosophy.

The Company's performance, of course, must meet another, very important test: our obligation to society. In this category, Monsanto also intends to be second to none.

For example, the public has a genuine concern about toxic wastes and dump sites. Monsanto agrees with the need for effective management of hazardous waste disposal, and we are responding. In 1984 we expect to spend \$25 million to clean up old dump sites — a level of expenditure likely to continue for several years. We are providing strong leadership in mobilizing the chemical industry to seek positive solutions to the hazardous waste problem. We think that is what the public would expect from a company like Monsanto.

On another front, many citizens are uncertain about the new technology of genetic engineering. Since this is an important growth area for Monsanto, we intend to be a leader in communicating

with the public about the safety inherent in properly regulated biotechnology.

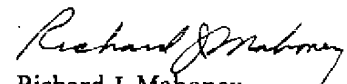
Finally, Monsanto people throughout the world will be working for open avenues of trade for our products. Protectionism is not the avenue to international prosperity. And consistent with a free and fair trading environment, nations must be continually urged to protect property rights. We intend to defend these rights, particularly in patents and product registration, which are so critical to our Company's future.

As a result of the new directions charted over the past few years and the corporate reorganization designed to implement them, our Company is much better able to *manage* its future. We know where we want to go, and what it will take to get there. We harbor no illusions that the course ahead will be easy as we face swiftly changing market demands, increasing competition, accelerating technological challenges, and escalating public expectations. Nevertheless, our aspiration to excel serves as a unifying force in a time of divisive complexities. Our Company is astir with a renewed sense of optimism, and indeed a spirit of excitement.

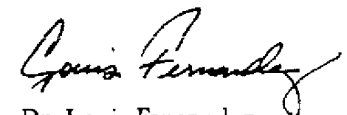
As we move ahead, we are measuring ourselves con-

stantly against our visions of the future as well as our traditions from the past — traditions which have evolved over the decades of strong leadership from John F. Queeny to John W. Hanley — traditions from which companies derive their ideals and standards — traditions of quality in our products, service to our customers, fairness to our shareowners, loyalty to our employees, and commitment to our plant and office communities.

Our broad strategies are in place, and the task now is to carry them out effectively. How we intend to do this is described in this Annual Report. The good year we enjoyed in 1983 is a heartening milestone along the way to being "the best in whatever we choose to do." Our plans provide the direction — we know what we have to do.



Richard J. Mahoney  
President and Chief  
Executive Officer



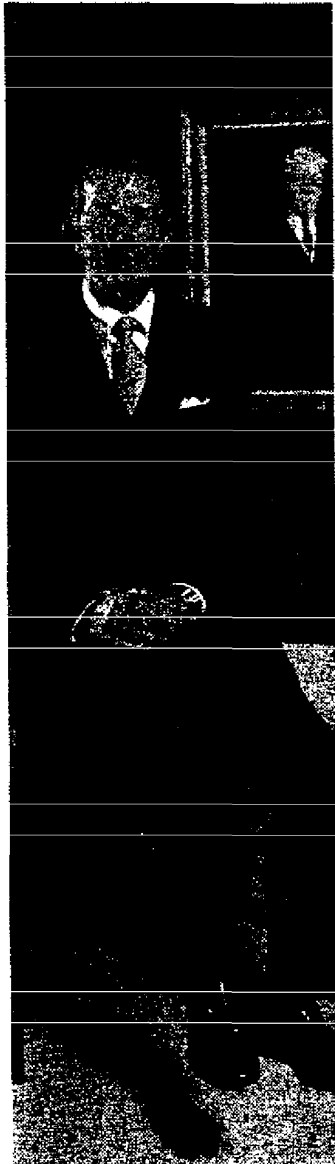
Dr. Louis Fernandez  
Chairman of the Board

March 5, 1984

DSW 021515

## The Hanley Years

7



John W. Hanley retired March 1, 1984, after 11 years as Chief Executive Officer of Monsanto.

As the first CEO recruited from outside the Company's ranks, Mr. Hanley took over a \$2 billion multinational enterprise with a proud heritage of achievement dating back to 1901, and directed it through one of the most important transitions in its history. He moved Monsanto from a loosely knit group of chemical businesses to a more broadly based, marketing-oriented organization with a highly professional management team and a carefully defined strategy for the future.

Under Mr. Hanley's leadership, Monsanto dramatically expanded its highly profitable agricultural chemical business. He guided the corporation into promising scientific fields, in part through strong in-house capability, but also by way of constructive partnerships with leading academic institutions. He enhanced an already strong sense of corporate responsibility within Monsanto. This began with his own personal commitment to his subordinates and extended throughout the company. In all these areas, his imprint on the organization was deep, and his perceptive insights enduring.

A good measure of any corporation's performance is what happens to its common stock price over a sustained period. During the Hanley tenure, Monsanto's stock rose 119 percent, outdistancing the Dow Jones' 24 percent rise as well as those of the other major chemical companies.

The notable progress made under Mr. Hanley in building stronger professional management, enhancing technical expertise, and developing a well-balanced product line will stand Monsanto in good stead during the rest of this decade and into the next. His voice will continue to be heard with clarity, articulating a legacy of people, planning and purpose.

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**The Best At What We Do**  
... our market strengths  
in the late 1980s

8

To be the best at whatever we choose to do ... to ensure that Monsanto is a business enterprise worthy of the confidence and enthusiasm of shareowners and investors between now and the 1990s.

We are in transition — away from largely petrochemical-based commodity chemicals toward a broader range of higher-value specialty products. By 1990 we expect Monsanto to be involved in three broad areas: traditional chemicals and chemical products, innovative biological products and high-growth engineered goods and systems.

We have the fundamental strengths with which to forge this three-part Monsanto. There is a solid base of leadership businesses — ranging from long-time leaders like rubber chemicals to premier growth products like *Roundup* herbicide. We expect a strong array of developmental businesses to begin to add substantial revenues to our earnings base within the next few years.

Our research and technological capability will not only produce new products for the future but also supplement existing products. For instance, significant increases in technology spending for our fibers businesses over the

past five years have resulted in a broad range of new products with great promise. Our financial strength enables us to support our growth programs and to pursue a realistic acquisitions strategy.

We know what we must do to reach our goal. In the next few pages, we offer evidence that we are turning our objectives into realities, through:

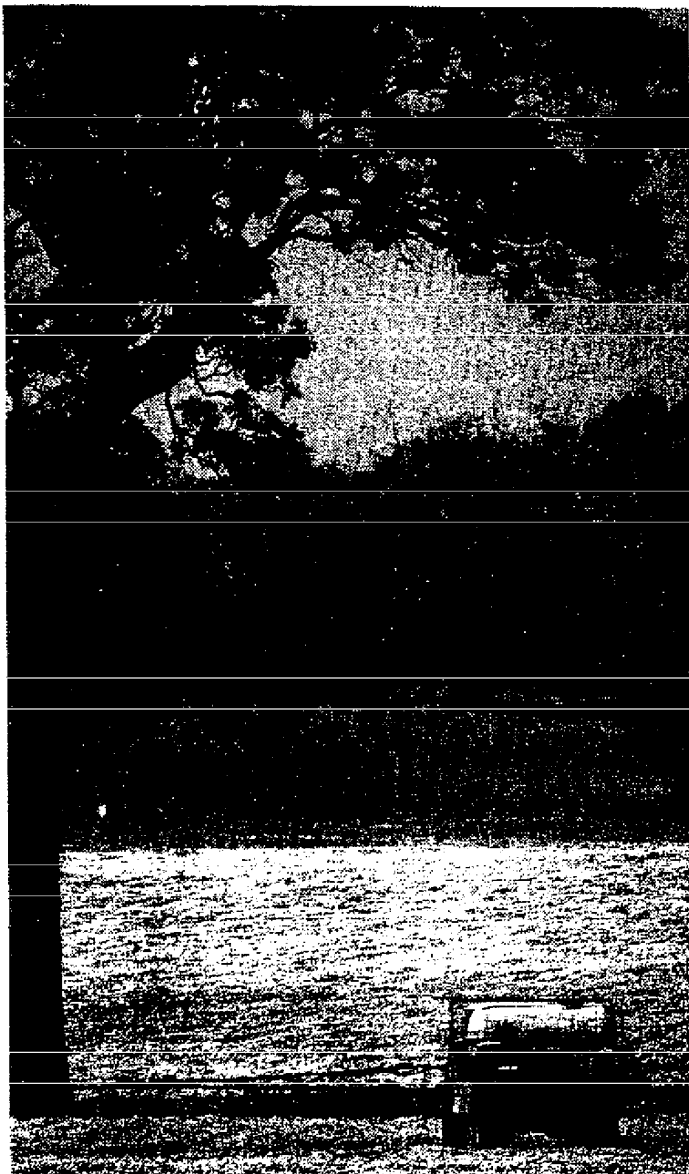
- new products — witness *Ricochet* herbicide for vineyards and *Scout* herbicide for rubber plantations, *Santoprene* thermoplastic rubber and *Cadon* engineering thermoplastics, *PRoVOX* instrumentation and many others.
- new markets and new applications — as with *Roundup* herbicide uses in conservation tillage, or *Saflex* plastic interlayer in glass for new architectural uses.
- solid marketing — demonstrated by the growing market strength of *Lasso* herbicide and the phenomenal growth of *Wear-Dated* carpets.

- international market development — ranging from long-established worldwide businesses like plastics to the rapid international expansion of growth businesses like electronic materials.

- strategic acquisitions — including total ownership of Fisher Controls, purchase of a soybean seed company and an agreement in principle to acquire the European pharmaceutical firm Continental Pharma S.A., all in 1983.

The fundamental principle to excel translates into market strengths in the late 1980s and beyond.

DSW 021517



Providing 20 percent of our total sales, world agriculture is Monsanto's most profitable market. Monsanto is the largest international manufacturer and marketer of herbicides, with *Lasso* and *Roundup* herbicides continuing to lead the industry.

Agriculture will be an even more important market in the future, and we are investing heavily in research and development for new products and technologies, such as plant sciences and feed additives. We are also increasing worldwide investments in local manufacture of herbicides.

During 1983, our sales in this market were down, largely because of the U.S. government's Payment-In-Kind (PIK) program, which paid farmers to leave unplanted

**Many new reduced-tillage practices rely on *Roundup* herbicide. Here, capeweed crowds out clover in an Australian pasture. *Roundup* applied at low rates when capeweed is in flower kills the weed before it sets seed, thereby reducing infestation in the next crop.**

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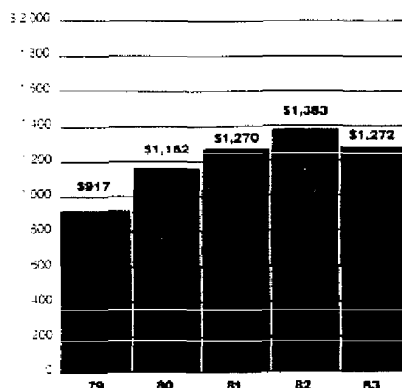
acres that would normally have gone into corn, sorghum, wheat, rice and cotton. Corn planting, the largest market for *Lasso* herbicide, was down by 22 million acres.

Nevertheless, Monsanto made the best of that situation. Although sales of *Lasso* herbicide declined from 1982 levels, market share increased in both corn and soybeans. Acreage will increase to near 1982 levels in 1984 as farmers place idle acres back into full production.

**Scout herbicide controls troublesome weeds among rubber trees on this Malaysian plantation. Scout complements the use of Roundup herbicide in the total weed management system for plantation crops in tropical Asia.**



DSW 021519



**Sales to Agricultural Market**  
(In Millions)

One benefit of PIK for Monsanto was increased sales of *Roundup* herbicide for weed control on idle PIK acres.

Nevertheless, worldwide sales of *Roundup* in 1983, up 11 percent over 1982, were less than we had expected because of the depressed international economy, a strong dollar and unusually bad weather primarily in western Europe. We expect *Roundup* to return to historically higher growth rates in the years ahead.

#### **Future Products from Increased Research**

In the future, Monsanto's greatly increased research efforts in agriculture and bio-

logical sciences will result in new products for both existing and new agriculture-related markets. We bolstered our already first-rate research capabilities during 1983, as we neared completion of two major research centers — one near Tokyo and another near St. Louis. We also purchased another leading seed company in 1983, providing us with a southern U. S. soybean gene-pool. Considerable research attention is being focused on plant sciences, a long-term effort with enormous potential.

The challenge for the near term, however, is to maintain and enhance the markets of *Lasso* and *Roundup* herbicides as patents in some countries begin to expire in the late 1980s and early 1990s. While there are a number of options available, Monsanto will use a three-pronged approach: continuing to price to value; developing new uses and applications;

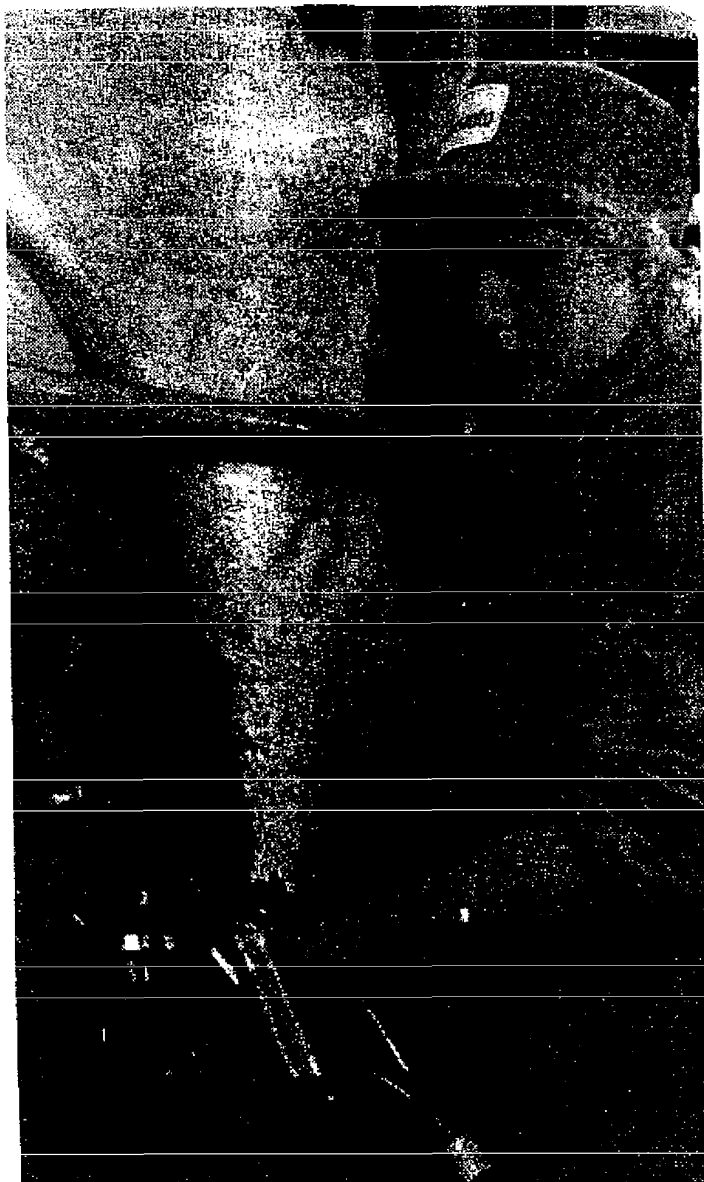
and creating new formulations, based on each herbicide's active ingredient, that can serve specific, well-defined market segments.

#### **Maintaining Lasso Herbicide Market Position**

*Lasso* herbicide is the more mature product with clearly defined markets. To enhance *Lasso's* position and prepare for patent expiration in late 1987, we will build on its several strengths: well-established reputation for quality, strong brand identity and the largest and best field sales and technical support team in the agricultural chemical business.

In addition, we expect to have new and better herbicides available in the market before expiration of the patent on *Lasso*. Furthermore, there will be new superior formulations and new mixes with other herbicides. We are confident that *Lasso* and related herbicides will maintain a strong market position in the late 1980s and beyond. Patent expiration is not quite the same concern for *Roundup* herbicide for two

DSW 021520



reasons. First, in the United States a recently issued patent gives protection to the year 2000, even though patents in other parts of the world begin to expire earlier. Second, *Roundup* is still very much a growth product.

***Roundup* Herbicide:  
A Multiplicity of  
Applications**

*Roundup* is so versatile that it may be considered not one but several products. A multiplicity of new markets are being identified, and with reformulations and new applications, *Roundup* is spreading to new markets throughout the world.

**Measuring milk yields is part of nearly completed experimental studies on methionyl bovine somatotropin (MBS), a compound which improves the efficiency of conversion of feed to milk in dairy cattle. To be introduced in the late 1980s, MBS should help reduce the cost of milk production.**

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For example, as a pre-harvest herbicide, applied to a field with matured crops, *Roundup* destroys weeds, thus permitting a cleaner harvest, and prepares the field for the planting of a second crop almost immediately. After only two years, it is the standard in the United Kingdom and continental Europe, and we intend to establish pre-harvest application in the United States.

*Roundup* continues to find favor as an integral tool in ever-expanding reduced tillage agriculture. For instance, low rainfall in some wheat growing areas in the United States and Australia requires that fields lie fallow one year out of every three or four in order to build up moisture for the next crop. Chemical fallowing conserves soil, time, labor, and energy by replacing ten to twelve plowings a

year with a one-pass application of *Roundup*. In another reduced tillage practice in Australia, *Roundup* herbicide, applied at low rates, effectively controls capeweed, which has taken over broad expanses of Australian pasture land.

#### **New Products for New World Markets**

We are developing several new products for lower cost and more effective control of both perennial and annual weeds. *Bronco* herbicide, a special formulation of the active ingredients in *Lasso* and *Roundup* introduced in 1981, has grown in reduced tillage uses in corn and soybeans.

Within the last few months we have also introduced *Ricochet* herbicide for vineyard use in France and in other grape-growing countries. Also just introduced, *Scout* herbicide controls troublesome weeds in rubber plantations in Malaysia. It has potential for other crops throughout tropical Asia. Through these new formulations and new uses, products based on glyphosate, the active ingredient in *Roundup*, are being introduced into new markets worldwide.

While we enhance the markets of our herbicides, we will also move rapidly ahead

on products for the animal feed industry. We have completed and successfully started up a 100-million-pound-per-year facility in Texas for producing *Alimet* feed supplement, liquid methionine hydroxy analog. *Santoquin* antioxidant continues to be the leading antioxidant used in the poultry feed industry.

We expect to market a new product for animal agriculture within the near term. Methionyl bovine somatotropin, an experimental product made through genetic engineering techniques, improves the efficiency of milk production in dairy cows. It is showing attractive test results.

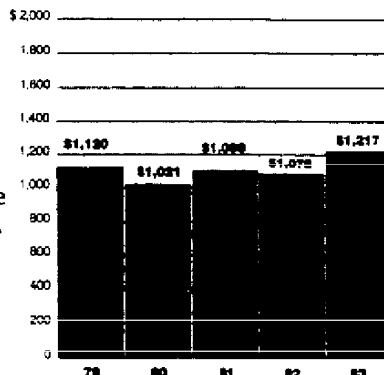
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The construction and home furnishings market is Monsanto's second largest market, accounting for 19 percent of total sales in 1983. It will continue to be one of our largest as we enhance the position of strong established products and new products through quality, value and increased technological support.

This is a highly cyclical market, heavily dependent on the volume of residential construction. Depressed for three years, construction and home furnishings rebounded strongly in 1983, and Monsanto's sales were up 13 percent. Sales of *Santicizer* plasticizers, which impart flexibility to vinyl materials used in flooring and wall coverings, followed the strong surge in construction during the year, as did sales of resins used in paints and industrial coatings.

Sales of *Lustran* ABS plastics did well in small appliances, a growing new market for this product. *Lustran* Ultra ABS plastic, a higher quality new plastic, gained increasing acceptance for consumer electronics and telecommunications uses.

