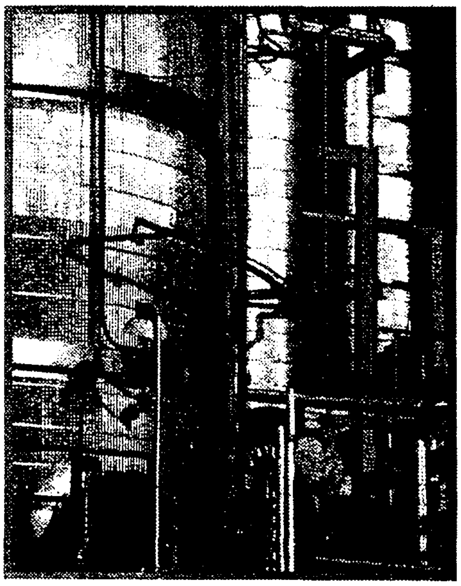
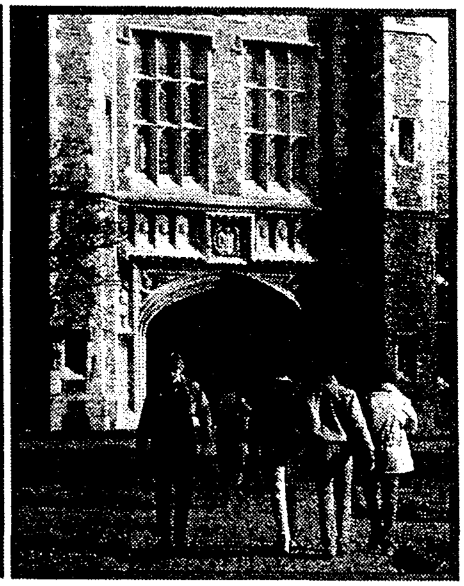
Monsanto

Annual Report 1982

DSW 021444

Contents

Cover

Our Annual Report cover illustrates three highlights of 1982 (left to right): Monsanto's new maleic anhydride plant in Pensacola, Florida; worldwide expansion of **Roundup** *herbicide uses (as on this farm in Kenya); and growing research involvement with research universities (like Washington University in St. Louis, pictured here).*

Italics throughout the Annual Report identify Monsanto's trademarks.

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Operational Highlights

(Dollars in millions, except per share)

		1982	1981	1980
Net Sales		**$6,325**	$6,948	$6,574
Net Income		**$ 352**	$ 445	$ 149
Per Common Share:	Net Income	**$ 8.79**	$11.50	$ 4.10
	Dividends	**3.95**	3.75	3.55
	Shareowners' Equity	**85.97**	84.37	77.63
Property, Plant and Equipment Additions		**$ 673**	$ 668	$ 781
Depreciation and Obsolescence		**$ 439**	$ 263	$ 547
Research and Development		**$ 256**	$ 225	$ 208
Yearend:	Shareowners—Common Shares	**75,943**	79,029	82,441
	Employees	**52,199**	57,391	61,836

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

Monsanto at a Glance

Monsanto Company's purpose is to serve customers worldwide through quality products, processes and services in harmony with society's goals.

Headquartered in St. Louis, Monsanto is a multinational industrial company of more than 52,000 people engaged primarily in the manufacture of chemicals. Founded in 1901, it now has investments in 166 manufacturing plants, laboratories and technical centers in 20 nations.

The Company sells more than 1,000 products in 100 countries. Among these products are chemicals, agricultural products, man-made fibers, electronics materials, industrial process controls and other capital equipment.

Monsanto's organization includes four operating companies — Agricultural Products, Fibers and Intermediates, Industrial Chemicals, and Polymer Products — as well as five operating divisions — Animal and Plant Products, Electronics, Engineered Products, Health Care, and Nutrition Chemicals.

Monsanto Oil Company, a wholly owned subsidiary, engages in exploration for and production of oil and natural gas. Fisher Controls International, Inc., a majority-owned subsidiary, is a leading worldwide supplier of industrial process control systems, instrumentation, control valves and regulators.

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Chairman John W. Hanley, flanked by President Richard J. Mahoney (left) and Vice Chairman Louis Fernandez.

To Our Shareowners:

Faced with a grinding recession throughout 1982, Monsanto performed better than many of its major competitors while carrying out a far-reaching reorganization to meet the challenges of the decade ahead.

1982 was the first year that the U.S. farm economy negatively affected our agricultural products business which is by far the largest contributor to corporate earnings. Even so, our *Lasso* and *Roundup* herbicides outperformed 1981, but the growth curve for *Roundup* fell below expectations for this extraordinary crop chemical.

Our steadfast commitment to asset management and cost-reduction programs helped offset somewhat the effects of lower demand for our industrial products. By shedding non-productive assets, we significantly improved our break-even point to about 60 percent of plant utilization. We retired additional long- and short-term debt, winding up the year in a strong financial position that provides a solid foundation for future growth.

Reported net income for 1982 was $352 million or $8.79 per share. This reflects the Board of Directors' approval in February 1983 of the planned sale of our European acrylic fibers business and the establishment of a 1982 loss provision of $18 million ($0.46 per share). Net income for 1981 was $445 million or $11.50 per share, including a gain of $68 million or $1.75 per share from the sale to Conoco of Monsanto's assets in a joint venture.

A more meaningful comparison of net income from operations in the

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past two years would exclude the 1982 extraordinary gain on our debt-equity exchange as well as the 1981 gain on the sale of the Conoco joint venture assets. These modifications would put net income in 1981 at $377 million and 1982 at $329 million — a year-to-year decrease of 13 percent.

As 1983 begins, we see several encouraging economic signals. Inflation and interest rates are lower. Consumer confidence is on the rise. There is a measurable upturn in single-family housing starts, and U.S. auto production is predicted to be up substantially. We anticipate modest economic growth in 1983, although less than normally follows a recession. If our expectations are realized, the economy's recent downward pressure on earnings will be behind us.

Because 1982 was a year in which Monsanto reached a milestone in both product portfolio analysis and reorganization, we feel it is appropriate in this Annual Report to give our shareowners a perspective of two decades — the past one and the one ahead — so this will be the theme of our letter.

The Past Decade

Monsanto has been evolving at a rate that sees it quite a different organization today from the one which installed John W. Hanley as President and CEO in late 1972.

At that time, the new CEO told Board members his objective was to build a company with strong finances, sound management, and solid businesses buttressed by first-class technology. If Monsanto could aim at a doubling of its earnings every 10 years, he said — in contrast to the preceding decade's annual growth rate of only 3.2 percent — it would have a goal which would be at once challenging, realistic, and readily affordable within the resource limitations that prevailed.

After three or four years, when significant progress had been made toward this aspiration, it became evident that inflation was invalidating the original goal, and some rethinking was in order. A logical conclusion emerged: the idea of increasing earnings at a rate which would double in 10 years *after* inflation — in other words, a doubling in real terms. That has been our adjusted long-range goal.

If Monsanto had moved toward that goal in regular annual steps, earnings would have advanced in real dollar terms at a rate of approximately 7.2 percent a year. But our profitability over the past decade has been importantly influenced by an inflation-plagued environment; two oil shocks of pervasive impact; and a Company policy of enlarging its expenditures on research and development while at the same time withdrawing from businesses where prospects were no longer attractive.

Because Monsanto's earnings during the 1973-82 period were far from a steady progression, a point-to-point comparison tends to blur the picture. A better comparison would be to measure cumulative real earnings over the decade against our goal. When we do so, we find that we earned a total of $2.1 billion altogether, against a goal of $1.8 billion — exceeding our growth target by about 16 percent.

Over the decade, Monsanto has made notable progress in other areas as well.

Sales and earnings per share have grown at annual compound rates of 11.0 percent and 9.7 percent, respectively, in nominal dollars from 1972 to 1982.

Shareowner equity and return on it have improved markedly — from $1.3 billion and 9.7 percent in 1972 to $3.5 billion and 10.3 percent last year.

Dividends over the decade totaled $1.1 billion, as the Board increased the dividend rate 10 times during the 10-year period.

Our balance sheet has been greatly strengthened — debt to total capital having been lowered from 31 percent to 22 percent.

Of course, the past decade was not without its setbacks. Our calculated but high-risk expansion in polyester filament failed to live up to our hopes, and we eventually withdrew from that beleaguered segment of the textile business. Our buildup of acrylonitrile facilities in Europe, in anticipation of expansion in plastics and fibers, proved to be unwarranted in light of subsequent market conditions.

However, these disappointments were more than offset by our gains in total — success in agricultural products and in such traditional businesses as rubber chemicals, *Saflex* interlayer, Fisher's controls, and detergents and phosphates. Success, too, in putting in place a vigorous new management team, installing modern planning procedures, and raising managers' awareness of the changing dimensions of socially responsible corporate conduct.

Keeping Ahead of Change

The progress made over the past decade amply validates our strategy of moving our product portfolio toward specialties and high-technology. But the chemical industry is changing rapidly, and we are determined to keep ahead of the changes. So we have been adjusting our strategy over the past three years to become even more competitive in the bracing environment we anticipate in the decade ahead.

In explaining our new strategic directions, it is helpful to start with the basic raw materials of the chemical business — oil and natural gas. These are upgraded first into what are called primary petrochemical intermediates — the large-volume, commodity raw materials like ethylene, propylene, benzene and others. Then they are further upgraded into first-stage products, the traditional monomers such as benzene into styrene and on to polystyrene. Finally, come the specialty chemicals — rubber chemicals, resins for paints, adhesives, paper coatings, *MHA* feed additives, and all the way to herbicides like *Lasso* and *Roundup*.

We made a judgment to withdraw from the production of the primary petrochemical intermediates, and to emphasize the upgraded steps. This decision was formalized with the sale of our interest in the Conoco joint venture in 1981.

