

Monsanto

Becoming

the best in

what we do

is a promise

being kept.

Annual Report
1984

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Operational Highlights

Monsanto Company and Subsidiaries

(Dollars in millions, except per share)

	1984	1983	1982
Net Sales	\$6,691	\$6,299	\$6,325
Net Income	\$ 439	\$ 402	\$ 352
Per Common Share:			
Net Income	\$ 5.42	\$ 4.89	\$ 4.39
Dividends	2.25	2.075	1.975
Shareowners' Equity	46.43	44.83	42.99
Depreciation, Depletion and Obsolescence	\$ 491	\$ 517	\$ 439
Funds Provided from Operations	\$1,008	\$ 948	\$ 880
Property, Plant and Equipment Additions	\$ 614	\$ 560	\$ 673
Research and Development Expenses	\$ 370	\$ 290	\$ 264
Percent of Long-Term Debt to Total Capitalization	18%	20%	22%

Per share amounts for all years reflect the 1984 two-for-one stock split. Net income in 1983 and 1982 includes extraordinary income items of \$33 million and \$23 million, respectively.

Sales to Major Markets

\$6,691

Agriculture

\$1,363 20%

Construction and Home Furnishings

\$1,251 19%

Capital Equipment

\$875 13%

Worldwide Sales

\$6,691

United States

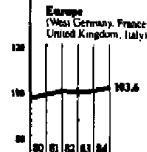
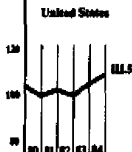
\$4,496 67%

Europe-Africa

\$968 15%

World Economic Activity

Source: International Monetary Fund
inflation-adjusted statistics using gross national
product/gross domestic product data (1980=100).



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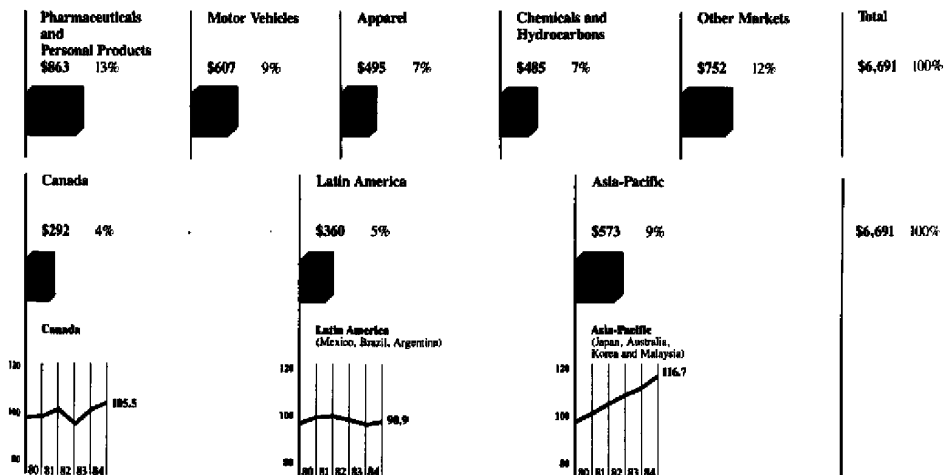
Monsanto at a Glance

At Monsanto Company, more than 50,000 employees throughout the world are skilled in researching, manufacturing, and marketing more than 1,000 products, including chemical and agricultural products, man-made fibers, electronic materials, health care, process controls, fabricated products, and oil and gas. Monsanto has investments in 164 manufacturing plants, offshore oil and gas exploration sites, laboratories, and technical centers in 27 countries, and conducts business in more than 100 countries.

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Monsanto trademarks in the Annual Report are identified by italics.



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Letter To Our Shareowners:

On the cover of this year's Annual Report:

***"Becoming The Best In What We Do
Is A Promise Being Kept."***

Strong words — a serious commitment.

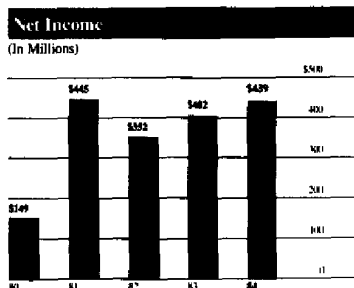
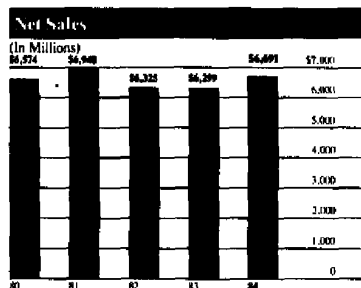
Much of what we did in 1984 moved us well in that direction. Some things did not. On balance, the results were decidedly positive.

Some of the highlights:

■ Overall financial results were a real plus. Earnings from operations increased 30 percent over 1983; net income — at \$439 million — was up significantly and return on shareowners' equity continued to improve. Now, a return on shareowners' equity of 12 percent — about the middle of the pack in the chemical industry — can hardly be characterized as "best," but it's moving up steadily. We know where we want to be on this important indicator and are putting the pieces in place to get there.

■ The U.S. economy provided a tremendous lift — particularly in the first half — but that gain was taken away, and then some, at the bottom line by the effects of the persistently strong U.S. dollar. But being best means consistently managing our way through the vagaries of these forces and continuing to do everything possible to set our business structures and contingency plans in place to avoid simply "coping." To a degree, we have reduced the cyclical nature of our Company and are making steady moves to dampen these swings. This improvement *must* continue. It's one of the reasons we're building toward diversity with a three-part company of life sciences, chemical sciences and engineered products.

■ Despite the battering our exports took from the strong dollar, our earnings from outside the U.S. — exports plus local manufacturing — increased by 74 percent over 1983 and accounted for 31 percent of corporate operating income. By comparison, U.S. earnings rose 14 percent. As with cyclical nature, we are moving and must continue to move to dampen the effects of these inevitable currency cycles by balanced, worldwide product siting. In the meantime, a number of competitors' products have been imported into some of our traditional U.S. markets despite having fundamentally



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inferior cost positions. Even a moderate softening of the dollar would set that playing field level again.

■ The chemicals, plastics and fibers businesses of Monsanto turned in operating income of \$321 million — a 51 percent increase over 1983. It's nice to have the results to back up our repeated claims of the past few years that these are important assets — perhaps even undervalued in the financial market's analysis of Monsanto. We have made a strong commitment to our customers and employees to renew these core businesses of Monsanto. 1984 demonstrated how valuable these businesses are despite the heavy media attention given to our biological efforts.

■ Silicon wafers went into the black in 1984 as promised. It's been a long time coming. We intend to keep this momentum going and to have silicon be a major income contributor for the Corporation.

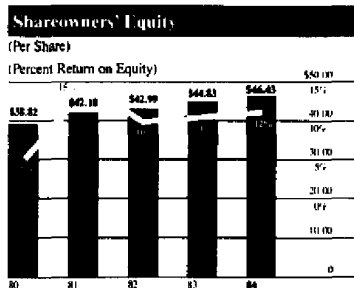
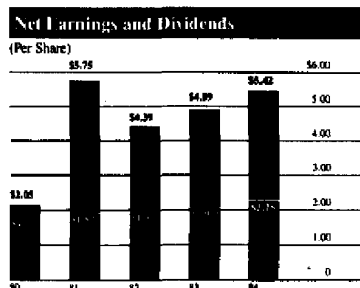
■ Agricultural products income increased by 10 percent, while absorbing \$107 million of R&D, \$29 million higher than 1983. After 15 years on the market, *Lasso* herbicide continued to demonstrate its farmer appeal and importance to American agriculture through strong volume movement. *Roundup* herbicide turned in a six percent sales volume increase for the calendar

year and a nine percent product usage increase. The volume of *Roundup* was lower than we had hoped for primarily because of poor weather at the important use time. We don't intend to continue to blame "weather." We've taken major steps to widen the use conditions for *Roundup* so we can master "adverse weather." New mixtures and application methods are also extending its markets. Sales increases for *Roundup* are expected for 1985.

■ Fisher's earnings were only fair. We put a lot of money in 1984 into *PRØVOX* control room instrumentation and acquisitions designed to broaden Fisher's offerings. Nearly \$100 million of *PRØVOX* systems were sold this year — just five years after its introduction — with prospects for multiples of that in the coming years. We've demonstrated we can sell the system. The job in 1985 is to begin to turn the extraordinary sales increases into high profits. We think we will.

■ During the year we maintained our fine balance sheet — a strong cash position and low debt. This is an asset with powerful potential as we look at future growth options. We also initiated a program to buy back up to six million of our shares, which we believe are currently undervalued in the marketplace.

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We've been discussing the highlights — the events — of 1984. To understand their relevance to the assertion on the cover about "a promise being kept," it is important to set out the agenda for the years ahead — the critical things that must happen. Call them "Corporate Imperatives."

We must:

■ Protect The Earnings Potential Of The Company's Two Most Important Franchises: Lasso And Roundup Herbicides

In the case of *Lasso*, a series of improved products is expected to preserve its market position when patents on *Lasso* expire later in the 1980s. They are now in advanced stages of the regulatory process. We believe the new product strategy is right. As usual, the best of results will only come from flawless execution. We control our own destiny on much of it; some of it, like regulatory timing, we don't. So far, overall, we're close to where we'd like to be on carrying out our strategy for *Lasso*.

The Environmental Protection Agency has called for a regulatory review of *Lasso* as it has done with a number of agricultural chemicals. We believe the review will confirm the safety and benefits of the product which 15 years of farmer use have demonstrated.

Roundup, too, has its non-market issues. For the past two years we have been fighting off attempts by others to claim for themselves some of the benefits of this pioneering discovery by Monsanto scientists. Monsanto has won the preliminary patent battles in the U.K., West Germany and New Zealand — a trend which we fully expect to continue for the main issue: the U.S. patent cases. In the marketplace, we're taking major steps to broaden use of *Roundup* beyond its current range of applications. There's still a lot of growth left in *Roundup*.

■ Turn Biotechnology Into Businesses In Agriculture, Nutrition And Health Care

Interestingly, several of the biotechnology start-up companies have produced significant financial market value while one of

the top players in biotechnology in the world — Monsanto — appears to suffer only a market "cost" for this research. Our goal is to turn these costs into products as quickly as is feasible, for the benefit of mankind and for continuing market value to our shareowners. Exciting developments are under way, and we'll be reporting regularly on them. We're planning on highly profitable biotechnology products — and sooner than many think.

We have the necessary development and commercial structures in place for the agricultural aspects of biotechnology. We have stated on several occasions our desire to acquire a pharmaceutical structure to carry out that important element of the strategy. If we cannot find a suitable acquisition in a reasonable period of time, we intend to make alternative affiliations in order to achieve the goal.

■ Nurture Chemicals/Plastics/Fibers

We've been putting a lot of resources into improving our customer marketing, trimming manufacturing costs, refurbishing our plants and expanding R&D in these core businesses of Monsanto. It's paying off both in current earnings and in the largest array of new products we've seen in these areas in 20 years.

■ Continue To Fix Low-Return Businesses

We still have several low-return businesses even after getting out of some poor return businesses, with sales of about \$2 billion, over the past few years. While the drain is now a trickle, being best means getting even the below-average parts of Monsanto contributing at least our cost of capital employed in these businesses. We're not there yet, but we have every reason to believe we can get the job done.

■ Profitably Grow Silicon And Fisher's PROVOX Instrumentation Systems

There are enormous opportunities for growth in earnings in these businesses over the next several years. Fundamental market demand is good — so turning these sales into solid earnings is entirely up to us. We're very optimistic.

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■ **Every Day, Earn The Right To Operate**

That right comes from our customers and — especially for chemicals — from the general public. We have put increasing emphasis on customers — listening far better to their needs for new products or better performing versions of what they already buy, and then doing something about it. Much of industry has come back to its proper external focus after too long a time looking inward at its own strategies. We are no exception.

In the public arena we have taken steps to respond to concerns about chemicals and to take a leadership role. We have pledged to apply our cleanup standards of today to the waste materials disposed of yesterday and we're about

that task. We've also pledged to let our neighbors around our plants know what we're making, the characteristics of those products and what our safety practices are. We will continue to seek ways to assure the public that Monsanto produces safe, useful products.

■ **Ensure An Unfettered Action Orientation Throughout Monsanto**

The results outlined in this letter were not accomplished by a corporation — they were accomplished by the collective efforts of our people. This is why we did so well in 1984 — and it's critically important that we remain a company of *movement* in the years ahead. Plans are essential, but we'll continue to need fresh



*Richard J. Mahoney (left),
President and
Chief Executive Officer,
with
Dr. Louis Fernandez,
Chairman of the Board.*

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ideas and people who are willing to act on them, taking some risks in the process. We have those people today. Our job is to maintain an environment that will unleash their energies and imagination — and let them get their job done.

■ **Continue Steady And Reliable Return On Shareowners' Equity Growth**

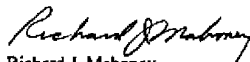
Monsanto answers to many publics. We've mentioned our customers, neighbors and the general public. We add, importantly, to that list, our owners — whether employees, retirees, private individuals or institutions. When it comes to return on shareowners' equity — our most important financial measure — these various groups often have differing interests. They share the common goal of wishing to see a strong, stable company with a good total return. The time horizons, however, as with most companies' shareowners, are often quite different — we have shareowners interested in long-term appreciation willing to sacrifice short-term gains, as well as a large group of shareowners whose interest is a quicker profit. The range of views in the financial community is illustrated by those who find *current* value in our positioning for the future — as well as others who have adopted a "wait and see" attitude.

Management's job, along with the Board of Directors, is to balance all of these interests. For example, biotechnology R&D may well deliver products in this decade — but this and other areas of research are expensive, and self-sustaining profits probably can't be expected until the 1990s. Current earnings could be rapidly accelerated if we cut back our total R&D from present levels to just that percent which our industry averages. We could also cut many of our longer term marketing, manufacturing and environmental programs as well — but we intend to be a leader and aim to preserve our future by steadily improving that future's earnings prospects.

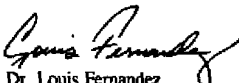
At the same time, we are mindful that the 1990s won't be here for five years and we *must* perform financially in the interim. We've learned that we can do both by seizing every opportunity from today's businesses and accelerating near-term new products — while picking

and funding the future programs with the same demanding dedication to value.

Our intention is to become "the best in what we do" — to make Monsanto a company which will be considered automatically whenever people talk about great business enterprises. This is the philosophy we operated by in 1984 and plan to continue in 1985 and beyond.



Richard J. Mahoney
President and Chief Executive Officer



Dr. Louis Fernandez
Chairman of the Board

March 5, 1985

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Introduction

Monsanto reported near-record earnings in 1984. That result is partial measurement for judging the Company's success in meeting its pledge for renewal, growth and excellence. More important, progress was reflected in a stronger mix of businesses, continued financial strength, more efficient operations and rejuvenated research and development.

Sales for 1984 came from well-established businesses like herbicides, detergent materials, nylon carpet fibers, industrial chemicals and plastics, and from emerging products like silicon wafers, gas separations equipment, process control instruments and specialty polymer materials. This evolution toward high value products born of sophisticated research and technology is under way across the Company.

International businesses continued to grow in importance to the Company, and that emphasis will continue.

During the year, Monsanto retained one of the strongest balance sheets in the chemical industry, giving the Company the financial strength, stability and borrowing power needed to accomplish its goals through internal growth and acquisitions.

Cost reduction programs and process improvements, plus utilization rates averaging six percentage points higher than 1983, resulted in more efficient and profitable plant operations. This intense focus on asset management continues.

In addition, the Company continued to strengthen previously troubled segments of its plastics, fibers and chemicals businesses through new product introductions, creative marketing and solid management. More work is under way to bolster remaining businesses that do not meet Monsanto's standards for profitability.