Sales of *Acrilan* acrylic fibers, used in upholstery, draperies and wall coverings, also grew in 1983. With a major tech-



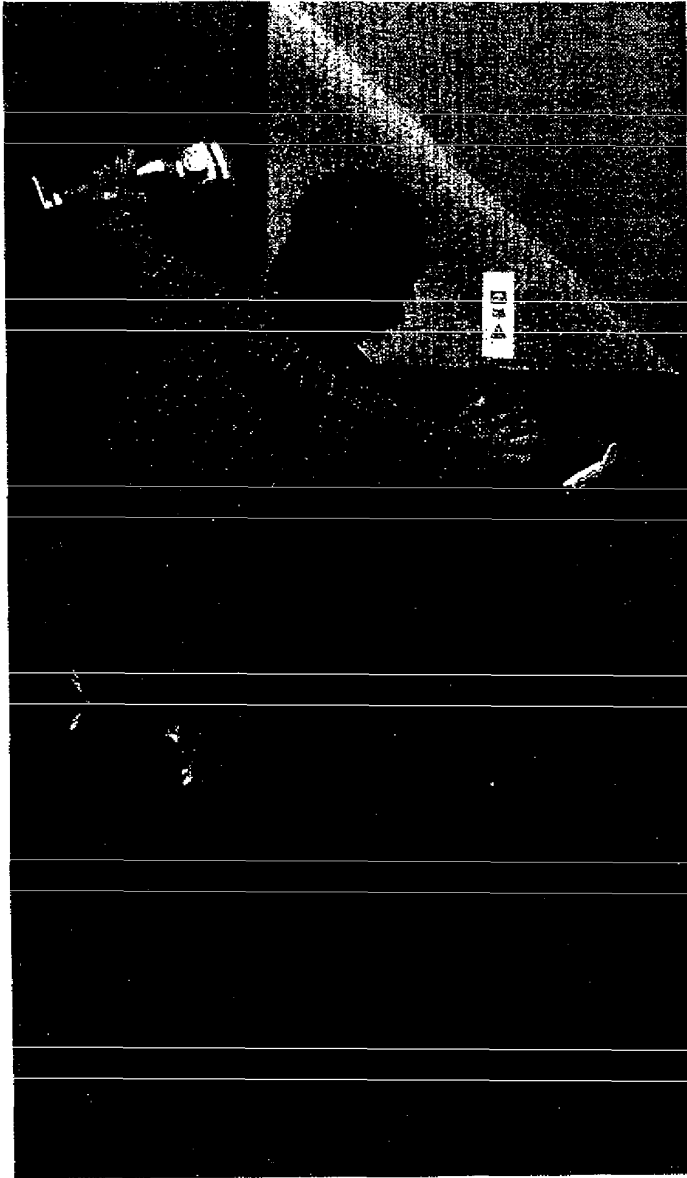
**Sales to Construction and  
Home Furnishings Market  
(In Millions)**

nological commitment to develop new products and modify existing products in acrylic fibers, Monsanto intends to become a larger supplier to these markets. Particularly strong during 1983 and projected as large growth products for the next several years are two well-established Monsanto products — *Ultron* nylon fibers for carpet and *Saflex* polyvinyl butyral plastic interlayer for laminated glass. Both moved well ahead of market recovery during 1983.

### **Strong Growth for Wear-Dated Carpets**

The success of *Ultron* nylon fiber rests on its strong performance characteristics backed up by our warranty for *Wear-Dated* carpets. This is the best-known product warranty in the business and has been in use for more than two decades in the apparel industry. It stands today behind *Wear-Dated* carpets made with our branded fibers. The symbol for *Wear-Dated* carpets assures the consumer that the carpet being purchased has passed our rigorous testing standards and will provide excellent performance in the home. Sales of *Ultron* fibers have grown dramatically since *Wear-Dated* carpet was introduced in 1980. Today more than 60 percent of our nylon carpet fiber is sold as branded fibers, and over 90 percent of all retail carpet stores carry *Wear-Dated* carpets. At the January 1984 carpet trade shows, Monsanto had the majority of all the new nylon staple carpets introduced.

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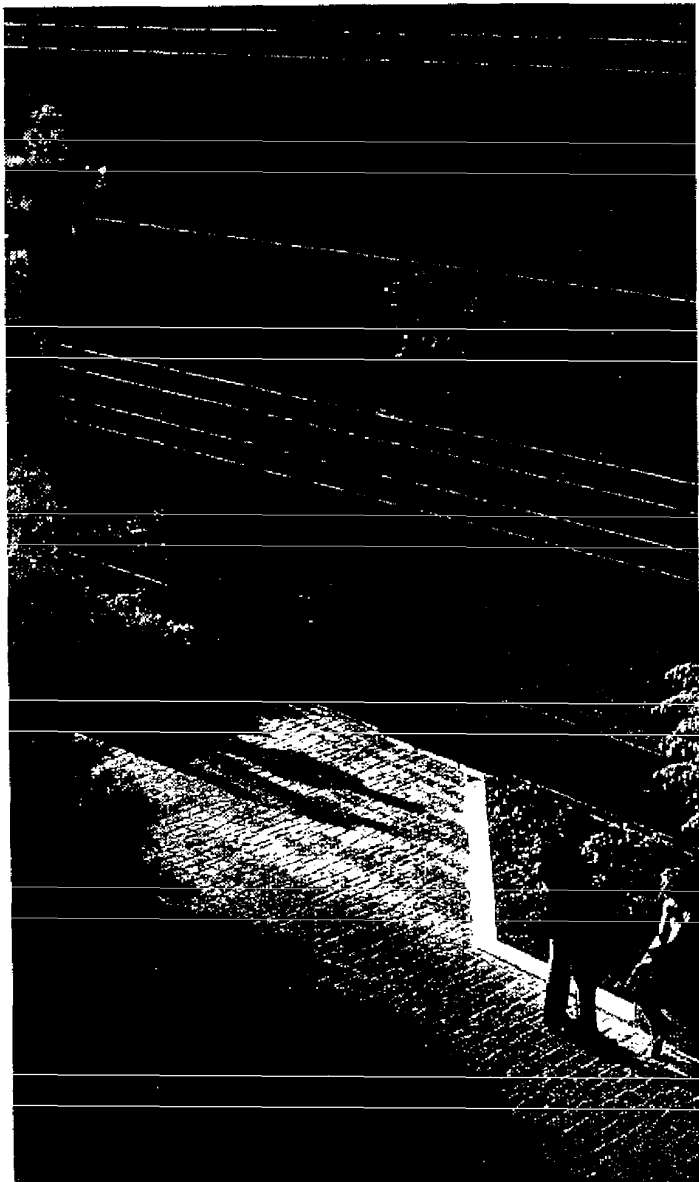


### Expanded Uses for *Saflex* Interlayer

*Saflex* polyvinyl butyral interlayer for laminated glass has been a market leader for four decades in automobile safety glass. It also has wide acceptance for safety reasons as skylight glass in buildings and in structures where safety glass is required by the Consumer Product Safety Commission. Laminated glass made with *Saflex* plastic interlayer meets today's architectural designs for a versatile, high-performance glazing product that offers safety and security as well as solar and sound control.

Consumers can be sure of quality and value in ***Wear-Dated*** carpets made with ***Ultron*** nylon. Since Monsanto began offering a five-year warranty for ***Wear-Dated*** carpets in 1980, sales of Monsanto's branded premium carpet fibers have increased by 28 percent.

DSW 021524



Dramatic evidence of the qualities of laminated glass in windows occurred during August 1983, when Hurricane Alicia hit southeast Texas. Many buildings with ordinary glass suffered weather damage and interruption of business. However, those with laminated glass were protected from such damage and disruption.

This demonstration of the qualities of laminated glass for architectural use will help promote the rapid growth of this older Monsanto product, whose sales grew by more than 25 percent worldwide during 1983.

**An old product finds new uses. The market for Safflex polyvinyl butyral interlayer, for 40 years an essential part of laminated safety glass in automobiles, has grown with the use of laminated architectural glass, as in the exterior walls of Pepperdine University Plaza in Los Angeles.**

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Monsanto will broaden its position in pharmaceuticals and personal products through new product and market development, international expansion and acquisitions.

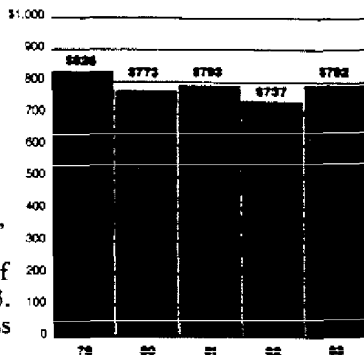
Markets for pharmaceuticals, detergents, and personal goods provided 13 percent of Monsanto's total sales in 1983. These markets tend to be less cyclical than others, but they benefited from the general recovery in 1983, and Monsanto's sales increased 7 percent over 1982.

Sales of Monsanto's plastic bottles, most of which become packaging for products in these markets, were particularly healthy in 1983. We intend to strengthen our position in this market through a continuing emphasis on higher value-added products.

During 1983, detergent products benefited from the recovery in the U. S. economy, where we have for years been the largest maker of raw materials for the soap and detergent industry.

#### **New Detergent Products In Global Markets**

Monsanto is poised to take advantage of opportunities in worldwide detergents markets for the rest of this decade. We are working to develop new surfactants,



**Sales to Pharmaceuticals and  
Personal Product Market  
(In Millions)**

builders and bleaches. For example, Monsanto is developing a potential new bleach product with characteristics particularly attractive for low-temperature laundering, the prevalent practice in the United States and a growing one in Europe. We expect to market this product within the next few years.

Traditionally, Monsanto has focused on U.S. detergents markets, even though we already supply NTA (nitrilotriacetic acid) and other ingredients to non-U.S. markets. Our developmental products, however, have equally great potential in

other world markets, where we are increasing our efforts. We are pursuing plans to test the potential for investment in the local manufacture of detergent products not only in Europe but also in Southeast Asia, China, Japan and Brazil.

#### **Moving Into Prescription Drug Markets**

Monsanto intends to become a major participant in the global prescription pharmaceutical market. Our newly created Health Care Division expects to begin marketing Monsanto-discovered products in the late 1980s. During 1983, the Health Care Division built its organization through the appointment of several top managers with extensive experience in the pharmaceutical business. We also negotiated an agreement in principle during 1983 to acquire Continental Pharma S.A., a Belgian pharmaceutical company, which has first-class research and development capability.

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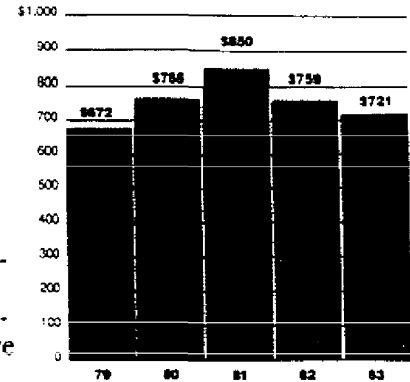
Our move into health care markets is based on a careful consideration of Monsanto's strengths and market opportunities. For instance, we have technological and research skills relevant to the pharmaceutical field, particularly with our strong position in biotechnology. Another strength is our series of relationships with major scientific research universities, including Washington University in St. Louis, Harvard University and Oxford University. Supplementing these is equity interest in two biotechnology companies, Biogen N.V. and Collagen Corporation.

Aside from our technological and research strengths, pharmaceuticals are attractive to Monsanto for other reasons. It is an international business with no dominant world leader. It is also a high value-added business, consistent with Monsanto's move toward proprietary products. Finally, it is a large and growing market. We expect pharmaceutical sales in the non-Communist

world to grow to more than \$150 billion by 1990, more than double 1983 sales.

Monsanto is also involved in other pharmaceutical markets, primarily as a supplier to final formulators. We are the world's leading supplier to the over-the-counter analgesics market, with strong positions in aspirin and acetaminophen. During 1983, we maintained our position in world aspirin markets, while we increased our participation in the higher-growth acetaminophen market.

We are also the only U. S. manufacturer of L-Dopa, a prescription drug used in the treatment of Parkinson's Disease. The bulk manufacture of this drug is based on chemistry pioneered by Monsanto scientists.



**Sales to Capital Equipment Market**  
(in Millions)

Currently providing 11 percent of our sales, capital equipment markets should be the arena of some of Monsanto's greatest growth during the next decade. Superior technology, world-class products and excellent service give us a strong position from which to expand. Most segments of the capital equipment market remained depressed during 1983, and our overall sales dropped by 5 percent. Sales of Fisher Controls International, Inc., manufacturer of control valves, field measurement instrumentation and distributed digital control systems for industrial processes, were down by 10 percent. That is a

DSW 021527



far better performance than our competitors, however, who averaged a sales decline of more than 30 percent. The electronics industry resumed growth in 1983, and our sales of silicon-wafer products used in the manufacture of integrated circuits rose 36 percent. We expect our electronic materials income to turn positive after several years of heavy investment.

In engineered products and facilities, results varied. Sales

---

**Initially developed to recover hydrogen from waste gas, PRISM separators in expanded applications now separate other gases, including nitrogen, oxygen, carbon dioxide and methane. At this Warren Petroleum installation in California, a PRISM separator removes carbon dioxide from a natural gas stream, making it suitable for sale.**

DSW 021528

of sulfuric acid plants by Monsanto Enviro-Chem Systems, Inc., and *PRISM* hollow-fiber gas separators were directly affected by depressed capital equipment spending. However, Enviro-Chem introduced an important energy-saving technology in 1983. Monsanto also commercialized four new applications for *PRISM* separators, which found growing international favor during the past year with sales in Brazil, Japan, Norway and the United States.

For the remainder of the 1980s, Monsanto expects significant revenues from developments in the capital equipment markets.

#### **Fisher Controls Builds on Technological Leadership**

Fisher Controls will continue to build on its leadership in the global process-control industry toward becoming the number-one worldwide manufacturer of complete process-control systems. To reach that goal, Monsanto purchased the one-third share of Fisher Controls held by the General Electric Company, p.l.c., of the United Kingdom. Fisher Controls is now a wholly owned subsidiary.

Fisher has long been the premier manufacturer of control valves and regulators. The introduction of a unique high-performance rotary valve in 1984, coupled with the recent introduction of a severe service valve, will further strengthen Fisher's leadership in this area.

The field measurement segment of the business, which is the largest market, is fragmented. To enhance its position, Fisher Controls has been a leader in adapting electronic technology to process control. Last year, Fisher introduced a unique, proprietary vortex flow transmitter for more reliable and accurate flow measurement. Fisher also brought out a new series of quick-reacting valve positioners that not only "fine tune" performance, but offer tremendous customer flexibility as well.

In control room instrumentation, Fisher established itself among the top three manufacturers with the 1980 introduction of *PRoVOX* instrumentation. *PRoVOX* establishes Fisher as a leading supplier of distributed digital control, which is the preferred form of instrumentation today. Such control means that a series of microprocessor "brains" are distributed throughout the process, instead of all control emanating from a central source. The result is more secure, efficient and flexible process control.

#### **Electronic Materials Poised for Market Growth**

Monsanto in 1983 reaffirmed its commitment to the silicon wafer business by forming the Monsanto Electronic Materials Company as an operating unit. Monsanto is the largest supplier of silicon to the United States market and is a leader in world markets.

Monsanto has moved away from largely commodity silicon toward differentiated silicon-wafer products which

DSW 021529



offer greater value to customers and thus command higher prices. After a two-and-a-half year slump, we expect the industry to return to a high growth rate, and Monsanto believes it is better poised than any to take advantage of this expansion. By the 1990s, Monsanto's goal for its electronic materials business is annual sales approaching three-quarters of a billion dollars. This growth will be based on several strengths.

**PRöVOX process-control instrumentation has become a leader in a rapidly growing market. Well established for continuous-process control, PRöVOX is now recognized for superior qualities in batch-process control, as at this resins plant in Massachusetts.**

DSW 021530

First, there is the current strong market position in the United States and around the world. Second, previous heavy investments in capacity expansion means that Monsanto now is better able than our competitors to take advantage of worldwide market growth. Third, the quality of our products is second to none among international market participants.

**Although current sales of silicon-wafer products to the Japanese semiconductor industry are small compared to our U.S. sales, Monsanto is committing the resources necessary to become a major supplier in Japan by the 1990s. Here, NEC Corporation, Japan's largest maker of chips for the electronics industry, processes Monsanto silicon wafers into integrated circuits.**



DSW 021531

Fourth, we are producing high-technology value-added silicon products permitting chip manufacturers to produce higher yields of more complex integrated circuits on smaller chips. Currently, these account for 37 percent of our total sales for integrated circuits, up from 11 percent in 1981.

#### **Commercial Development Strengthens Enviro-Chem**

Monsanto Enviro-Chem Systems, Inc., is the world's leader in design and construction of sulfuric acid plants. In 1983 that division introduced a new technology to recover the tremendous heat generated by producing acid and to turn it into electricity that can be sold to public utilities. A plant using this technology was completed in Florida last year.

Monsanto is also the worldwide technological and sales leader in membrane gas separation. New applications such as enhanced oil recovery, natural gas refining, landfill-gas recovery and nitrogen separation appear promising.

RDI, Inc., a wholly owned subsidiary acquired in 1980, produces the world's most powerful and highest quality electron beam accelerators, used to strengthen plastic, sterilize disposable medical devices and vulcanize rubber without the use of sulfur.

RDI, Inc., is also moving into an expanded service role for its customers, with a new eastern U. S. center expected to be operational by 1985.

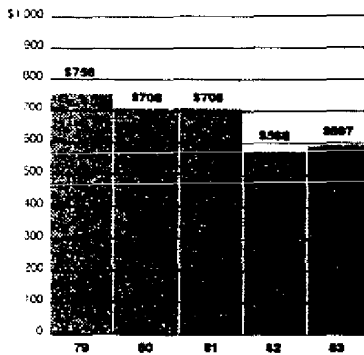
Several Monsanto product lines have long been leaders in world motor vehicle markets, where we made 9 percent of total 1983 sales. To extend our successes in these markets, we will rely on our established market positions, a well-developed international presence, and superior technology to customize products to meet special customer needs.

Virtually all Monsanto products in this market had robust sales in 1983, primarily because of a vigorous 30 percent increase in North American automobile production. The outlook is even more encouraging, since the historically high seven-year age of the average automobile in the United States indicates continuing consumer demand.

#### **Established Products Will Have Strong Growth**

Sales of *Saflex* polyvinyl butyral interlayer for laminated automobile safety glass should have strong growth for the rest of the decade as governments and manufacturers increasingly specify laminated safety glass for automobiles. Monsanto will benefit from this market

DSW 021532



**Sales to Motor Vehicles Market**  
(In Millions)

growth, with manufacturing facilities in the three largest markets: the United States, Europe and Japan. *Saflex* is also becoming less subject to the cycles of the automobile industry with its rapidly growing popularity for non-residential architectural uses. We also intend to extend the position of our rubber chemicals, in which we are the world leader. Today about two-thirds of our total sales are outside the United States. New products in the late 1980s will strengthen our lead and maintain our preeminence in this market.

A product with significant opportunity in tire markets is low-twist nylon tire cord. This product, made with our nylon yarns, provides tire manufacturers with a new range of tire design and geometry options, which can lead to lighter-weight tires with reduced rolling resistance and, therefore, improved fuel economy and better handling and ride characteristics.

Monsanto plastics have many automotive uses, both for body trim and under-the-hood components. Among the most successful has been *Lustran* ABS plastic, two new grades of which were launched during the year. One better withstands weathering in various components and the other provides lower gloss for interior trims.

#### **Innovative Plastics Gain Acceptance**

Two other new Monsanto plastic products are growing rapidly in automotive uses. *Cadon* engineering thermo-

plastics offer excellent heat and chemical resistance as well as the ability to withstand impact. Rapid acceptance of *Cadon* during 1983 resulted in significant sales gains in just its second full year of commercialization. During the year, *Cadon* gained acceptance in wheel covers, mirrors, consoles and interior trim parts in many 1984 models. This product is growing beyond automotive applications into other markets such as appliances and electrical equipment.

A unique cross between rubber and plastic, *Santoprene* thermoplastic rubber is gaining wide acceptance in high-performance rubber applications such as hose, rack-and-pinion steering boots and vacuum connectors for emission control systems.