Our strategic direction is to buy these materials, and use benzene and other purchased petrochemicals in far more complicated products with a higher component of value added by Monsanto and value received by our customers.

At the same time, we are investing to expand our non-petrochemical base — silicon wafers, phosphates, and the engineered products portions of Monsanto including Fisher's total process-control systems and Radiation Dynamics' emerging electron-beam product line.

We are simultaneously moving into health care, the third leg of the interrelated agricultural chemicals/nutrition chemicals/health care businesses, all tied together through the new biotechnology. This next major wave of chemistry has implications at least as far-reaching for our industry as the advent of petrochemicals in the 1930s.

Recent advances in biotechnology — molecule manipulation like recombinant DNA — give promise of opening up dramatic new opportunities for the chemical, medical drug and agricultural industries. Indeed, it is not too farfetched to imagine whole new industries selling products that today cannot even be conceived, let alone made.

Strong R&D Commitment

To position Monsanto to share in both old and new growth areas, we have substantially strengthened our commitment to research and development all across the Corporation. We have increased four-fold our agricultural programs in just the past five years; launched a five-year $23.5 million research venture in protein chemistry for new drug uses with Washington University which was recently singled out by President Reagan as a model of private-sector initiative; formed partnerships with some of America's and Europe's foremost research institutions giving us access to the finest scientific minds of our time; started a new Nutrition Chemicals unit which has in the development stage Monsanto's first recombinant DNA product, animal growth hormone; and begun a multimillion-dollar project for building and staffing a world-class life-sciences laboratory complex in suburban St. Louis County.

Even as we probe new frontiers, we have maintained a lively interest in the basic chemical businesses on which Monsanto was founded and from which it has drawn sustenance over the years. We have formed a corporate group to examine renewal of our higher value-added chemicals through technology and business acquisitions. We intend to invest prudently in basic chemicals and manage them for balanced income growth around the world. The use of innovative technology, like the butane route to maleic anhydride, will become an increasingly important part of Monsanto's strategy for the decade ahead.

To help achieve our new strategic directions, we carried out in 1982 a wide-ranging reorganization to streamline both staff and line.

Goal of Reorganization

The reorganization was intended to position selected high value-added businesses for growth, strengthen our chemicals, fibers and plastics businesses, reinforce our international posture, meet customer needs more effectively, and enhance the contribution of technology to our overall performance. As a result, we now have a structure which will permit us to serve our customers better, link raw materials and products more closely, and focus our resources more efficiently.

In the reorganization, we grouped our businesses under three broad headings: our major chemicals and fibers units; our biological sciences units including agriculture and nutrition; and our non-chemical growth units such as electronics, oil and gas, Fisher Controls and engineered products. Each of these units has worldwide responsibility for the manufacture and sale of its products — a recognition of the fact that important segments of our future growth will occur outside the United States where we plan to pursue an active investment program.

When we found that we had more people than would be required in the restructured organization, we offered an incentive program for those voluntarily choosing early retirement. About 1,300 salaried workers — more than 61 percent of those eligible – elected to avail themselves of this option, bringing about a more appropriate balance between people and jobs, and eliminating the need for massive layoffs.

Throughout the dislocations of reorganization, our 52,000 employees proved themselves once again a bulwark of strength, as they have during the entire evolution of the past decade. They are as able and dedicated a group of men and women as can be found in any enterprise, fully committed to building a company whose products enhance the quality of life around the world.

Their dedication is matched by that of the Board of Directors which never lost sight of our longer-term goals as it guided Monsanto through a difficult economic period. During the year, the Board lost the services of two valued members. Edmond S. Bauer, Chairman of Fisher Controls International and a 40-year veteran of Monsanto, died unexpectedly. J. William Fisher, a former Chairman of the company bearing his name, retired from the Board upon reaching the age of 68. Both men had contributed substantively and effectively over the years to the Board's deliberations, and we are deeply appreciative of their extraordinarily productive service.

We are confident that the heartening progress of the past decade can be extended into the next. When economic health returns to the world, we believe that Monsanto is positioned to take full advantage of it.

Looking to the future, we are determined to build a Monsanto of the 1990s that is sufficiently productive and profitable to be highly attractive to investors, that enjoys and deserves a reputation for excellence among its customers, that is a source of pride to its employees, and that is known in its plant and office communities as a socially responsible corporate citizen.

Our optimism is strongly related to the fact that we have a management team and a strategy in place that befit the trust that shareowners have manifested by their investments. We are confident these factors can sustain the Company's success pattern into the next decade — and the next century.

John W. Hanley

John W. Hanley
Chairman of the Board and
Chief Executive Officer

Richard J. Mahoney

Richard J. Mahoney
President and
Chief Operating Officer

Louis Fernandez

Dr. Louis Fernandez
Vice Chairman of the Board

March 7, 1983

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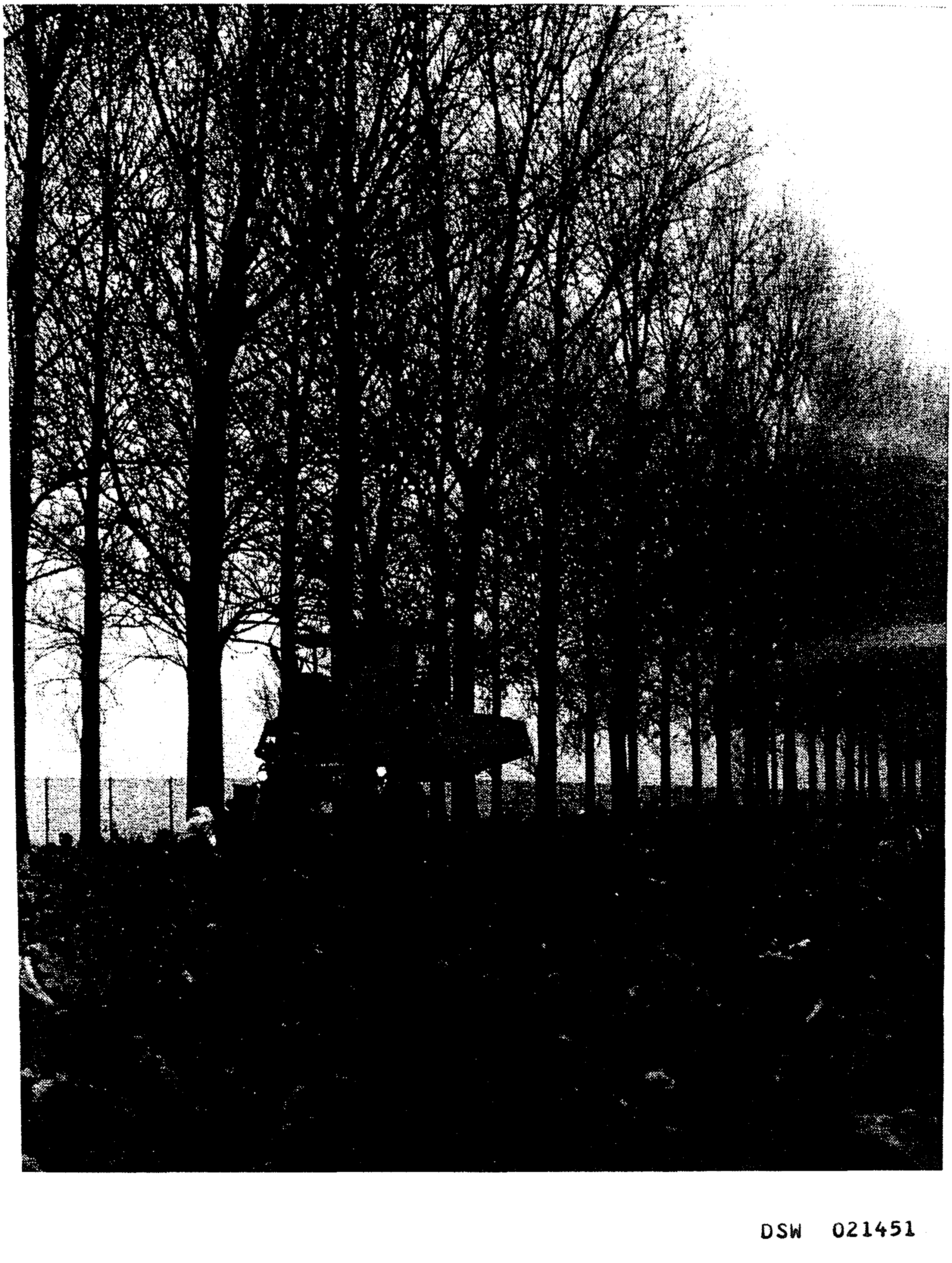

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Agronomists harvest sugar beets on Monsanto's agricultural research farm in Belgium.

Strategies for the Future

Monsanto's strategy is to expand toward production of higher-value proprietary and specialty products. We intend to become a company less vulnerable to the cyclical fluctuations of the economy, one less capital-intensive but more research-intensive — and a company with the technological and business strengths to flourish in the markets of the next decade and beyond.

For several years now, we have closely examined all our businesses and candidly debated the proper course for our future. Certain things became clear. First, raw materials, particularly petroleum-based ones, had become too large a component of too many of our products.

Second, we faced structural — and threatening — changes in the petrochemical intermediates business as the major oil companies and oil-producing nations moved into that market by upgrading their petroleum into primary intermediates.

Third, some of our most promising growth businesses were already pointing the way to our new corporate strategy. The leadership of Fisher Controls International and of our premier herbicides businesses depends on high-technology proprietary products. Silicon, hollow-fiber separations, nutrition chemicals and other businesses are at the forefront of high technology and on the verge of commercial success.

Finally, we have the research and development skills and resources to carry us into a future based on first-rate science and technology.

With those realities before us, we have set our course toward proprietary and specialty products with a greater Monsanto-added value and technological component. To reach that destination, we are simultaneously traveling several roads. We will continue, as elements of our strategy, to do the following:

Renew our core chemical businesses.
Increase our options for growth.
Emphasize growth around the world.
Extend the market leadership of our growth businesses.
Create windows on new technology.
Anticipate and respond to society's expectations.