Research and development accelerated during the year, with expenditures reaching

record levels. These research programs support the Company's strategies by developing products that build on the legacy of established technical knowledge while creating new products from new sciences. Facilities opened for increased research into herbicides, animal nutrition, silicon, instruments for the rubber industry and process valves and equipment. Dedication of a Life Sciences Research Center near St. Louis highlights the Company's commitment to biotechnology.

Monsanto announced its new corporate strategy and direction two years ago. It pledged to increase shareowner value while building a company with major interests in three broad business areas:

- Life Sciences, where rapidly developing understanding of new sciences creates the potential for new products for agriculture, animal nutrition and human health. These efforts are supported by extensive research in biotechnology, where Monsanto is recognized as an industry leader.

- Chemical Sciences, where Monsanto's 84 years of experience and established strengths lead to new, high value fibers, plastics and chemicals. Emphasis in this area is on innovation, technology, customer service and efficiency.

- Engineered Materials and Products, where engineering, applications technology, high quality and specialized skills provide customers with finished goods and equipment for a wide range of industries. Monsanto expects rapid growth from these businesses.

This report outlines Monsanto's progress. It shows a Company meeting its pledge to employees, customers and shareowners to be the best in what it does.

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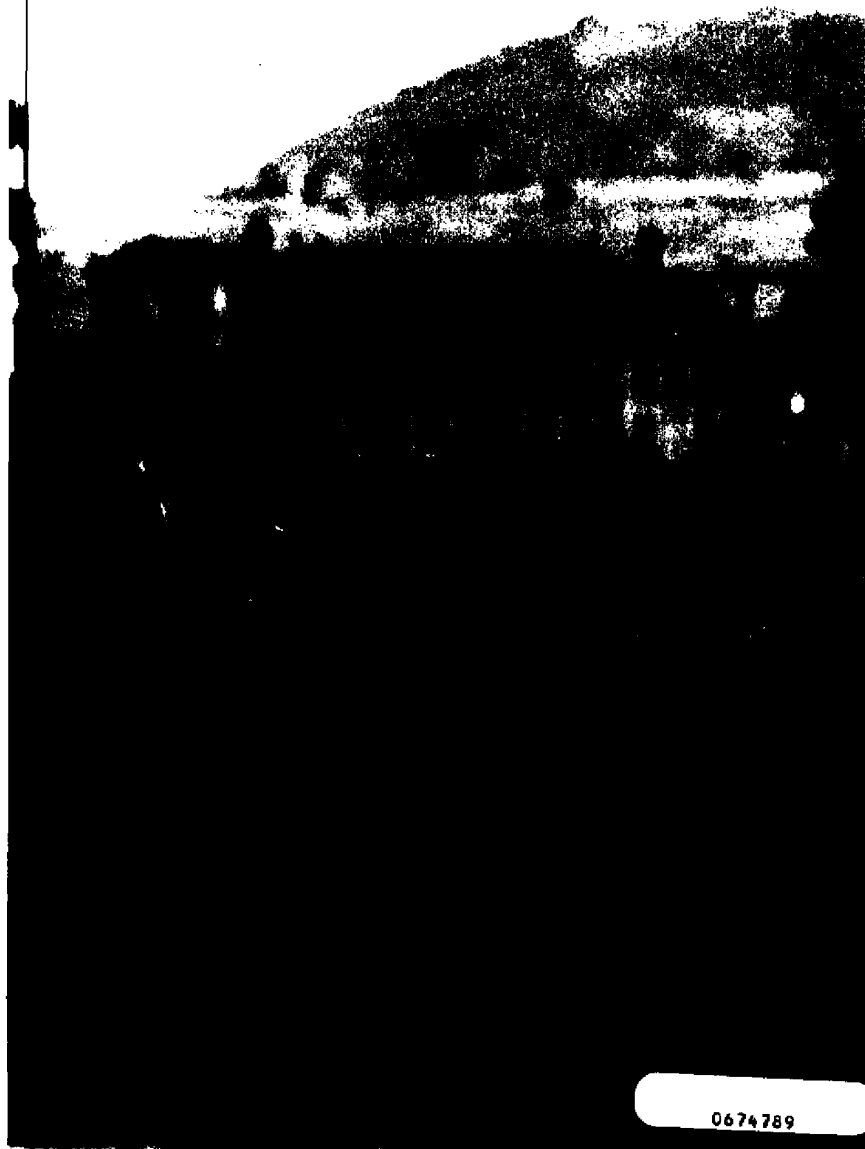
Life Sciences

Monsanto's interests in life sciences include agriculture, animal nutrition and human health. Within these areas there is a wide range of activity based on the Company's growing understanding of biological sciences, plant sciences and nutrition. Monsanto is developing new herbicides, plant growth regulators, agricultural seeds and nutrition products and is expanding its efforts in human health care.

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A Chateau Meursault vineyard in the Burgundy region of France provides the setting for a meeting between a local agricultural products representative and a grower to discuss Ricochet herbicide, a new glyphosate mixture.

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One of the growing number of uses for Roundup herbicide, a premier product, is in pasture renovation projects in fields such as this one in the Netherlands.

Agricultural Products

Sales of agricultural products increased in 1984 as U.S. farmers substantially increased planted acreage compared with 1983 when a short-term government program severely reduced plantings. Herbicide sales rebounded and remained the profit stalwart for Monsanto.

Roundup herbicide, a premier product around the world, increased sales volume in 1984 by six percent despite unusual weather conditions in important markets. These increased sales came in traditional markets for control of perennial weeds, and from new, specialized uses in agriculture and industry. These new uses involve the active ingredient in Roundup or combinations of that active ingredient with other products that broaden markets and reduce costs.

For example, *Richochet* herbicide, developed in Europe, was introduced during

1984 to control weeds in French vineyards. Another European development, *Sling* herbicide, offers grain farmers in the United Kingdom better control of annual weeds prior to planting.

Sales of *Rodeo* herbicide, approved by the U.S. Environmental Protection Agency (EPA) for use in aquatic sites, increased 40 percent during 1984, with additional rapid growth expected in 1985.

Lasso herbicide, primarily used to control grassy weeds in corn and soybeans, retained its market leadership during 1984. It is used by some 300,000 farmers in the United States.

Lasso Micro-Tech herbicide is encapsulated in a tiny polymer shell from which it is released after application, allowing farmers improved storage, handling and performance in reduced tillage.



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Lasso Micro-Tech herbicide will be available to soybean growers in the United States in 1985. Through proprietary technology, Monsanto encapsulates the herbicide in a tiny polymer shell from which it is released after application. This formulation offers farmers excellent weed control, consistent results in conservation tillage systems and improved storage and handling.

During 1984, registration of *Lasso* with EPA was reviewed as part of a federal program for all pesticides registered prior to 1978. Laboratory tests showed that test animals fed high levels of alachlor, the active ingredient in *Lasso*, daily during the greater part of their lives developed tumors. While there is no evidence that alachlor produces tumors in humans, EPA announced changes in November in authorized uses and handling methods for *Lasso*. These changes will have a very small impact on markets for the herbicide.

Additionally, in January 1985, EPA began a Special Review of *Lasso*. During the review, EPA will examine all health, safety and benefits data on *Lasso*, seek public comments and make a decision about the product's registration. That process is expected to take a year or more. The Company is convinced that *Lasso* is safe when used according to label directions and that the Special Review will result in the product's continued registration. A review process for *Lasso* also is under way in Canada, which is a small market for the product.

Monsanto will enter a new market in 1985 with the introduction of *Limit* turf regulator. This product restricts the growth rate of grasses in the northern United States and will be available for non-residential sites including office parks, shopping centers, cemeteries, parks and golf courses. Slower growth rates reduce the number of mowings and allow turf managers to redeploy scarce labor.

Monsanto aggressively asserts its worldwide patent rights. For example, with litigation on *Roundup* the Company made substantial progress in 1984 in legal actions in the United States, the United Kingdom, West Germany and New Zealand.

In 1985 Monsanto will begin commercial production of Limit turf regulator that slows the growth of cool-season grasses, thus reducing the need for frequent mowings.



Nutrition Chemicals

During 1984 Monsanto became a leading supplier of synthetic methionine supplementation in the U.S. poultry industry with its *Alimet* liquid feed supplement. Methionine is an amino acid essential for growth. A new plant for *Alimet* at Chocolate Bayou, Texas, began full scale manufacturing during the year on time and within budget. Prices for the product, however, were adversely affected by lower cost imports into the United States from Western Europe. *Alimet* and *MHA*

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Quantum hard red winter wheats from HybriTech Seed International, Inc., are hybrids which increase yields over current varieties.



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feed supplements are the basis for Monsanto's nutrition chemicals businesses.

Food phosphates, made in a wide variety of special forms for the food processing industry, remained solidly profitable during 1984 despite strong competition from imports into the U.S.

During the year, Monsanto began construction of a new research facility for animal sciences on a 700-acre farm near St. Louis.

Plant Science

HybriTech Seed International, Inc., a Monsanto subsidiary, combines the strengths of traditional seed companies with the promise of new scientific breakthroughs using biotechnology. Built from two acquisitions, HybriTech currently focuses on the hybrid wheat and soybean seed markets. During 1984, the subsidiary introduced four proprietary hybrid

hard red winter wheats under the *Quantum* trademark which exhibit increased yields over current varieties. Increased production is scheduled for 1985 to meet increasing demand. Four new proprietary lines of soybean seeds were sold under the Hartz Seed Company name during 1984, with outstanding results. Hartz Seed was purchased in 1982 and has well established seed businesses.

This year, HybriTech announced that it will form a joint venture with The Cooperative de Pau, a leading French agricultural cooperative, to develop and market new wheat and barley seeds for the Western European market.

While new seed products to date have resulted from traditional breeding techniques, Monsanto's long-term strategy is to integrate these traditional efforts with new biotechnology

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methods to develop seeds with greater yields, special quality traits, or with resistance to insects, disease and other environmental factors.

Health Care

During 1984, Monsanto continued to build the strengths necessary for a global pharmaceutical business. The Company purchased Continental Pharma, S.A., a Belgian pharmaceutical company with markets in Europe and Asia. Its leading product is suloctidil, used to enhance peripheral and cerebral blood circulation. This acquisition not only provided established distribution and licensing skills, but also research and

development programs which mesh well with Monsanto's United States efforts. Additional research is available to the Company through arrangements with Washington University, Oxford University and others.

Monsanto will expand in the pharmaceutical industry through internal development programs, acquisitions and joint ventures, where appropriate. Biotechnology is an important element in this effort as new techniques are developed to produce human health care products. The Company has assembled a notable staff of pharmaceutical professionals to implement this strategy.



At the laboratories of Continental Pharma in Belgium, researchers are investigating enzymes that might play a role in the development of such inflammatory diseases as arthritis. The acquisition of Continental Pharma gave Monsanto access to new health care research activities.

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Chemical Sciences

Monsanto's basic chemical businesses reported strong sales and earnings during 1984, spurred by sharply improved economies during the first six months in major markets such as the housing and automotive industries. The Company was in position to benefit from the economic recovery because of strategies focusing on businesses in which Monsanto has technological, marketing or cost advantages.

Fibers and intermediates, industrial chemicals and polymer products are at the core of Monsanto. They provide substantial cash needed to fund the Company's growth and will remain a central element in the future as they move to develop additional products with higher value for customers. Continued cost reduction programs and strong customer service are additional strategic elements for these businesses.

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*The novel credit program
for Wear-Dated carpet,
backed by Monsanto,
allows a family to charge
its carpet purchases at
competitive rates while the
retailer benefits from the
easier, larger sales the
credit program makes
possible.*

WALL-WALL CREDIT
WEAR-DATED

Use your
new credit card for Wear-Dated carpet
to make your purchase today!

WEAR-DATED

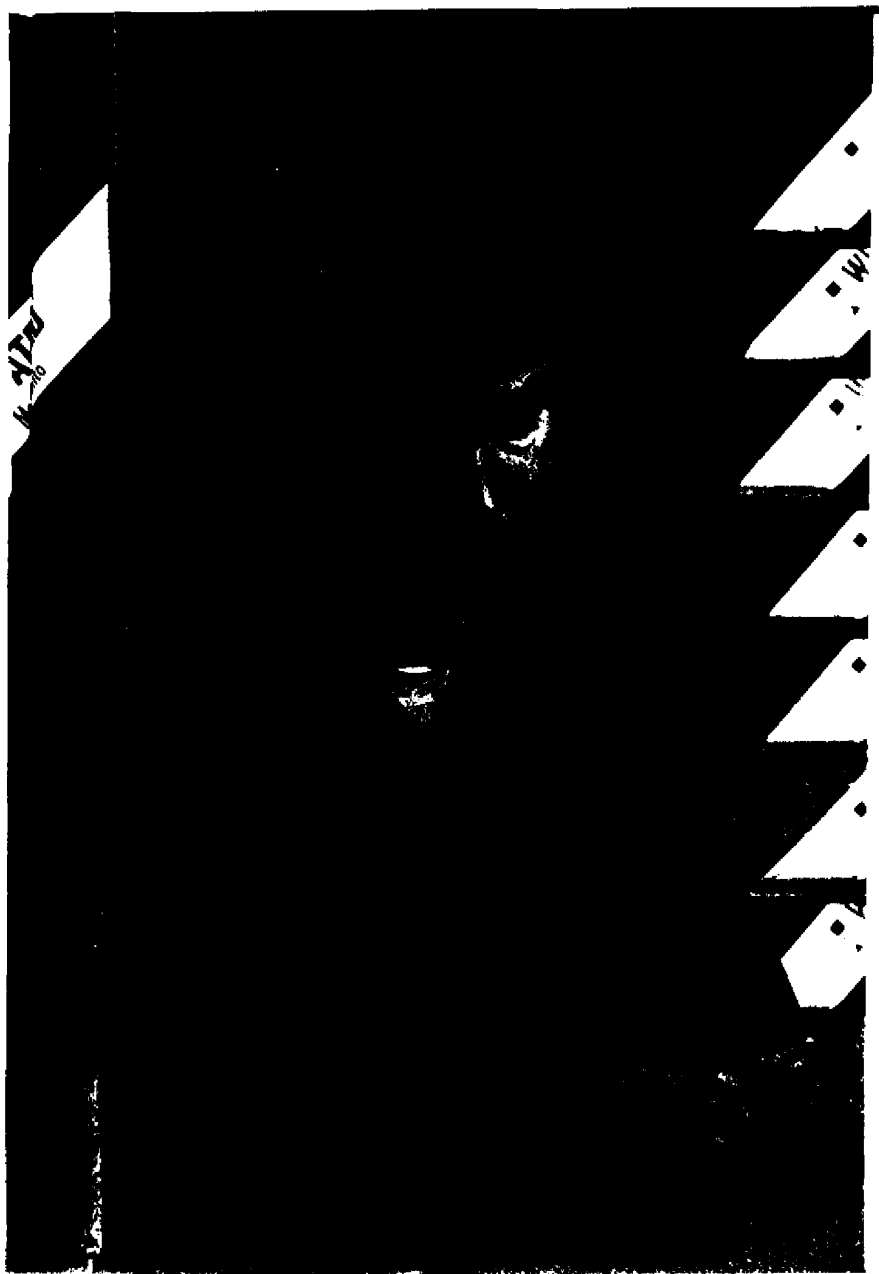
WALL-WALL CREDIT

WALL-WALL CREDIT

WALL-WALL CREDIT

WALL-WALL CREDIT

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The variety of Monsanto's new specially acrylic fibers allows innovative concepts in color and fabric construction.

Fibers and Intermediates

Strong sales during 1984 sustained a dramatic business turnaround for the fibers and intermediates business. Mills introduced more carpets made from Monsanto nylon staple products in 1984 than those from any other fiber manufacturer.