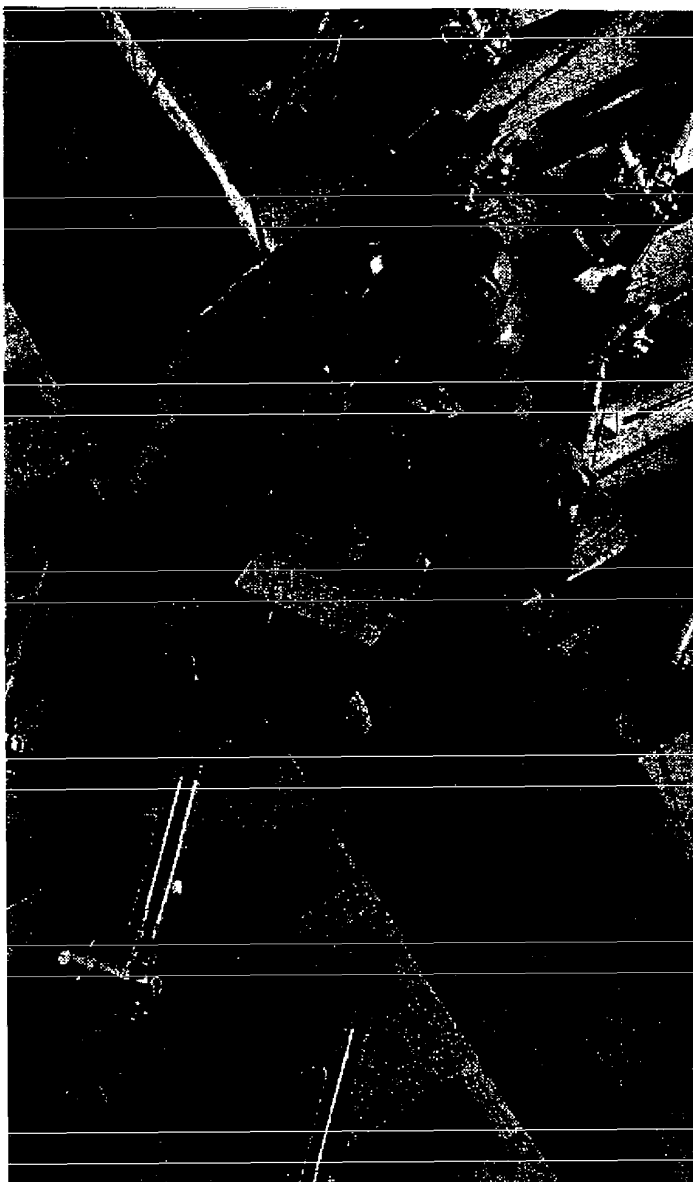
Monsanto opened a laboratory in 1983 to support the design and development of advanced automotive components made from *Santoprene*. In addition, we began to build a plant in Newport, Wales, to supply the growing European demand for *Santoprene*.

DSW 021533

### New Products for Motor Vehicles

Other new products also promise market growth during the 1980s. *Montac* structural adhesive will see its first commercial use in 1984 on a French vehicle. As automobile makers increasingly use plastics to help improve durability, lower maintenance costs and achieve fleet-mileage targets, we expect adhesive bonding to grow rapidly in the assembly of body panels. *Montac* should meet many needs in this changing market.

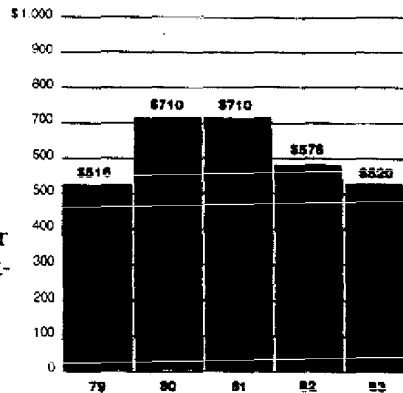
Offering the qualities of rubber and the processing ease of plastics, **Santoprene** thermoplastic rubber will thrive in many markets now dominated by conventional thermoset rubber materials such as neoprene. Here, a TRW quality inspector checks rack-and-pinion steering gears made with dust bel-lows of Santoprene.



DSW 021534

A new high-performance silicon-wafer product that allows higher circuit density in microprocessor-based emission and engine controls will go into production in 1984. Monsanto has strongly positioned itself to be a major supplier to the totally integrated control and information systems needed in the motor vehicles of the future.

Other Monsanto products in the automotive markets are gaining favor. Spray-control flaps continue to win wide acceptance with major truck and trailer manufacturers in both the United States and the United Kingdom. *Fome-Cor* polystyrene foam board laminate is used in automobile headliners because of its light weight, economy and durability.



**Sales to Chemicals and  
Hydrocarbons Market**  
(In Millions)

Responding to changed economic and industrial conditions, Monsanto is moving away from commodity petrochemicals toward proprietary products with greater added value where we can distinguish our products by their excellence. However, we remain in certain basic chemical businesses where we hold premier technological and market positions. We also have a subsidiary engaged in oil and gas exploration and production. Together, they accounted for 8 percent of our total sales in 1983.

During the year commodity chemicals markets in the United States recovered from

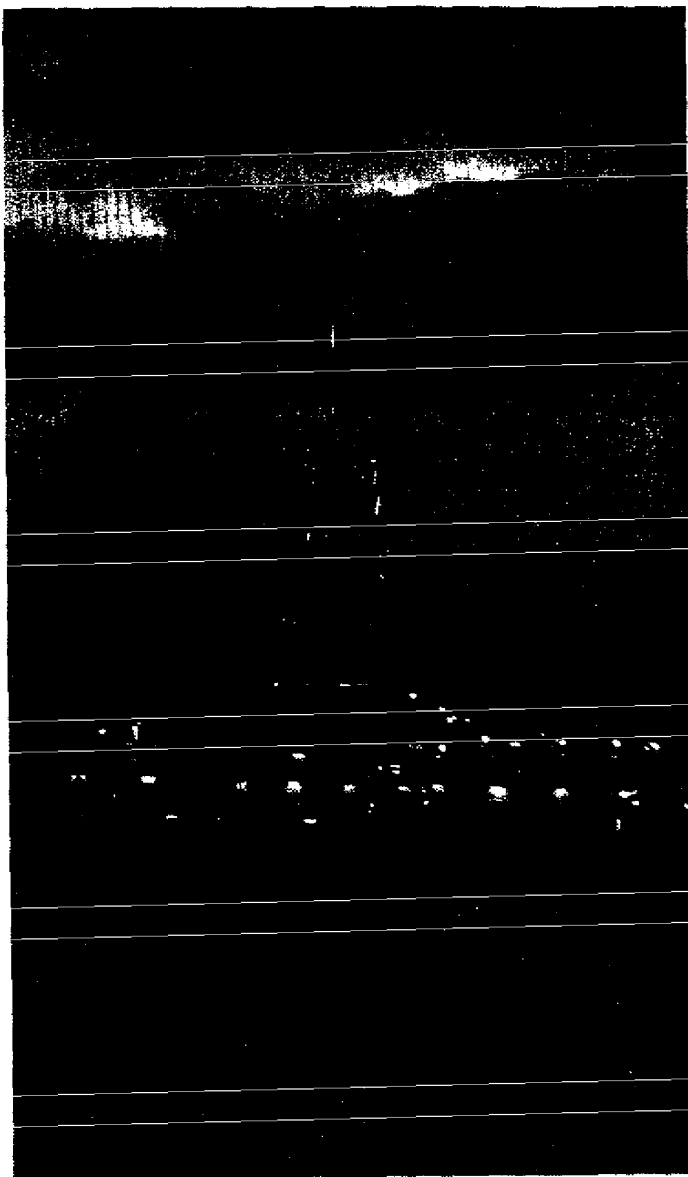
the recession, growing by more than 10 percent. European markets remained weak, showing signs of recovery only in early 1984. In all markets, however, Monsanto's acetic acid, maleic anhydride and other commodity chemicals outpaced economic recovery.

Despite a reduced demand for hydrocarbons during 1983, Monsanto Oil Company extended its record to five years of sustained profitable growth. Both production volumes and revenues were greater than in 1982.

Combined hydrocarbon reserve additions again exceeded the rate of withdrawal. Although natural gas reserves were down by 3 percent at the end of the year, the oil company's emphasis on finding and developing crude oil resulted in an 11 percent increase in oil reserves.

By various measures these petroleum and commodity chemicals businesses are leaders in their industry segments. They will retain and increase their leadership positions throughout the 1980s, providing substantial revenues to the Company.

DSW 021535



#### **Leadership in Maleic Anhydride, Acetic Acid**

Maleic anhydride has broad uses in unsaturated polyester resins for boats, motor vehicles and buildings, as well as uses in lubricating oil, agricultural chemicals and food additives. Not only is Monsanto the world's largest producer of this important intermediate, we also have technological leadership through our proprietary butane feedstock process for maleic anhydride. Inceas-

**An oil strike was verified by the semi-submersible rig "Ocean Rover" which drilled appraisal wells on Green Canyon Block 18, about 90 miles offshore from Louisiana. Monsanto Oil Company holds a 25-percent interest in this block, which has considerable potential.**

DSW 021536

ingly, butane will become cheaper and more plentiful than benzene, the traditional feedstock for maleic anhydride.

Building upon our market-place and technological leadership, we brought into full production in 1983 the world's largest maleic anhydride plant, located in Pensacola, Florida. This increased the company's capacity from 170 million to 300 million pounds annually. Overall, our maleic sales were greater than general economic recovery in 1983.

Monsanto is also the world technology leader in acetic acid, which is used in a broad range of products, including pharmaceuticals, man-made fibers, safety glass and agricultural chemicals. In 1983, Monsanto announced plans to increase acetic acid production by some 75 million pounds through a debottlenecking program at our Texas City plant. This additional capacity will allow us to strengthen our overall business by serving more customers. We expect most if not

all acetic acid plants of the future to employ Monsanto's proprietary technology through licensing arrangements. Since its introduction in 1971, Monsanto's process has accounted for 90 percent of the world's new acetic acid capacity.

### **High Potential for Oil Company**

Monsanto's wholly owned oil and gas subsidiary may be small in size by major oil company standards, but it makes strong contributions to our performance. Monsanto Oil Company's cost of finding and developing oil and gas is below industry averages, largely as a result of a drilling success rate of 79 percent.

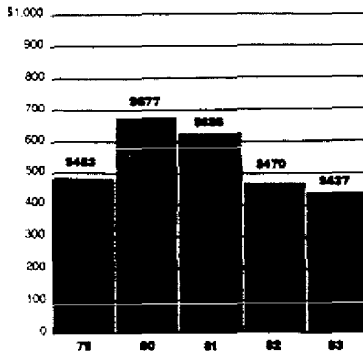
Monsanto Oil Company has positioned itself well for the future. Following a strategy of balancing exploration and development in higher-risk, higher-potential areas with that in lower-risk, mature areas, the oil company has been able to acquire several attractive prospects.

One particularly significant discovery was confirmed during 1983 by Monsanto Oil Company and its partners. Flow tests on wells drilled in Block 18 of the Green Canyon area of the Gulf of Mexico have verified the existence of significant oil reserves. Should this prospect prove to be commercially feasible, Monsanto's 25-percent share could produce considerable revenues by the end of the 1980s.

Monsanto Oil Company was also successful in the U.S. government's offshore lease sale in May. We leased several high-potential properties with characteristics similar to those of Green Canyon Block 18. These additional blocks could also increase reserves and revenues by the late 1980s.

Initial test results on a well drilled in the North Sea off the United Kingdom were highly encouraging. We continue to conduct studies to determine the size and commercial potential of this find.

DSW 021537



**Sales to Apparel Market**  
(In Millions)

Monsanto has strong U.S. manufacturing, technical and market positions in acrylic and nylon fibers for the apparel industry, including the world's largest acrylic plant in Decatur, Alabama. Through aggressive marketing and innovative research, we are moving to a volume business in branded, premium fibers.

In mid-1983, Monsanto completed the sale of its acrylic fiber business in Europe, where we had small plants in a market with severe overcapacity. This enabled us to redirect resources to our nylon and acrylic businesses in the United States. Sales to

the apparel industry provided 7 percent of our total sales in 1983.

#### **Research Leads to Innovative Apparel Fibers**

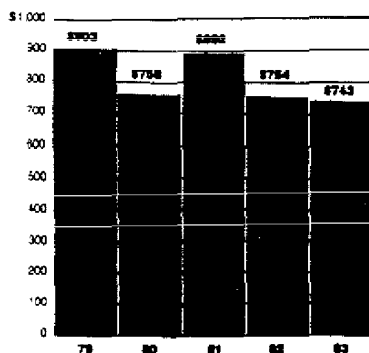
We are combining our low cost position in the United States with increased technical support for our *Acrilan* acrylic fibers to develop the products desired by our customers and by consumers. A number of new and modified products to be commercialized in the next one to three years will provide Monsanto with an increased share of markets such as sweater and half-hose.

We have developed rapid color change technology that provides Monsanto with the capability to deliver to our customers an expanded range of colored acrylic fibers.

In nylon fibers we commercialized a new product that allows texturizers to use higher speed equipment, significantly improving their productivity. We also introduced *No-Shock* conductive nylon in 1983, for use in garments that are worn in settings where static electricity is a problem.

We are making the most of our strong technical and marketing positions by building on our program for *Wear-Dated* apparel. Monsanto offers the most successful and highly recognized consumer warranty in the textiles industry for *Wear-Dated* apparel, and billions of dollars worth of clothing items have carried our warranty tag in the 22 years since such apparel was first introduced. To provide for the introduction of new products for the apparel industry, we have increased merchandising resources in support of *Wear-Dated* products.

DSW 021538



Other Monsanto Sales  
(in millions)

Monsanto also sells a wide range of products to a variety of markets not discussed above, ranging from food processing to industrial water treatment. Most of these industries benefited from the 6 percent rise in U.S. industrial production during 1983 and taken together accounted for 12 percent of our sales last year.

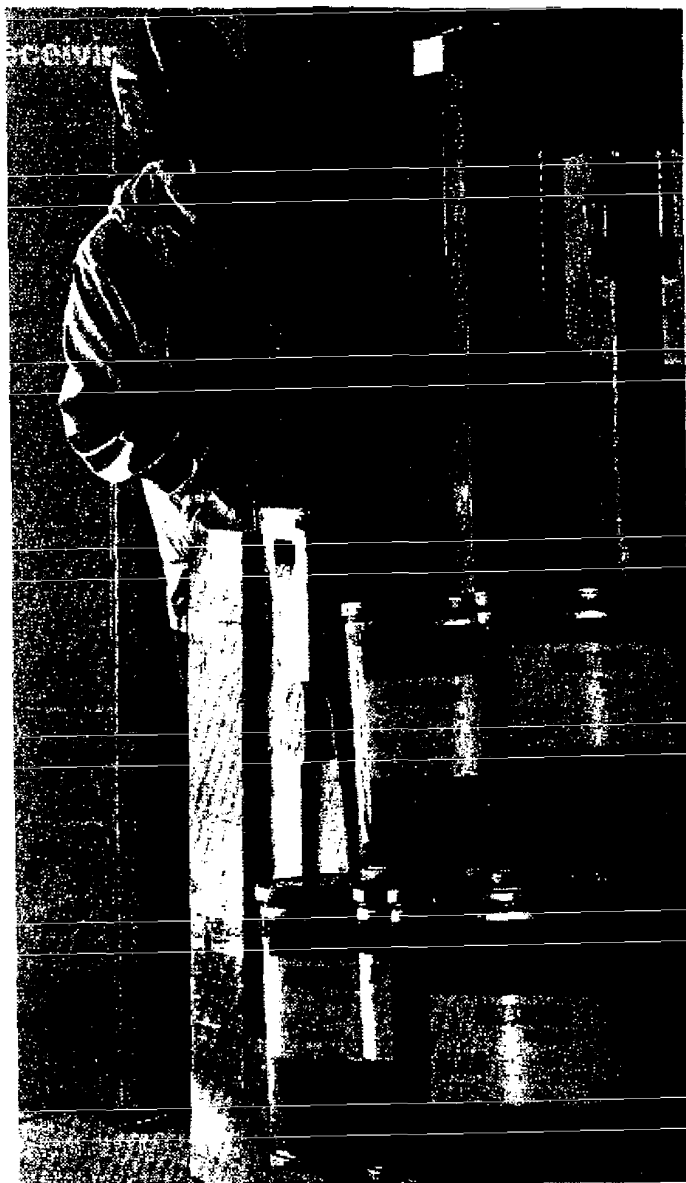
We are a major supplier for many of these markets, with significant raw material advantages. In others, we are well positioned to take advantage of new product opportunities and to supply fast-growing market segments.

### Developing New Market Niches

We are ready to move on growth opportunities offered by selected segments of the food industry, where we are actively pursuing new commercial developments. As the world's leading producer of sorbate food preservatives, we are developing new market niches, as with *Sentinel* food preservative for the fast-growing tortilla market. Monsanto also is the leading manufacturer of lactic acid, supplied to the dough conditioner market to keep bread smooth and homogeneous. We are working with customers and consumers on the development of hot-fillable lightweight polyethylene terephthalate (PET) bottles for use in the fruit juice and other markets. This technology was cross-licensed from Yoshino Kogyosho Co., Ltd., of Japan and should be fully commercialized within two years.

Monsanto is aggressively expanding the uses for *Fome-Cor* polystyrene foam board laminate. Originally developed for the packaging industry, *Fome-Cor* today is used in autos, manufactured housing and the graphic arts industry. Our new framing product, acid-free *Fome-Cor* board, protects keepsake items such as diplomas and marriage licenses for years. We are developing new uses for our *Cerex* spunbonded nylon fabric, which has long been used in carpet underpads and various industrial applications. In 1983 we gained new customers in medical applications, where *Cerex* is increasingly used to make high-quality disposable surgical gowns and drapes. Monsanto has strong market positions in the paper industry with our rosin sizes, surface sizes and wet strength resins. During 1983 we test-marketed a new product, *GRASP* 111 fiber-bonding paper resin. This resin, with cost efficiencies compared to competitive products, will be commercialized in 1984.

DSW 021539



Monsanto is a major supplier of both commodity and specialty chemicals to the industrial water treatment market. For example, sales of *Dequest* phosphonates, used to reduce the buildup of silt and calcium-based scales in cooling and boiler water systems, were up 8 percent in 1983. Our market leadership, based on technical innovations and a fully integrated raw material position, will generate continued sales gains in the years ahead.

**Sorbate-based Sentinel food preservative, being delivered here, is a new product to keep tortillas from spoiling. It fills a niche in the rapidly growing market for Mexican foods.**

DSW 021540

## Financial Report

|                                                  | Contents                                                | Page |
|--------------------------------------------------|---------------------------------------------------------|------|
| <b>Management Report</b>                         | Responsibility For Financial Data                       | 33   |
| <b>Review of the Results of Operations</b>       | Consolidated Sales                                      | 34   |
|                                                  | Consolidated Net Income                                 | 35   |
|                                                  | Quarterly Data                                          | 36   |
|                                                  | Research and Development                                | 37   |
|                                                  | Foreign Currency                                        | 37   |
|                                                  | Raw Material and Selling Price Indexes                  | 37   |
|                                                  | Operating Unit Segment Data                             | 38   |
|                                                  | Oil and Gas Activities                                  | 40   |
|                                                  | World Area Basis Data                                   | 41   |
|                                                  | Inflation-Adjusted Data                                 | 42   |
| <b>Review of Liquidity and Capital Resources</b> | Short-Term Liquidity and Capital Resources              | 44   |
|                                                  | Long-Term Liquidity and Capital Resources               | 45   |
| <b>Financial Statements</b>                      | Independent Auditors' Opinion                           | 46   |
|                                                  | Summary of Significant Accounting Policies              | 46   |
|                                                  | Statement of Consolidated Income                        | 47   |
|                                                  | Statement of Consolidated Financial Position            | 48   |
|                                                  | Statement of Changes in Consolidated Financial Position | 50   |
|                                                  | Statement of Consolidated Shareowners' Equity           | 51   |
|                                                  | <b>Notes to Financial Statements</b>                    |      |
|                                                  | Principal Acquisitions and Divestitures                 | 52   |
|                                                  | Supplemental Income and Expense Data                    | 52   |
|                                                  | Pension Plans                                           | 52   |
|                                                  | Income Taxes                                            | 53   |
|                                                  | Earnings per Share                                      | 53   |
|                                                  | Inventories                                             | 53   |
|                                                  | Short-Term Debt and Credit Arrangements                 | 53   |
|                                                  | Long-Term Debt                                          | 54   |
|                                                  | Commitments and Contingencies                           | 54   |
|                                                  | Capital Stock                                           | 54   |
|                                                  | Stock Option Plan                                       | 54   |
|                                                  | Segment Information                                     | 55   |
| <b>Financial Summary</b>                         |                                                         | 56   |

Unless otherwise indicated by the context, "Monsanto" means Monsanto Company and consolidated subsidiaries and "the Company" means Monsanto Company only. All dollars are in millions, except per share data.