Renew Core Businesses

Monsanto's traditional non-agricultural chemical businesses amount to more than half of both total investment and sales. These businesses will remain at the core of Monsanto for years to come, providing the strength for success in the near future and the basis for developing new businesses for the longer term.

Strengthening our traditional core businesses means reinvestment in selected areas where we possess a substantial technological or market advantage. For instance, the Company installed an improved catalyst system at our acrylonitrile plant in the United Kingdom. The resulting cost reductions have contributed to this plant's improved performance.

In another case, Monsanto has been a market leader for most of the past 50 years in the building-block chemical, maleic anhydride. Today, we have strengthened that position through a more efficient and economical new technology to manufacture maleic. Because of the combination of our market position and technology advantage, Monsanto began construction in 1981 of the world's largest maleic anhydride plant, boosting our capacity in this chemical by about 75 percent.

Another long-standing Monsanto business, oil and gas, has been positioned as a significant profit contributor through a change in strategy. The basic strategy for the oil and gas business during the past decade was to run it primarily for feedstock security rather than for profit. Today, with a long-term turnaround in the feedstocks situation, we have encouraged our managers to participate fully in promising oil and gas ventures without regard to feedstocks requirements. We reorganized that business, effective July 1, 1982, to create Monsanto Oil Company, a wholly owned subsidiary which is expected to become a stronger earner for Monsanto.

Our other core businesses have also been reorganized, bringing together the entire manufacturing process from raw material to finished product, so they can be managed as strategic units. On January 1, 1983, a new operating company organization went into effect reflecting this strategic shift. We dissolved Monsanto

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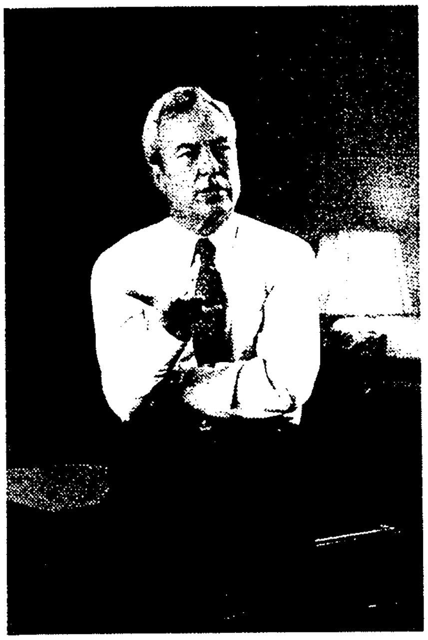
Monsanto's long-time leadership in maleic anhydride was strengthened with the start-up of its new Pensacola, Florida, plant, the world's largest.



"We like to regard asset management as a way of life. But we cannot save our way to prosperity. To provide the cash muscle to pursue our new directions, we must renew today's core businesses."

Francis J. Fitzgerald
Executive Vice President

Chemical Intermediates Company, which produced intermediate bulk chemicals for other Monsanto manufacturing units and supplied the merchant market. We then integrated each intermediates operation into the same manufacturing stream with the finished product, allowing us to supply and serve all our customers better.

Strengthening core businesses — indeed, all businesses — for an improved return on investment means rigorous asset management, and that will be a continuing focus for the decade ahead. For the past three years, tighter management of the Company's $6 billion in assets has saved us well over $100 million annually. Asset management has also contributed to reducing the break-even point of many of our core businesses to less than their 1982 operating average of about 62 percent of capacity.

Cost reductions have also come through stringent energy conservation measures. Compared to 1972, the year before the OPEC oil embargo and skyrocketing costs, Monsanto achieved more than a 27 percent reduction in its energy-use rate through the end of 1982. That achievement translates into a reduction of $175 million in purchased energy costs in 1982.

Increase Options for Growth

A second strategic course Monsanto follows is to increase its options for growth — not only through new businesses, but also through additions to traditional businesses.

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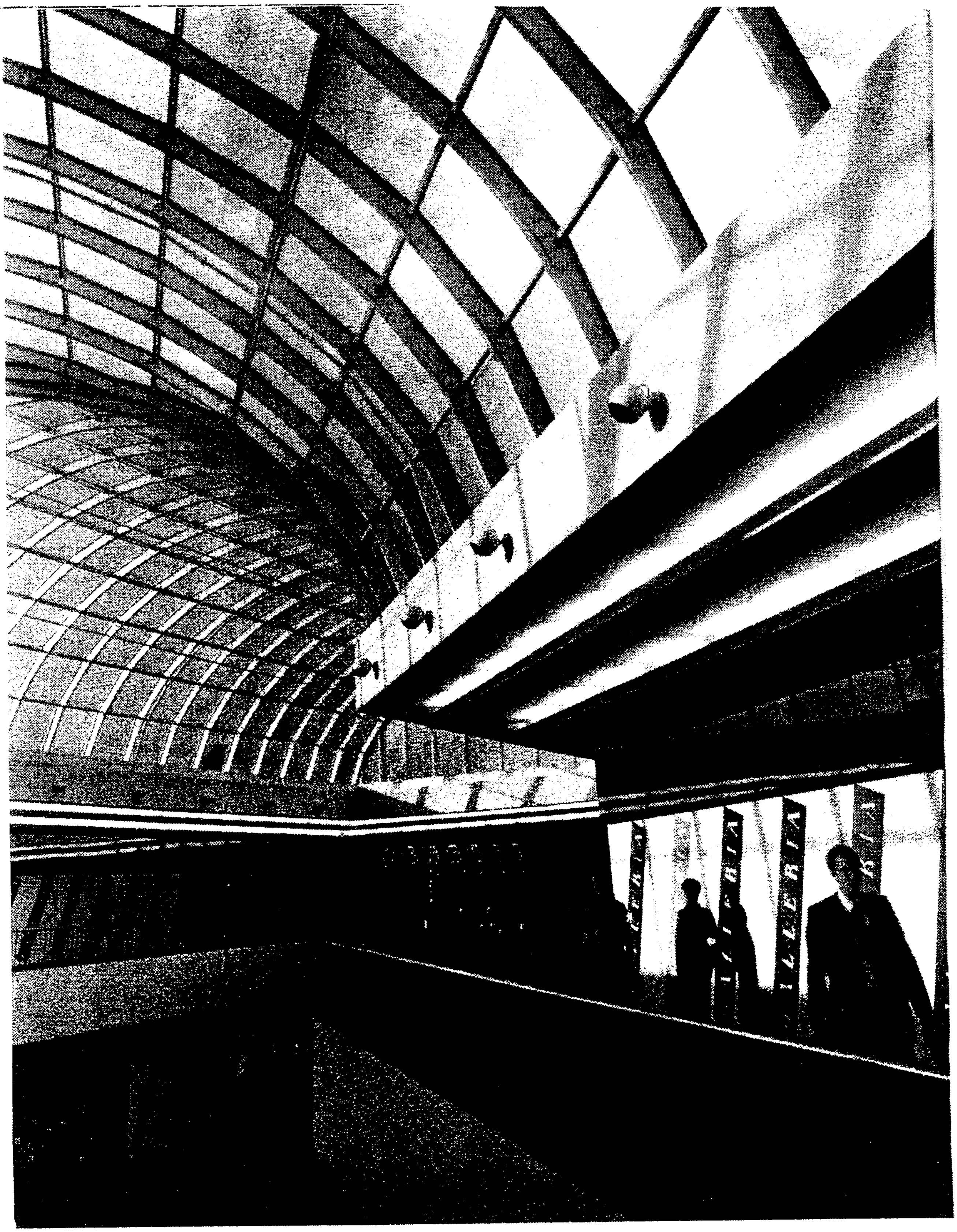

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Saflex safety-glass interlayer has been used for years to make automobile glass shatter-proof. It is now increasingly used in laminated architectural glass, as in the new Dallas Galleria.

The recently formed Corporate Development and Growth Committee will explore options for growth through acquisitions. Its immediate task is to strengthen selected traditional businesses for near-term growth and to augment development of growth businesses. Candidates for acquisition must be developed businesses with a market niche, a high-technology component and the ability to contribute in the near term to a strong return on capital.

Growth opportunities through new product development often result from process innovation, as in the case of *Nyrim* prepolymer and catalyst. This proprietary system permits molding of nylon parts in what are called reaction-injection-molding (RIM) machines. With these machines, a fabricator can eliminate intermediate steps in the production of such parts as automotive components. In the past, polyurethane was the principal material used in RIM machines. Now, *Nyrim* permits the use of nylon resins, opening up a range of new possibilities for fabricators of plastic parts.

We also search for new uses for existing products, based upon their unique qualities. For example, *Fome-Cor* polystyrene foam board laminate has long been used as insulating material in home renovation, manufactured housing and automobiles. Recognized as the standard of quality in the graphic arts industry, *Fome-Cor* board has recently gained popularity as an ideal backing for pictures and photographs. It is also used for displays and exhibits.

Monsanto is also promoting expanded higher-value uses for *Saflex* polyvinyl butyral film. For decades we have been a leader in supplying the interlayer for laminated automobile safety glass. In recent years, however, *Saflex* has become a leader in laminated architectural glass. Besides shatter resistance and aesthetic qualities, *Saflex* offers value in noise reduction and energy savings.

One of Monsanto's most unusual — as well as environmentally beneficial — new product development efforts is called the "Co-product Utilization Program." Begun in 1981, this program seeks to find beneficial uses and markets for manufacturing wastes — that is, for co-products generated in the manufacture of intended products. Today more than 20 co-products are in commercialization or in various stages of commercial development.