Marketing focused on customer needs was the catalyst behind this success. During the year, Monsanto continued support for its carpet program, in which the Company tests and guarantees *Wear-Dated* carpet made with *Ultron* nylon fiber. In addition, buyers of *Wear-Dated* carpet were given maintenance information kits and access to company experts through an "800" telephone number for advice on stain removal.

Late in 1984, Monsanto introduced a novel credit program for *Wear-Dated* carpet. Carpet retailers have embraced the program, recognizing the benefits it offers their customers and its potential to increase sales.

Apparel fiber businesses fared less well during the year, primarily due to intense competition from imports into the U.S. of both fiber and finished goods. In response, Monsanto is developing high value acrylic products with

special properties and cost advantages, such as producer-dyed fiber, for the textile industry. In addition, new processes are being implemented at the Decatur plant which will yield a family of acrylic products with improved aesthetic properties and abrasion resistance and which will double machine productivity.

Cost reduction programs across the chemical intermediates businesses helped increase earnings from the sales of both fibers and intermediates. For example, manufacturing efficiencies combined with improved export prices to provide significantly higher margins for acrylonitrile, an intermediate used to make fibers and plastics.

Industrial Chemicals

Sales increased across most product lines in industrial chemicals during 1984, but earnings were affected by soft prices toward year-end, imports and the strong U.S. dollar. The Company made substantial progress toward future growth through new capacity, process improvements, international investment and new product development.

Construction projects underway during the year will double capacity for diphenyl oxide used in heat transfer fluids, surfactants and fire

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Fire-retardant Skydrol hydraulic fluid is used in aircraft hydraulic systems.



retardants for plastics. Completion of these projects in 1985 will lengthen Monsanto's lead in these businesses.

Process improvements at the Texas City, Texas, acetic acid plant expanded capacity by 75 million pounds, or 20 percent, lowering costs and helping the Company meet competition from imports. Acetic acid is used in

textile operations and in making vinyl acetate resins and agricultural products.

Additional technical improvements at the Pensacola, Florida, maleic anhydride plant highlighted a flawless first year of operation at the 130-million-pound facility. More potential capacity is available at the plant as demand for maleic anhydride increases in the plastics and chemicals businesses. Other maleic anhydride plants in the United States, United Kingdom and Canada demonstrate Monsanto's leadership in maleic technology and production.

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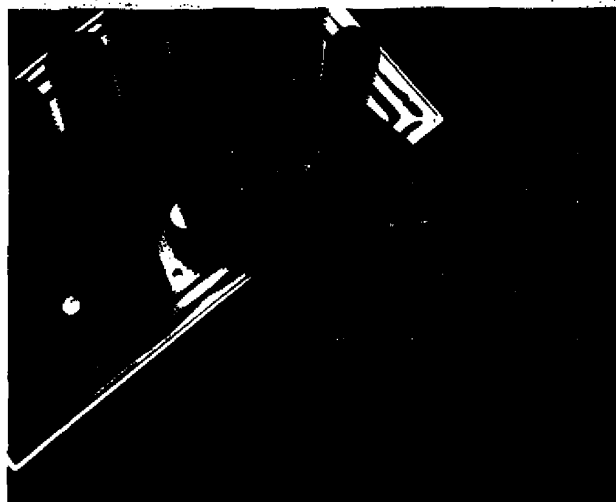
Outside the United States, the Company moved to strengthen its profitable phosphate business through a new joint venture with Brazilian and Belgian companies to produce purified wet phosphoric acid, a phosphate feedstock. A new plant using the latest technology will be built in Brazil to supply Monsanto's phosphate plants there and to sell in



Phosphates for food ingredients and the laundry detergent industry are bagged for shipment to customers

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The unique combination of properties of Santoprene thermoplastic rubber makes it applicable to a wide variety of products ranging from home appliances such as electric hair curlers to under-the-hood automotive parts.



other South American markets. Food grade and technical grade phosphates are used in many food and industrial products.

Research and development spending has increased by approximately 100 percent in the past two years as the search for new products intensifies. A new phosphate fiber has the performance properties needed to replace asbestos in automotive brakes and gaskets, vinyl flooring, and other advanced composite products. This patented fiber is now undergoing extensive product safety and customer tests. In addition, customers are testing several high performance products for use in laundry detergents.

Polymer Products

Renewed strength in traditional markets, and success with new, high value products, resulted in an outstanding year for polymer products' businesses. Sales in the automotive, construction and home appliance industries led these businesses, with new products in electronics, telecommunications and custom molding providing added momentum.

Santoprene thermoplastic rubber, a product that combines the properties of rubber with the manufacturing and cost efficiencies of plastic, continued its rapid growth during the year. Designers and engineers are finding new uses for Santoprene in applications where rubber was the traditional manufacturing material, particularly in the automotive, appliance and construction markets.

Santoprene is a high value product in a traditional market which is receiving the necessary funding to spur additional growth.



Monsanto's high productivity Vydene nylon resins find growing use in electrical and electronic connectors.

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Construction of two new manufacturing facilities has been announced, and sales, technical support and product development efforts are being increased.

Lustran ABS and SAN thermoplastics, a versatile family of plastics with a broad range of applications, took full advantage of the upsurge in sales in the automotive and home appliance industries during 1984 and recorded improved sales and earnings. In addition, new higher value grades of *Lustran* were developed for strong, lightweight moldings for home computers, telecommunications equipment and other specialized markets.

Calon engineering thermoplastics, a line of styrene-maleic anhydride based terpolymers, gained further acceptance in multiple automotive applications requiring

higher heat performance, and continued to grow in a variety of appliance applications.

Saflex plastic interlayer for laminated automotive and architectural glass remained the industry leader in stronger markets. For example, European auto manufacturers continue to convert to windshields laminated with *Saflex*, adding important new sales. Rapid growth of the uses of *Saflex* in architectural glass is extending Monsanto's industry leadership worldwide.

Monsanto's rubber chemicals business again was the industry leader in worldwide sales in 1984. Monsanto is an international leader in developing innovative products which add performance and longevity to tires and industrial rubber products and cost efficiencies to manufacturing operations.

Monsanto, a leader in rubber chemicals and instruments, developed the moving die rheometer to test the properties of rubber compounds.



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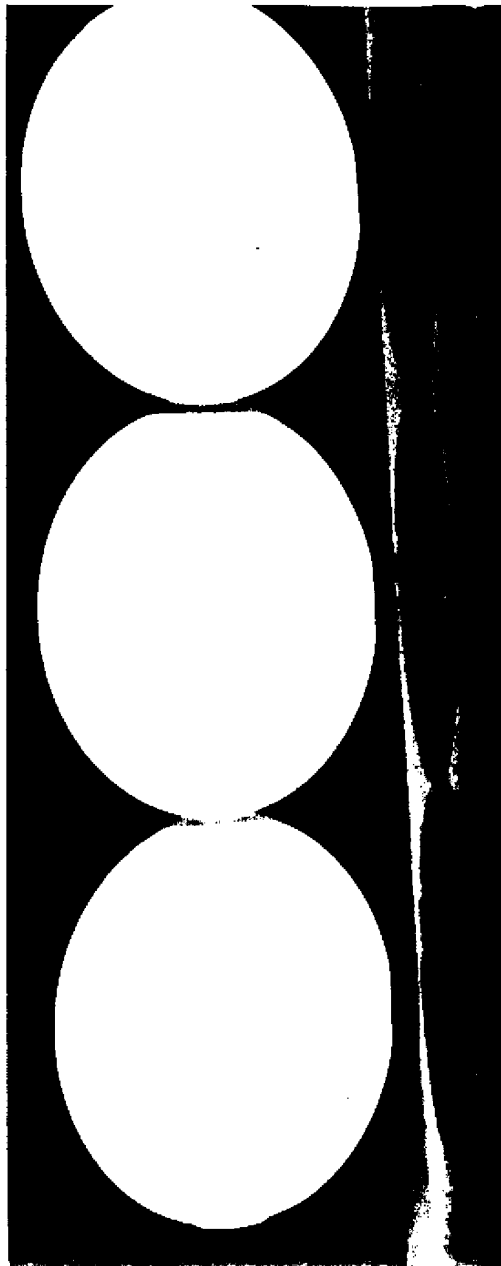
Engineered Materials And Products

Technological leadership and growth potential characterize the many businesses in Engineered Materials and Products. They include engineered products, Fisher Controls International, Inc., electronic materials and Monsanto Oil Company. Together, they represent skills in engineering, fabrication, manufacturing and marketing, backed by research and development.

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Monsanto strengthened its position as a leading silicon supplier by introducing MOS Epi wafers for sophisticated electronic devices where high quality is essential.

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Engineered Products

22

Prism separators, a Monsanto technology that uses hollow fibers to recover valuable gases, nearly doubled sales in 1984 compared with 1983.

Developments in the hollow fiber technology now allow customers to separate hydrogen from waste gas streams, recover carbon dioxide in enhanced oil recovery, collect methane from landfill gas for use as fuel and separate nitrogen from air to blanket flammable materials aboard ships. New systems using *Prism* separators expanded the product line for small-scale, specialty separations. Markets for systems are opening outside the United States, including sales to the Peoples Republic of China, the Soviet Union, Korea, Japan and Norway.

Plastic bottles capable of being filled with hot liquids were tested by consumers in 1984. These containers offer producers of fruit juices and processed foods a lightweight, unbreakable alternative to glass jars and bottles and metal cans for products that must be packaged while hot. This licensed technology builds on Monsanto's existing strengths in manufacturing and marketing plastic bottles.

A Monsanto technician checks the hollow fibers used to recover or generate valuable gases in *Prism* separators. The introduction of another application and the penetration of new geographic markets contributed to a near doubling of sales in 1984.

Also during the year, Monsanto received United States regulatory clearance for its *Cycle-Safe* soft drink bottle. Potential markets are being studied.

Monsanto also introduced *Cloud Nine* energy-saving greenhouse film during 1984, offering customers the potential to save as much as 20 percent or more on heating fuel costs. Two advanced forms of *AstroTurf* stadium surface — the retractable "magic carpet" and the permeable drain through system — found growing acceptance during 1984.

A new drainage system for highways, airports and other sites is under development. *Hydrarway* drain acts as a water collector and

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conductor under paved surfaces, providing faster draining, less potential for damage and reduced maintenance costs.

Monsanto Enviro-Chem Systems, Inc., completed its first two projects using Company technology for cogenerating electricity from sulfuric acid plant excess steam. This, coupled with strengths in other markets, resulted in an overall improvement in income. The *Ecopac*

PRÖVOX instrumentation systems have demonstrated strong international growth. In the control room of a new facility in Sluiskil, Netherlands, the installation manager and a Fisher engineer review operational procedures for the plant's PRÖVOX system for monitoring and controlling production processes.

dewatering system, which uses positive and negative electrical charges to speed up the settling of clay in phosphate mine ponds, was tested in 1984. Additional applications for this technology are being investigated.

Fisher Controls International, Inc.

Led by the continuing growth of *PRÖVOX* instrumentation systems, and improved control valve markets, Fisher increased sales in 1984 as capital spending began to rebound in most key markets. Fisher is a worldwide leader in the development of control valves, measurement instrumentation and process controls. Sales in all product categories improved in North America, Latin America, and Asia-Pacific, but European sales lagged as capital spending there remained depressed.

Control valves, the heart of Fisher's business, advanced substantially during the year. During the past two years, Fisher has introduced an impressive array of new valves and accessories. These new units reflect the continuing Fisher emphasis on new product development and substantially surpass the

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A technician at Advanced Micro Devices, Inc., a customer in Austin, Texas, inspects devices that have been etched onto Monsanto's new six-inch silicon wafer.



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number of new products brought to the market by competitors. Fisher continues to have the most advanced technology in the valve industry, particularly for valves used in corrosive or other severe environments. Fisher further advanced its valve position in early 1985 by acquiring Posi-Seal International, Inc., a company which manufactures high performance rotary valves.

Fisher's new electronic instrumentation research facility in Austin, Texas, was dedicated in 1984. This investment puts the company in position to accelerate the development of innovative measurement instrumentation and process control systems for existing and new plants around the world. In addition, Fisher purchased quartz technology rights during the year which will add substantial strength to measurement instrumentation product development.

PRoVOX instrumentation is an all-digital

control system for monitoring and controlling production processes in a wide range of industries. *PRoVOX* offers secure, efficient and flexible control and has been accepted rapidly by customers since its market introduction in 1980.

During 1984, Fisher announced plans to accelerate the growth of *PRoVOX* instrumentation and set a goal of tripling the size of this business during the next four years. During this time, the Company will invest more than \$100 million in research, development and fixed capital and will more than double staff infrastructure in sales, product development, manufacturing and project management and field service.

Electronic Materials

Monsanto's electronic materials business recorded a profit in 1984, meeting a major Company goal. Past investments in research,

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manufacturing and quality control positioned the business for the turnaround. Sales of silicon wafers increased 84 percent compared with 1983.

Monsanto strengthened its position as the leading silicon supplier by introducing MOS Epi wafers for sophisticated electronic devices where extremely high quality is essential. Using Monsanto technology, an ultra-pure layer of silicon is grown on the polished surface of a specially engineered silicon substrate. Initial sales of MOS Epi wafers have been encouraging, and the Company has announced an expansion program to increase production capacity.

Increased demand for wafers resulted in more efficient use of manufacturing facilities, and cost reduction programs provided significant savings. Quality control programs at every location resulted in greater customer acceptance of shipped products. Manufacturers of semiconductor devices recognize the reliability and quality of Monsanto wafers and, with increasing frequency, are choosing Monsanto silicon.

In order to strengthen its position in worldwide markets, the Company began construction of new manufacturing and research facilities in the United Kingdom, a new manufacturing facility in Korea and announced plans for a manufacturing and research investment in Japan. All three facilities will be completed in 1986 and will make Monsanto a

local supplier of silicon in these world areas.

Monsanto Oil Company

Monsanto Oil Company met its income goal for 1984 by offsetting declining sales with lower exploration expenses. The company made substantial progress during the year in evaluating promising projects with potential for future income growth.

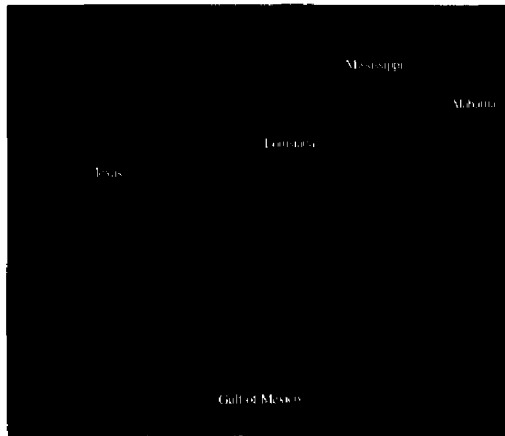
Continued emphasis on utilization of current and emerging exploration and production concepts and technologies has allowed Monsanto Oil Company to perform competitively in discovering and developing new reserves. Annual reserve additions have exceeded production for the ninth consecutive year.

The company's strategy balances cash flow from current production in Canada, the Gulf of Mexico and 14 states in the United States with expenditures for new exploration and development opportunities.

A portion of the funds generated from current onshore production will be used to develop several attractive prospects in the Gulf of Mexico and the North Sea. The company is committed to the development of South Pass Block 75 and is moving toward development of Green Canyon Block 18, both located in the Gulf of Mexico, and Block 15/21a of the United Kingdom sector of the North Sea. Monsanto's participation in these projects varies from 24 percent to 38 percent of the total interests. These potential developments are expected to contribute substantial income in the future.