DSW 021541

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**Management Report**

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Monsanto Company management is responsible for the fair presentation and consistency of all financial data included in this Annual Report. Where necessary, the data reflect management estimates.

Management is also responsible for maintaining a system of internal accounting control to provide reasonable assurance that assets are safeguarded against material loss from unauthorized use or disposition and that authorized transactions are properly recorded to permit the preparation of accurate financial data. Cost-benefit judgments are an important consideration in this regard. The effectiveness of internal controls is maintained by: (1) personnel selection and training; (2) division of responsibilities; (3) establishment and communication of policies; and (4) ongoing internal review programs and audits.

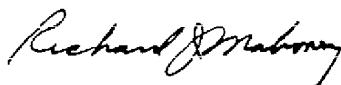
As ratified by shareowner vote at the 1983 Annual Meeting, Deloitte Haskins & Sells was appointed to examine, and express an opinion as to the fair presentation of, the consolidated financial statements. This opinion appears on page 46.

Monsanto's Audit Committee, consisting of four non-employee directors, meets with Controllershship, Internal Audit and Deloitte Haskins & Sells personnel to review internal controls, financial reporting and accounting practices. Deloitte Haskins & Sells and internal auditors meet with the Committee, with and without management present, to discuss their examinations, the adequacy of internal controls and the quality of financial reporting.

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**Responsibility For  
Financial Data**

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Richard J. Mahoney  
President and  
Chief Executive Officer

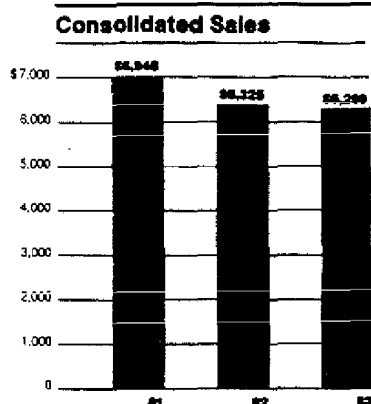


Francis A. Stroble  
Senior Vice President and  
Chief Financial Officer

February 24, 1984

DSW 021542

## Review of the Results of Operations



Sales even  
year-to-year

Impact of stronger  
U.S. economy offset  
by other factors

| Sales by Product Group                             | 1983           | 1982           | 1981           |
|----------------------------------------------------|----------------|----------------|----------------|
| <b>Agricultural and Nutritional Products</b>       |                |                |                |
| Agricultural products                              | \$1,167        | \$1,165        | \$1,099        |
| Nutrition chemicals                                | 152            | 146            | 135            |
| <b>Total</b>                                       | <b>1,319</b>   | <b>1,311</b>   | <b>1,234</b>   |
| <b>Fibers and Intermediates</b>                    |                |                |                |
| Man-made fibers                                    | 824            | 880            | 1,014          |
| Textile intermediates                              | 346            | 377            | 418            |
| <b>Total</b>                                       | <b>1,170</b>   | <b>1,257</b>   | <b>1,432</b>   |
| <b>Industrial Chemicals</b>                        |                |                |                |
| Detergent and fine chemicals                       | 587            | 552            | 609            |
| Specialty chemicals                                | 289            | 258            | 289            |
| <b>Total</b>                                       | <b>856</b>     | <b>810</b>     | <b>898</b>     |
| <b>Polymer Products</b>                            |                |                |                |
| Plastics                                           | 809            | 775            | 1,052          |
| Resin products                                     | 742            | 742            | 813            |
| Rubber chemicals and instruments                   | 279            | 269            | 282            |
| <b>Total</b>                                       | <b>1,830</b>   | <b>1,786</b>   | <b>2,147</b>   |
| <b>Engineered Products and Other Businesses</b>    |                |                |                |
| Engineered products and materials                  | 355            | 357            | 414            |
| Oil and gas                                        | 241            | 216            | 186            |
| <b>Total</b>                                       | <b>596</b>     | <b>573</b>     | <b>600</b>     |
| <b>Fisher Controls</b>                             |                |                |                |
| Valves, regulators and electronic process controls | 528            | 588            | 637            |
| <b>Total consolidated</b>                          | <b>\$6,299</b> | <b>\$6,325</b> | <b>\$6,948</b> |

Worldwide sales for 1983 were essentially level with the previous year. A 1 percent sales volume increase, net of divestitures, was offset by lower selling prices. In 1982, sales declined 9 percent, with volume down 11 percent, while selling prices increased approximately 2 percent.

The 1983 volume improvement resulted from the strengthened United States economic climate, especially in housing and automotive related businesses. Oil and gas and detergent and fine chemicals' volumes also increased in 1983. In addition, agricultural products' sales strongly rebounded in the last half of 1983, following the adverse impact earlier in the year from the United States government's Payment-in-Kind (PIK) program. Partially offsetting the 1983 volume improvement were the effects of the continuing depressed capital goods market, divested businesses (principally polyester staple and European acrylics), and lower United States export sales as the U.S. dollar continued strong against other major currencies.

The 1982 sales volume decline resulted from the worldwide recession, especially in those businesses dependent upon the automotive and housing industries — polymer products, industrial chemicals, and fibers. Sales for 1982 were also impacted by divestitures (see "Principal Acquisitions and Divestitures" note to the financial statements).

DSW 021543

Net income for 1983 increased 14 percent from the prior year, reaching the second highest level in Monsanto's history. Higher sales volume with related improvement in capacity utilization, along with lower manufacturing costs, increased 1983 results. Gross profit margin improved to 25 percent of sales versus 24 percent for the prior year. The Company's comprehensive programs of asset management and cost reduction over the past few years positioned Monsanto to take advantage of the 1983 economic upturn.

In 1982, net income declined 21 percent from 1981, reflecting the recessionary conditions, excess manufacturing capacity and depressed sales volume in the worldwide chemical industry.

In comparing the last three years' net income, nonrecurring items are significant. Extraordinary tax benefits from prior years' operating loss carryforwards increased 1983 net income by \$33 million, as operating results of an ex-U.S. subsidiary improved substantially. In 1982, net income benefited from a \$23 million extraordinary gain on the exchange of outstanding debt for common shares.

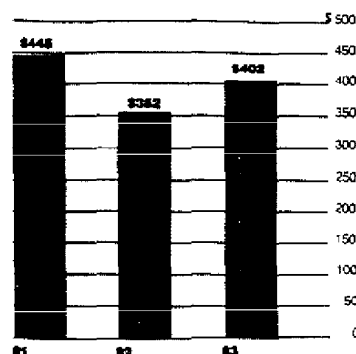
Also, in 1982 and 1981, as a result of curtailing inventory levels, net income increased by \$43 million and \$21 million, respectively, from non-replacement of low cost inventories under the LIFO (last-in, first-out) inventory method. Lower income in 1982 from affiliated companies, including nearly all of the Mexican peso devaluation impact, adversely affected that year's results. Net income for 1981 included a \$68 million gain from the sale of assets related to a joint venture.

Aftertax foreign currency gains and losses in 1983 and 1982, reported under a new accounting method (see the "Summary of Significant Accounting Policies"), were relatively small. However, for 1981, net income includes foreign currency gains of \$29 million reported under prior accounting rules.

The effective tax rate, before the extraordinary item, for 1983 was slightly higher than in 1982, primarily due to the lower impact of investment tax credits. The 1982 effective tax rate, before the extraordinary item, was lower than the prior year — the result of higher investment tax credits.

Earnings per share were \$9.78 in 1983, versus \$8.79 and \$11.50 in 1982 and 1981, respectively. The earnings per share for each of the last three years have been lowered by higher levels of shares outstanding.

### Consolidated Net Income



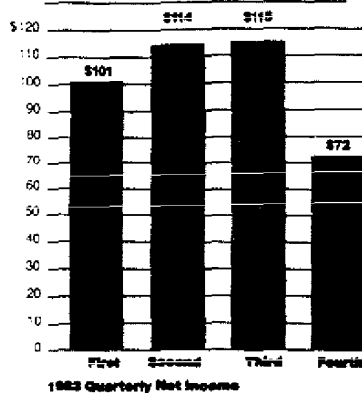
Nonrecurring factors affect year-to-year comparisons

| Analysis of Change in Earnings per Share—<br>Better (Worse) | 1983           | 1982            |
|-------------------------------------------------------------|----------------|-----------------|
|                                                             | vs. 1982       | vs. 1981        |
| Selling prices                                              | \$(1.25)       | \$ 2.30         |
| Sales volume and mix                                        | 2.22           | (3.96)          |
| Raw material prices                                         | 0.22           | 2.77            |
| Other manufacturing costs                                   | 0.22           | (1.31)          |
| Divestitures                                                | (0.20)         | (2.01)          |
| Nonmanufacturing expenses                                   | (0.33)         | (1.13)          |
| <b>Operating income</b>                                     | <b>0.88</b>    | <b>(3.34)</b>   |
| Interest expense                                            | (0.23)         | 0.31            |
| Interest income                                             | 0.17           | (0.08)          |
| All other income and expenses                               | 0.31           | (0.28)          |
| Effective tax rate                                          | (0.09)         | 0.40            |
| Extraordinary items                                         | 0.23           | 0.58            |
| Shares outstanding                                          | (0.28)         | (0.30)          |
| <b>Change in earnings per share</b>                         | <b>\$ 0.89</b> | <b>\$(2.71)</b> |

Income improves; higher volumes and reduced costs offset lower selling prices

DSW 021544

## Quarterly Data



U.S. economy and  
PIK program affect  
quarterly results

Nonrecurring items  
include 1983 tax loss  
carryforward benefits

|                                              |      | First<br>Quarter | Second<br>Quarter | Third<br>Quarter | Fourth<br>Quarter | Total<br>Year |
|----------------------------------------------|------|------------------|-------------------|------------------|-------------------|---------------|
| <b>Net Sales</b>                             | 1983 | \$1,483          | \$1,812           | \$1,553          | \$1,851           | \$6,299       |
|                                              | 1982 | 1,732            | 1,623             | 1,505            | 1,465             | 6,325         |
| <b>Gross Profit</b>                          | 1983 | 385              | 423               | 383              | 404               | 1,595         |
|                                              | 1982 | 470              | 385               | 341              | 325               | 1,521         |
| <b>Income Before<br/>Extraordinary Items</b> | 1983 | 99               | 105               | 99               | 68                | 369           |
|                                              | 1982 | 147              | 87                | 71               | 24                | 329           |
| <b>Net Income</b>                            | 1983 | 101              | 114               | 115              | 72                | 402           |
|                                              | 1982 | 147              | 87                | 71               | 47                | 352           |
| <b>Earnings per Share</b>                    |      |                  |                   |                  |                   |               |
| Before Extraordinary Items                   | 1983 | 2.42             | 2.54              | 2.42             | 1.59              | 8.97          |
|                                              | 1982 | 3.71             | 2.17              | 1.79             | 0.54              | 8.21          |
| After Extraordinary Items                    | 1983 | 2.47             | 2.76              | 2.80             | 1.75              | 9.78          |
|                                              | 1982 | 3.71             | 2.17              | 1.79             | 1.12              | 8.79          |
| <b>Dividends per Share</b>                   | 1983 | 1.00             | 1.05              | 1.05             | 1.05              | 4.15          |
|                                              | 1982 | 0.95             | 1.00              | 1.00             | 1.00              | 3.95          |
| <b>Common Stock Price</b>                    |      |                  |                   |                  |                   |               |
| High                                         | 1983 | 92½              | 94                | 116¼             | 116%              | 116%          |
|                                              | 1982 | 70¾              | 68%               | 79¾              | 89                | 89            |
| Low                                          | 1983 | 74¼              | 79¼               | 84¼              | 100¼              | 74¼           |
|                                              | 1982 | 60               | 56%               | 57½              | 72                | 56%           |

Quarterly sales and income typically exhibit the seasonality of the agricultural business. Agricultural products' sales are heavily concentrated in the first half of the year and have greater profitability than other lines of business. In 1983, agricultural products' sales and income were lower in the first half as a result of the United States government's Payment-In-Kind (PIK) program, which reduced planted acres. Other businesses' 1983 results reflect the quarter-to-quarter improvement in general economic conditions, especially in the United States, as compared to 1982.

Major nonrecurring and/or unusual items increasing (decreasing) 1983 and 1982 earnings per share are as follows:

|                                                                         | First<br>Quarter | Second<br>Quarter | Third<br>Quarter | Fourth<br>Quarter | Total<br>Year  |
|-------------------------------------------------------------------------|------------------|-------------------|------------------|-------------------|----------------|
| <b>1983</b>                                                             |                  |                   |                  |                   |                |
| Extraordinary tax benefits from loss carryforwards                      | \$ 0.05          | \$ 0.22           | \$ 0.38          | \$ 0.16           | \$ 0.81        |
| Change in accounting estimate of annual effective tax rate              | (0.12)           | (0.18)            | 0.30             |                   |                |
| Gain (loss) from facilities shut down or sold                           |                  | (0.14)            | (0.04)           | (0.28)            | (0.46)         |
| <b>Total</b>                                                            | <b>\$(0.07)</b>  | <b>\$(0.10)</b>   | <b>\$ 0.64</b>   | <b>\$(0.12)</b>   | <b>\$ 0.35</b> |
| <b>1982</b>                                                             |                  |                   |                  |                   |                |
| Extraordinary gain on exchange of debt for common shares                | \$               | \$                | \$               | \$ 0.58           | \$ 0.58        |
| Gain from non-replacement of low cost inventory tiers under LIFO method | 0.06             | 0.13              | 0.13             | 0.76              | 1.08           |
| Mexican peso devaluation                                                | 0.25             | 0.02              | (0.18)           | (0.27)            | (0.18)         |
| Early retirement program cost                                           |                  |                   | (0.05)           | (0.21)            | (0.26)         |
| Gain (loss) from facilities shut down or sold                           |                  | (0.22)            | 0.03             | (0.07)            | (0.26)         |
| <b>Total</b>                                                            | <b>\$ 0.31</b>   | <b>\$(0.07)</b>   | <b>\$(0.07)</b>  | <b>\$ 0.79</b>    | <b>\$ 0.96</b> |

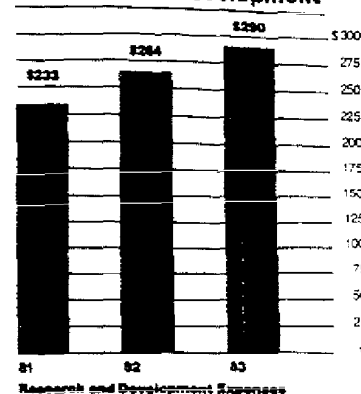
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Research and development expenses include the costs of discovering knowledge to develop new products or processes or to significantly improve existing products or processes, including the translation of such knowledge into designs and plans, but not including commercial development. In 1983, these expenses continued to increase to record levels, and were 5 percent of sales as compared to 4 percent in 1982 and 3 percent in 1981. This increase is a combination of both real growth and higher costs of ongoing programs. The level of funding reflects Monsanto's strategy to develop new markets from emerging technologies, to exploit traditional market opportunities with new products and new applications and to maintain competitive advantages through continued support and service to existing markets. The principal growth in research and development expenditures over the last three years has been in those efforts associated with creating new business opportunities.

Monsanto has intensive and growing R&D programs in plant biology, animal nutrition, electronic materials, biotechnology, molecular biology, and human health care. For 1983, one-third of the R&D expenditures were directed towards these emerging technologies. In 1983, the Company formed a Health Care Division to coordinate biomedical research and development programs. Research agreements with several leading universities, both in the United States and Europe, supplement in-house efforts in health care and plant biology. Monsanto has an agreement in principle to acquire Continental Pharma S.A., a Belgian pharmaceutical company. This planned acquisition is an important step in Monsanto's development of growth opportunities in health care products.

Research in traditional areas of strength such as catalysis, polymer science, industrial chemicals, agricultural chemistry, chemical engineering systems and application research, is also ongoing. Construction continues on the new research complex in St. Louis County, Missouri, whose principal focus will be biological and biomedical research. Initial occupancy is planned for 1984.

## Research and Development



R&D efforts expand to support new business direction

|                                            | 1983<br>(SFAS No. 52) | 1982<br>(SFAS No. 52) | 1981<br>(SFAS No. 8) |
|--------------------------------------------|-----------------------|-----------------------|----------------------|
| <b>Classification of Gains (Losses)</b>    |                       |                       |                      |
| <b>Income Statement:</b>                   |                       |                       |                      |
| Aftertax gains (losses)                    | \$ 6                  | \$ (6)                | \$ 29                |
| <b>Balance Sheet:</b>                      |                       |                       |                      |
| Accumulated currency adjustment net change | \$(78)                | \$(106)               |                      |

## Foreign Currency

The 1983 aftertax gain reflects the general strengthening of the U.S. dollar against several currencies. In 1982, the foreign currency loss was due principally to the Mexican peso devaluation. The strengthening of the U.S. dollar over the last two years also accounts for the net change in the accumulated currency adjustment amount.

Ex-U.S. entities generally use the local currency as the functional currency since working and fixed capital needs are met through local operations, supplemented by additional funding from the Company when appropriate. Monsanto has operations in Argentina, Brazil and Mexico, for which the U.S. dollar was designated the functional currency because of hyperinflationary conditions. Major currency exposures are the United Kingdom pound sterling and Belgian franc. Other important currencies include the French franc, Canadian dollar, Australian dollar, Japanese yen and Mexican peso. Currency restrictions are not expected to have a significant impact on the Company's total cash flow, liquidity or capital resources.

Minimal foreign currency impact on income

Composite United States indexes for Monsanto's selling prices and raw material costs have trended downward in 1983 and 1982 because of worldwide recessionary pressures and the resulting overcapacity in the chemical industry.

For selling prices, the 1983 price index decreased by 1 percent, following a 1982 increase of 2 percent. Selling price decreases were not uniform across product lines and a move upward did begin in the last half of 1983. The raw materials price index decreased 4 percent in 1983, and 9 percent in 1982. During the last half of 1983, overall raw material prices began to increase again.