The most successful of these co-products has been dibasic acid (DBA), a co-product of the manufacture of adipic acid. DBA has been found to be more effective and more energy-efficient than conventional technologies in "scrubbing" industrial flue gases. Its use greatly increases the removal of sulfur dioxide, one of the major causes of "acid rain." By finding a profitable market for this once-costly waste product, Monsanto is also helping coal-burning electric utilities solve a serious pollution problem.

Emphasize Growth Around the World

Monsanto continues to place greater emphasis on planning for international growth. Today, roughly a third of Monsanto's sales are in markets outside the United States. Of those sales, more than half are supplied by non-U.S. manufacturing operations. During the next decade, we expect three-quarters of the absolute growth of world chemical markets to occur outside the United States.

Monsanto's participation in the growth of international markets cannot be done through exports alone. Local and regional differences often dictate local technical support. The need to gain freer access to markets frequently makes local manufacturing desirable. Consequently, we have stepped up efforts to identify investment opportunities in all world areas.

Some early results of this emphasis have come in the areas of research and technical support. We opened a research center in Paulinia, Brazil, in 1981. In 1982 we expanded our agricultural research facilities in Belgium and broke ground for a major agricultural research facility in Japan. We also opened a technical center in Japan to support the marketing of the Company's electronics materials in the large Japanese market.

In some instances, international expansion comes from locating a facility in a country where local manufacture is legally or customarily required to protect patent rights.

Monsanto depends heavily on patents. For instance, 80 percent of the

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An automotive fascia panel is molded from new Nyrim prepolymer and catalyst at our Bloomfield Technical Center.

sales of our agricultural products in 1982 were of patented products. Our reliance on patents will increase as we implement our strategy of moving toward specialty markets with proprietary products.

However, rising economic nationalism in lesser developed countries (LDCs) has spawned a movement to revise the century-old international patent protection system to reduce the benefits of patents to patent holders. Although their desire is to speed the transfer of advanced technology to their countries, the LDC approach would, in fact, do just the opposite. Without adequate patent systems, innovators within a country have little incentive to invent, and outsiders have little incentive to transfer technology into a nation where it is not protected.

At the same time, a number of countries have come to a greater understanding of the need for patent protection to encourage domestic technology development as well as technology transfer and investment by international companies. The People's Republic of China, Malaysia and Indonesia are currently reviewing draft legislation that would establish patent systems in their countries.

Extend Leadership of Growth Businesses

Monsanto follows a strategy of extending the market leadership of our growth businesses through such measures as innovative marketing, emphasis on quality and value, and technological superiority.

Monsanto's premier products today are its crop chemicals, particularly *Lasso* and *Roundup* herbicides. Through innovative marketing and full support in people and resources, we continue to extend their lead in herbicide markets.

Lasso herbicide, a pre-emergent weed killer for corn and soybeans, has been one of our best-selling herbicides for years and a leader in its market. About five years ago, however, *Lasso* began to lose market share in the United States for the first time. A combined marketing and technical initiative resulted in a highly successful application method, known as *Surface Blend*, that reduces application costs. As a result of this effort, *Lasso* regained market share during 1981 and 1982 in one of the worst farm economies in memory.

Non-selective *Roundup* herbicide has also benefited from energetic marketing. It made particularly impressive gains in minimum-tillage agriculture which requires little plowing and disking, leaving crop stubble and residue on the field. This reduces topsoil erosion, conserves soil moisture, reduces the amount of energy required, and prevents soil compaction which results from the frequent passage of heavy machinery over fields. Monsanto sales efforts have built on this long-recognized need of farmers in order to penetrate new markets and lead the Company to international sales growth. *Roundup* is now registered in 73 countries for 500 uses.

Not only has *Roundup*, along with the newly introduced *Bronco* herbicide, found increasing favor in the highly developed farmlands of North America and Europe, but it has also gained favor in developing agricultural areas. Monsanto promotes *Roundup* to supplement scarce rural labor in many developing countries and to permit farmers to increase the amount of land they cultivate.

We also achieve and strengthen leadership by adding special qualities and value to our products. The change in our approach to silicon illustrates this strategy.

In an earlier market of simpler and lower-scale integrated circuits, one company's silicon wafer was much like that of another. Today, however, the market has changed. Electronics manufacturers have begun to make very large scale integrated devices that are much faster and contain as much as 256 times the capacity they once did. We have seized this opportunity to develop markets for high-performance wafers with characteristics tailored to each customer's device-performance needs. Consequently, we are moving away from commodity production of wafers toward application-specific manufacture for a dozen or more semiconductor device markets. The emphasis now is on the value received by Monsanto's customers, an emphasis we hope will maintain and strengthen our market position.

Monsanto also extends market leadership through technology. Such is the case with Fisher Controls International, Inc., our majority-owned subsidiary which is a world market leader in industrial process control.

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Valves and controls made by Fisher Controls International are used in this oil terminal in the Shetland Islands.

"The thrust of our growth for the '80s will be to drive our high-value-added product lines into expanding markets and to back them with innovative technology. We'll also augment selected strong traditional businesses through acquisitions."

Earle H. Harbison Jr.
Executive Vice President

Central to Fisher's leadership strategy is building superior technology into Fisher products. New *Provox* instrumentation system for process control is a prime example. *Provox* is a microprocessor-based system flexible enough to be applied to the entire range of industrial processes, from the simplest to the most complex.

Of course, strengthening market position usually involves a combination of strategic approaches. For instance, we add higher value to our nylon carpet fibers by backing up products made from them with a five-year warranty. We then advertise and promote these products as *Wear-Dated* carpets. As a result, carpet makers in January 1983 introduced the largest number of new grades and styles ever using our fibers. We count on this multifaceted program to strengthen our position in carpet fibers.

Create Windows on Technology

Since today's emerging technologies shape tomorrow's businesses, Monsanto uses several means to gain windows on new technology. We do this largely through in-house research and development as well as through partnerships with universities and through venture-capital investments in promising new high-technology businesses.

Monsanto's commitment to developing new proprietary products has strengthened the role of technology as the driving force in Monsanto's strategy for growth. Research spending has nearly doubled during the

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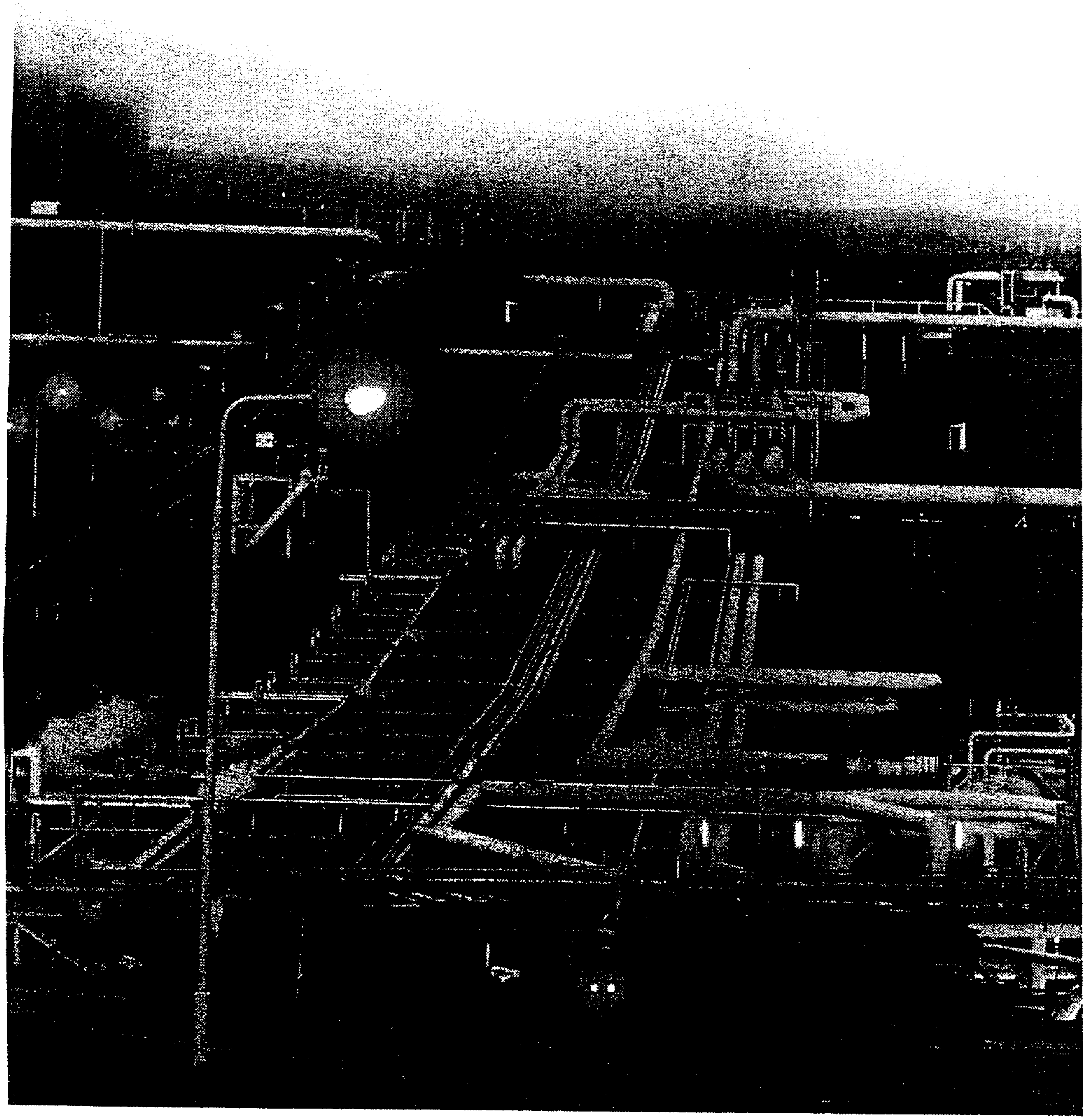