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**Monsanto Company's
offshore lease acreage in
the Gulf of Mexico includes
interests in more than
30 blocks.**



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Growth

Programs under way in Monsanto's business groups, engineering departments, product development projects and laboratories are the Company's future in action. This work to refine strategies, improve processes, move products to market and delve into new science will continue the Company's momentum to extend existing businesses and construct new ones for future growth.

Existing businesses are reviewed continually against Company benchmarks for profitability and return on capital. Plans are developed to improve businesses that fall short. Where that is impractical, the Company will act quickly to make corrections.

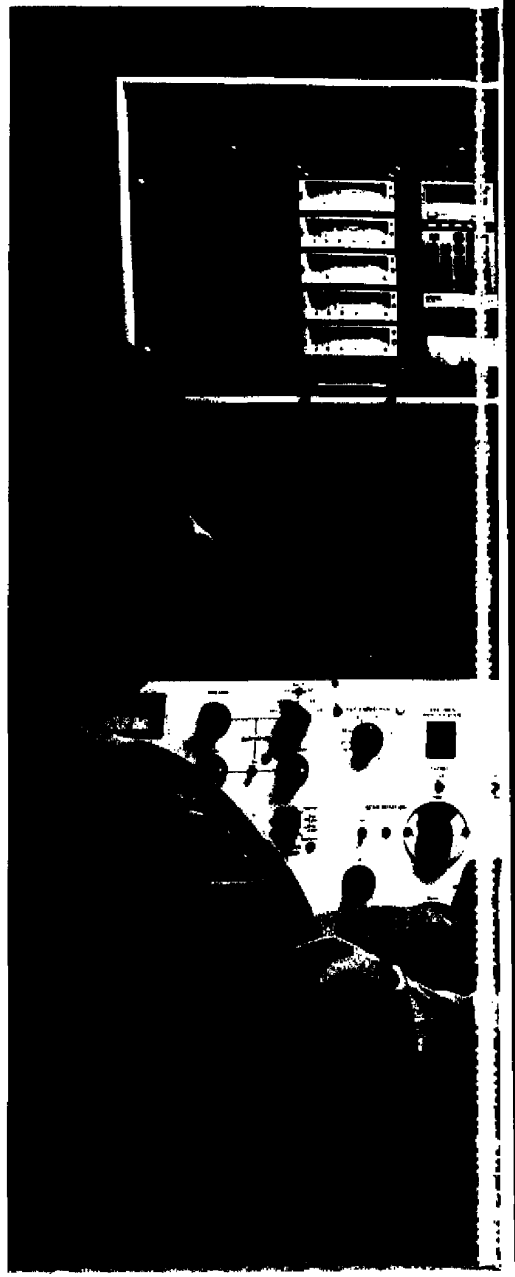
Internationally, new markets are being opened for today's products and for those of the future, through investment abroad and through exports.

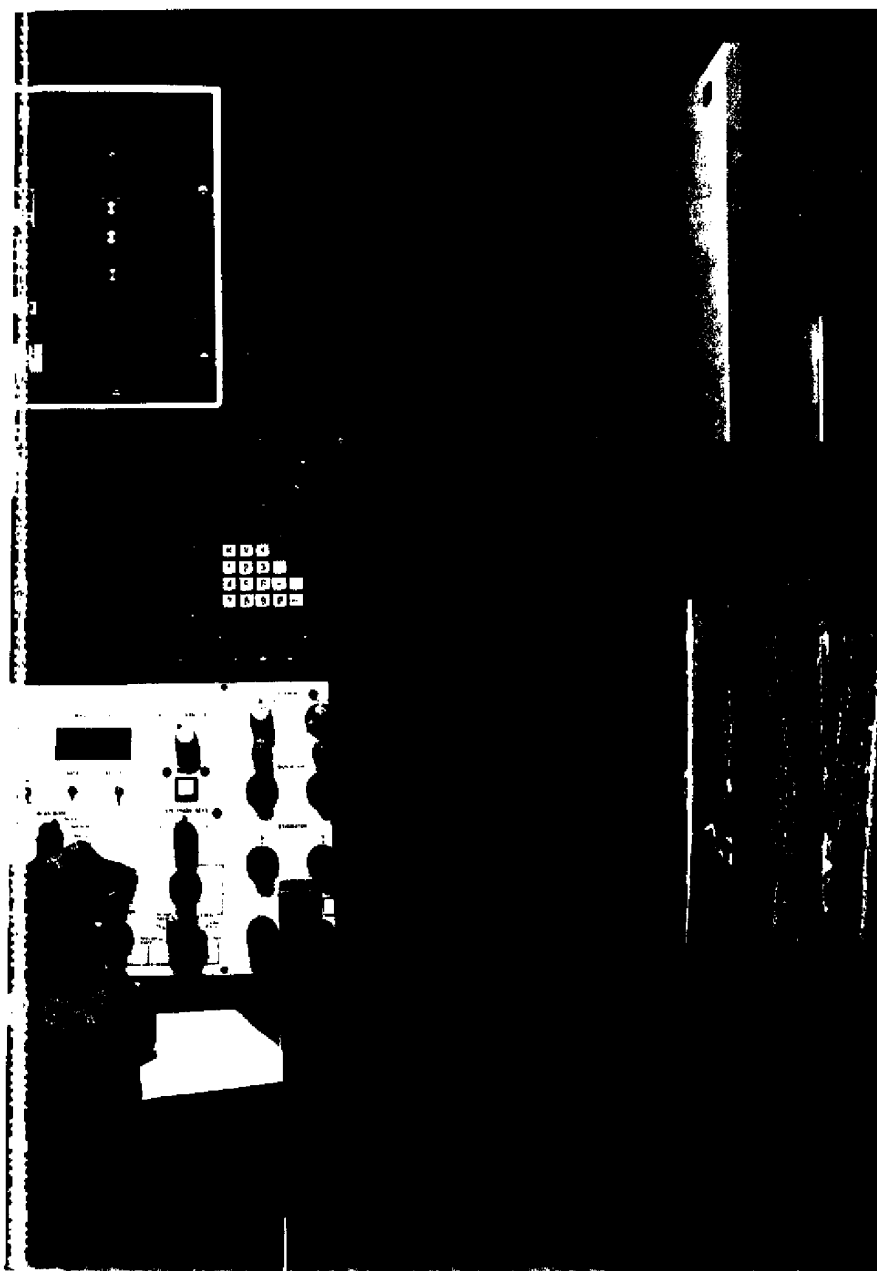
Acquisitions also are a major option for the future. These purchases can be used to extend product lines to complement internal growth. In health care, the Company is alert to possible major acquisitions — or significant associations with other companies — to build its pharmaceutical interests.

Venture capital investments in the United States, Europe, Southeast Asia and Japan can provide earnings now, but also can identify new technologies with commercial promise. During 1984, for example, Monsanto invested in a start-up company that will market a Monsanto-pioneered technology for growing mammalian cells used in biotechnology research and in producing pharmaceutical products.

The electron microscope reveals the shape of phosphate fiber which makes this new developmental product valuable in reinforced composite materials.

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Research and Development

Research and development remain the key elements for creating the products and processes for the future. Spending on science at Monsanto has more than doubled during the past five years, totaling some \$370 million in 1984, reflecting the Company's move to more research-intensive businesses.

In engineering and process improvements, Monsanto works to improve quality and reduce costs. Success in developing new catalysts for chemical operations and in understanding new uses for electrochemistry are recognized Monsanto strengths.

Technology also contributes to improved safety. A Monsanto system based on acoustic emissions detects cracks and potential failures in chemical storage tanks. This technology reduces the potential for injury from leaks, and is licensed for sale to other companies.

Monsanto was built on an in-depth knowledge of how to manipulate molecules that result in useful products. New science has broadened the types of molecules with which the Company works and the methods by which that research is conducted. Historical strengths in polymer, fibers, agricultural and industrial chemistry are now complemented by work in molecular biology, membrane separations and biotechnology.

In October, Monsanto dedicated its new Life Sciences Research Center near St. Louis. It is the single largest research investment in the Company's history and underscores an enlarged commitment to biological sciences for agriculture,

animal nutrition and human health care.

Existing programs in biotechnology are moving forward. Research is on schedule for methionyl bovine somatotropin, a genetically engineered analog of a natural protein that is intended to increase efficiency and reduce costs in milk production. Engineering work on manufacturing processes is under way. Also in agriculture, Monsanto in 1984 began discussions with the U.S. EPA regarding approval to field test genetically engineered soil bacteria which produce a naturally occurring insecticide. Products from this new technology hold valuable potential for aiding food and fiber production worldwide. In yet another agricultural area, the Company is using biotechnology to accelerate traditional breeding methods to develop new, superior crop seeds.

Pilot scale development of MBS (methionyl bovine somatotropin) — an experimental protein hormone which stimulates milk production in dairy cows — is under way. Monsanto plans to bring MBS, likely the Company's first biotechnology product, to the marketplace in the late 1980s.

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With 250 laboratories, 26 state-of-the-art greenhouses, and 123 computer controlled growth chambers, the new Life Sciences Research Center gives Monsanto scientists one of the most modern industrial centers in the world for research in the emerging science of biotechnology.



In health care, biotechnology is used to investigate new therapies for human diseases. Collaborative research agreements with renowned universities bring together academic and industry scientists. At Washington University in St. Louis, scientists are examining atrial peptides, natural hormones in heart muscle that may help control blood pressure. These collaborative efforts are supported by a major research thrust within Monsanto.

In traditional businesses, Monsanto's legacy of chemical knowledge is being extended to produce new products. For example, a new laundry detergent material is being developed which has improved environmental properties. New nylon staple fiber under development will offer carpet buyers products with superior performance. Sophisticated use of chemistry, electron beams and ultraviolet light may result in advanced polymers and polymeric films.

New markets for existing products are another priority. An eight-inch silicon wafer, offering customers substantial cost savings, is being introduced. New grades of *Santoprene* thermoplastic rubber broaden markets in construction and autos.

Monsanto International

Monsanto has been an international manufacturer for more than six decades, from its first European investment in 1920, to announcements in 1984 of new facilities in Asia-Pacific, Latin America and Europe.

During 1984, almost a third of total sales and income was generated in markets outside of the United States. Monsanto's international position is expected to strengthen in the future as world markets, especially those in Asia-Pacific, grow faster than those in the United States and other world areas.

Monsanto conducts business in more than 100 countries and has 164 plants, laboratories and facilities in 27 countries. The Company's assets outside the United States are approximately \$1.5 billion — one-fourth of Monsanto's worldwide total.

Increasingly, Monsanto operates worldwide businesses. For example, in 1984, the Company announced plans for added silicon production in Europe, Japan and Korea; a new production plant for *Roundup* herbicides in Brazil and technology improvements for making polystyrene in Argentina. Also the Company is finalizing a joint venture for producing wet phosphoric acid in Brazil.



The new \$5 million Fisher Electronic Technology Center in Austin, Texas, permits the company to accelerate development of measurement instrumentation and process control systems.

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Monsanto also is increasing international business by introducing products more rapidly abroad. During 1984, this strategy included introducing *PRoVOX* process control equipment, *Santoprene* thermoplastic rubber, *Prism* separators and silicon.

Both international strategies — more investment and faster commercialization — are important factors in Monsanto's effort to assume a substantial role in the expanding economy of the Far East.

Success in Japan will be enhanced not only by the Company's silicon investment there, but also by the Kawachi Research Station for agriculture, dedicated in 1984. In addition, a joint venture in Japan, Mitsubishi Monsanto Chemical, continues to provide Monsanto with opportunities for growth in existing and new businesses.

Sales to the Peoples Republic of China, an important part of which are agricultural chemicals, are growing. Monsanto's relationship with China began in the 1920s as a marketer of saccharin.

In Europe, currently the largest international market for Monsanto, much of the growth will come from business opportunities such as agricultural chemicals, rubber chemicals, *Saflex* interlayer, *Prism* separators, detergent chemicals, and *PRoVOX* process control equipment.

Special attention is also being given to expanding sales in the Soviet Union and

elsewhere in Eastern Europe. Agricultural chemicals, rubber chemicals and *Prism* separators are leading products for Monsanto in these markets.

Corporate Citizenship

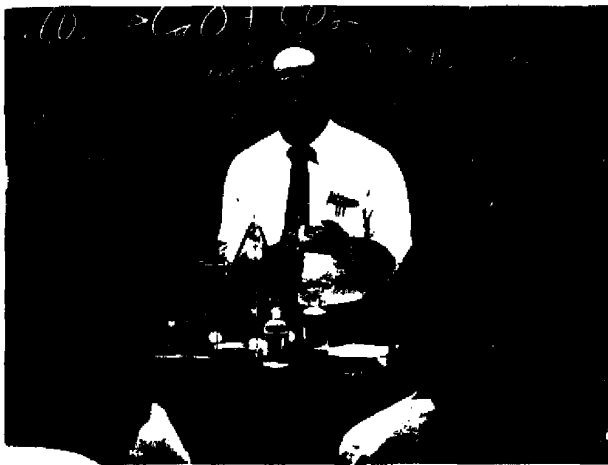
Corporate citizenship at Monsanto is a commitment to conduct its worldwide businesses in an ethical, socially responsible way. That means making beneficial products, demanding safe manufacturing, dealing with environmental problems, conserving natural resources, providing equal opportunity in hiring and advancement and responding to public concerns.

During 1984, Monsanto joined with other chemical companies that manufactured Agent Orange, a defoliant used in the Vietnam War, to settle injury claims by armed forces veterans who alleged damaged health from exposure to the material. The Company remains convinced that medical evidence doesn't support

Through committee work, company-sponsored conferences, reports and publications, Monsanto's DIALOGUE project provides a forum for policy debate aimed at the health of U.S. agriculture.



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Sharing his knowledge with a high school science class, a Monsanto engineer typifies thousands of Monsanto employees who take part in some type of volunteerism in their communities.

the allegations of serious illness, but determined that it was advisable to settle the case and thereby eased the controversy and anguish surrounding the legal and medical issues.

Also during the year, Monsanto incurred nearly \$20 million expense as part of a five-year voluntary program to survey and clean up hazardous waste sites that the Company formerly used. In another effort, the Company participated in forming Clean Sites, Inc., a cooperative venture between industry and environmental groups to speed the cleaning up of other hazardous waste sites. In a related activity, the Company supported legislation in the U.S. Congress to reauthorize a program which taxes industry to pay for still other cleanup activities. Monsanto's intention is to reduce the legal wrangling and blame-fixing surrounding hazardous waste sites and get about the job of cleaning them up.

Late in 1984, a group of Monsanto senior executives were named to a special task force to review all the Company safety policies and procedures worldwide. Monsanto has extensive safety requirements at all its plants, and reported the safest year in its history, but

increased public concern about chemical safety prompted the Company to confirm the adequacy of its procedures. Recommendations from the task force will be put in place quickly.

In corporate philanthropy, Monsanto approached its goal of providing two percent of pretax income to worthwhile community agencies and programs. Donations from the Company and from Monsanto Fund totaled more than \$10 million. In addition, the Company actively supports employees who participate in community affairs.

As part of its citizenship policy, Monsanto also becomes involved in other public dialogues on important issues. For example, the Company supports clear, effective regulation for biotechnology which not only will allow important research to continue, but also reassure the public that it is being done safely. Also, Monsanto is working to implement agricultural policies which will build stable and profitable farming operations. And, the Company supports the rigorous protection of patents, trademarks and other intellectual property around the world. Strong property rights spur research and innovation.

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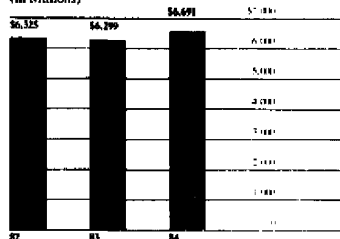
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54 Financial Summary

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.