## Raw Material and Selling Price Indexes

Selling prices and raw material costs declined

DSW 021546

## Operating Unit Segment Data

|                                          | Net Sales                     |                |                | Operating Income (Loss)  |              |              |
|------------------------------------------|-------------------------------|----------------|----------------|--------------------------|--------------|--------------|
|                                          | 1983                          | 1982           | 1981           | 1983                     | 1982         | 1981         |
| Agricultural and Nutritional Products    | \$1,319                       | \$1,311        | \$1,234        | \$375                    | \$426        | \$414        |
| Fibers and Intermediates                 | 1,170                         | 1,257          | 1,432          | 48                       | (25)         | 36           |
| Industrial Chemicals                     | 856                           | 810            | 898            | 85                       | 100          | 140          |
| Polymer Products                         | 1,830                         | 1,786          | 2,147          | 89                       | 23           | 77           |
| Engineered Products and Other Businesses | 596                           | 573            | 600            | (29)                     | (30)         | 5            |
| Fisher Controls                          | 528                           | 588            | 637            | 37                       | 52           | 68           |
| Corporate expenses and eliminations      |                               |                |                | (50)                     | (45)         | (38)         |
| <b>Total consolidated</b>                | <b>\$6,299</b>                | <b>\$6,325</b> | <b>\$6,948</b> | <b>\$555</b>             | <b>\$501</b> | <b>\$702</b> |
|                                          | Depreciation and Obsolescence |                |                | Research and Development |              |              |
|                                          | 1983                          | 1982           | 1981           | 1983                     | 1982         | 1981         |
| Agricultural and Nutritional Products    | \$ 84                         | \$ 71          | \$ 55          | \$ 82                    | \$ 78        | \$ 63        |
| Fibers and Intermediates                 | 117                           | 136            | 96             | 41                       | 39           | 32           |
| Industrial Chemicals                     | 76                            | 56             | 68             | 22                       | 18           | 18           |
| Polymer Products                         | 98                            | 76             | (25)           | 40                       | 44           | 49           |
| Engineered Products and Other Businesses | 123                           | 85             | 54             | 24                       | 23           | 21           |
| Fisher Controls                          | 16                            | 13             | 13             | 10                       | 14           | 12           |
| Corporate expenses and eliminations      | 3                             | 2              | 2              | 61*                      | 48*          | 38*          |
| <b>Total consolidated</b>                | <b>\$ 517</b>                 | <b>\$ 439</b>  | <b>\$ 263</b>  | <b>\$290</b>             | <b>\$264</b> | <b>\$233</b> |

\*Corporate R&D expenses are all allocated to operating units in determining operating income (loss).

|                                          | Total Assets   |                |                | Capital Expenditures |              |              |
|------------------------------------------|----------------|----------------|----------------|----------------------|--------------|--------------|
|                                          | 1983           | 1982           | 1981           | 1983                 | 1982         | 1981         |
| Agricultural and Nutritional Products    | \$1,401        | \$1,180        | \$1,011        | \$157                | \$125        | \$106        |
| Fibers and Intermediates                 | 1,090          | 1,152          | 1,300          | 87                   | 91           | 118          |
| Industrial Chemicals                     | 830            | 779            | 670            | 67                   | 163          | 105          |
| Polymer Products                         | 1,177          | 1,138          | 1,390          | 72                   | 73           | 97           |
| Engineered Products and Other Businesses | 946            | 965            | 853            | 143                  | 188          | 210          |
| Fisher Controls                          | 487            | 418            | 435            | 27                   | 27           | 24           |
| Nonoperating assets                      | 496            | 425            | 410            | 7                    | 6            | 6            |
| <b>Total consolidated</b>                | <b>\$6,427</b> | <b>\$6,077</b> | <b>\$6,069</b> | <b>\$560</b>         | <b>\$673</b> | <b>\$668</b> |

The above data should be read in conjunction with the "Segment Information" note to financial statements on page 55.

Agricultural products results lower; hurt by PIK program in first half; rebounds in second half

**Agricultural and Nutritional Products.** Sales for 1983 increased slightly. Operating income declined 12 percent, principally due to the United States government's Payment-in-Kind (PIK) program early in the year, which reduced planted acres, and to increased R&D expenditures, for both agricultural and nutritional products. Second half 1983 volume improvement was not sufficient to offset income lost earlier in the year. Roundup herbicide sales grew overall. The United States experienced good growth. Certain areas outside the United States were impacted by adverse economic and weather conditions, especially Europe. Nutrition chemicals' 1983 sales improved, but operating results were lower due to MHA (Methionine Hydroxy Analog)/Alimet facility start-up costs and research expenditures. Agricultural and Nutritional Products' 1982 sales gained 6 percent and operating income was up 3 percent as selling prices and worldwide volume improved over the prior year.

DSW 021547

**Fibers and Intermediates.** The significant year-to-year turnaround in profitability was due to higher nylon sales volume, lower manufacturing, raw material and other costs, and the elimination of losses from divested businesses. Lower selling prices, principally exports, were a partial offset to the favorable factors. Sales for 1983 were 7 percent lower due to divested businesses and lower selling prices. Improved nylon operating results in 1983 were led by higher carpet staple shipments, reflecting the economic recovery in housing. The worldwide market for acrylonitrile also improved during 1983. In 1982, sales were 12 percent lower due to recessionary conditions and the third quarter divestiture of polyester staple. The 1982 operating loss reflected significant reduction in man-made fiber demand and \$35 million obsolescence charges for the polyester staple and European acrylic fibers divestitures. Favorably impacting 1982 was an \$18 million reduction in costs related to prior year shutdowns and a \$20 million impact from the non-replacement of lower cost LIFO inventories.

**Industrial Chemicals.** Sales increased in 1983 by 6 percent, principally in detergent materials. Operating income for 1983 was off 15 percent as compared to the prior year, entirely from nonrecurring gains in 1982. Sales in 1982 declined 10 percent as compared to 1981 due to the depressed activity in several worldwide markets. Operating income was lowered 29 percent in 1982 from reduced sales volume, somewhat offset by a \$27 million favorable impact of non-replacement of lower cost LIFO inventories and a \$11 million net gain from divested facilities.

**Polymer Products.** Sales for 1983 were up over 2 percent on the strength of higher volume, especially to the housing and automotive industries, although selling prices were lower reflecting lower raw material costs. Manufacturing performance overall reflected significant year-to-year improvement. In 1983, the improved results were offset partially by net charges of \$24 million relating to various divestments and shutdowns of facilities. Sales for 1982 were down 17 percent because of the recession. Operating income for 1982 was reduced 70 percent from the prior year. Impacting the comparison of 1982 operating income with the prior year was a \$124 million gain in 1981 from the sale of net assets related to a joint venture. Operating income in 1982 included a \$35 million favorable impact from non-replacement of lower cost LIFO inventories.

**Engineered Products and Other Businesses.** This segment includes fabricated products, electronic materials, chemical and environmental systems and Monsanto Oil Company, a subsidiary. Sales for 1983 were up 4 percent, with volume gains in Monsanto Oil Company, electronics and fabricated products offset somewhat by a decreased level of construction project activity in Monsanto Enviro-Chem Systems, Inc. (Enviro-Chem), a subsidiary. Operating results in 1983 were substantially the same as the prior year. The depressed capital goods market in 1983 limited Enviro-Chem activities and offset improved fabricated products, Monsanto Oil Company and electronics results. Sales decreased 4 percent in 1982 from the prior year due to fewer Enviro-Chem construction projects. Operating results decreased in 1982 because of higher idle plant costs in the electronics business, and lower sales volume.

**Fisher Controls.** During 1983, Monsanto acquired the outstanding one-third minority interest in the Fisher Controls subsidiary (see "Principal Acquisitions and Divestitures" note to the financial statements). Sales for 1983 were down 10 percent as improved selling prices did not offset lower volumes. Operating income in 1983 was lower by 29 percent reflecting the depressed capital goods markets worldwide. Sales and operating income were down 8 percent and 24 percent, respectively, in 1982 versus the prior year as the capital goods markets were similarly depressed last year.

Fibers operations  
improve substantially

Industrial chemicals  
sales improve but  
income lower

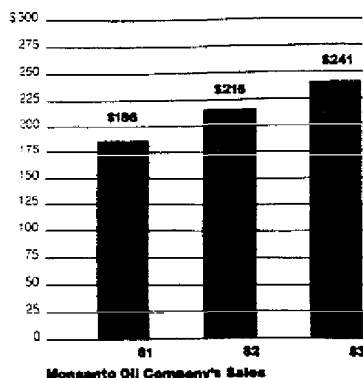
Stronger automotive  
and housing markets  
help polymer  
products  
performance

Selected volumes  
improve; weak  
capital goods  
market impacts  
Enviro-Chem

Fisher's markets  
remained depressed

DSW 021548

## Oil and Gas Activities



Sales increase; costs and spending lower

Proved reserve position maintained

Monsanto continues to pursue exploration and development of hydrocarbon reserves through a wholly-owned subsidiary, Monsanto Oil Company. Certain operating data regarding Monsanto Oil Company follow.

|                                   | 1983         | 1982         | 1981         |
|-----------------------------------|--------------|--------------|--------------|
| <b>Sales to Outside Customers</b> | <b>\$241</b> | <b>\$216</b> | <b>\$186</b> |
| <b>Costs Incurred</b>             |              |              |              |
| Acquisition                       | \$ 55        | \$ 40        | \$ 61        |
| Exploration                       | 55           | 46           | 68           |
| Development                       | 32           | 73           | 69           |
| Production                        | 62           | 79           | 65           |
| <b>Total</b>                      | <b>\$204</b> | <b>\$238</b> | <b>\$263</b> |
| <b>Capital Spending</b>           |              |              |              |
| Exploration expense               | \$ 26        | \$ 27        | \$ 35        |
| Capital expenditures              | 97           | 122          | 156          |
| <b>Total</b>                      | <b>\$123</b> | <b>\$149</b> | <b>\$191</b> |

Costs and spending levels are lower partially due to industry conditions that have mitigated the increasing price spiral of recent years. Exploration efforts in 1983 were concentrated principally in the United States and the U.K. North Sea. Oil and gas production is substantially in the United States. Changes in proved reserves follow.

| <b>Net Quantities of Developed and Undeveloped Proved Reserves</b> |  |  |  |  | 1983       | 1982       | 1981       |
|--------------------------------------------------------------------|--|--|--|--|------------|------------|------------|
| <b>Oil (1)</b>                                                     |  |  |  |  |            |            |            |
| Beginning of year                                                  |  |  |  |  | 38         | 34         | 30         |
| Revisions of previous estimates                                    |  |  |  |  | 1          | 2          | (1)        |
| Purchases of minerals-in-place                                     |  |  |  |  |            | 1          | 2          |
| Extensions and discoveries                                         |  |  |  |  | 7          | 5          | 6          |
| Production                                                         |  |  |  |  | (4)        | (4)        | (3)        |
| <b>End of year</b>                                                 |  |  |  |  | <b>42</b>  | <b>38</b>  | <b>34</b>  |
| <b>Natural Gas (2)</b>                                             |  |  |  |  |            |            |            |
| Beginning of year                                                  |  |  |  |  | 607        | 599        | 619        |
| Revisions of previous estimates                                    |  |  |  |  | (4)        |            | (26)       |
| Purchases of minerals-in-place                                     |  |  |  |  |            |            | 1          |
| Extensions and discoveries                                         |  |  |  |  | 28         | 46         | 45         |
| Production                                                         |  |  |  |  | (44)       | (38)       | (40)       |
| <b>End of year</b>                                                 |  |  |  |  | <b>587</b> | <b>607</b> | <b>599</b> |
| <b>Combined — Oil Equivalent (3) End of year</b>                   |  |  |  |  | <b>140</b> | <b>139</b> | <b>134</b> |

(1) Stated in millions of barrels.

(2) Stated in billions of cubic feet (Bcf).

(3) Stated in millions of barrels (six thousand cubic feet of gas equals one barrel of oil).

Estimated future cash inflows data related to proved reserves follow. The data was compiled as prescribed by Statement of Financial Accounting Standards No. 69, "Disclosures about Oil and Gas Producing Activities." Accordingly, future selling prices and costs were determined by using the actual 1983 yearend levels, with a 10 percent interest rate used for discounting.

| <b>Standardized Measure of Discounted Future Net Cash Flows</b> |  |  |  |  | 1983          | 1982          | 1981          |
|-----------------------------------------------------------------|--|--|--|--|---------------|---------------|---------------|
| Future cash inflows                                             |  |  |  |  | \$3,222       | \$3,491       | \$3,003       |
| Future production and development costs                         |  |  |  |  | 761           | 736           | 530           |
| Future income tax expenses                                      |  |  |  |  | 1,047         | 1,190         | 1,064         |
| Future net cash flows                                           |  |  |  |  | 1,414         | 1,565         | 1,409         |
| Annual discount for estimated timing of cash flows              |  |  |  |  | 926           | 1,113         | 950           |
| <b>Standardized measure of discounted future net cash flows</b> |  |  |  |  | <b>\$ 488</b> | <b>\$ 452</b> | <b>\$ 459</b> |

DSW 021549

As required by generally accepted accounting principles, world area segment data in the financial statement notes (page 55) are prepared on an "entity basis." This means sales and income of the legal entity are assigned to the area where the entity is located (e.g., a sale from the U.S. to Brazil is reported as a U.S. sale). However, Monsanto normally views its results on an "area basis" wherein sales and income are assigned to the customer location (e.g., a sale from U.S. to Brazil is reported as a Brazilian sale). The table and discussion which follow summarize Monsanto's "area basis" results.

| <b>World Area Basis Sales and Operating Income</b>       | <b>1983</b>    | <b>1982</b>    | <b>1981</b>    |
|----------------------------------------------------------|----------------|----------------|----------------|
| Ex-U.S. entities' sales                                  | \$1,926        | \$1,976        | \$2,218        |
| U.S. export sales                                        | 879            | 864            | 1,042          |
| Less inter-area eliminations                             | (749)          | (601)          | (698)          |
| Ex-U.S. area basis sales                                 | 2,056          | 2,239          | 2,562          |
| U.S. area basis sales                                    | 4,243          | 4,086          | 4,386          |
| <b>Consolidated sales</b>                                | <b>\$6,299</b> | <b>\$6,325</b> | <b>\$6,948</b> |
| Ex-U.S. entities' operating income                       | \$ 206         | \$ 80          | \$ 104         |
| Less ex-U.S. entities' operating income on sales to U.S. | (56)           | (10)           | (13)           |
| U.S. export operating income, net of allocated costs     | 2              | 35             | 76             |
| Ex-U.S. affiliates' equity income (loss)                 | 15             | (11)           | 34             |
| Ex-U.S. area basis operating income                      | 167            | 94             | 201            |
| U.S. area basis operating income                         | 453            | 441            | 577            |
| Unallocated corporate expenses                           | (50)           | (45)           | (38)           |
| <b>Consolidated operating income plus equity income</b>  | <b>\$ 570</b>  | <b>\$ 490</b>  | <b>\$ 740</b>  |

**United States.** Sales for 1983 were up 4 percent to \$4,243 million, principally because of a stronger economy. Automotive and housing markets rebounded in 1983, but the capital goods market remained depressed. Operating income in 1983 increased 3 percent to \$453 million due to lower raw material costs and better utilization of production facilities as a result of the higher volumes, partially offset by the PIK program. For 1982, sales decreased 7 percent from 1981 to \$4,086 million due to the recession, and operating income was 24 percent lower than the prior year at \$441 million. Operating income in 1982 included an \$83 million gain from non-replacement of low cost LIFO inventories. In 1981, operating income included a \$124 million gain from the sale of assets related to a joint venture.

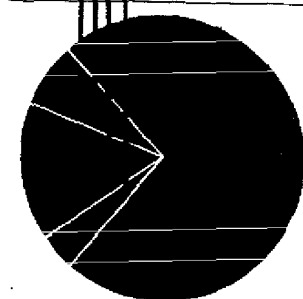
**Europe-Africa.** Sales decreased 14 percent to \$943 million in 1983, reflecting the divestiture of the acrylic fibers business, reduced agricultural sales due to drought and adverse economic conditions. Operating income improved in 1983 to \$44 million. The improvement in operating income was due principally to the divestiture of acrylic fibers. For 1982, sales decreased 14 percent from the prior year to \$1,092 million. Operating income was down 33 percent to \$33 million, due to a \$20 million charge for the acrylic fibers divestiture. Comparison of 1981 results with 1982 is affected by the change in accounting principles for foreign currency translation (see "Summary of Significant Accounting Policies" on page 46).

**Canada-Latin America.** Sales in 1983 decreased slightly to \$579 million, as Brazil continues to suffer from recession induced conditions. However, there was a good increase in Canadian sales volume. Operating income in 1983 was up 129 percent to \$96 million as improved Canadian operations and significantly better results from a Mexican equity affiliate more than offset poor results in Brazil, where a charge of \$8 million for a facility shutdown was recorded. For 1982, sales of \$597 million and operating income of \$42 million were both down from 1981 due to the Mexican peso devaluation and the recession in Canada.

**Asia-Pacific.** Sales were off 3 percent to \$534 million in 1983, principally due to depressed U.S. exports resulting from a strong U.S. dollar. Operating income for 1983 was up 42 percent to \$27 million due to improved results in Australia and increased earnings from a Japanese equity affiliate. In 1982, sales and operating income declined from the prior year to \$550 million and \$19 million, respectively, as U.S. exports were adversely impacted by the stronger U.S. dollar.

#### World Area Basis Data

|                      |       |
|----------------------|-------|
| United States        | \$453 |
| Europe-Africa        | 44    |
| Canada-Latin America | 96    |
| Asia-Pacific         | 27    |



1983 World Area Basis Income

Improved economy  
boosts U.S. sales  
and income

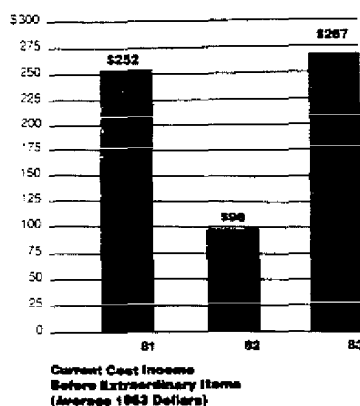
Acrylic fibers  
divestiture helps  
Europe operating  
results

Canadian economy  
better; recession in  
Brazil; improvement  
by Mexican affiliate

Asia-Pacific results  
benefit from  
Japanese affiliate and  
better Australian  
economy

DSW 021550

## Inflation-Adjusted Data



Inflation moderates,  
but continues to  
distort historical  
comparisons

| Year Ended December 31, 1983               | Historical Cost | Current Cost  |
|--------------------------------------------|-----------------|---------------|
| Net sales                                  | \$6,299         | \$6,299       |
| Cost of goods sold, excluding depreciation | 4,248           | 4,252         |
| Depreciation expense                       | 456             | 554           |
| All other expenses — net                   | 1,025           | 1,025         |
| Income taxes                               | 201             | 201           |
| <b>Income before extraordinary item</b>    | <b>\$ 369</b>   | <b>\$ 267</b> |

The "current cost" disclosures, which reflect adjustments based on estimates of the current cost to replace existing assets in kind, attempt to measure the impact of inflation on specific assets. Items adjusted for inflation are: inventories; property, plant and equipment; cost of goods sold; and depreciation. Other items, including income taxes, are not adjusted for inflation. All current cost data above is stated in average 1983 dollars using the U.S. Consumer Price Index (the "translate-restate" method).

The 1983 decrease in current cost of inventories and property, plant and equipment, stated in average 1983 dollars, was \$28 million. At December 31, 1983, the current cost of inventory and property, plant and equipment (net of accumulated depreciation) was \$1,231 million and \$3.898 million, respectively, stated in yearend 1983 dollars.

FIFO (first-in, first-out) basis inventories were used to approximate current cost. LIFO basis cost of goods sold (after adjustment for the impact of non-replacement of low cost inventories) or similar techniques were used to approximate current cost. The current cost of property, plant and equipment was estimated generally using construction and equipment indexes. Current cost accumulated depreciation and related expenses were estimated using the same overall methods and rates as used for historical cost.

| Selected Financial Data                                                                                 | 1983         | 1982         | 1981         | 1980         | 1979         |
|---------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|
| <b>Historical cost, as reported (1) (2):</b>                                                            |              |              |              |              |              |
| Net sales                                                                                               | \$ 6,299     | \$6,325      | \$6,948      | \$6,574      | \$6,193      |
| Income — Before extraordinary items                                                                     | 369          | 329          | 445          | 149          | 331          |
| — Per share                                                                                             | 8.97         | 8.21         | 11.50        | 4.10         | 9.11         |
| Total assets                                                                                            | 6,427        | 6,077        | 6,069        | 5,796        | 5,539        |
| Long-term debt                                                                                          | 937          | 1,003        | 1,110        | 1,371        | 1,203        |
| Dividends per common share                                                                              | 4.15         | 3.95         | 3.75         | 3.55         | 3.35         |
| <b>Current cost (average 1983 dollars):</b>                                                             |              |              |              |              |              |
| Net sales                                                                                               | \$ 6,299     | \$6,529      | \$7,611      | \$7,950      | \$8,500      |
| Income (loss)                                                                                           |              |              |              |              |              |
| — Before extraordinary items                                                                            | 267          | 98           | 252          | (10)         | 289          |
| — Per share                                                                                             | 6.50         | 2.45         | 6.50         | (0.28)       | 7.94         |
| Purchasing power gain on monetary items                                                                 | 29           | 34           | 108          | 163          | 168          |
| Increase in specific prices of inventory and property over (under) increase caused by general inflation | (225)        | (226)        | (13)         | (310)        | 163          |
| Aggregate foreign currency adjustment, net of taxes                                                     | (99)         | (170)        |              |              |              |
| Net assets                                                                                              | 4,655        | 4,833        | 5,345        | 4,915        | 5,111        |
| <b>Other data (average 1983 dollars):</b>                                                               |              |              |              |              |              |
| Dividends per common share                                                                              | \$ 4.16      | \$ 4.09      | \$ 4.14      | \$ 4.34      | \$ 4.66      |
| Yearend common stock price                                                                              | 103.48       | 77.82        | 74.34        | 79.27        | 77.38        |
| <b>Average consumer price index</b>                                                                     | <b>298.4</b> | <b>289.1</b> | <b>272.4</b> | <b>246.8</b> | <b>217.4</b> |

(1) In 1982, the requirements of Statement of Financial Accounting Standards No. 52, "Foreign Currency Translation," were adopted.