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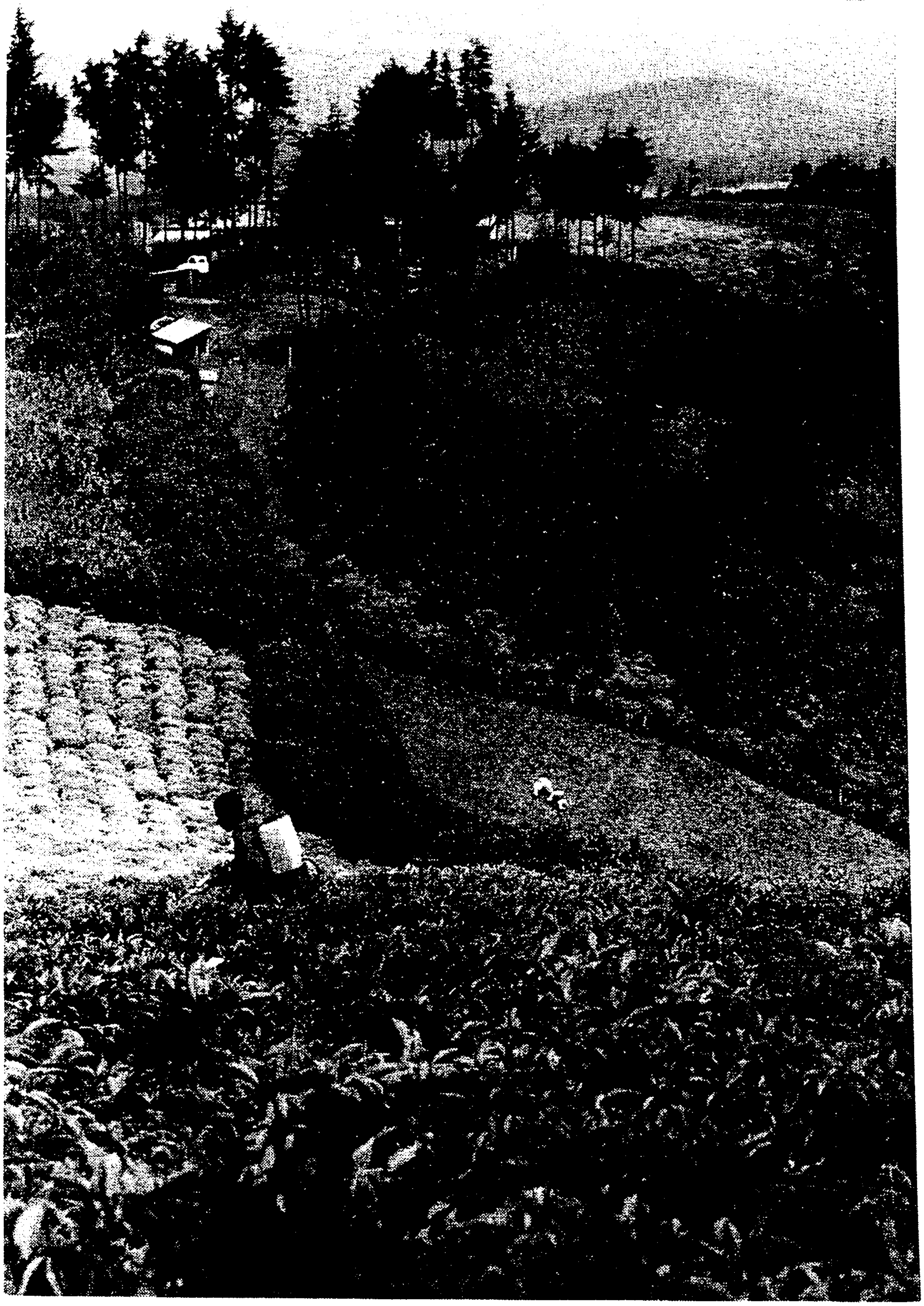

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A Kenyan small-holder farmer applies
***Roundup** herbicide in tea fields.*

past five years — from $136 million in 1978 to $256 million in 1982 and $301 million budgeted for 1983.

This expansion of research activity at Monsanto has required additional facilities. In 1982 Monsanto began construction of a major research complex on a 210-acre site near St. Louis. When the first phase is completed in 1985, a three-building facility will provide space for about 800 professional and technical people.

New facilities enable Monsanto to open wider its main window on technology — internal research. The Company engages in a broad range of research, from applied research for process improvements and existing product refinements to long-range exploratory and basic research.

Traditional research strengths such as chemical engineering systems, catalysis, polymer science, agricultural chemistry, organic and inorganic industrial chemistry, and applications research remain basic to Monsanto's growth and future profitability. The recent reorganization has bolstered these areas by combining related research efforts, such as in polymer research, so that we can better serve our customers.

At the same time, we are pursuing two promising research growth areas — new materials and systems, such as electronics materials and separations, and the life sciences, including plant biology, animal nutrition, human health care, molecular biology and biotechnology.

"Tomorrow's success for the farmer — indeed, for us all — lies in today's research. Monsanto is committed to developing the agricultural technology of the future and to carrying it to every corner of the earth."

Nicholas L. Reding
Executive Vice President

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A Monsanto scientist purifies experimental bovine growth hormone, which can enhance milk and meat production in cattle. It is expected to be one of the earliest products of recombinant DNA technology.

Biotechnology research is advancing vigorously, and Monsanto scientists already have made fundamental discoveries in plant genetic engineering. We expect these discoveries to contribute to the creation of more productive crop plants by about 1990. Meanwhile, the Company is building a powerful technical base for potentially substantial markets in the next decade and beyond.

Monsanto's first commercial product based on genetic engineering will likely be bovine growth hormone (bGH), which increases meat and milk yields in cattle. Working with Genentech, Inc., we first succeeded in producing this hormone with genetically altered microorganisms in 1981. Recently, Monsanto and Cornell University scientists announced positive results from initial testing of the biosynthetic bGH.

A second window through which Monsanto observes and assesses emerging technology is research collaboration with universities, an area in which Monsanto is widely regarded as a pioneer.

Among our partnerships with universities is an innovative relationship we established with Washington University in St. Louis during 1982. With Monsanto providing $23.5 million over the next five years, the two institutions will conduct collaborative biomedical research in areas of proteins and peptides which regulate cellular functions.

Our agreement with Washington University is unique in several respects. Research projects are selected by an advisory committee appointed by Monsanto and by Washington University. The projects are collaborative, with close working relationships among the institutions' scientists. Patents arising from the projects will be held by the university, though Monsanto will have exclusive licensing rights.

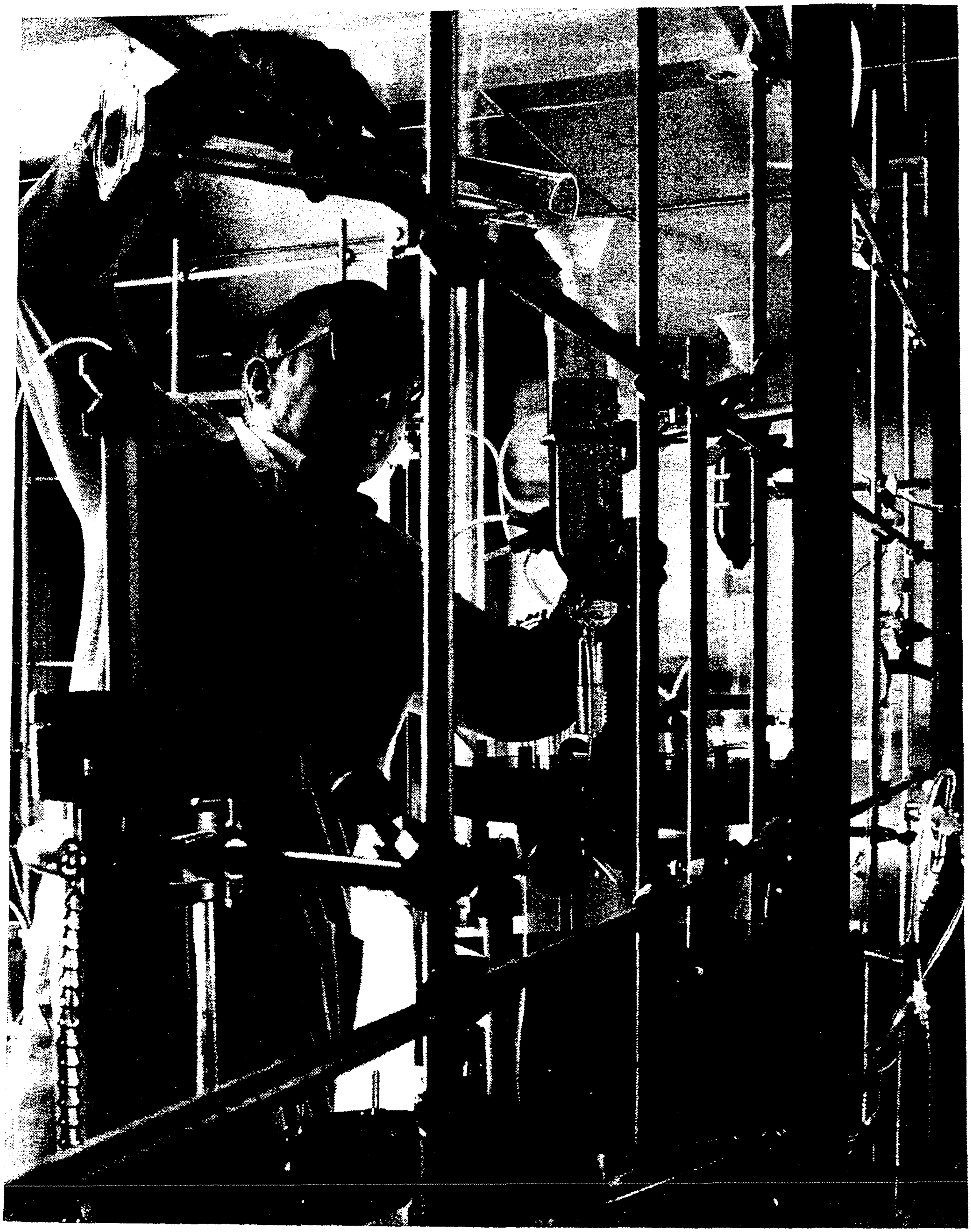
The agreement is also considered a model in protecting the academic freedom of university scientists. Faculty members participating in the collaborative research projects are free to publish the results of their research.