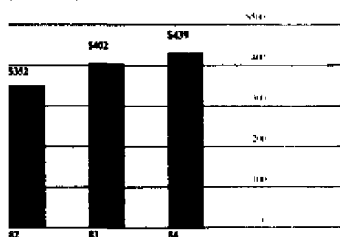
Net Sales

(In Millions)



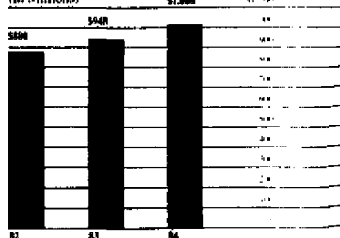
Net Income

(In Millions)



Funds Provided From Operations

(In Millions)



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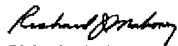
Management Report

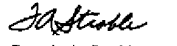
Monsanto Company management is responsible for the fair presentation and consistency of all financial data included in this Annual Report. Where necessary, the data reflect management estimates.

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 1984 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 below.

Monsanto's Audit Committee, consisting of five 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.


Richard J. Mahoney
President
and
Chief Executive Officer


Francis A. Stroble
Senior Vice President
and
Chief Financial Officer

February 22, 1985

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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, 1984 and 1983 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, 1984. 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, 1984 and 1983, and the results of their operations and changes in their financial position for each of the three years in the period ended December 31, 1984, in conformity with generally accepted accounting principles applied on a consistent basis.



Saint Louis, Missouri
February 22, 1985

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Statement of Consolidated Income

Monaco Company and Subsidiaries

(Dollars in millions, except per share)

	1984	1983	1982
Net Sales	\$6,691	\$6,299	\$6,325
Cost of goods sold	4,846	4,738	4,826
Gross Profit	1,845	1,561	1,499
Marketing and administrative expenses	722	681	691
Technological expenses	446	359	329
	1,168	1,040	1,020
Operating Income	677	521	479
Interest expense	(100)	(96)	(82)
Interest income	92	73	63
Other income — net	38	72	41
	30	49	22
Income Before Income Taxes and Extraordinary Items	707	570	501
Income taxes	268	201	172
Income Before Extraordinary Items	439	369	329
Extraordinary Items:			
Tax benefits from utilization of ex-U.S. loss carryforwards		33	
Gain from exchange of debt for common shares			23
Net Income	\$ 439	\$ 402	\$ 352
Earnings per Share:			
Before extraordinary items	\$ 5.42	\$ 4.48	\$ 4.10
Extraordinary items		0.41	0.29
After extraordinary items	\$ 5.42	\$ 4.89	\$ 4.39

The above statement should be read in conjunction with pages 49 through 53 of this report.

Key Financial Statistics

	1984	1983	1982
Net Sales as a Percent of Total Assets	105%	98%	104%
Net Income as a Percent of Net Sales	7%	6%	6%
Percent Return on Average Shareowners' Equity			
After extraordinary items	12%	11%	10%
Percent Return on Average Capital Employed*			
After extraordinary items	10%	10%	9%

*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 net income after adding back the aftertax effect of interest costs.

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Consolidated Results of Operations

Net Income Benefits From Stronger Economy

Net income for 1984 was \$439 million, a 9 percent increase over 1983 net income of \$402 million. Earnings per share for 1984 were \$5.42, compared to \$4.89 for the prior year, an increase of 11 percent.

Monsanto had a powerful start in the first half of 1984, spurred in part by the most rapid economic expansion in the United States since the early 1950s and excellent sales of agricultural products. As the year progressed, however, market conditions weakened because of the economic slowdown in several industrial sectors and the persistent strength of the U.S. dollar, which brought increased international competition and lessened income from translation of ex-U.S. earnings into U.S. dollars.

Higher Volume Increases Sales

Sales for 1984 increased 6 percent over the previous year. Sales volume improved 5 percent, net of divestitures, and 1984 selling prices increased 1 percent. Most operating segments had higher 1984 sales volume.

The gross profit margin improved to 28 percent of sales versus 25 percent for the prior year. Over the past few years, Monsanto's comprehensive programs of asset management and cost reduction positioned Monsanto to take advantage of the economic upturn through improved operating efficiency. Manufacturing facilities operated at approximately 75 percent of facility utilization. Raw material costs declined 2 percent.

Substantial Increase in Research and Development

Technological expenses in 1984 increased 24 percent over the prior year, as Monsanto's intensive research and development programs expanded. In 1984, R&D expenses increased to a record level and were 6 percent of sales, compared with 5 and 4 percent in 1983 and 1982, respectively. The 1984 increase was concentrated in expenditures directed toward emerging technologies.

"Other income — net" declined in 1984 mainly from reduced foreign currency gains, primarily in hyperinflationary countries. The 1984 effective tax rate was higher than 1983 because of increased taxable income and higher state income tax rates. Return on shareowners' equity improved to 12 percent for 1984, up from 11 percent in 1983.

Sales for 1983 were essentially level with 1982, as a 1 percent sales volume increase, net of divestitures, was offset by lower selling prices. The 1983 volume improvement resulted from the strengthened United States economic climate. The United States government's Payment-in-Kind (PIK) program adversely affected sales of agricultural herbicide products during the first half of 1983. Partially offsetting the 1983 overall volume improvement were the effects of the continuing depressed capital goods market, divested businesses and lower United States export sales as the U.S. dollar continued to be strong against other major currencies.

Net income for 1983 was 14 percent above 1982's level. Higher sales volume with related improvement in plant facility utilization, along with lower manufacturing costs, increased 1983 results.

Extraordinary tax benefits from prior years' ex-U.S. operating loss carryforwards increased 1983 net income by \$33 million. In 1982, net income benefited from a \$23 million extraordinary gain on the exchange of outstanding debt for common shares. Also, in 1982, net income increased \$43 million from non-replacement of lower cost inventories under the LIFO (last-in, first-out) inventory method.

Analysis of Change in Earnings per Share — Better (Worse)

	1984 vs. 1983	1983 vs. 1982
Selling prices	\$ 0.56	\$(0.62)
Sales volume and mix	1.07	1.11
Raw material prices	0.29	0.11
Other manufacturing costs	0.41	0.08
Divestitures	(0.10)	(0.10)
Marketing and administrative expenses	(0.32)	0.06
Technological expenses	(0.68)	(0.24)
Operating income	1.23	0.42
Interest expense	(0.03)	(0.12)
Interest income	0.15	0.09
Other income — net	(0.27)	0.18
Effective tax rate	(0.23)	(0.05)
Extraordinary items	(0.41)	0.12
Shares outstanding	0.09	(0.14)
Change in earnings per share	\$ 0.53	\$ 0.50

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Operating Unit Segment Data

	Net Sales			Operating Income (Loss)			Research and Development		
	1984	1983	1982	1984	1983	1982	1984	1983	1982
Agricultural Products	\$1,256	\$1,167	\$1,165	\$438	\$400	\$441	\$107	\$ 78	\$ 65
Biological Sciences	168	152	146	(95)	(54)	(35)	66	41	33
Fibers and Intermediates	1,194	1,170	1,257	79	55	(21)	45	41	39
Industrial Chemicals	937	856	810	90	88	101	35	22	18
Polymer Products	1,877	1,830	1,786	152	70	13	41	40	44
Electronic Materials and Fabricated Products	519	355	357	8	(66)	(64)	25	24	23
Fisher Controls	537	528	588	35	37	52	19	10	14
Oil and Gas	203	241	216	27	41	37			
Corporate items and eliminations				(54)	(50)	(45)	32*	34*	28*
Total consolidated	\$6,691	\$6,299	\$6,325	\$677	\$521	\$479	\$370	\$290	\$264

*Corporate R&D expenses are allocated on a weighted average basis of investment to operating units in determining operating income (loss).

	Total Assets			Capital Expenditures			Depreciation and Obsolescence		
	1984	1983	1982	1984	1983	1982	1984	1983	1982
Agricultural Products	\$1,235	\$1,214	\$1,049	\$ 67	\$104	\$ 89	\$ 76	\$ 70	\$ 57
Biological Sciences	339	225	141	75	84	42	29	21	18
Fibers and Intermediates	992	1,071	1,150	83	79	90	97	115	135
Industrial Chemicals	892	810	777	90	61	162	74	75	56
Polymer Products	1,179	1,163	1,135	85	64	72	88	96	74
Electronic Materials and Fabricated Products	437	406	433	74	37	57	41	37	30
Fisher Controls	518	487	418	25	27	27	15	16	13
Oil and Gas	578	543	549	107	101	130	69	85	55
Nonoperating assets	226	508	425	8	3	4	2	2	1
Total consolidated	\$6,373	\$6,427	\$6,077	\$614	\$560	\$673	\$491	\$517	\$439

The above data should be read in conjunction with the "Segment Information" note to the financial statements on page 52.

For 1984, the Company has realigned its financial reporting of Operating Unit Segments to better reflect the future direction of the Company's operations. Nutrition chemicals, health care and the corporate biological research effort have been combined to form a new segment, Biological Sciences. Corporate biological research and health care were previously included in corporate staff expense and allocated to Operating Unit Segments. Biological research directly related to Agricultural Products is included as an expense of that segment. The Oil and Gas operations are also presented as a separate segment.

Agricultural Products

Net Sales	1984	1983	1982
Herbicides and other agricultural chemicals	\$1,256	\$1,167	\$1,165

Sales and operating income in 1984 increased 8 and 10 percent, respectively. Sales volume of Roundup herbicide increased 6 percent,

a slightly less than expected rate due to abnormal weather conditions in parts of the United States and Europe. Sales volume of Lasso herbicide also increased 6 percent year to year. The higher operating income from sales more than offset the increased research and new product development expenditures.

In November 1984, the United States Environmental Protection Agency (EPA) announced that it will conduct a Special Review to determine whether Lasso herbicide may cause an unreasonable adverse effect on humans or the environment. Pending the results of the review, Monsanto and the EPA agreed to modifications in the use of Lasso, which do not significantly affect the majority of uses for Lasso. Monsanto's tests conclude that Lasso poses no unreasonable adverse effects to humans or the environment, and the Company believes that the EPA review will reach a similar conclusion. The Company expects no significant effect on operating results from this review.

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Sales in 1983 increased slightly from 1982, while operating income declined as a result of the 1983 PIK program.

Biological Sciences

Net Sales	1984	1983	1982
Human health care and nutrition products	\$168	\$152	\$146

Sales in 1984 increased, reflecting the acquisition of Continental Pharma in May 1984. Sales volume of *Alimet*, an animal feed supplement, continued to grow, but selling prices remained depressed, largely because of the effects of the strong U.S. dollar and competition from ex-U.S. manufacturers. Operating losses, which have increased over the three-year period, are a result of significant biological research expenditures in both human health care and animal nutrition, along with facility start-up costs and expanded marketing efforts. Sales increased slightly in 1983 versus 1982.

Fibers and Intermediates

Net Sales	1984	1983	1982
Man-made fibers	\$880	\$824	\$880
Textile intermediates	314	346	377

Sales in 1984 increased 2 percent, net of the 1983 nitrogen products divestiture. Operating income increased 44 percent over the prior year, reflecting the continued strong demand and improved pricing for nylon carpet fibers and chemical intermediates. Demand slowed and prices slipped, however, in the last quarter of 1984. Sales volume of branded nylon carpet fibers was particularly strong in 1984. Higher plant facility utilization also contributed to the higher earnings levels. Partially offsetting these improvements were higher costs of natural gas and the loss of income from the nitrogen products business.

Sales in 1983 were lower than 1982 due to divested businesses and lower selling prices, offset somewhat by higher sales volume. Operating income in 1983 increased over 1982 due to higher sales volume, lower costs and the elimination of 1982 divested business losses. The operating loss in 1982 included \$35 million in obsolescence charges relating to divestitures, partially offset by a \$20 million benefit from non-replacement of lower cost LIFO inventories.

Industrial Chemicals

Net Sales	1984	1983	1982
Detergent and fine chemicals	\$628	\$587	\$552
Specialty chemicals	309	269	258

Sales in 1984 increased 9 percent due to higher volumes for most products. Operating income was about the same in 1984 as compared with 1983. Improved efficiencies from higher plant facility utilization and reduced raw materials costs were offset by increased other manufacturing costs and research and development expenditures.

Sales in 1983 were 6 percent higher than 1982, the principal increase being in detergent materials. Operating income declined in 1983 due to nonrecurring gains recognized in 1982, including a \$27 million favorable impact of non-replacement of lower cost LIFO inventories.

Polymer Products

Net Sales	1984	1983	1982
Plastics	\$874	\$809	\$775
Resin products	693	742	742
Rubber chemicals and instruments	310	279	269

A stronger worldwide economy pushed 1984 sales volume higher, especially sales to the automotive and housing industries. This increase more than offset the lost sales from divested and shutdown businesses. Operating income more than doubled in 1984, principally from sales volume gains in higher margin products and from improved plant facility utilization and elimination of 1983 divested business losses.

Sales in 1983 increased slightly over the preceding year due to higher volume offset by lower selling prices and business divestments. Operating income improved in 1983 from better manufacturing performance, offset in part by net charges of \$24 million relating to various divestments and shutdowns of facilities. Operating income in 1982 included a \$35 million favorable impact from non-replacement of lower cost LIFO inventories.

Electronic Materials and Fabricated Products

Net Sales	1984	1983	1982
Electronic-grade silicon wafers and engineered products	\$519	\$355	\$357

Sales in 1984 increased 46 percent, largely due to higher volume and prices of silicon wafers and fabricated products, coupled with increased construction project activity in Monsanto Enviro-Chem Systems, Inc. The year 1984 was a turning point for electronic materials, with silicon wafer sales increasing 84 percent. These factors, together with higher electronic materials plant facility utilization and lower raw materials costs, resulted in a \$71 million profit improvement over 1983.

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Sales in 1983 were level with the prior year, with volume gains in electronic materials and fabricated products offset by decreased construction project activity in Enviro-Chem. Operating losses in 1983 were essentially the same as the prior year.

Fisher Controls

Net Sales	1984	1983	1982
Valves, regulators and electronic process controls	\$537	\$528	\$588

Sales and operating income in 1984 were virtually the same as 1983. Improved operations in North and Latin America were offset by a one time acquisition-related technological expense and by continuing weak European performance, due to the adverse impact of the strong U.S. dollar and the depressed capital goods market.

In 1983, sales were lower than the previous year as price increases did not offset lower volume. Operating income in 1983 was 29 percent lower than the preceding year, reflecting the depressed worldwide capital goods market.

Oil and Gas

Net Sales	1984	1983	1982
Oil and gas	\$203	\$241	\$216

Reduced oil and gas volumes resulted in lower 1984 sales and operating income. Also affecting the year to year operating income comparison are lower exploration and production expenses in 1984. Sales and operating income were higher in 1983 as compared to 1982 due primarily to higher oil and gas volumes.

Exploration efforts in 1984 were concentrated principally in the United States and United Kingdom North Sea, and current production was carried out primarily in the United States and Canada. Total spending for exploration amounted to \$71 million, \$55 million and \$46 million for 1984, 1983 and 1982, respectively.

Net Quantities of Developed and Undeveloped Proved Reserves

	1984	1983	1982
Oil¹			
Beginning of year	42	38	34
Extensions and discoveries	9	7	5
Production	(4)	(4)	(4)
Other changes — net	(1)	1	3
End of year	46	42	38
Natural Gas²			
Beginning of year	587	607	599
Extensions and discoveries	19	28	46
Production	(34)	(44)	(38)
Other changes — net	6	(4)	
End of year	578	587	607
Combined — Oil Equivalent³			
End of year	142	140	139

¹Stated in millions of barrels.