(2) Beginning in 1980, interest costs related to construction-in-progress expenditures were capitalized in accordance with Statement of Financial Accounting Standards No. 34, "Capitalization of Interest Cost."

DSW 021551

The Company has also used inflation-adjusted data to evaluate, on a broad financial basis, the interrelated questions of real investment versus decapitalization and whether current profitability levels are providing sufficient investment funds for future earnings growth.

This perspective confirms the funding of future growth opportunities beyond existing replacement requirements. Management also believes that Monsanto is generating cash flow from operations to fund a significant portion of those investments required.

| Total Investment                    | 1983           | 1982          | 1981          | 1980           | 1979          |
|-------------------------------------|----------------|---------------|---------------|----------------|---------------|
| Capital expenditures                | \$ 560         | \$ 673        | \$ 668        | \$ 781         | \$ 566        |
| Investments                         | 208            | 11            | 2             | 64             | 1             |
| R&D expenditures                    | 290            | 264           | 233           | 208            | 161           |
| <b>Total (historical cost)</b>      | <b>\$1,058</b> | <b>\$ 948</b> | <b>\$ 903</b> | <b>\$1,053</b> | <b>\$ 728</b> |
| <b>Total (average 1983 dollars)</b> | <b>\$1,058</b> | <b>\$ 979</b> | <b>\$ 989</b> | <b>\$1,273</b> | <b>\$ 999</b> |

Monsanto's "total investment" level — capital expenditures, investments (acquisitions, venture capital, etc.), and research and development expenditures — continues high, but with a pronounced shift in the underlying components. Expenditures for research and development and investment (principally acquisitions) are growing substantially, compared to traditional capital expenditure levels, which have moderated. This is consistent with the strategy shift from certain commodity and capital intensive businesses to selected high technology, specialty products with a higher value added component.

This "total investment" includes both that required to: (1) maintain the existing earnings base; and (2) grow future income levels. Current cost depreciation and an estimate of "maintenance" research and development costs for existing businesses are proxies for the investment needed to maintain existing earnings.

| Investment Analysis                           | 1983           | 1982          | 1981          | 1980           | 1979          |
|-----------------------------------------------|----------------|---------------|---------------|----------------|---------------|
| Investment to maintain existing earnings base | \$ 648         | \$ 665        | \$ 683        | \$ 663         | \$ 630        |
| New growth investment                         | 412            | 314           | 306           | 610            | 369           |
| <b>Total (average 1983 dollars)</b>           | <b>\$1,058</b> | <b>\$ 979</b> | <b>\$ 989</b> | <b>\$1,273</b> | <b>\$ 999</b> |

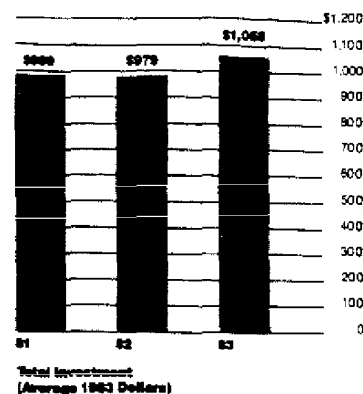
While investment funds are not always reinvested in existing businesses, they are being invested in development and acquisition of those businesses and other opportunities which are expected to provide for an expanded future earnings base. Based on a discretionary cash flow analysis, Monsanto is generating sufficient cash flow from operations to fund a significant portion of those investments made for future earnings growth.

| Discretionary Cash Flow | 1983  | 1982  | 1981  | 1980  | 1979  |
|-------------------------|-------|-------|-------|-------|-------|
| Historical cost         | \$489 | \$245 | \$171 | \$206 | \$ 17 |
| Average 1983 dollars    | \$489 | \$253 | \$187 | \$249 | \$ 23 |

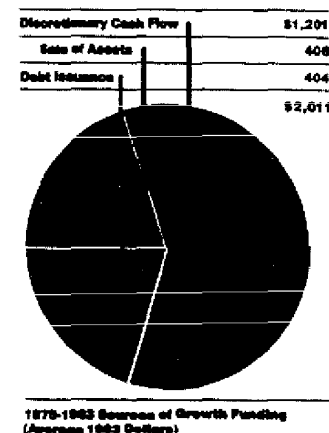
Discretionary cash flow is defined as cash flow from operations, after working capital changes, investment to maintain existing earnings base, dividends and debt reduction, but before research and development costs, since these are included in the definition of investment.

Monsanto's well ingrained cost reduction and asset management programs, coupled with the pruning of unprofitable businesses have been significant cash flow contributors. Proceeds from the sale of assets have also contributed funds for growth. In addition, Monsanto's strong financial position results in substantial unused debt and equity capacity for funding future investment requirements.

From all of the above, the Company has demonstrated its ability to generate sufficient earnings and cash flow to provide for real future growth beyond that required to maintain its existing earnings base, including inflation-adjusted replacement capital requirements.



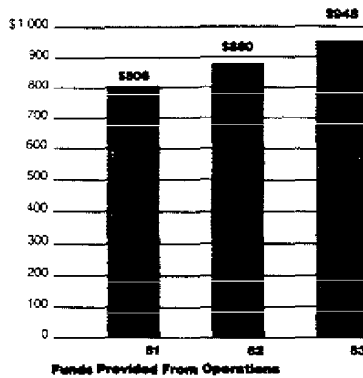
Investments support earnings growth



DSW 021552

## Review of Liquidity and Capital Resources

### Short-Term Liquidity and Capital Resources



Strong working capital performance

Short-term debt increases from Fisher acquisition

Monsanto's 1983-1981 sources and uses of funds, defined as cash, time deposits, certificates of deposit and short-term securities, are shown in the Statement of Changes in Consolidated Financial Position on page 50.

Monsanto increased its cash and short-term securities position to \$657 million at yearend 1983, an increase of 59 percent as compared to the 1982 level of \$414 million. Funds provided from operations, before working capital changes, also increased in 1983. An emphasis on asset management continues to produce excellent working capital performance levels.

Capital expenditures in 1983 have declined. This decline reflects adequate existing production capacity to absorb expected growth as well as a shift in emphasis from commodity to less capital intensive, high technology products.

In 1983, \$208 million was used for acquisitions and other investments, principally to purchase the minority interest in the Fisher Controls subsidiary. Substantial funds in 1981 were provided by issuing common shares, which proceeds were used to liquidate outstanding debt, and from the sale of assets related to a joint venture.

The current ratio (current assets divided by current liabilities), an indication of liquidity, was 2.3:1 at yearend 1983. The 1982 current ratio was 2.6:1 compared to 2.4:1 in 1981. Management believes a current ratio of at least 2.0:1 is desirable. Working capital (current assets less current liabilities) increased in 1983 to \$1,535 million as compared to \$1,503 million in 1982, as cash and receivables increased more rapidly than current liabilities. Inventories were again reduced in 1983, but were still appropriate for current and expected business levels. Yearend 1983 receivables increased from 1982 due to better business levels. Good control over inventories and receivables is attributable to a well ingrained asset management program.

The Company has available various short-term bank facilities, which are discussed further in the "Short-Term Debt and Credit Arrangements" note to the financial statements. When necessary, short-term lines of credit and commercial paper are used to finance working capital and provide "bridge" financing for capital requirements until more attractive rates prevail in long-term debt markets. Short-term debt increased to \$253 million in 1983 as compared to \$131 million in 1982, principally reflecting a \$75 million note exchanged in the purchase of the Fisher Controls' minority interest.

DSW 021553

At December 31, 1983, Monsanto had purchase orders and contracts outstanding of approximately \$136 million in connection with uncompleted property additions. Capital equipment expenditures are typically financed by a combination of cash from operations and long-term debt. Long-term debt has been reduced in each of the last three years including, in 1982, by a "debt/equity" exchange and, in 1981, by a new common share issuance with the proceeds used for debt reduction. As a result, the long-term debt to capitalization ratio improved to 20 percent in 1983 as compared to 22 and 25 percent in 1982 and 1981, respectively. Since over the long term Monsanto believes its appropriate long-term debt to capitalization ratio should be approximately 33 percent, the Company's available financing capability has been considerably enhanced. The interest coverage ratio (times), excluding extraordinary items and the effect of capitalized interest, was 5.3 in 1983, as compared to 4.6 in 1982 and 5.5 in 1981.

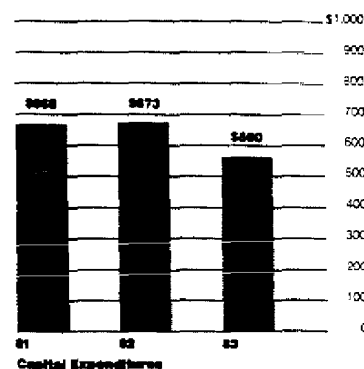
The Company has made extensive use of pollution control and industrial development bonds to finance qualified projects. Because the tax status of these obligations makes the associated interest rates very favorable, the Company will pursue this form of financing when available. Industrial development bond obligations comprised 26 percent of all outstanding long-term debt at December 31, 1983. Monsanto occasionally has used other forms of financing, principally lease arrangements and joint venture arrangements involving take-or-pay contracts, when the effective interest cost is attractive or the nature of the capital project requires their use.

Virtually all assets reflected in Monsanto's financial statements are free from lien and not used to collateralize debt. Accordingly, these assets represent a source of additional debt capacity. Through its Monsanto Oil Company subsidiary, the Company owns oil and gas reserves with current value in excess of the amount reflected in the accompanying financial statements. These oil and gas reserves and the undeveloped acreage represent valuable assets that could also be used to increase total debt capacity. The Company has no present plans to pursue these sources of financing.

During 1982 and 1981, the Company issued nearly 4,000,000 new common shares in two major transactions. In addition, the Company has convertible securities and stock options outstanding which result in periodic issuances of common stock. Monsanto's common stock is traded principally on the New York Stock Exchange. The number of common shareowners of record as of February 16, 1984, was 69,225 and the high and low common stock price on that date was \$90 1/4-\$89.

The Company has paid dividends on its common shares — without interruption or reduction — since 1928 and has increased the dividend in each of the past eleven years. Dividend payout for 1983 was 42 percent of net income. The Company's dividend policy reflects a desired long-term payout percentage based on Monsanto's expectation of future growth and profitability levels. In any individual year, additional consideration is given to expected financial position and results, working and fixed capital needs, scheduled debt repayments and economic conditions, including inflation.

### Long-Term Liquidity and Capital Resources



Lower long-term debt and financing alternatives enhance flexibility

Dividends increased for 11th consecutive year

DSW 021554

## Financial Statements

### Independent Auditors' Opinion

#### To the Shareowners of Monsanto Company:

We have examined the statement of consolidated financial position of Monsanto Company and Subsidiaries as of December 31, 1983 and 1982 and the related statements of consolidated income, shareowners' equity and changes in financial position for each of the three years in the period ended December 31, 1983. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, such consolidated financial statements present fairly the financial position of Monsanto Company and Subsidiaries at December 31, 1983 and 1982, and the results of their operations and changes in their financial position for each of the three years in the period ended December 31, 1983, in conformity with generally accepted accounting principles consistently applied during the period except for the change, with which we concur, in 1982 in the method of translating foreign currency transactions and financial statements as described in the Summary of Significant Accounting Policies.



Saint Louis, Missouri  
February 24, 1984

### Summary of Significant Accounting Policies

**Basis of Consolidation.** The consolidated financial statements include the Company and its majority-owned subsidiaries. Intercompany transactions have been eliminated in consolidation. Investments in affiliates in which Monsanto has an ownership interest between 20 and 50 percent are accounted for by the equity method.

**Foreign Currency Translation.** Foreign currency transactions and financial statements are translated in accordance with Statement of Financial Accounting Standards No. 52 (SFAS No. 52). The functional currency of substantially all ex-U.S. subsidiaries, except those operating in hyperinflationary countries, is the local currency. Intercompany advances to ex-U.S. subsidiaries are generally presumed to be of a long-term investment nature. The hyperinflationary countries in which Monsanto or its affiliates have significant operations are Brazil, Mexico and Argentina.

For 1981, foreign currency transactions and financial statements were translated in accordance with Statement of Financial Accounting Standards No. 8. It was not practical to restate 1981 under SFAS No. 52.

**Depreciation.** Depreciation is computed by the straight-line method over weighted average periods of 23 years for buildings and 12 years for machinery and equipment.

**Intangible Asset Amortization.** The excess purchase price above the net assets of acquired businesses is written off on a straight-line basis, over periods of 5 to 20 years.

**Income Taxes.** Investment tax credits are recorded as a reduction of income tax expense in the year they offset the Federal income tax liability.

Income taxes have not been provided on undistributed earnings of subsidiaries either because any taxes on dividends would be substantially offset by foreign tax credits or because Monsanto intends to indefinitely reinvest those earnings.

**Inventory Valuation.** Inventories are stated at cost or market, whichever is less. Actual cost is used for raw materials and supplies, and standard cost, which approximates actual cost, is used for finished goods and goods in process. Standard cost includes direct labor, raw material and manufacturing overhead based on practical capacity. The cost of substantially all U.S. inventories is determined by the last-in, first-out (LIFO) method. The cost of other inventories is generally determined by the first-in, first-out (FIFO) method.

**Oil and Gas Activities.** Oil and gas exploration and production activities are accounted for using the successful efforts method.

**Pension Plans.** Pension costs are funded as accrued and include current service and amortization of unfunded prior service costs generally over periods of 10 to 30 years. Other postemployment benefits (principally medical and life insurance) are expensed as incurred.

DSW 021555

STLCOPCB4006864

TOWOLDMON0015261

**Statement of Consolidated Income**

(Dollars in millions, except per share)

**Monsanto Company  
and Subsidiaries**

|                                                             | 1983           | 1982           | 1981           |
|-------------------------------------------------------------|----------------|----------------|----------------|
| <b>Net Sales</b>                                            | <b>\$8,299</b> | <b>\$6,325</b> | <b>\$6,948</b> |
| Cost of goods sold                                          | 4,704          | 4,804          | 5,293          |
| <b>Gross Profit</b>                                         | <b>1,595</b>   | <b>1,521</b>   | <b>1,655</b>   |
| Marketing and administrative expenses                       | 681            | 691            | 656            |
| Technological expenses                                      | 359            | 329            | 297            |
|                                                             | 1,040          | 1,020          | 953            |
| <b>Operating Income</b>                                     | <b>555</b>     | <b>501</b>     | <b>702</b>     |
| Other income (expense):                                     |                |                |                |
| Interest expense                                            | (96)           | (82)           | (101)          |
| Interest income                                             | 73             | 63             | 68             |
| All other                                                   | 38             | 19             | 24             |
|                                                             | 15             | —              | (9)            |
| <b>Income Before Income Taxes and Extraordinary Items</b>   | <b>570</b>     | <b>501</b>     | <b>693</b>     |
| Income taxes                                                | 201            | 172            | 248            |
| <b>Income Before Extraordinary Items</b>                    | <b>369</b>     | <b>329</b>     | <b>445</b>     |
| <b>Extraordinary Items:</b>                                 |                |                |                |
| Tax benefits from utilization of ex-U.S. loss carryforwards | 33             |                |                |
| Gain from exchange of debt for common shares                |                | 23             |                |
| <b>Net Income</b>                                           | <b>\$ 402</b>  | <b>\$ 352</b>  | <b>\$ 445</b>  |
| <b>Earnings per Share:</b>                                  |                |                |                |
| Before extraordinary items                                  | \$ 8.97        | \$ 8.21        | \$11.50        |
| Extraordinary items                                         | 0.81           | 0.58           |                |
| <b>After extraordinary items</b>                            | <b>\$ 9.78</b> | <b>\$ 8.79</b> | <b>\$11.50</b> |

The above statement should be read in conjunction with page 46 and pages 52 through 56 of this report.

**Key Financial Statistics**

|                                               |                            |     |      |      |
|-----------------------------------------------|----------------------------|-----|------|------|
| Net Sales as a Percent of Total Assets        |                            | 98% | 104% | 114% |
| Net Income as a Percent of Net Sales          |                            | 6%  | 6%   | 6%   |
| Percent Return on Average Shareowners' Equity | Before Extraordinary Items | 10% | 10%  | 15%  |
|                                               | After Extraordinary Items  | 11% | 10%  | 15%  |
| Percent Return on Average Capital Employed*   | Before Extraordinary Items | 9%  | 8%   | 11%  |
|                                               | After Extraordinary Items  | 10% | 9%   | 11%  |

\*Capital employed is the sum of short-term debt, long-term debt and shareowners' equity. The beginning of the year and the end of the year capital employed are averaged and divided into income after adding back the aftertax effect of interest costs.

DSW 021556

STLCPCB4006865

TOWOLDMON0015262

**Statement of Consolidated Financial Position**

(Dollars in millions, except per share)

|                                                                       | At December 31 |                |
|-----------------------------------------------------------------------|----------------|----------------|
| <b>Assets</b>                                                         | <b>1983</b>    | <b>1982</b>    |
| <b>Current Assets:</b>                                                |                |                |
| Cash, time deposits and certificates of deposit                       | \$ 164         | \$ 143         |
| Short-term securities, at cost which approximates market              | 493            | 271            |
| Trade receivables, net of allowances of \$44 in 1983 and \$38 in 1982 | 1,115          | 1,076          |
| Miscellaneous receivables and prepaid expenses                        | 205            | 140            |
| Inventories                                                           | 778            | 824            |
|                                                                       | <b>2,755</b>   | <b>2,454</b>   |
| <b>Investments and Other Assets:</b>                                  |                |                |
| Investments in affiliates                                             | 113            | 137            |
| Other assets                                                          | 275            | 173            |
|                                                                       | <b>388</b>     | <b>310</b>     |
| <b>Property, Plant and Equipment, at Cost:</b>                        |                |                |
| Land                                                                  | 74             | 61             |
| Buildings                                                             | 667            | 675            |
| Machinery and equipment                                               | 4,938          | 4,920          |
| Mineral rights and oil and gas properties                             | 716            | 625            |
| Construction-in-progress                                              | 244            | 249            |
|                                                                       | <b>6,639</b>   | <b>6,530</b>   |
| Less accumulated depreciation                                         | <b>3,355</b>   | <b>3,217</b>   |
|                                                                       | <b>3,284</b>   | <b>3,313</b>   |
| <b>Total Assets</b>                                                   | <b>\$6,427</b> | <b>\$6,077</b> |

The above statement should be read in conjunction with page 46 and pages 52 through 55 of this report.