A third Monsanto window on new technology is venture-capital investment in innovative young businesses. In 1972 Monsanto and another industrial company created a venture-capital firm, InnoVen, to make investments with three goals in mind: first, to keep abreast of emerging technologies; second, to acquire new technologies for the parent companies; and third, to make a return on investment.

InnoVen has succeeded in all three objectives, and its success stimulated the creation in 1982 of Monsanto's most recent venture-capital enterprise — Advent Eurofund. This $17 million fund invests in innovative high-technology businesses in Europe. Monsanto's partners in Advent Eurofund are major research universities — Cambridge University, Oxford University, Imperial College of Science and Technology, St. Andrews University and the Nuffield Foundation in the United Kingdom, and Boston University and Harvard University in the United States. In addition to providing an opportunity to assess and acquire new technologies in early stages of commercial development, Advent Eurofund enhances Monsanto's ability to apply technologies emerging from basic academic research.

As a result of these windows on technology, many new opportunities in the field of health care have become evident. Our research efforts in this area focus on proteins and peptides associated with blood factors, the body's immune system and the growth of tissues and organs. From this research we foresee several potential new therapies for important and intractable human diseases. We anticipate that biotechnology will contribute significantly to these efforts and therapies.

With these new opportunities before us, we recently created a Health Care Division, which is accelerating Monsanto's entry into major health-care businesses. While managing investments like that in Collagen Corporation, it will also develop commercial strategies for regulatory proteins and peptides and related products of potential significance in human medicine. These products will emerge from our genetic engineering research, from collaborative research with Washington University and from other external research.



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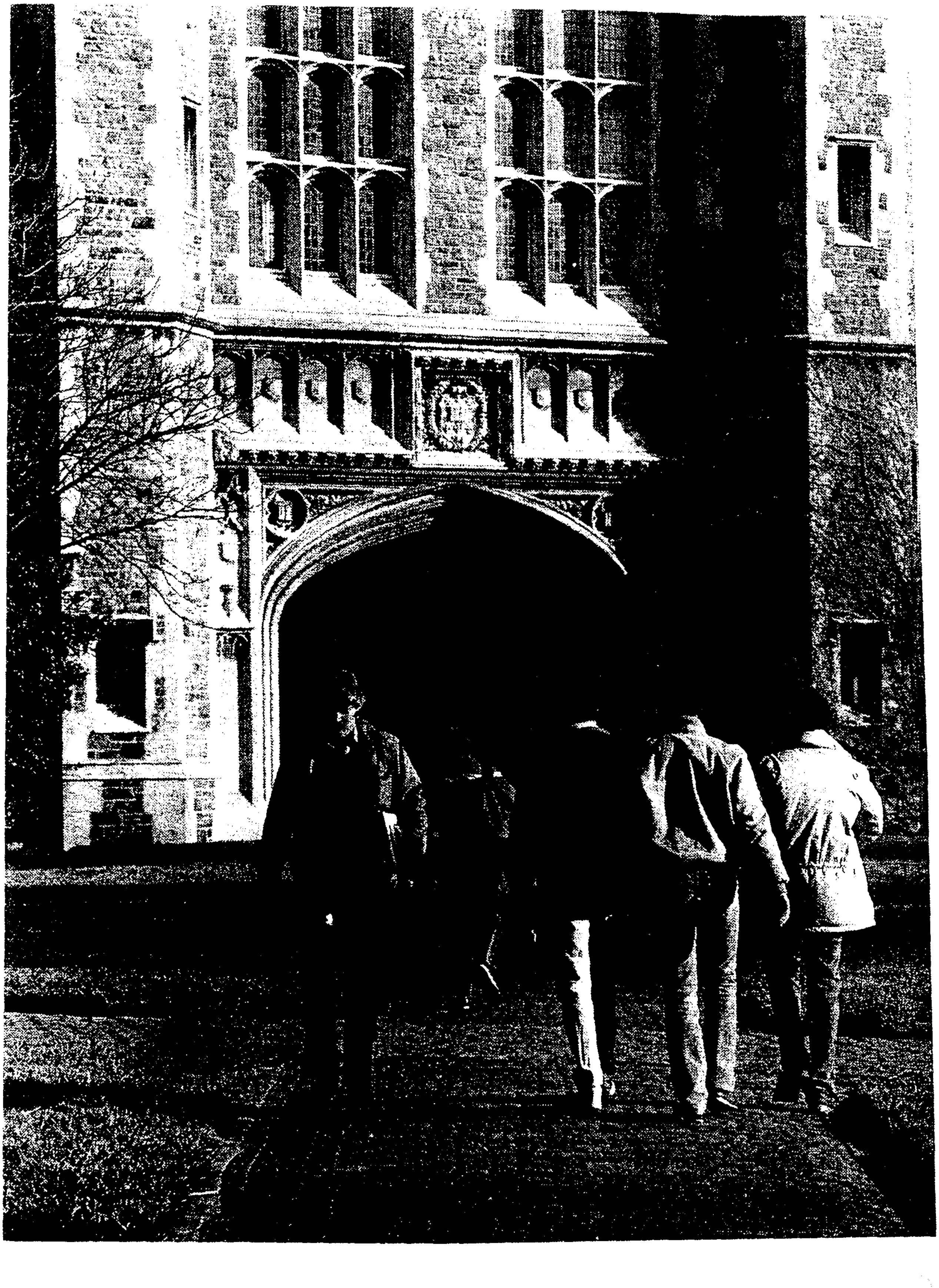

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Washington University in St. Louis has joined with Monsanto in an innovative collaborative research venture.

Anticipate and Respond to Society's Concerns

Monsanto continues to anticipate and respond to society's expectations about our performance in the areas of worker safety and health, environmental protection, product quality and safety and all other aspects of good corporate citizenship.

There is no greater test of Monsanto's behavior as a corporate citizen than protection of health and the environment. The Company continues to carry out an environmental strategy of running our operations with the least possible adverse effect on people and the environment and to allay public fears about the effects of our operations and products.

That environmental strategy involves seeking public trust and confidence, which will develop only when a scientific consensus exists on such unresolved questions as extrapolating, or applying, the results of animal tests to humans. To assist in reaching this consensus, Monsanto's scientists conduct research in accordance with the highest canons of science. The Company will accelerate toxicological research not only to learn of chemical effects on humans but also to discover the basic mechanisms of interactions between chemicals and humans. And we will communicate the results of our findings to the scientific community, our employees, government officials and lawmakers, and the public.

Public confidence depends on the proven safety of our operations and materials. In 1982 Monsanto spent more than $240 million for capital projects and ongoing programs to ensure that our operations and the materials we use and produce cause no harm.

Much of this went toward gathering, managing and communicating information about our processes and products. Through our own Environmental Health Laboratory, the Chemical Industry Institute of Toxicology and many other sources, we seek comprehensive knowledge of the health effects of all chemicals we use and make. Our computerized Medical and Environmental Health Information (MEHI) system, epidemiology department, mobile Monsanto Employee Testing Unit and other systems constantly monitor our own workplaces and the health of our employees.

To ensure that our operations comply with legal requirements and our own standards of environmental protection, we completed in 1982 the first series of environmental audits of all our U.S. plants. These audits have been extended to our European operations, all of which will be audited by the end of 1983.

Monsanto seeks not only to handle and dispose of its wastes in the most responsible manner but also to reduce the volume of wastes through several means. One, finding beneficial uses for wastes or "co-products," is discussed above. We have also accelerated the development of improved processes that generate less waste, of waste recovery and recycling systems, and of methods of detoxifying those wastes which cannot be eliminated.

Monsanto's workplace safety efforts made 1982 the best year for safety in our history. For the second year in a row, there were no fatalities in any of our manufacturing operations around the world. Our "total recordable rate" — that is, the total number of fatalities, illnesses and injuries requiring more than simple first aid — was 1.09 for every 200,000 employee-hours in 1982, an improvement of nearly 17 percent over 1981. This achievement keeps Monsanto among the top three companies in the chemical industry, which itself has the best safety record of all industries surveyed by the National Safety Council.

Not only must Monsanto be concerned about the health and environment of our communities, but we must also be an active participant in those communities. That participation includes philanthropy, which the Company conducts primarily through the Monsanto Fund. In 1982, with total Corporate and Monsanto Fund contributions coming to $7 million, we moved closer to our mid-1980s goal of contributing at least 2 percent of our pretax income to civic, educational and charitable causes.

Good citizenship includes providing our employees with satisfying work and equality of opportunity for advancement. At the end of 1982,

DSW 021466

The 'Chris Chenery,' under contract to Monsanto Oil Company, drills for oil in the North Sea offshore from Aberdeen, Scotland.