²Stated in billions of cubic feet.

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

Estimated future net cash flows data related to proved reserves follow. Future selling prices and costs were determined by using the actual 1984 year-end levels, with a 10 percent interest rate used for discounting.

Standardized Measure of Discounted Future

Net Cash Flows

	1984	1983	1982
Future cash inflows	\$3,068	\$3,222	\$3,491
Future production and development costs	730	761	736
Future income tax expenses	992	1,047	1,190
Future net cash flows	1,346	1,414	1,565
Annual discount for estimated timing of cash flows	888	926	1,113
Standardized measure of discounted future net cash flows	\$ 458	\$ 488	\$ 452

World Area Segment Data

	Net Sales			Operating Income (Loss)		
	1984	1983	1982	1984	1983	1982
United States	\$4,498	\$4,243	\$4,086	\$518	\$453	\$441
Europe-Africa	968	943	1,092	93	44	33
Canada	292	274	244	61	51	29
Latin America	360	305	353	22	11	(9)
Asia-Pacific	573	534	550	55	27	19
Unallocated corporate items				(54)	(50)	(45)
Affiliates' equity (income) loss included in individual world areas				(18)	(15)	11
Total consolidated	\$6,691	\$6,299	\$6,325	\$677	\$521	\$479

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As required by generally accepted accounting principles, world area segment data (page 52) in the Notes to Financial Statements 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 on the preceding page summarizes Monsanto's "area basis" results.

United States

Approximately two-thirds of Monsanto's worldwide sales are to customers in the United States. Sales for 1984 were up 6 percent, net of divestitures. The stronger economic environment benefited most product lines, especially housing and automotive-related businesses. In addition, silicon wafer sales to the semiconductor industry increased substantially. Agricultural products sales benefited from the United States government's discontinuation of the 1983 PIK program which resulted in volume growth in *Lasso* and related products.

Operating income in 1984 increased 14 percent. Sales volume improved along with better plant facility utilization. However, the strong U.S. dollar resulted in greater import competition from ex-U.S. competitors, which in turn adversely affected selected products selling prices and profits. In addition, the Company incurred higher technological expense in support of the numerous growth programs.

For 1983, sales increased 4 percent from 1982 due to the stronger economy partially offset by the 1983 PIK program. Operating income in 1983 increased 3 percent due to lower raw material costs and better plant facility utilization.

Europe-Africa

Sales in 1984 increased 3 percent over the preceding year as the European economic environment improved. Operating income more than doubled, benefiting from strong acrylonitrile and nylon intermediate profits. This increase in sales and operating income was accomplished despite the adverse effects of the strong U.S. dollar on the competitiveness of United States exports as well as the adverse translation effect on ex-U.S. currency denominated sales and income. Sales of *Roundup* herbicide increased in spite of abnormal weather conditions.

Sales in 1983 decreased 14 percent as compared to 1982, reflecting the divestiture of the acrylic fibers business, reduced agricultural products sales due to drought and adverse economic conditions. Operating income for 1983 improved over 1982, however, due principally to

the elimination of losses of the discontinued acrylic fibers business.

Canada

Sales in 1984 increased 7 percent, while operating income improved \$10 million. Monsanto benefited from good detergent products and crop chemicals sales. In addition, sales to the automotive industry grew. Sales and operating income increased in 1983, as compared to 1982.

Latin America

Sales in 1984 increased 18 percent and operating income doubled to \$22 million. Results in Brazil improved, where agricultural products sales continued to grow. In addition, Monsanto's Mexican equity affiliate experienced higher profitability. Sales in 1983 decreased from the prior year, as Brazil suffered from recession-induced conditions. Operating income in 1983 improved as higher earnings of a Mexican equity affiliate more than offset lower Brazilian results.

Asia-Pacific

This world area showed strong year to year sales and operating income gains, led by agricultural products sales volume growth throughout the area, higher United States exports of other products and improved operating income in Australia. These accomplishments were achieved despite the adverse effects of the strong U.S. dollar on the competitiveness of United States exports as well as the adverse translation effect on ex-U.S. currency denominated sales and income.

Sales declined slightly in 1983 principally due to depressed United States exports resulting from the strong U.S. dollar. Operating income in 1983 was up 42 percent over 1982, due to improved results in Australia and increased earnings from a Japanese equity affiliate.

A reconciliation of 1984 area basis sales and operating income to ex-U.S. entity basis sales and operating income (reflected in the Notes to Financial Statements) follows:

	Net Sales	Operating Income
Ex-U.S. entities	\$2,032	\$252
U.S. exports	950	25 ¹
Ex-U.S. affiliates' equity income		18
Less: Inter-area eliminations	(789)	
Ex-U.S. entities' operating income on sales to U.S.		(64)
Ex-U.S. area basis	2,193	231
U.S. area basis	4,498	518
Affiliates' equity income included in ex-U.S. areas		(18)
Unallocated corporate expenses		(54)
Total consolidated	\$6,691	\$677

¹Net of allocated costs.

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Quarterly Data

		First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
Net Sales	1984	\$1,732	\$1,801	\$1,599	\$1,559	\$6,691
	1983	1,483	1,612	1,553	1,651	6,299
Gross Profit	1984	526	534	410	375	1,845
	1983	370	417	378	396	1,561
Income Before Extraordinary Items	1984	175	145	78	41	439
	1983	99	105	99	66	369
Net Income	1984	175	145	78	41	439
	1983	101	114	115	72	402
Earnings per Share						
Before Extraordinary Items	1984	2.13	1.77	0.97	0.55	5.42
	1983	1.21	1.27	1.21	0.79	4.48
After Extraordinary Items	1984	2.13	1.77	0.97	0.55	5.42
	1983	1.24	1.38	1.40	0.87	4.89

Agricultural products sales are traditionally concentrated in the first half of the year and are generally more profitable than sales of other segments. Sales and profit improvement in the first half of 1984 resulted from the favorable agricultural products environment and continued improvement in worldwide economic conditions.

However, the United States economy moderated somewhat during the last half of 1984 and the strengthening of the U.S. dollar increased import and price competition.

There were no major nonrecurring or unusual items in 1984. The 1983 items increasing (decreasing) earnings per share were as follows:

	1983	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
Extraordinary tax benefits from loss carryforwards		\$ 0.03	\$ 0.11	\$ 0.19	\$ 0.08	\$ 0.41
Change in accounting estimate of annual effective tax rate		(0.06)	(0.09)	0.15		
Net losses from facilities shut down or sold			(0.07)	(0.02)	(0.14)	(0.23)
Total		\$(0.03)	\$(0.05)	\$ 0.32	\$(0.06)	\$ 0.18

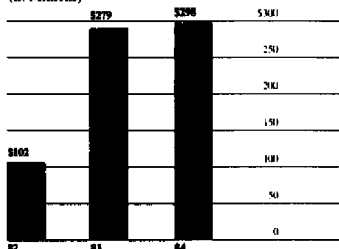
Inflation-Adjusted Data

Year Ended December 31, 1984	Historical Cost	Current Cost
Net sales	\$6,691	\$6,691
Cost of goods sold, excluding depreciation	4,397	4,400
Depreciation expense	449	587
All other expenses — net	1,138	1,138
Income taxes	268	268
Net income	\$ 439	\$ 298

Current cost amounts shown above attempt to measure the effect of inflation on cost of goods sold and depreciation. Other historical amounts, including income taxes, are not adjusted for inflation to arrive at current cost net income. All current cost amounts are stated in average 1984 dollars using the U.S. Consumer Price Index (the "translate-restore" method).

Inflation-Adjusted Income

(In Millions)



Current Cost Income Before Extraordinary Items (Average 1984 Dollars)

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The 1984 increase in current cost of inventories and property, plant and equipment was \$204 million. At December 31, 1984, the current cost of inventory and property, plant and equipment (net of accumulated depreciation) was \$1,271 million and \$4,051 million stated in year-end 1984 dollars.

The current cost of inventories was estimated using the FIFO (first-in, first-out) method.

Cost of goods sold on a current cost basis was approximated using the LIFO method, or similar techniques. The current cost of property, plant and equipment was estimated generally by using construction and equipment indexes. Current cost accumulated depreciation and related expenses were estimated using the same overall method and lives as used on a historical cost basis.

Selected Financial Data

	1984	1983	1982	1981	1980
Historical cost, as reported:					
Net sales	\$6,691	\$6,299	\$6,325	\$6,948	\$6,574
Income — Before extraordinary items	439	369	329	445	149
— Per share	5.42	4.48	4.10	5.75	2.05
Total assets	6,373	6,427	6,077	6,069	5,796
Long-term debt	824	937	1,003	1,110	1,371
Dividends per common share	3.25	2.075	1.975	1.875	1.775
Current cost (average 1984 dollars):					
Net sales	\$6,691	\$6,567	\$6,807	\$7,935	\$8,288
Income (loss) — Before extraordinary items	298	279	102	263	(11)
— Per share	3.68	3.39	1.28	3.39	(0.15)
Purchasing power gain on monetary items	32	30	36	112	170
Increase in specific prices of inventory and property over (under) increase caused by general inflation	1	(234)	(235)	(13)	(324)
Aggregate foreign currency adjustment, net of taxes	(143)	(103)	(177)		
Net assets	4,677	4,853	5,038	5,573	5,124
Other data (average 1984 dollars):					
Dividends per common share	\$ 2.26	\$ 2.17	\$ 2.13	\$ 2.16	\$ 2.26
Year-end common stock price	43.39	53.94	40.57	38.75	41.32
Average consumer price index	311.1	298.4	289.1	272.4	246.8

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

Comparisons of investment levels (including capital expenditures, and research and other growth-oriented investments) are distorted by inflation. Inflation-adjusted data may be useful in evaluating whether total investment levels, in "real dollars," have increased. In addition, such data may be useful in evaluating, on a broad financial basis, whether current profitability levels

are providing sufficient funds for growth-oriented investments. As discussed below, a comparison of Monsanto's inflation-adjusted funds provided from operations and funds used for investment expenditures indicates that the Company has generated sufficient cash to fund a significant portion of those growth-related investments.

Total Investment

	1984	1983	1982	1981	1980
Capital expenditures	\$ 614	\$ 560	\$ 673	\$ 668	\$ 781
Investments	94	208	11	2	64
R&D expenditures	370	290	264	233	208
Total (historical cost)	\$1,078	\$1,058	\$ 948	\$ 903	\$1,053
Total (average 1984 dollars)	\$1,078	\$1,103	\$1,020	\$1,031	\$1,327

Total Investment Remains High, But Components Have Changed

Monsanto's "total investment" level — capital expenditures, investments (acquisitions,

venture capital, etc.), and research and development expenditures — remains high, but the underlying components of investment have changed. In recent years, expenditures for research

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and development and investments have increased while traditional capital expenditures have moderated. This trend 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 expenditures to: (1) maintain the existing earnings base, and (2) increase future income levels.

Monsanto considers its current cost depreciation and estimated "maintenance" research and development costs for existing businesses to approximate the amount of investment needed to maintain existing earnings levels. The remaining investment may be considered as new growth investment.

Investment Analysis

	1984	1983	1982	1981	1980
Investment to maintain existing earnings base	\$ 694	\$ 673	\$ 693	\$ 713	\$ 691
New growth investment	384	430	327	318	636
Total (average 1984 dollars)	\$1,078	\$1,103	\$1,020	\$1,031	\$1,327

Discretionary Cash Flow Is Sufficient to Fund Significant Portion of Growth-Related Investments

In recent years, Monsanto has generated sufficient discretionary cash flow to fund all or a significant portion of the growth-oriented investments. "Discretionary cash flow" is defined as cash flow from operations (after working capital changes), before research and development expenditures, less dividends, debt repayments and investment to maintain the existing earnings base.

Discretionary Cash Flow

	1984	1983	1982	1981	1980
Historical cost	\$309	\$489	\$245	\$171	\$206
Average 1984 dollars	\$309	\$510	\$264	\$195	\$260
Discretionary cash flow as a percent of new growth investment (average 1984 dollars)	80%	119%	81%	61%	41%

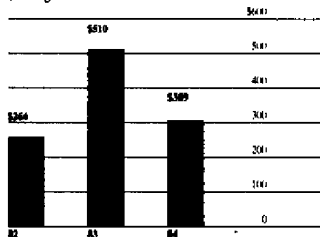
Monsanto's cost reduction and asset management programs, coupled with the pruning of unprofitable businesses, have been significant cash flow contributors. Proceeds from the sale of assets have also contributed funds for growth. In addition, Monsanto's strong financial position provides substantial unused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

Company Has Demonstrated Ability to Fund Future Growth

Management believes that Monsanto 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.

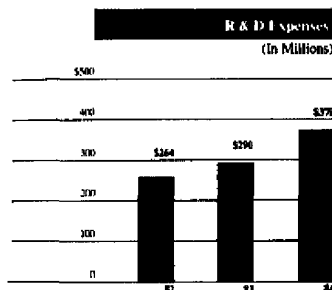
Discretionary Cash Flow

(Average 1984 Dollars — In Millions)



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Research and Development



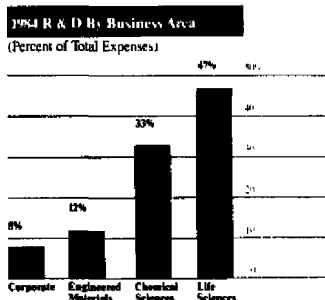
R&D Efforts Expand to Support New Business Direction

Research and development expenses are costs aimed at developing new, or improving existing, products and processes. Monsanto's strategy not only is to develop new markets from emerging technologies, but also to take advantage of traditional market opportunities with new products and processes while maintaining advantages in existing markets.

The growth in research and development expense is evidence of Monsanto's commitment to the strategy of developing new markets from emerging technologies. In 1984, R&D expenses increased to a record level and were 6 percent of sales, compared to 5 and 4 percent in 1983 and 1982, respectively.

Monsanto has intensive and growing R&D programs in biotechnology, plant biology, animal nutrition, human health care, molecular technology and electronic materials. The Company's efforts in plant biology, animal nutrition and human health care are supplemented through research agreements with several leading universities and other research institutions. For 1984, 40 percent of the R&D expenditures were

directed toward these emerging technologies. In addition, substantial research efforts continue in traditional areas of strength, such as agricultural chemistry, catalysis, polymer science, industrial chemicals, chemical engineering systems and applications research.



During 1984, Monsanto opened its new \$150 million Life Sciences Research Center in St. Louis County, Missouri. The new Center will eventually employ approximately 1,200 people and will concentrate on biotechnology and life sciences research, focusing on three major areas: agriculture, animal nutrition and human health care.

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Statement of Consolidated Financial Position

Monacetto Company and Subsidiaries

(Dollars in millions, except per share)

At December 31

Assets	1984	1983
Current Assets:		
Cash, time deposits and certificates of deposit	\$ 149	\$ 164
Short-term securities, at cost which approximates market	310	493
Trade receivables, net of allowances of \$49 in 1984 and \$44 in 1983	1,078	1,115
Miscellaneous receivables and prepaid expenses	221	205
Inventories	839	778
	2,597	2,755
Investments and Other Assets:		
Investments in affiliates	119	113
Other assets	283	275
	402	388
Property, Plant and Equipment, at Cost:		
Land	81	74
Buildings	732	667
Machinery and equipment	5,094	4,938
Mineral rights and oil and gas properties	765	716
Construction-in-progress	247	244
	6,919	6,639
Less accumulated depreciation	3,545	3,355
	3,374	3,284
Total Assets	\$6,373	\$6,427
Liabilities and Shareowners' Equity		
Current Liabilities:		
Accounts payable	\$ 497	\$ 500
Wages and commissions	110	108
Income and other taxes	69	104
Miscellaneous accruals	249	255
Short-term debt	277	253
	1,202	1,220
Long-Term Debt	824	937
Deferred Credits and Other Liabilities:		
Deferred income taxes	661	558
Other liabilities	52	45
	713	603
Shareowners' Equity:		
Common stock — authorized, 200,000,000 shares, par value \$2:		
issued, 82,197,097 shares in 1984 and 40,977,448 shares in 1983	164	82
Additional contributed capital	855	936
Accumulated currency adjustment	(319)	(200)
Reinvested earnings	3,110	2,853
	3,810	3,671
Less treasury stock, at cost (3,916,071 shares in 1984 and 56,152 shares in 1983)	176	4
	3,634	3,667
Total Liabilities and Shareowners' Equity	\$6,373	\$6,427

The above statement should be read in conjunction with pages 49 through 53 of this report.