**Key Financial Statistics**

|                                                                                          |         |         |
|------------------------------------------------------------------------------------------|---------|---------|
| Working Capital (Current assets less current liabilities)                                | \$1,535 | \$1,503 |
| Current Ratio (Current assets divided by current liabilities)                            | 2.3     | 2.6     |
| Quick Ratio (Cash and equivalents plus trade receivables divided by current liabilities) | 1.5     | 1.6     |

DSW 021557

|                                                                                                                                           | At December 31 |                |
|-------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|
|                                                                                                                                           | 1983           | 1982           |
| <b>Liabilities and Shareowners' Equity</b>                                                                                                |                |                |
| <b>Current Liabilities:</b>                                                                                                               |                |                |
| Accounts payable                                                                                                                          | \$ 500         | \$ 379         |
| Wages and commissions                                                                                                                     | 108            | 102            |
| Income and other taxes                                                                                                                    | 104            | 123            |
| Miscellaneous accruals                                                                                                                    | 255            | 216            |
| Short-term debt                                                                                                                           | 253            | 131            |
|                                                                                                                                           | 1,220          | 951            |
| <b>Long-Term Debt</b>                                                                                                                     | 937            | 1,003          |
| <b>Deferred Credits and Other Liabilities:</b>                                                                                            |                |                |
| Deferred income taxes                                                                                                                     | 558            | 493            |
| Other liabilities                                                                                                                         | 32             | 31             |
|                                                                                                                                           | 590            | 524            |
| <b>Minority Interests in Subsidiaries</b>                                                                                                 | 13             | 109            |
| <b>Shareowners' Equity:</b>                                                                                                               |                |                |
| Preferred stock — authorized, 10,000,000 shares, no par value; issued and outstanding,<br>54,211 shares in 1983 and 91,902 shares in 1982 | —              | —              |
| Common stock — authorized, 100,000,000 shares, par value \$2; issued,<br>40,977,448 shares in 1983 and 40,966,159 shares in 1982          | 82             | 82             |
| Additional contributed capital                                                                                                            | 936            | 931            |
| Accumulated currency adjustment                                                                                                           | (200)          | (122)          |
| Reinvested earnings                                                                                                                       | 2,853          | 2,621          |
|                                                                                                                                           | 3,671          | 3,512          |
| Less treasury stock, at cost (common shares of 56,152 in 1983 and 368,548 in 1982)                                                        | 4              | 22             |
|                                                                                                                                           | 3,667          | 3,490          |
| <b>Total Liabilities and Shareowners' Equity</b>                                                                                          | <b>\$6,427</b> | <b>\$6,077</b> |

**Key Financial Statistics**

|                                                        |         |         |
|--------------------------------------------------------|---------|---------|
| Percent of Long-Term Debt to Total Capitalization*     | 20%     | 22%     |
| Percent of Long-Term Debt to Total Shareowners' Equity | 26%     | 29%     |
| Shareowners' Equity Per Common Share                   | \$89.66 | \$85.97 |

\*Total capitalization is the sum of long-term debt plus shareowners' equity.

DSW 021558

**Statement of Changes in Consolidated Financial Position**

(Dollars in millions)

**Monsanto Company  
and Subsidiaries**

| <b>Sources (Uses) of Funds</b>                                                                       | <b>1983</b>   | <b>1982</b>    | <b>1981</b>   |
|------------------------------------------------------------------------------------------------------|---------------|----------------|---------------|
| <b>Operations:</b>                                                                                   |               |                |               |
| Income before extraordinary items                                                                    | \$ 369        | \$ 329         | \$ 445        |
| Charges not using (credits not providing) funds:                                                     |               |                |               |
| Depreciation and obsolescence                                                                        | 517           | 439            | 263           |
| Deferred income taxes                                                                                | 71            | 85             | 83            |
| Other                                                                                                | (9)           | 27             | 15            |
| <b>Funds provided from operations, before changes<br/>in working capital and extraordinary items</b> | <b>948</b>    | <b>680</b>     | <b>806</b>    |
| <b>Investment and Other Transactions:</b>                                                            |               |                |               |
| Extraordinary tax benefits from utilization of ex-U.S. loss carryforwards                            | 33            |                |               |
| Working capital changes:                                                                             |               |                |               |
| Trade receivables                                                                                    | (39)          | (5)            | 33            |
| Inventories                                                                                          | 46            | 49             | (41)          |
| Other current assets                                                                                 | (65)          | 38             | 51            |
| Accounts payable and accrued liabilities                                                             | 147           | (69)           | (23)          |
| Short-term debt                                                                                      | 122           | (44)           | (64)          |
| Property, plant and equipment additions                                                              | (560)         | (673)          | (668)         |
| Proceeds from property disposals                                                                     | 39            | 31             | 252           |
| Foreign currency adjustments                                                                         | (47)          | (60)           |               |
| Acquisitions and investments                                                                         | (208)         | (11)           | (2)           |
| Other                                                                                                | 35            | 21             | 53            |
|                                                                                                      | (497)         | (721)          | (409)         |
| <b>Financial Transactions:</b>                                                                       |               |                |               |
| Issuance of common stock                                                                             | —             | 75             | 205           |
| Long-term financing                                                                                  | 49            | 38             | 32            |
| Long-term debt reduction                                                                             | (87)          | (149)          | (273)         |
| Extraordinary gain from exchange of debt for common shares                                           |               | 23             |               |
| Dividends                                                                                            | (170)         | (158)          | (145)         |
|                                                                                                      | (208)         | (171)          | (181)         |
| <b>Increase (Decrease) in Funds</b>                                                                  | <b>\$ 243</b> | <b>\$ (12)</b> | <b>\$ 216</b> |
| <br><b>Increase (Decrease) in Elements of Funds:</b>                                                 |               |                |               |
| Cash, time deposits and certificates of deposit                                                      | \$ 21         | \$ (66)        | \$ 60         |
| Short-term securities                                                                                | 222           | 54             | 156           |
| <b>Increase (Decrease) in Funds</b>                                                                  | <b>\$ 243</b> | <b>\$ (12)</b> | <b>\$ 216</b> |

The above statement should be read in conjunction with page 48 and pages 52 through 55 of this report.

DSW 021559

**Statement of Consolidated Shareowners' Equity**

(Dollars in millions, except per share)

**Monsanto Company  
and Subsidiaries**

|                                                                                                                                                | 1983            | 1982            | 1981           |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|----------------|
| <b>Common Stock:</b>                                                                                                                           |                 |                 |                |
| Balance, January 1                                                                                                                             | \$ 82           | \$ 80           | \$ 74          |
| New shares issued (11,289, 988,075 and 3,000,000 shares in 1983-1981, respectively)                                                            | —               | 2               | 6              |
| <b>Balance, December 31</b>                                                                                                                    | <b>\$ 82</b>    | <b>\$ 82</b>    | <b>\$ 80</b>   |
| <b>Additional Contributed Capital:</b>                                                                                                         |                 |                 |                |
| Balance, January 1                                                                                                                             | \$ 931          | \$ 853          | \$ 652         |
| New shares issued                                                                                                                              | —               | 73              | 199            |
| Other                                                                                                                                          | 5               | 5               | 2              |
| <b>Balance, December 31</b>                                                                                                                    | <b>\$ 936</b>   | <b>\$ 931</b>   | <b>\$ 853</b>  |
| <b>Accumulated Currency Adjustment:</b>                                                                                                        |                 |                 |                |
| Balance, January 1                                                                                                                             | \$ (122)        | \$              |                |
| Initial translation adjustment for SFAS No. 52                                                                                                 |                 | (16)            |                |
| Translation adjustments                                                                                                                        | (84)            | (111)           |                |
| Income taxes                                                                                                                                   | 6               | 9               |                |
| Transferred to net income                                                                                                                      |                 | (4)             |                |
| <b>Balance, December 31</b>                                                                                                                    | <b>\$ (200)</b> | <b>\$ (122)</b> |                |
| <b>Reinvested Earnings:</b>                                                                                                                    |                 |                 |                |
| Balance, January 1                                                                                                                             | \$2,621         | \$2,423         | \$2,123        |
| Deferred taxes adjustment for SFAS No. 52                                                                                                      |                 | 4               |                |
| Net income                                                                                                                                     | 402             | 352             | 445            |
| Preferred dividends (\$2.75 per share)                                                                                                         | —               | —               | —              |
| Common dividends (\$4.15, \$3.95 and \$3.75 per share for 1983-1981, respectively)                                                             | (170)           | (158)           | (145)          |
| <b>Balance, December 31</b>                                                                                                                    | <b>\$2,853</b>  | <b>\$2,621</b>  | <b>\$2,423</b> |
| <b>Common Stock in Treasury:</b>                                                                                                               |                 |                 |                |
| Balance, January 1                                                                                                                             | \$ (22)         | \$ (26)         | \$ (41)        |
| Shares purchased (159,570, 171,940 and 21,641 shares in 1983-1981, respectively)                                                               | (14)            | (13)            | (1)            |
| Conversion of convertible securities and issuances under employee stock plans (471,966, 313,192 and 320,276 shares in 1983-1981, respectively) | 32              | 17              | 16             |
| <b>Balance, December 31</b>                                                                                                                    | <b>\$ (4)</b>   | <b>\$ (22)</b>  | <b>\$ (26)</b> |

The above statements should be read in conjunction with page 46 and pages 52 through 55 of this report.

DSW 021560

## Notes to Financial Statements

## Principal Acquisitions and Divestitures

In June 1983, Monsanto completed the sale of the European acrylic fibers business to Montefibre, a subsidiary of Montedison (Italy). A loss provision of \$18 million (\$0.46 per share) net of related taxes was established in 1982. The 1982 pretax loss of \$20 million was reflected in obsolescence expense in cost of goods sold. The European acrylic fibers business was part of the Fibers and Intermediates operating unit and had 1982 sales of approximately \$139 million.

As part of the above agreement, Monsanto acquired, in June 1983, at underlying net book value, Montefibre's 50 percent interest in Polyamide Intermediates Limited (PIL), a nylon intermediates joint venture in the United Kingdom. This resulted in Monsanto having sole ownership in PIL, whose operations are now reported as part of the Fibers and Intermediates operating unit.

In July 1983, the Company finalized an agreement with The General Electric Company p.l.c., (GEC) of the United Kingdom whereby Monsanto increased its ownership of Fisher Controls International, Inc. (FCI) to 100 percent from the previous 66½ percent. Monsanto's purchase price was \$178 million. The excess purchase price above FCI's net assets attributable to GEC's interest was \$81 million as of the acquisition date.

In August 1981, the Company sold its assets related to the Monsanto/Conoco joint venture. The Company's gain on the sale was recorded as a reduction of obsolescence expense in cost of goods sold in 1981 of \$124 million, or \$68 million (\$1.75 per share) net of related tax effects. The facilities were a part of the Polymer Products operating unit in the United States and had 1981 sales of approximately \$167 million.

As of December 31, 1983, the remaining accruals for divestitures have been reduced to immaterial amounts through actual expenditures for shutdown or withdrawal costs, disposal of certain facilities, and operating results subsequent to the recording of the provisions. The remaining accruals are expected to be sufficient to absorb any future costs related to these divestitures.

The effects of including the acquisitions discussed above in Monsanto's 1983 consolidated financial statements as if they occurred at the beginning of the year would not be material.

## Supplemental Income and Expense Data

|                                                                                             | 1983         | 1982           | 1981           |
|---------------------------------------------------------------------------------------------|--------------|----------------|----------------|
| <b>Depreciation and obsolescence:</b>                                                       |              |                |                |
| Depreciation                                                                                | \$456        | \$396          | \$361          |
| Obsolescence (includes gains and losses from divestitures)                                  | 61           | 43             | (98)           |
| <b>Total depreciation and obsolescence</b>                                                  | <b>\$517</b> | <b>\$439</b>   | <b>\$263</b>   |
| <b>Rent expense</b>                                                                         | <b>\$ 83</b> | <b>\$ 78</b>   | <b>\$ 74</b>   |
| <b>Technological expenses:</b>                                                              |              |                |                |
| Research and development                                                                    | \$290        | \$264          | \$233          |
| Engineering, commercial development and patent                                              | 69           | 65             | 64             |
| <b>Total technological expenses</b>                                                         | <b>\$359</b> | <b>\$329</b>   | <b>\$297</b>   |
| <b>Interest expense:</b>                                                                    |              |                |                |
| Total interest costs incurred                                                               | \$126        | \$128          | \$145          |
| Less capitalized interest                                                                   | (30)         | (46)           | (44)           |
| <b>Net interest expense</b>                                                                 | <b>\$ 96</b> | <b>\$ 82</b>   | <b>\$101</b>   |
| <b>Equity income (loss):</b>                                                                |              |                |                |
| Equity in affiliates' income and losses                                                     | \$ 13        | \$ (6)         | \$ 22          |
| Equity in affiliates' foreign currency gains and losses                                     | 2            | (5)            | 16             |
| <b>Total equity income (loss)</b>                                                           | <b>\$ 15</b> | <b>\$ (11)</b> | <b>\$ 38</b>   |
| <b>Foreign currency gains and losses (including equity in affiliates' gains and losses)</b> | <b>\$ 5</b>  | <b>\$ (15)</b> | <b>\$ (28)</b> |

## Pension Plans

Most Monsanto employees are covered by noncontributory pension plans. The pension expense for all plans was \$131 million, \$136 million and \$127 million in 1983-1981, respectively.

Estimated benefit and asset information at yearend for Monsanto's pension plans is presented below. Net assets were measured at market value and accumulated benefits were estimated from actuarial valuations made earlier in the year.

|                                                              | 1983           | 1982           |
|--------------------------------------------------------------|----------------|----------------|
| <b>Actuarial present value of accumulated plan benefits:</b> |                |                |
| Vested                                                       | \$1,463        | \$1,366        |
| Nonvested                                                    | 178            | 177            |
| <b>Total</b>                                                 | <b>\$1,641</b> | <b>\$1,543</b> |
| <b>Net assets available for benefits</b>                     | <b>\$1,958</b> | <b>\$1,697</b> |

U.S. salaried and hourly employees are covered by two principal plans. Assumptions for the principal plans

DSW 021561

include an investment return of 7.5 percent used in determining the actuarial present values, and an overall average salary increase of 6.5 percent for a "final pay" plan. Accumulated plan benefits included in the above table for these major U.S. plans were approximately \$1,515 million at December 31, 1983. The actuarial present value of additional projected benefits from future salary increases for the U.S. "final pay" plan at December 31, 1983 was approximately \$260 million.

### Income Taxes

The components of income before income taxes were:

|              | 1983         | 1982         | 1981         |
|--------------|--------------|--------------|--------------|
| U.S.         | \$419        | \$425        | \$549        |
| Ex-U.S.      | 151          | 76           | 144          |
| <b>Total</b> | <b>\$570</b> | <b>\$501</b> | <b>\$693</b> |

The components of income tax expense were:

|                  | 1983  | 1982  | 1981  |
|------------------|-------|-------|-------|
| <b>Current:</b>  |       |       |       |
| Federal          | \$103 | \$ 53 | \$ 91 |
| State            | 6     | 8     | 8     |
| Ex-U.S.          | 45    | 39    | 38    |
|                  | 154   | 100   | 137   |
| <b>Deferred:</b> |       |       |       |
| Federal          | 11    | 72    | 103   |
| State            | 4     | 4     | 9     |
| Ex-U.S.          | (1)   | (4)   | (1)   |
|                  | 14    | 72    | 111   |

**Tax effect of loss carryforward:**

|              |              |              |              |
|--------------|--------------|--------------|--------------|
| Ex-U.S.      | 33           |              |              |
| <b>Total</b> | <b>\$201</b> | <b>\$172</b> | <b>\$248</b> |

Investment tax credits for 1983-1981 were \$26 million, \$53 million and \$22 million, respectively.

The sources of timing differences in the recognition of revenue and expense for tax and financial statement purposes and the tax effect of each were:

|                                           | 1983         | 1982         | 1981         |
|-------------------------------------------|--------------|--------------|--------------|
| Depreciation and obsolescence             | \$ 19        | \$ 49        | \$ 66        |
| Intangible drilling and development costs | (3)          | 19           | 23           |
| Interest capitalization                   | 8            | 18           | 14           |
| Other                                     | (10)         | (14)         | 8            |
| <b>Total</b>                              | <b>\$ 14</b> | <b>\$ 72</b> | <b>\$111</b> |

Factors causing the effective tax rate to differ from the statutory rate were:

|                                                | 1983       | 1982       | 1981       |
|------------------------------------------------|------------|------------|------------|
| Federal statutory rate                         | 46%        | 46%        | 46%        |
| Investment tax and R&D credits                 | (5)        | (11)       | (3)        |
| Benefits attributable to DISC earnings         | (3)        | (3)        | (3)        |
| Non-tax effected ex-U.S. subsidiaries' results |            |            | (3)        |
| Other                                          | (2)        | 2          | (1)        |
| <b>Effective income tax rate</b>               | <b>35%</b> | <b>34%</b> | <b>36%</b> |

Additional taxes have not been provided on \$741 million of undistributed earnings of subsidiaries as of December 31, 1983. Taxes may be payable in the event of distribution.

Ex-U.S. loss carryforwards at December 31, 1983, for which no tax benefits have been recorded, were approximately \$78 million. A substantial portion of this has an unlimited carryforward period.

### Earnings per Share

Earnings per share were computed using the weighted average number of common and common equivalent shares outstanding each year (41,107,578, 39,975,498 and 38,703,604 in 1983-1981, respectively). Common share equivalents consist of common stock issuable upon exercise of outstanding stock options (281,811, 159,858 and 200,801 in 1983-1981, respectively), and conversion of loan stock of Monsanto p.l.c. (99,348, 109,904 and 144,952 in 1983-1981, respectively). Earnings per share assuming full dilution were not significantly different from the primary amounts.

### Inventories

Inventories at December 31, 1983 and 1982 would have been \$453 million and \$447 million, respectively, higher than reported if the FIFO basis of inventory valuation (which approximates current cost) had been used for all inventories. The LIFO inventory method makes it impractical to identify inventories by classification (i.e., finished goods, goods in process, raw materials and supplies). The liquidation of lower cost inventory "tiers" under the LIFO method increased 1982 earnings approximately \$83 million before taxes.

### Short-Term Debt and Credit Arrangements

|                                          | 1983         | 1982         |
|------------------------------------------|--------------|--------------|
| <b>Notes payable:</b>                    |              |              |
| Banks                                    | \$154        | \$105        |
| Others                                   | 75           |              |
| <b>Current portion of long-term debt</b> | <b>24</b>    | <b>26</b>    |
| <b>Total</b>                             | <b>\$253</b> | <b>\$131</b> |

The Company has available a \$200 million domestic Revolving Credit Agreement with fourteen banks. The Agreement provides for revolving credit through 1989. The interest rates on any borrowings under these domestic facilities will generally be at or near prevailing prime rates.

The Company also has available \$100 million under Eurocurrency Revolving Credit Agreements subject to mandatory reductions beginning in 1985 and terminating in 1987. Interest rates under these agreements are at a margin above the London or Luxembourg interbank offered rates.

No borrowings were made under the above credit facilities through February 24, 1984.

In addition, certain ex-U.S. subsidiaries have aggregate short-term loan facilities of \$325 million, under which loans totaling \$59 million were outstanding at December 31, 1983. Interest on these loans is related to various ex-U.S. bank rates.

DSW 021562

**Long-Term Debt**

Long-term debt (exclusive of current maturities) was:

|                                                                      | 1983         | 1982           |
|----------------------------------------------------------------------|--------------|----------------|
| <b>Monsanto Company:</b>                                             |              |                |
| 8% notes due 1985                                                    | \$100        | \$ 100         |
| 4 3/4% promissory notes due 1993                                     | 44           | 49             |
| 9 1/2% sinking fund debentures due 1997                              | 67           | 67             |
| 8 1/2% sinking fund debentures due 2000                              | 127          | 127            |
| 3 3/4% income debentures due 2002                                    | 77           | 85             |
| 4 1/4% income debentures due 2008                                    | 50           | 50             |
| 8 3/4% sinking fund debentures due 2008                              | 189          | 169            |
| 4 4/8%-11 1/8% industrial development bond obligations due 1985/2021 | 247          | 247            |
| Capitalized lease obligations                                        | 7            | 10             |
| <b>Monsanto (Suisse) S.A.</b>                                        |              |                |
| (Swiss subsidiary):                                                  |              |                |
| 6 1/2% sinking fund debentures due 1986                              |              | 24             |
| <b>Monsanto Europe, S.A. (Belgian subsidiary):</b>                   |              |                |
| 9 7/8%-14 1/2% bank loans due 1985/1991                              | 9            | 25             |
| Other, principally ex-U.S. subsidiaries                              | 40           | 50             |
| <b>Total</b>                                                         | <b>\$937</b> | <b>\$1,003</b> |

Other long-term debt above at December 31, 1983 includes \$3 million of Monsanto International Finance Company 4 1/2% sinking fund debentures (due 1985) convertible into Common Stock at \$85 per share, and \$3 million of Monsanto p.l.c. (U.K. subsidiary) 5% loan stock (due 1985/1986) convertible into Common Stock at a rate equivalent to \$55 per share.