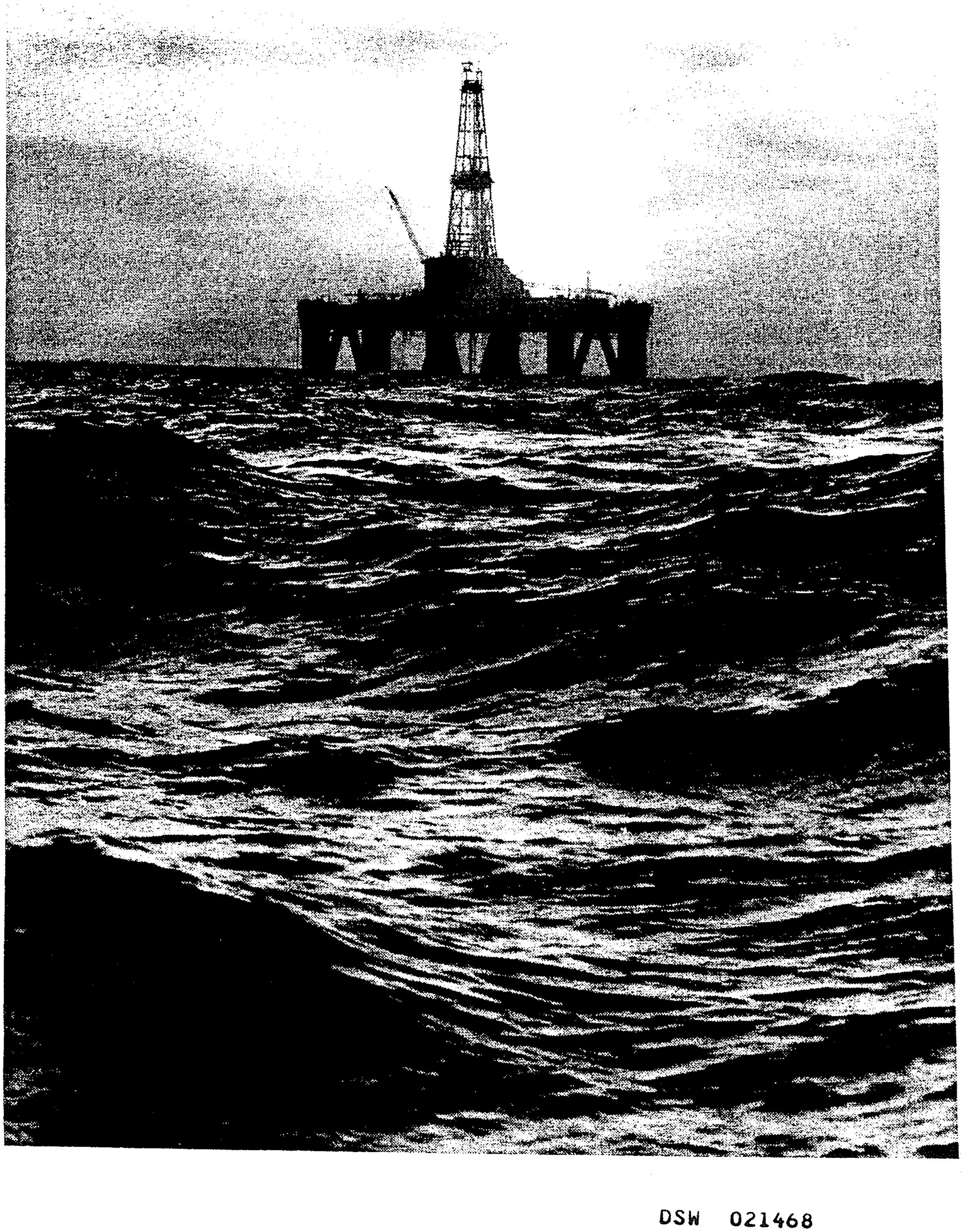
10 percent of Monsanto's 5,585 management employees were minorities and women. They held more than 23 percent of 5,990 professional positions, including 22 percent of 920 sales positions. Their number in middle and upper management has grown from 26 to 126 in the past five years.

To manage its response to legitimate public expectations, Monsanto created a Social Responsibility Committee in 1976 and developed a series of social responsibility policy statements. At the same time, we formed an Environmental Policy Committee and Staff along with an Office of Social Responsibility. In 1981 the Board of Directors created its own Corporate Social Responsibility Committee.

From the beginning, the goal was to make social responsibility an integral part of our regular line and staff operations. By the end of 1982, sufficient progress had been made that the Company transferred primary responsibility to the major operating and staff units. The management Social Responsibility Committee received a new charter as an Emerging Issues Committee both to monitor long-range social and political developments and to examine the appropriate future role of the corporation in modern society.

As a result, the Board Committee has assumed greater responsibility for overseeing the performance of staff and operating unit managers. They conducted a social performance review of Monsanto during 1982 and were particularly impressed with the Company's efforts in the areas of energy conservation and product safety and quality.

Committee chairwoman Margaret Bush Wilson said the Committee is "satisfied that the managing directors are keenly aware of the importance and place of corporate social responsibility, and are themselves attuned to the social policy climate of today." She said that during 1983 the Committee plans to visit plant communities and talk with employees at all levels of the organization to see that social responsibility concepts are being carried out in day-to-day practice.



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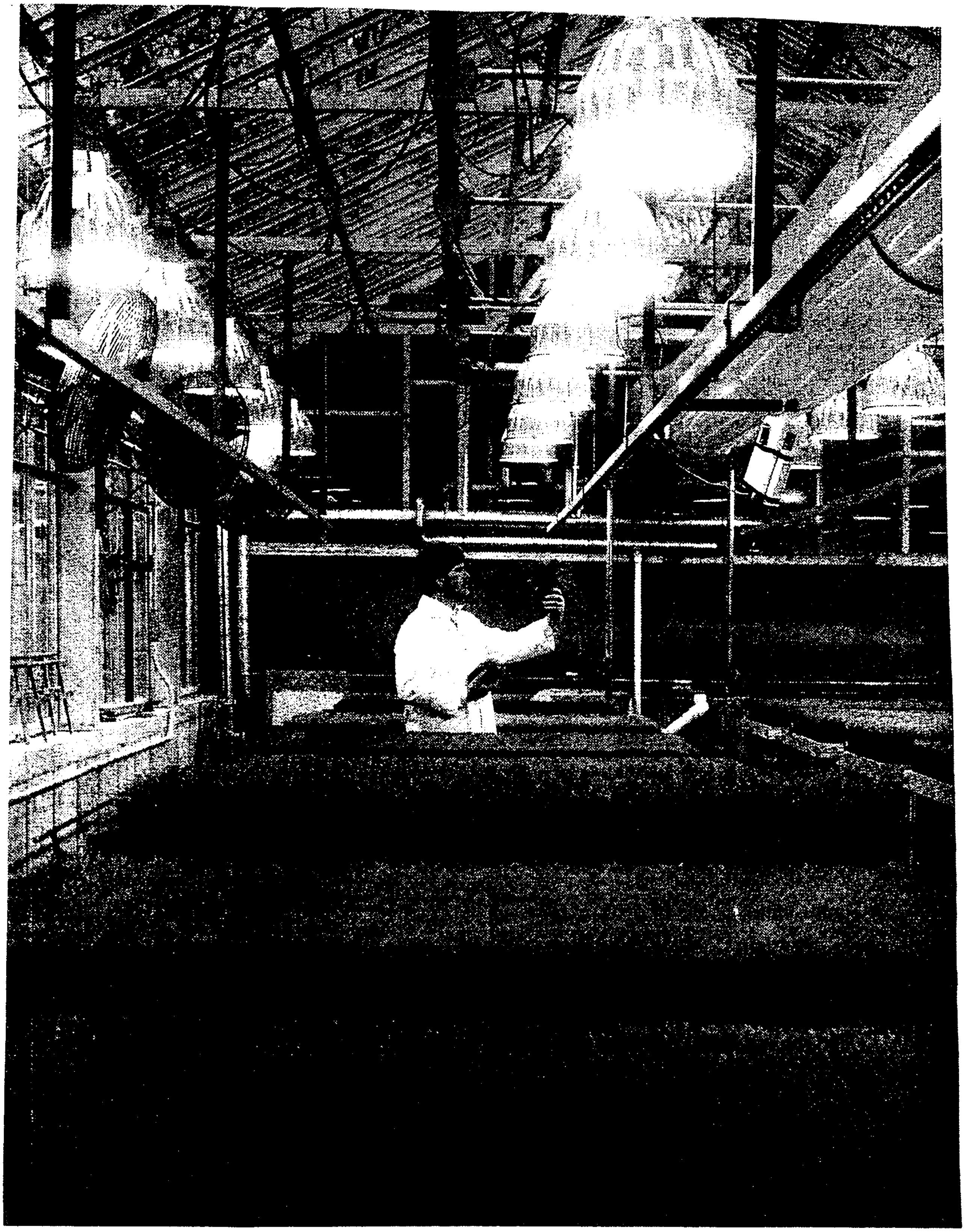