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Review of Liquidity and Capital Resources

Monsanto Maintains Strong Financial Position

Monsanto maintained its strong financial position in 1984, with assets of \$6.4 billion and shareowners' equity of \$3.6 billion.

Working Capital Position Remains Solid

The current ratio (current assets divided by current liabilities), an indicator of liquidity, was 2.2:1 at year-end 1984, compared to 2.3:1 at year-end 1983. Management believes a current ratio of 2.0:1 is desirable. Working capital (current assets minus current liabilities) was \$1,395 million at year-end 1984, compared to \$1,535 million at the end of 1983. Inventories and receivables remained well managed and in line with current business needs.

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 (page 51).

Short-term debt includes bank borrowings and \$111 million of bank overdrafts at year-end 1984.

Significant Financing Capacity Available

The long-term debt to total capitalization ratio was 18 percent in 1984 as compared to 20 and 22 percent in 1983 and 1982, respectively. Management believes that the long-term debt to total capitalization ratio normally should not exceed 33 percent. As Monsanto's present ratio is significantly less than 33 percent, the Company has significant additional borrowing capacity available. The interest coverage ratio (times interest earned), excluding extraordinary items and the effect of capitalized interest, was 6.9 in 1984, compared to 5.3 and 4.6 in 1983 and 1982, respectively.

The Company has made extensive use of pollution control and industrial development bonds to finance qualified projects. Pollution control and industrial development bond obligations were 31 percent of all outstanding long-term debt at year-end 1984. To a limited extent, Monsanto 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.

Monsanto's assets are generally free from lien and not used to collateralize debt. Accordingly, these assets represent an additional source of borrowing capacity. Through its Monsanto Oil Company subsidiary, the Company owns oil and gas reserves with current market values in excess of the cost included in the accompanying financial statements. These oil and gas reserves and the undeveloped acreage represent valuable assets that also could be used to increase total debt capacity. (For more information on Oil and Gas, see page 38.)

Common Stock Split Two-For-One

During 1984, the Company had a two-for-one common stock split. This resulted in \$82 million of Additional Contributed Capital being reclassified to Common Stock in the Statement of Consolidated Financial Position. Also, the authorized common shares were increased to 200 million. Although there are no present commitments for these newly authorized shares, they do give the Company flexibility relating to possible future financing programs, acquisitions and other uses. Also, in 1984, the Company redeemed the outstanding \$2.75 Cumulative Convertible Preferred Stock at \$73 per share.

Effective August 1984, the Company expanded its common stock repurchase program and announced that up to 6 million shares of Monsanto common stock will be repurchased over a 17-month period.

The continued strengthening of the U.S. dollar, as compared to Monsanto's major ex-U.S. currencies, resulted in the accumulated currency adjustment account increasing to \$319 million at year-end 1984. Currency adjustments are accumulated in this account until the related ex-U.S. investment is sold or liquidated.

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Key Financial Statistics

	1984	1983
Working Capital (Current assets less current liabilities)	\$1,395	\$1,535
Current Ratio (Current assets divided by current liabilities)	2.2	2.3
Percent of Long-Term Debt to Total Capitalization*	18%	20%
Percent of Long-Term Debt to Total Shareowners' Equity	23%	26%

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

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Statement of Changes in Consolidated Financial Position

Monsanto Company and Subsidiaries

(Dollars in millions)

Sources (Uses) of Funds	1984	1983	1982
Operations:			
Income before extraordinary items	\$ 439	\$ 369	\$ 329
Charges not using (credits not providing) funds:			
Depreciation, depletion and obsolescence	491	517	439
Deferred income taxes	103	71	85
Other	(25)	(9)	27
Funds provided from operations, before changes in working capital and extraordinary items	1,008	948	880
Investment and Other Transactions:			
Extraordinary tax benefits from utilization of ex-U.S. loss carryforwards		33	
Working capital changes:			
Trade receivables	37	(39)	(3)
Inventories	(61)	46	49
Other current assets	(16)	(65)	38
Accounts payable and accrued liabilities	(42)	147	(69)
Short-term debt	24	122	(44)
Total working capital changes	(58)	211	(29)
Foreign currency adjustments on working capital	(58)	(47)	(60)
Property, plant and equipment additions	(614)	(560)	(673)
Proceeds from property disposals	39	39	31
Acquisitions and investments	(94)	(208)	(11)
Other	60	49	34
	(725)	(483)	(708)
Financial Transactions:			
Long-term financing	12	49	38
Long-term debt reduction	(127)	(87)	(149)
Extraordinary gain from exchange of debt for common shares			23
Issuance of common stock	—	—	75
Treasury stock purchases	(184)	(14)	(13)
Dividends	(182)	(170)	(158)
	(481)	(222)	(184)
Increase (Decrease) in Funds	\$ (198)	\$ 243	\$ (12)
 Increase (Decrease) in Elements of Funds:			
Cash, time deposits and certificates of deposit	\$ (15)	\$ 21	\$ (66)
Short-term securities	(183)	222	54
Increase (Decrease) in Funds	\$ (198)	\$ 243	\$ (12)

The above statement should be read in conjunction with pages 49 through 53 of this report.

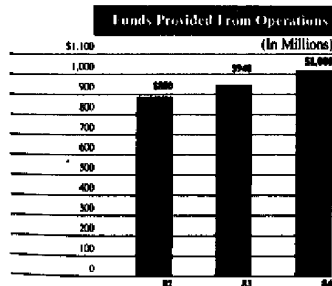
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Review of Sources and Uses of Funds

Monsanto's 1984-1982 sources and uses of funds are shown in the Statement of Changes in Consolidated Financial Position on the preceding page.

Monsanto finished 1984 in a good cash and short-term securities position — at \$459 million after funding some sizable commitments in the form of the note repayment on the 1983 purchase of Fisher Control's minority interest, new investments and the common stock repurchase program. These payments, however, resulted in the 1984 year-end cash and short-term securities position being \$198 million below the prior year-end.



Funds Provided from Operations Increase

Funds provided from operations were higher in 1984 as a result of improved earnings performance. Agricultural Products, Fibers and Intermediates and Polymer Products were significant cash flow contributors.

Expenditures for property, plant and equipment in 1984, including capitalized interest, increased to \$614 million. The more significant 1984 expenditures were for the new Life Sciences Research Center in St. Louis County, Missouri, continued capital requirements in oil and gas, and various environmental projects. In recent years, capital expenditures generally have been financed by cash from operations.

At December 31, 1984, Monsanto had purchase orders and contracts outstanding of approximately \$178 million in connection with uncompleted property additions and commitments for investments in affiliates.

In 1984, \$94 million was spent on acquisitions and other investments, principally to purchase Continental Pharma, a Belgian pharmaceutical company, and to invest in various venture capital opportunities. The principal 1983 acquisition was the minority interest in Fisher Controls.

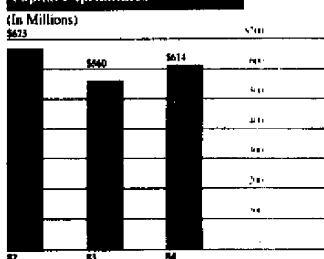
Dividends Increase for 12th Consecutive Year

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 twelve years. Dividend payout for 1984 was 41 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.

As mentioned in the Review of Liquidity and Capital Resources (page 45), the Company expanded its common stock repurchase program. During 1984, the Company repurchased approximately 4 million shares of its common stock for a total cost of \$184 million. These repurchases reduced the average common shares outstanding, resulting in a \$0.10 increase in earnings per share.

Monsanto's common stock is traded principally on the New York Stock Exchange. The number of common shareowners of record as of February 22, 1985, was 71,085 and the high and low common stock prices on that date were \$44½ and \$43¾.

Capital Expenditures



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Statement of Consolidated Shareowners' Equity

Monsanto Company and Subsidiaries

(Dollars in millions, except per share)

	1984	1983	1982
Common Stock:			
Balance, January 1	\$ 82	\$ 82	\$ 80
New shares issued (138,117, 11,289 and 988,075 shares in 1984-1982, respectively)	—	—	2
Par value of stock issued in two-for-one stock split	82		
Balance, December 31	\$ 164	\$ 82	\$ 82
Additional Contributed Capital:			
Balance, January 1	\$ 936	\$ 931	\$ 853
New shares issued	—	—	73
Par value of stock issued in two-for-one stock split	(82)		
Other	1	5	5
Balance, December 31	\$ 855	\$ 936	\$ 931
Accumulated Currency Adjustment:			
Balance, January 1	\$ (200)	\$ (122)	\$
Initial translation adjustment for SFAS No. 52			(16)
Translation adjustments	(121)	(84)	(111)
Income taxes	2	6	9
Transferred to net income			(4)
Balance, December 31	\$ (319)	\$ (200)	\$ (122)
Reinvested Earnings:			
Balance, January 1	\$2,853	\$2,621	\$2,423
Deferred tax adjustment for SFAS No. 52			4
Net income	439	402	352
Preferred dividends (\$2.06 per share in 1984, \$2.75 per share in 1983 and 1982)	—	—	—
Common dividends (\$2.25, \$2.075 and \$1.975 per share for 1984-1982, respectively)	(182)	(170)	(158)
Balance, December 31	\$3,110	\$2,853	\$2,621
Common Stock in Treasury:			
Balance, January 1	\$ (4)	\$ (22)	\$ (26)
Shares purchased (4,053,300, 159,570 and 171,940 shares in 1984-1982, respectively)	(184)	(14)	(13)
Conversion of convertible securities and issuances under employee stock plans (349,837, 471,966 and 313,192 shares in 1984-1982, respectively)	12	32	17
Balance, December 31	\$ (176)	\$ (4)	\$ (22)

The above statement should be read in conjunction with pages 49 through 53 of this report.

Key Financial Statistics—Common Stock Data

		1984	1983	1982
Stock Price	High	\$53 3/4	\$58 1/4	\$44 1/4
	Low	40 1/4	37 1/4	28 1/4
Per Common Share:	Dividends	2.25	2.075	1.975
	Shareowners' Equity	46.43	44.83	42.99

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Notes to Financial Statements

Monsanto Company and Subsidiaries

Where applicable, per share amounts and the number of common shares have been restated to reflect the June 1984 two-for-one common stock split.

Significant Accounting Policies

The Company's significant accounting policies are italicized in the following Notes to Financial Statements.

Basis of Consolidation

The consolidated financial statements include the Company and its majority-owned subsidiaries. Intercompany transactions have been eliminated in consolidation. Companies in which Monsanto has an ownership interest between 20 and 50 percent are included in "Investments in affiliates" in the Statement of Consolidated Financial Position and Monsanto's share of these companies' income or loss is included in "Other income — net" in the Statement of Consolidated Income.

Principal Acquisitions and Divestitures

In May 1984, Monsanto acquired Continental Pharma, S.A., which has pharmaceutical manufacturing and research facilities in Belgium. Its products are marketed principally in Europe and Asia.

In July 1983, Monsanto purchased for \$178 million the interest of The General Electric Company p.l.c. (GEC) in Fisher Controls International, Inc. (FCII). This increased the Company's ownership in FCII to 100 percent from the previous 66 2/3 percent. The excess purchase price above FCII's net assets attributable to GEC's interest was \$81 million, which is being amortized on a straight-line basis over 20 years.

In June 1983, Monsanto sold the European acrylic fibers business to Montefibre, a subsidiary of Montedison (Italy). The pretax loss provision of \$20 million (\$18 million, or \$0.23 per share, net of tax) was established in 1982 and was included in cost of goods sold as obsolescence expense. This business was part of the Fibers and Intermediates operating unit and had 1982 sales of approximately \$139 million.

In June 1983, Monsanto acquired at 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 reported as part of the Fibers and Intermediates operating unit.

Had Monsanto owned 100 percent of Continental Pharma, FCII and PIL since January 1, 1983, Monsanto's net income would not have changed significantly.

Depreciation

	1984	1983	1982
Depreciation, depletion and obsolescence:			
Depreciation and depletion	\$449	\$456	\$396
Obsolescence (including gains and losses from divestitures)	42	61	43
Total depreciation, depletion and obsolescence	\$491	\$517	\$439

The cost of plant and equipment is depreciated using the straight-line method over weighted average periods of 23 years for buildings and 12 years for machinery and equipment.

Supplemental Data

	1984	1983	1982
Raw material and energy costs	\$2,522	\$2,345	\$2,435
Employee compensation and benefits	1,689	1,687	1,736
Income and other taxes	482	368	394
Rent expense	80	83	78
Technological expenses:			
Research and development	370	290	264
Engineering, commercial development and patent	76	69	65
Total technological expenses	446	359	329
Interest expenses:			
Total interest costs incurred	117	126	128
Less capitalized interest	17	30	46
Net interest expense	100	96	82
Equity in affiliates' income (loss)	18	15	(11)
Foreign currency gains (losses) — including equity in affiliates' currency gains and losses	2	5	(15)

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Currency Translation

In accordance with Statement of Financial Accounting Standards No. 52, most of Monsanto's ex-U.S. operations' financial statements are translated into U.S. dollars using current exchange rates. Unrealized currency adjustments in the Statement of Consolidated Financial Position are accumulated in shareowners' equity. The financial statements of ex-U.S. operations that operate in hyperinflationary economies, including Brazil, Mexico and Argentina, are translated at either current or historical exchange rates, as appropriate, and currency adjustments are included in net income.

Major currency exposures are the British pound sterling and Belgian franc. Other important currencies include the German mark, French franc, Canadian dollar, Australian dollar, Japanese yen and Mexican peso. Currency restrictions are not expected to have a significant effect on Monsanto's cash flow, liquidity or capital resources.

Foreign currency translation gains on long-term debt in hyperinflationary countries in 1983 and 1982 have been reclassified from "Cost of goods sold" to "Other income — net" to be consistent with the classification for 1984.

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, generally reflecting the effects of inflation on cost of goods sold sooner than other inventory cost methods. The cost of other inventories (approximately 25 percent of all inventories) is generally determined by the first-in, first-out (FIFO) method.

Inventories at December 31, 1984 and 1983 would have been \$432 million and \$453 million, respectively, higher than reported if the FIFO basis of inventory valuation (which approximates current cost) had been used for all inventories. Monsanto's LIFO inventory policies make 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.