Maturities and sinking fund requirements on long-term debt are \$24 million, \$130 million, \$22 million, \$17 million and \$23 million for the five years ending December 31, 1984-1988, respectively.

Covenants of certain loan agreements restrict maximum borrowings and dividend payments. It is not anticipated that additional future borrowings will be affected by these restrictions, and none of the Company's reinvested earnings were restricted as to dividend payments at December 31, 1983.

Monsanto has various loans payable to other companies where the agreements provide for the legal right of offset of related Monsanto assets, principally loans receivable from the same companies or their affiliates. Monsanto's total borrowings under these agreements were \$149 million at December 31, 1983. Since both parties to the agreements have the legal right of offset in case of default, borrowings and related receivables or other assets are reflected net in the accompanying Statement of Consolidated Financial Position. These agreements expire at various dates through 1986. Because of currency denomination and other factors, interest rates on the loans payable are somewhat higher than the rates on the related receivables or other assets.

Substantially all long-term debt of subsidiaries is guaranteed by the Company.

**Commitments and Contingencies**

Commitments in connection with uncompleted additions to property were approximately \$136 million at December 31, 1983. Monsanto was contingently liable as guarantor of bank loans and for discounted customers' receivables totaling approximately \$56 million at December 31, 1983.

Monsanto is a party to a number of lawsuits, which it is vigorously defending, arising in the normal course of business. Certain of these actions seek damages in very large amounts. While the results of litigation cannot be predicted with certainty, management believes, based upon the advice of Company counsel, that the final outcome of such litigation will not have a material adverse effect on Monsanto's consolidated financial position.

**Capital Stock**

The outstanding \$2.75 Cumulative Convertible Preferred Stock is stated at \$2.24 per share and is convertible into 1.12 shares of Common Stock. Preferred stock may be redeemed solely at the Company's option at \$73 per share (the voluntary liquidation preference) and has an involuntary liquidation preference of \$35 per share.

At December 31, 1983, there were 195,249 common shares reserved for conversion of convertible securities and 1,424,598 common shares for employee stock options.

**Stock Option Plan**

At December 31, 1983, there were 1,093,778 shares under options outstanding for the Company's 1974 Plan at prices ranging from \$48.50 to \$115.19. Options for 617,754 shares were exercisable at December 31, 1983. During 1983, 258,250 options were granted and 320,348 options, granted at prices ranging from \$48.50 to \$88.06 per share, were exercised.

Stock appreciation rights (SAR's) are authorized to be granted under the 1974 Plan, including retroactive grants for unexercised options. At December 31, 1983, SAR's related to options for 257,233 shares were outstanding; of these, 145,010 were exercisable. During 1983, SAR's related to options for 61,000 shares were granted and 98,495 were exercised.

DSW 021563

### Segment Information

Certain operating unit segment data for 1983-1981 appearing on page 38 are integral parts of the accompanying financial statements. The principal product lines included in each operating unit are shown in the "Sales by Product Group" data on page 34. Unusual or non-recurring charges or credits were included in the operating units and world areas as discussed in the "Principal Acquisitions and Divestitures" note. The liquidation of lower cost inventory "tiers" under the LIFO method increased 1982 operating income by \$20 million, \$27 million and \$35 million for Fibers and Intermediates, Industrial Chemicals and Polymer Products, respectively. Total sales between operating units (made on a market price basis) were \$297 million, \$311 million and \$393 million in 1983-1981, respectively. These sales were

not significant for any operating units except Industrial Chemicals (\$140 million, \$151 million and \$162 million in 1983-1981, respectively) and Fibers and Intermediates (\$101 million, \$91 million and \$102 million in 1983-1981, respectively). Inter-area sales, which are sales from one Monsanto location to another Monsanto location in a different world area, were made on a market price basis.

Certain corporate expenses, primarily those related to the overall management of the Company, were not allocated to the operating units or world areas. Other income (expense), as shown in the Statement of Consolidated Income, is the only reconciling item between operating income and income before taxes. Nonoperating assets principally include cash, time deposits and certificates of deposit, short-term securities and investments.

Net sales by world area entities were:

|                           | Outside Customer Sales |                |                | Inter-Area Sales |             |             |
|---------------------------|------------------------|----------------|----------------|------------------|-------------|-------------|
|                           | 1983                   | 1982           | 1981           | 1983             | 1982        | 1981        |
| United States             | \$4,596                | \$4,483        | \$4,874        | \$ 526           | \$ 467      | \$ 554      |
| Europe-Africa             | 924                    | 1,079          | 1,247          | 188              | 108         | 115         |
| Canada-Latin America      | 451                    | 448            | 486            | 10               | 5           | 4           |
| Asia-Pacific              | 328                    | 315            | 341            | 25               | 21          | 25          |
| Eliminations              |                        |                |                | (749)            | (601)       | (698)       |
| <b>Total consolidated</b> | <b>\$6,299</b>         | <b>\$6,325</b> | <b>\$6,948</b> | <b>\$ —</b>      | <b>\$ —</b> | <b>\$ —</b> |

Operating income and total assets by world area entities were:

|                           | Operating Income (Loss) |               |               | Total Assets   |                |                |
|---------------------------|-------------------------|---------------|---------------|----------------|----------------|----------------|
|                           | 1983                    | 1982          | 1981          | 1983           | 1982           | 1981           |
| United States             | \$ 434                  | \$ 458        | \$ 652        | \$5,122        | \$4,711        | \$4,437        |
| Europe-Africa             | 137                     | 39            | 38            | 696            | 790            | 1,049          |
| Canada-Latin America      | 54                      | 30            | 41            | 272            | 247            | 280            |
| Asia-Pacific              | 15                      | 11            | 25            | 203            | 172            | 227            |
| Eliminations              | (35)                    | 8             | (16)          | (362)          | (268)          | (334)          |
| Corporate expenses        | (50)                    | (45)          | (38)          |                |                |                |
| Nonoperating assets       |                         |               |               | 496            | 425            | 410            |
| <b>Total consolidated</b> | <b>\$ 555</b>           | <b>\$ 501</b> | <b>\$ 702</b> | <b>\$6,427</b> | <b>\$6,077</b> | <b>\$6,069</b> |

Following is a reconciliation of ex-U.S. operating income and total assets to the Company's equity in the net income and net assets of consolidated ex-U.S. subsidiaries:

|                                                                           | 1983          | 1982          | 1981          |
|---------------------------------------------------------------------------|---------------|---------------|---------------|
| Operating income                                                          | \$ 206        | \$ 80         | \$ 104        |
| Other income (expense)                                                    | (35)          | (14)          | 38            |
| Income taxes (including extraordinary tax benefits of loss carryforwards) | 45            | 35            | 30            |
| <b>Net income of consolidated ex-U.S. subsidiaries</b>                    | <b>\$ 126</b> | <b>\$ 31</b>  | <b>\$ 112</b> |
| Total operating assets                                                    | \$1,171       | \$1,209       | \$1,556       |
| Total liabilities, net of nonoperating assets                             | 470           | 440           | 691           |
| <b>Net assets of consolidated ex-U.S. subsidiaries</b>                    | <b>\$ 701</b> | <b>\$ 769</b> | <b>\$ 865</b> |

DSW 021564

**Financial Summary**

(Dollars in millions, except per share)

|                                   |                                                   | 1983(1)              | 1982(2)(3)       | 1981                |
|-----------------------------------|---------------------------------------------------|----------------------|------------------|---------------------|
| <b>Operating Results</b>          | Net Sales                                         | \$6,299              | \$6,325          | \$6,948             |
|                                   | Operating Income                                  | 555                  | 501              | 702                 |
|                                   | Net Income                                        | \$ 402               | \$ 352           | \$ 445              |
|                                   | As a Percent of Net Sales                         | 6                    | 6                | 6                   |
|                                   | As a Percent of Average Shareowners' Equity       | 11                   | 10               | 15                  |
|                                   | As a Percent of Average Capital Employed          | 10                   | 9                | 11                  |
| <b>Earnings Per Share</b>         | Primary                                           | \$ 9.78              | \$ 8.79          | \$11.50             |
|                                   | Fully Diluted                                     | 9.74                 | 8.74             | 11.43               |
| <b>Yearend Financial Position</b> | Total Assets                                      | \$6,427              | \$6,077          | \$6,069             |
|                                   | Working Capital                                   | 1,535                | 1,503            | 1,486               |
|                                   | Property, Plant & Equipment: Gross                | \$6,639              | \$6,530          | \$6,218             |
|                                   | Net                                               | 3,284                | 3,313            | 3,184               |
|                                   | Long-Term Debt                                    | \$ 937               | \$1,003          | \$1,110             |
|                                   | Shareowners' Equity                               | 3,667                | 3,490            | 3,330               |
|                                   | Current Ratio                                     | 2.3                  | 2.6              | 2.4                 |
|                                   | Percent of Long-Term Debt to Total Capitalization | 20                   | 22               | 25                  |
| <b>Other Data</b>                 | Property, Plant & Equipment Additions             | \$ 560               | \$ 673           | \$ 668              |
|                                   | Depreciation and Obsolescence                     | 517                  | 439              | 263                 |
|                                   | Interest Expense                                  | 96                   | 82               | 101                 |
|                                   | Research and Development Expense                  | 290                  | 264              | 233                 |
|                                   | Income Taxes                                      | 201                  | 172              | 248                 |
|                                   | Stock Price:                                      |                      |                  |                     |
|                                   | High                                              | \$ 116 $\frac{3}{4}$ | \$ 89            | \$ 87 $\frac{1}{2}$ |
|                                   | Low                                               | 74 $\frac{1}{4}$     | 56 $\frac{3}{8}$ | 59 $\frac{1}{2}$    |
|                                   | Price/Earnings Ratio on Yearend Stock Price       | 11                   | 9                | 6                   |
|                                   | Per Common Share: Dividends                       | \$ 4.15              | \$ 3.95          | \$ 3.75             |
|                                   | Shareowners' Equity                               | 89.66                | 85.97            | 84.37               |
|                                   | Shareowners: Common                               | 69,787               | 75,943           | 79,029              |
|                                   | Preferred                                         | 632                  | 709              | 775                 |
|                                   | Common Shares Outstanding (in millions)           | 41                   | 41               | 40                  |
|                                   | Employees                                         | 50,889               | 52,199           | 57,391              |

(1) Net income for 1983 includes extraordinary tax benefits of \$33 million, or \$0.81 per primary share, from the utilization of ex-U.S. loss carryforwards.

(2) Net income for 1982 includes an extraordinary gain of \$23 million, or \$0.56 per primary share, from an exchange of debt for common shares.

(3) In 1982, the requirements of Statement of Financial Accounting Standards No. 52, "Foreign Currency Translation," were adopted.

DSW 021565

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| 1980(4)              | 1979                 | 1978                 | 1977                | 1976                | 1975                | 1974(5)             | 1973                |
|----------------------|----------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| \$5,574<br>210       | \$6,193<br>487       | \$5,019<br>632       | \$4,595<br>610      | \$4,270<br>668      | \$3,625<br>547      | \$3,498<br>550      | \$2,648<br>406      |
| \$ 149<br>2          | \$ 331<br>5          | \$ 303<br>6          | \$ 276<br>6         | \$ 368<br>9         | \$ 306<br>8         | \$ 323<br>9         | \$ 238<br>9         |
| 5                    | 12                   | 12                   | 12                  | 17                  | 16                  | 20                  | 17                  |
| 5                    | 10                   | 9                    | 9                   | 13                  | 13                  | 15                  | 13                  |
| \$ 4.10<br>4.06      | \$ 9.11<br>9.03      | \$ 8.29<br>8.21      | \$ 7.46<br>7.37     | \$10.05<br>9.77     | \$ 8.63<br>8.22     | \$ 9.25<br>8.73     | \$ 6.90<br>6.54     |
| \$5,796<br>1,226     | \$5,539<br>1,323     | \$5,036<br>1,296     | \$4,350<br>1,080    | \$3,959<br>1,106    | \$3,451<br>1,150    | \$2,938<br>968      | \$2,545<br>855      |
| \$6,074<br>3,109     | \$5,529<br>2,818     | \$5,167<br>2,605     | \$4,745<br>2,409    | \$4,208<br>2,090    | \$3,620<br>1,660    | \$3,157<br>1,312    | \$2,852<br>1,152    |
| \$1,371<br>2,808     | \$1,203<br>2,782     | \$1,224<br>2,579     | \$1,031<br>2,401    | \$ 915<br>2,253     | \$ 845<br>1,977     | \$ 587<br>1,755     | \$ 579<br>1,484     |
| 2.1                  | 2.2                  | 2.5                  | 2.6                 | 2.9                 | 3.4                 | 2.9                 | 3.1                 |
| 33                   | 30                   | 32                   | 30                  | 29                  | 30                  | 25                  | 28                  |
| \$ 781<br>547<br>112 | \$ 566<br>413<br>123 | \$ 480<br>288<br>103 | \$ 607<br>296<br>86 | \$ 647<br>226<br>80 | \$ 528<br>173<br>56 | \$ 313<br>172<br>43 | \$ 205<br>170<br>39 |
| 208<br>57            | 161<br>150           | 136<br>274           | 132<br>248          | 114<br>251          | 116<br>230          | 87<br>251           | 71<br>173           |
| \$ 70¼<br>42¼        | \$ 62<br>45          | \$ 60¼<br>44½        | \$ 68⅞<br>52        | \$ 100<br>76        | \$ 60⅞<br>41        | \$ 69½<br>39¾       | \$ 75¼<br>43¾       |
| 17                   | 7                    | 6                    | 8                   | 9                   | 9                   | 4                   | 8                   |
| \$ 3.55<br>77.63     | \$ 3.35<br>77.20     | \$ 3.175<br>71.26    | \$ 3.025<br>66.16   | \$ 2.75<br>61.79    | \$ 2.55<br>56.62    | \$ 2.30<br>51.39    | \$ 1.90<br>44.26    |
| 82,441<br>871        | 85,608<br>952        | 86,775<br>1,156      | 85,021<br>1,404     | 84,647<br>1,956     | 91,725<br>2,836     | 98,542<br>3,709     | 98,964<br>3,855     |
| 36                   | 36                   | 36                   | 36                  | 36                  | 35                  | 34                  | 33                  |
| 61,836               | 63,926               | 62,851               | 61,519              | 61,903              | 59,242              | 60,926              | 58,277              |

(4) In 1980, interest costs related to construction-in-progress expenditures were capitalized in accordance with Statement of Financial Accounting Standards No. 34. Prior to 1980, all interest costs were expensed as incurred. The effect of the new accounting principle was to increase 1980 net income by \$28 million or \$0.78 per primary share.

(5) In 1974, the Company and certain of its domestic subsidiaries changed their method of inventory valuation for substantially all United States inventories from the FIFO basis to the LIFO basis. The effect of this change was to decrease 1974 income by \$78 million or \$2.28 per primary share.

DSW 021566

## Directors and Officers

58

### Board of Directors

**Dr. Louis Fernandez**

St. Louis  
Chairman of the Board  
Monsanto Company

**Dr. Donald C. Carroll**

Philadelphia  
Professor of Management  
University of Pennsylvania

**C. Raymond Dahl**

San Francisco  
Retired Chairman of the  
Board  
Crown Zellerbach Corporation

**Richard I. Fricke**

Montpelier, Vermont  
President and Chief Executive  
Officer  
National Life Insurance  
Company

**John W. Hanley**

North Palm Beach, Florida  
Retired Chairman  
of the Board and  
Chief Executive Officer  
Monsanto Company

**Howard M. Love**

Pittsburgh  
Chairman of the Board and  
Chief Executive Officer  
National Intergroup, Inc.

**Richard J. Mahoney**

St. Louis  
President and Chief Executive  
Officer  
Monsanto Company

**Dr. Jean Mayer**

Medford, Massachusetts  
President  
Tufts University

**Buck Mickel**

Greenville, South Carolina  
Chairman of the Board  
Daniel International  
Corporation  
(a subsidiary of Fluor  
Corporation)

**Edward L. Palmer**

New York  
Retired Chairman of the  
Executive Committee  
Citicorp and Citibank, N.A.

**Francis E. Reese**

St. Louis  
Senior Vice President  
Monsanto Company

**Dr. John B. Slaughter**

College Park, Maryland  
Chancellor  
University of Maryland  
at College Park

**Monte C. Throdahl**

St. Louis  
Senior Vice President  
Monsanto Company

**Admiral Stansfield Turner**

U.S. Navy, Retired  
McLean, Virginia  
Consultant and Lecturer

**Margaret Bush Wilson**

St. Louis  
Attorney  
Wilson, Smith and McCullin

### Advisory Directors

Robert L. Berra  
Francis J. Fitzgerald  
Earle H. Harbison Jr.  
Nicholas L. Reding  
Dr. Howard A. Schneiderman  
Francis A. Stroble

### Committees of the Board

#### Audit

Dr. Jean Mayer  
Buck Mickel  
Edward L. Palmer  
Margaret Bush Wilson

#### Corporate Social Responsibility

Dr. Louis Fernandez  
Dr. Jean Mayer  
Admiral Stansfield Turner  
Margaret Bush Wilson

#### Executive

Dr. Louis Fernandez  
John W. Hanley  
Richard J. Mahoney  
Margaret Bush Wilson

#### Executive Compensation and Development

Richard I. Fricke  
Howard M. Love  
Buck Mickel

#### Finance

Dr. Donald C. Carroll  
C. Raymond Dahl  
John W. Hanley  
Richard J. Mahoney  
Edward L. Palmer

#### Nominating

C. Raymond Dahl  
Howard M. Love  
Buck Mickel

#### Pension and Savings Funds

Dr. Donald C. Carroll  
Dr. Louis Fernandez  
Richard I. Fricke  
Admiral Stansfield Turner

DSW 021567

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## **Officers**

### **President and Chief Executive Officer**

Richard J. Mahoney

### **Chairman of the Board**

Dr. Louis Fernandez

### **Executive Vice Presidents**

Francis J. Fitzgerald

Earle H. Harbison Jr.

Nicholas L. Reding

### **Senior Vice Presidents**

Robert L. Berra

Francis E. Reese

Dr. Howard A. Schneiderman

Monte C. Throdahl

### **Senior Vice President and Chief Financial Officer**

Francis A. Stroble

### **Senior Vice President, Secretary and General Counsel**

Richard W. Duesenberg

### **Group Vice Presidents**

Robert E. Burke

Harold J. Corbett\*

Thomas L. Gossage

Robert G. Potter

### **Vice Presidents**

Dr. Constantine E.

Anagnostopoulos

Leonard A. Cohn

Stewart D. Daniels

Richard U. DeSchutter\*\*\*

Charles A. Faden

Dr. S. Allen Heininger

Martin J. Kallen

Thomas H. Lafferre

Dr. Joseph T. Nolan

Sam Pickard

James H. Senger\*\*\*

Donald H. Swan\*\*

### **Vice President and Treasurer**

Lawrence B. Skatoff

### **Vice President and Controller**

Michael F. Mee

## **Annual Meeting**

The next Annual Meeting of the shareowners of Monsanto Company will be held at 1:45 p.m., Friday, April 27, 1984, in K Building at the Company's General Offices, 800 N. Lindbergh Blvd., St. Louis, Missouri. A formal notice of the meeting, together with a proxy statement is being mailed to each shareowner.

### **10-K Report, Corporate Data Book and Investor News**

A copy of Monsanto Company's Form 10-K Report filed with the Securities and Exchange Commission for 1983; 1983 Corporate Data Book, which contains additional information relating to Monsanto; and Investor News can be obtained by writing to:

Investor Relations Department  
Monsanto Company  
800 N. Lindbergh Blvd.  
St. Louis, Missouri 63167

### **Stock Symbol: MTC**

### **Transfer Agent and Registrar**

The First National  
Bank of Boston

\*To become Senior Vice President on April 1, 1984.

\*\*To become Group Vice President on April 1, 1984.

\*\*\*Effective April 1, 1984.

DSW 021568

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## **Monsanto**

Monsanto Company  
800 N. Lindbergh Blvd.  
St. Louis, Missouri 63167

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