Oil and Gas Activities

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

Income Taxes

The components of income before income taxes were:

	1984	1983	1982
U.S.	\$442	\$419	\$425
Ex-U.S.	265	151	76
Total	\$707	\$570	\$501

The components of income tax expense were:

	1984	1983	1982
Current:			
Federal	\$ 72	\$103	\$ 53
State	21	6	8
Ex-U.S.	56	45	39
	149	154	100
Deferred:			
Federal	72	11	72
State	3	4	4
Ex-U.S.	44	(1)	(4)
	119	14	72
Tax effect of loss carryforward		33	
Total	\$268	\$201	\$172

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:

	1984	1983	1982
Depreciation, depletion and obsolescence	\$ 92	\$ 19	\$ 49
Intangible drilling and development costs	11	(3)	19
Interest capitalization	—	8	18
Other	16	(10)	(14)
Total	\$119	\$ 14	\$ 72

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

	1984	1983	1982
Federal statutory rate	46%	46%	46%
Investment and R&D tax credits	(5)	(6)	(11)
Lower ex-U.S. tax rates	(3)	(1)	—
Benefits attributable to DISC earnings	(2)	(3)	(3)
Other	2	(1)	2
Effective income tax rate	38%	35%	34%

Investment tax credits are recorded as a reduction of income tax expense in the year they reduce the federal income tax liability. Investment tax credits for 1984-1982 were \$30 million, \$26 million and \$53 million, respectively.

Income taxes have not been provided on \$472 million of undistributed earnings of

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subsidiaries either because any taxes on dividends would be offset substantially by foreign tax credits or because Monsanto intends to indefinitely reinvest those earnings.

Earnings per Share

Earnings per share were computed using the weighted average number of common and common equivalent shares outstanding each year, adjusted for the two-for-one stock split (80,909,755, 82,215,156 and 79,950,996 in 1984-1982, respectively). Common share equivalents (335,979, 563,622 and 319,716 in 1984-1982, respectively) consist primarily of common stock issuable upon exercise of outstanding stock options. Earnings per share assuming full dilution were not different significantly from the primary amounts.

Pension Plans

Most Monsanto employees are covered by noncontributory pension plans. Upon retirement, many Monsanto employees are also provided other benefits, principally medical and life insurance.

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 postretirement benefits are not currently funded and are expensed as incurred.

Pension expense for all plans was \$116 million, \$131 million and \$136 million in 1984-1982, respectively. The 1984 decrease in pension expense reflects higher investment returns and reduced numbers of employees. Pension expense was 7 percent of total compensation in 1984 and 8 percent in 1983 and 1982.

The 1984-1982 expense recorded for other postretirement benefits was \$18 million, \$13 million and \$8 million, respectively.

Estimated benefit and asset information at year-end for Monsanto's pension plans is presented below. Net assets of the pension trusts were measured at market value and accumulated benefits were estimated from actuarial valuations, principally using the entry age normal actuarial cost method.

	1984	1983
Actuarial present value of accumulated plan benefits:		
Vested	\$1,554	\$1,463
Nonvested	184	178
Total	\$1,738	\$1,641
Net assets available for benefits	\$2,074	\$1,958

U.S. salaried and hourly employees are covered by two principal plans. The funding and company cost assumptions for these plans

include an investment return of 7.5 percent used in determining the actuarial present values. The actuarial assumptions also include an overall average salary increase of 6.5 percent for the salaried employees plan. The actuarial present value of additional projected benefits from future salary increases for the U.S. salaried employees plan at December 31, 1984 was approximately \$280 million. Accumulated plan benefits included in the above table for these major U.S. plans were approximately \$1.617 million at December 31, 1984.

Short-Term Debt and Credit Arrangements

	1984	1983
Notes payable:		
Banks	\$ 43	\$ 52
Others		75
Bank overdrafts	111	102
Current portion of long-term debt	123	24
Total	\$277	\$253

Monsanto has available \$300 million in U.S. and Eurocurrency Revolving Credit Agreements. The U.S. agreement (\$200 million) is effective through 1989, with interest rates generally at or below prevailing prime interest rates. The \$100 million Eurocurrency agreements are subject to reductions beginning in 1986 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 22, 1985.

In addition, certain ex-U.S. subsidiaries have aggregate short-term loan facilities of \$266 million, under which loans totaling \$43 million were outstanding at December 31, 1984. Interest on these loans is related to various ex-U.S. bank rates.

Long-Term Debt

Long-term debt (exclusive of current maturities):

	1984	1983
Industrial development bond obligations, weighted average interest rate of 7½%, due 1986 to 2021	\$252	\$247
8% notes due 1985		100
4¼% promissory notes due 1993	39	44
9¼% sinking fund debentures due 1997	67	67
8½% sinking fund debentures due 2000	127	127
3¼% income debentures due 2002	77	77
4¼% income debentures due 2008	50	50
8¼% sinking fund debentures due 2008	169	169
Capitalized lease obligations	5	7
Other	38	49
Total	\$824	\$937

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Maturities and sinking fund requirements on long-term debt are \$123 million, \$23 million, \$22 million, \$18 million and \$16 million for 1985-1989, 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, 1984.

Commitments and Contingencies

Commitments in connection with uncompleted additions to property and investments in affiliates were approximately \$178 million at December 31, 1984. Monsanto was contingently liable as guarantor of bank loans and for discounted customers' receivables totaling approximately \$60 million at December 31, 1984.

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

At December 31, 1984, there were 39,070 common shares reserved for conversion of convertible securities and 6,015,830 common shares reserved for employee stock options.

The Company called for the redemption of all of the outstanding \$2.75 Cumulative Convertible Preferred Stock at \$73 per share effective October 15, 1984. Prior to the redemption date, preferred stock shareholders had the option of converting each share of preferred stock held into 2.24 shares of common stock.

Stock Option Plans

At December 31, 1984, there were 2,756,830 shares under options outstanding for the Company's 1974 and 1984 Management Incentive Plans at prices ranging from \$24.25 to \$57.59. Options for 1,525,360 shares were exercisable at December 31, 1984. During 1984, 1,800,699

options were granted and 106,568 options, granted at prices ranging from \$24.97 to \$44.03 per share, were exercised.

Stock appreciation rights (SARs) are authorized to be granted under both the 1974 and 1984 Plans, including retroactive grants for unexercised options. At December 31, 1984, SARs related to options for 805,138 shares were outstanding; of these, 390,526 were exercisable. During 1984, SARs related to options for 565,941 shares were granted and 12,836 were exercised.

Segment Information

Certain operating unit segment data for 1984-1982 appear on page 36 and are integral parts of the accompanying financial statements. The principal product lines included in each operating unit are shown in this segment data. The principal unusual charge included in the Operating Unit and World Area Segment Data is discussed in the "Principal Acquisitions and Divestitures" note to the financial statements. 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 \$304 million, \$297 million and \$311 million in 1984-1982, respectively. These sales were significant for Industrial Chemicals (\$142 million, \$140 million and \$151 million in 1984-1982, respectively) and Fibers and Intermediates (\$116 million, \$101 million and \$91 million in 1984-1982, respectively). Inter-area sales, which are sales from one Monsanto location to another Monsanto location in a different world area, also 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. Interest expense, interest income and other income — net, as shown in the Statement of Consolidated Income, are the only reconciling items between operating income and income before income taxes. Nonoperating assets principally include investments, and a portion of cash, time deposits and certificates of deposit, and short-term securities.

Net sales by entities in each world area were:

	Unaffiliated Customers			Inter-Area (Between Monsanto Entities)		
	1984	1983	1982	1984	1983	1982
United States	\$4,914	\$4,596	\$4,483	\$ 534	\$ 526	\$ 467
Europe-Africa	945	924	1,079	207	188	108
Canada	278	259	227	9	6	3
Latin America	203	192	221	6	4	2
Asia-Pacific	351	328	315	33	25	21
Eliminations				(789)	(749)	(601)
Total consolidated	\$6,691	\$6,299	\$6,325	\$ —	\$ —	\$ —

Operating income and total assets by entities in each world area were:

	Operating Income (Loss)			Total Assets		
	1984	1983	1982	1984	1983	1982
United States	\$ 477	\$ 434	\$ 458	\$5,088	\$5,110	\$4,711
Europe-Africa	192	137	39	772	696	790
Canada	25	24	5	108	92	81
Latin America	4	(4)	3	178	180	166
Asia-Pacific	31	15	11	257	203	172
Eliminations	2	(35)	8	(253)	(362)	(268)
Corporate expenses	(54)	(50)	(45)			
Nonoperating assets				226	508	425
Total consolidated	\$ 677	\$ 521	\$ 479	\$6,373	\$6,427	\$6,077

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:

	1984	1983	1982
Operating income	\$ 252	\$ 172	\$ 58
Interest expense	(53)	(65)	(70)
Interest income	36	28	17
Other income — net	29	36	61
Income taxes (including extraordinary tax benefits of loss carryforwards)	(106)	(45)	(35)
Net income of consolidated ex-U.S. subsidiaries	\$ 156	\$ 126	\$ 31
Total operating assets	\$1,312	\$1,171	\$1,209
Total liabilities	519	470	440
Net assets of consolidated ex-U.S. subsidiaries	\$ 793	\$ 701	\$ 769

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Financial Summary

Monsanto Company and Subsidiaries

(Dollars in millions, except per share)

	1984	1983 ²	1982 ^{3,4}	1981	1980
Operating Results					
Net Sales	\$6,691	\$6,299	\$6,325	\$6,948	\$6,574
Operating Income	677	521	479	702	210
Net Income	\$ 439	\$ 402	\$ 352	\$ 445	\$ 149
As a Percent of Net Sales	7%	6%	6%	6%	2%
As a Percent of Average Shareowners' Equity	12%	11%	10%	15%	5%
As a Percent of Average Capital Employed	10%	10%	9%	11%	5%
Earnings per Share ¹	\$ 5.42	\$ 4.89	\$ 4.39	\$ 5.75	\$ 2.05
Year-end Financial Position					
Total Assets	\$6,373	\$6,427	\$6,077	\$6,069	\$5,796
Working Capital	1,395	1,535	1,503	1,486	1,226
Property, Plant & Equipment:					
Gross	\$6,919	\$6,639	\$6,530	\$6,218	\$6,074
Net	3,374	3,284	3,313	3,184	3,109
Long-Term Debt	\$ 824	\$ 937	\$1,003	\$1,110	\$1,371
Shareowners' Equity	3,634	3,667	3,490	3,330	2,808
Current Ratio	2.2	2.3	2.6	2.4	2.1
Percent of Long-Term Debt to Total Capitalization	18%	20%	22%	25%	33%
Other Data					
Property, Plant & Equipment Additions	\$ 614	\$ 560	\$ 673	\$ 668	\$ 781
Depreciation, Depletion and Obsolescence	491	517	439	263	547
Interest Expense	100	96	82	101	112
Research and Development Expense	370	290	264	233	208
Income Taxes	268	201	172	248	57
Stock Price: ⁴					
High	\$ 53 3/4	\$ 58 1/4	\$ 44 1/2	\$ 43 3/4	\$ 35 1/4
Low	40 1/4	37 1/4	28 1/4	29 1/4	21 1/4
Price/Earnings Ratio on Year-end Stock Price	8	11	9	6	17
Per Common Share: ¹					
Dividends	\$ 2.25	\$2.075	\$1.975	\$1.875	\$1.775
Shareowners' Equity	46.43	44.83	42.99	42.18	38.82
Common Shareowners	71,343	69,787	75,943	79,029	82,441
Common Shares Outstanding (in millions) ¹	78	82	81	79	72
Employees	50,754	48,835	52,199	57,391	61,836

¹Per share amounts and shares outstanding have been restated to reflect the June 1984 two-for-one common stock split.

²Net income for 1983 includes extraordinary tax benefits of \$33 million, or \$0.41 per share, from the utilization of ex-U.S. loss carryforwards.

³Net income for 1982 includes an extraordinary gain of \$23 million, or \$0.29 per share, from an exchange of debt for common shares.

⁴In 1982, the requirements of Statement of Financial Accounting Standards No. 52, "Foreign Currency Translation," were adopted.

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Shareowner Information

Annual Meeting

The next Annual Meeting of the shareowners of Monsanto Company will be held at 1:45 p.m., Friday, April 26, 1985, 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 1984 Form 10-K Report filed with the Securities and Exchange Commission; 1984 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

Quarterly Common Stock Data

	Stock Price		Dividend
	High	Low	
1984			
First	\$53 3/4	\$41 1/4	\$0.525
Second	49	42	0.575
Third	51	43 1/4	0.575
Fourth	46 1/4	40 1/4	0.575
1983			
First	\$46 1/4	\$37 1/4	\$0.50
Second	47	39 1/4	0.525
Third	58 1/4	42 1/4	0.525
Fourth	58 1/4	50 1/4	0.525

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
Harold J. Corbett
Dr. Howard A. Schneiderman

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
Thomas L. Gossage
Robert O. Potter
Donald H. Swan

Vice Presidents
Dr. Constantine E. Anagnostopoulos
Earl N. Brasfield
Leonard A. Cohn
Stewart D. Daniels
Richard U. De Schutter
Charles A. Faden
Dr. S. Allen Heiminger
John F. Hussey*
Martin J. Kallen
Thomas H. Lafferre
Dr. Joseph T. Nolan
James H. Senger
David L. Sliney

Vice President and Controller
Lawrence B. Skatoff

*Effective May 1, 1985

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Board of Directors

Dr. Louis Fernandez, Chairman
 Dr. Donald C. Carroll
 C. R. Dahl
 Richard I. Fricke
 John W. Hanley
 Howard M. Love
 Richard J. Mahoney
 Dr. Jean Mayer
 Buck Mickel
 Edward L. Palmer
 Dr. John B. Slaughter
 Admiral Stansfield Turner
 Margaret Bush Wilson
 Richard W. Duesenberg, Secretary

Advisory Directors

Robert L. Berra
 Harold J. Corbett
 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
 Dr. John B. Slaughter
 Margaret Bush Wilson

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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. R. Dahl
 John W. Hanley
 Richard J. Mahoney
 Edward L. Palmer

Nominating

C. R. Dahl
 Howard M. Love
 Buck Mickel

Pension and Savings Funds

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



Richard J. Mahoney
 St. Louis
 President and
 Chief Executive Officer
 Monsanto Company

Dr. Louis Fernandez
 St. Louis
 Chairman of the Board
 Monsanto 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.



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Dr. Donald C. Curroll
Philadelphia
Professor of Management
University of Pennsylvania
(on leave 1983-85)
Chairman CGW Data Services, Inc.
Chairman Immunicon Corporation

C. Raymond Dahl
San Francisco
Retired Chairman of the
Board
Crown Zellerbach Corporation

Richard J. Fricke
Montpelier, Vermont
Chairman and Chief Executive
Officer
National Life Insurance
Company

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Dr. Jean Mayer
Medford, Massachusetts
President
Tufts University

Buck Mickel
Greenville, South Carolina
President Fluor Corporation and
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. Y.



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Dr. John B. Slaughter
College Park, Maryland
Chancellor
University of Maryland
at College Park

Admiral Stansfield Turner
U.S. Navy, Retired
McLean, Virginia
Lecturer and Writer

Margaret Bush Wilson
St. Louis
Attorney
Wilson, Smith and Seymour

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Harold J. Corbett
Senior Vice President
Advisory Director

Francis J. Fitzgerald
Executive Vice President
Advisory Director

Earle H. Harbison, Jr.
Executive Vice President
Advisory Director



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Richard W. Duesenberg
Senior Vice President
Secretary
and General Counsel

Robert L. Berra
Senior Vice President
Advisory Director

Senior Vice Presidents Francis E. Reese and Monte C. Thordahl retired during 1984 from the Board and from the Company. Both men provided clear guidance and sound advice over the years that made a lasting and significant contribution to the Board's deliberations. We are grateful for their hard work and dedicated service, and we wish them well during their active retirements.

Richard J. Mahoney
Richard J. Mahoney

Dr. Louis Fernandez
Dr. Louis Fernandez

Nicholas L. Reding
Executive Vice President
Advisory Director

Dr. Howard A. Schneiderman
Senior Vice President
Advisory Director

Francis A. Stroble
Senior Vice President and
Chief Financial Officer
Advisory Director



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Monsanto

Monsanto Company
800 North Lindbergh Boulevard
St. Louis, Missouri 63167

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