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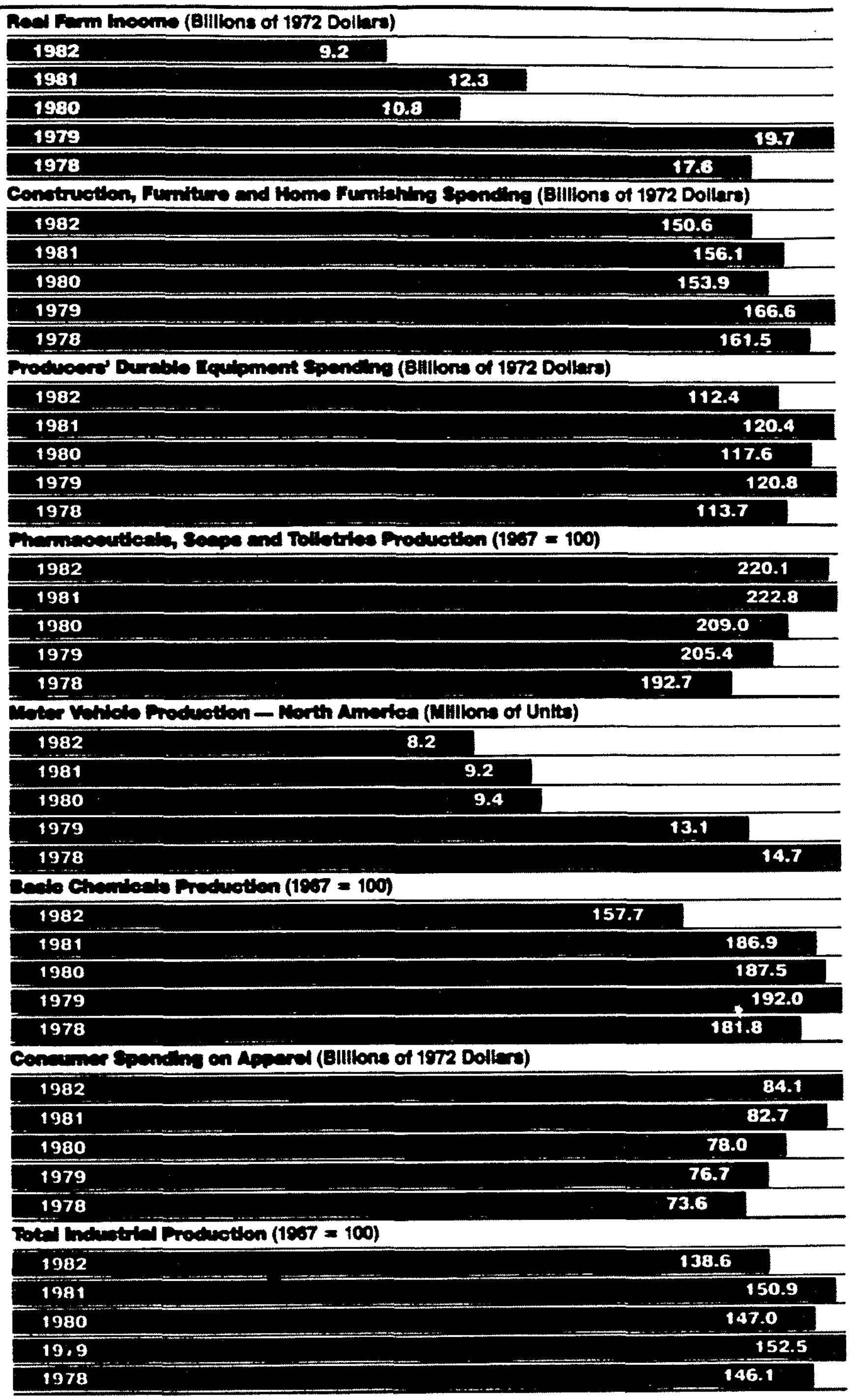
A Monsanto scientist conducts experiments with turf grass as part of basic research into the mechanisms of plant growth.

Performance in Major Markets

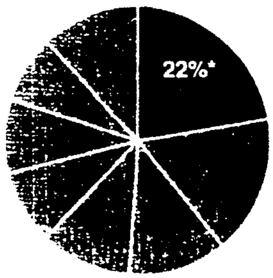
Difficult economic conditions both at home and abroad during 1982 affected nearly all of the major markets in which the Company did business. Even agriculture, Monsanto's largest market and one traditionally thought to be immune to cyclical pressure, was buffeted by high interest rates and declining growth. Housing and automobile production, two important markets for Monsanto products, fell to their lowest levels in decades.

In the face of this, Monsanto fared relatively well. The Company made good progress in implementing its long-term strategies for growth and refining its product portfolio toward meeting special customer needs. Combining that with continued careful management of assets and cost reductions during 1982, Monsanto was able to mitigate somewhat the effects of lowered demand for industrial products.

Monsanto's performance in each of its major markets is described in this section. Economic conditions for each market are summarized and depicted graphically on the right.



Agriculture



Real farm income in 1982 fell to its lowest level since the 1930s, and farmers could not maintain their normal purchasing patterns. Nevertheless, agricultural product sales rose, although growth was slowed.

Lasso herbicide for corn and soybean crops continued to increase its U.S. market share, partly due to the new *Surface Blend* technique which has gained wide acceptance. New *Bronco* herbicide had an excellent reception in the no-till soybean market as farmers increasingly sought ways to conserve time, fuel costs and soil.

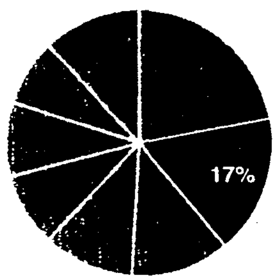
Sales of *Roundup* herbicide continued to climb in markets around the world, although not as rapidly as in recent years. In the United States, *Roundup* showed impressive gains in the reduced tillage and industrial markets. In Europe, preharvest applications of *Roundup* were successfully introduced.

Far-Go herbicide for wheat had strong U.S. growth, but outside the U.S. *Avadex* BW and *Machete* herbicides had reduced sales in 1982. This was largely due to poor planting weather and deteriorating farm economies, rather than a strong U.S. dollar.

The new *Rodeo* herbicide is the first approved by the U. S. Environmental Protection Agency for non-restricted use in controlling weeds which often choke ponds and navigable waterways. *Rodeo* will be marketed beginning in 1983.

Monsanto is an important supplier of amino acid feed supplements and preservatives to the poultry and swine feed markets. *MHA* and *Alimet* feed supplements, methionine sources for animal feed, demonstrated strong sales gains during the year despite competitive pressures. Research is continuing on a growth hormone which shows promise of improving milk production efficiency in cattle.

Construction and Home Furnishings



A depressed housing industry during 1982 affected sales in construction and related markets which account for 17 percent of Monsanto's total sales. New residential construction had its worst year since World War II — caused by inflation and high interest rates. The sale of existing homes, which often creates demand for home furnishings, was half its recent high. Monsanto products are also found in non-residential construction which picked up only modestly in 1982.

Laminated architectural glass made with *Saflex* plastic interlayer gained increasing acceptance in building windows, doors and skylights. It provides the properties of sound reduction and safety, as well as solar control which saves on air conditioning.

Sales of *Lustran* ABS plastic used in pipe declined due to continuing stiff competition from polyvinyl chloride and depressed industry conditions. However, *Lustran Ultra* ABS plastic for appliances and consumer electronic items did well.

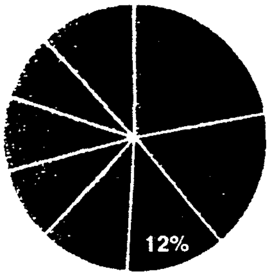
Resins and plasticizers found in plywood, paints, insulation and wallpaper, continued to be well accepted in the marketplace. *Santicizer* plasticizers give flexibility to vinyl materials used in flooring and wall coverings. This product increased its market penetration during the year.

Monsanto is a leading supplier of nylon fiber to makers of commercial and residential carpets. During 1982, new product introductions shifted the nylon fiber sales mix toward more branded, higher-value items. The warranty program for *Wear-Dated* carpet was well received by mill customers who introduced a record number of new *Ultron* nylon carpet styles and constructions.

In home furnishings, Monsanto continued to see good growth for its *Acrilan* acrylic fibers in upholstery, draperies and wall coverings. While the penetration by acrylics in these markets suffered from the economic downturn, programs are in place with major mills to increase their acceptance in such applications.

**Numbers shown indicate percentages of Monsanto sales.*

Capital Equipment



Capital spending dropped significantly during 1982. Major markets for Monsanto's subsidiary, Fisher Controls International, Inc., were particularly hard hit. The semiconductor industry, which purchases Monsanto's silicon, also suffered.

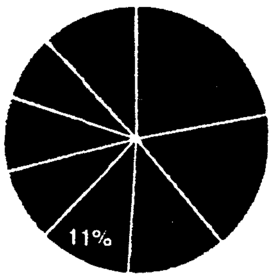
Even in this environment, Fisher made strides in its sales of control valves and regulators. In 1982 Fisher introduced an innovative control valve with accessories designed for corrosive service applications. Meanwhile, development work accelerated on next-generation products.

Building on its strength in field measurement instrumentation, Fisher introduced a temperature controller and vortex flowmeter product line using proprietary technology. *Provox* computerized control room instrumentation, first sold in 1980, continued strong worldwide growth. Sales increased by more than 100 percent with over 200 control systems and 15,000 control loops sold to date. New enhancements help customers coordinate batch control for multi-stream, multi-product applications and provide special energy management capabilities.

Monsanto continued to improve both the quality and customer's device yield of its electronic-grade silicon. Materials for specialized customer applications contributed to the Company's leadership as a supplier to the semiconductor industry. The silicon business has faced lower than anticipated demand during the past two years as the result of a poor economy. Nevertheless, substantial long-term growth is foreseen with advances in mainframe and personal computers and telecommunications.

Two Monsanto thrusts stressed energy efficiency. Monsanto Enviro-Chem Systems, Inc., a leader in design and construction of sulfuric acid plants, developed programs to generate electricity from excess steam. *Prism* separators have been sold in 10 countries. Their use in oil refineries is gaining increased acceptance.

Pharmaceuticals and Related Products



U.S. demand for products in the pharmaceuticals and related products area, two of our oldest markets, remained largely flat during 1982. Existing inventories, rather than new production, met increased demand for health care products.

Monsanto is the world's largest supplier of analgesics, producing both aspirin and acetaminophen. With production facilities in three countries, Monsanto maintained its strong position in serving the worldwide aspirin market. Acetaminophen usage in the U.S. showed strong annual growth, and Monsanto's increased capacity at our Luling, Louisiana, plant reached record production of this product during 1982.

As the only U.S. manufacturer of L-Dopa, a prescription drug used in the treatment of Parkinson's disease, Monsanto continues to be a major factor in this worldwide market.

Although mature, detergent and toiletries markets continue to be important to Monsanto as new opportunities develop for future products. Volume of our traditional builders and surfactants decreased during 1982, reflecting changing consumer spending patterns. However, Monsanto was able to hold its overall share of phosphorus and derivatives, such as STP, our largest volume detergent raw material. Other sales in these markets remained strong.

Monsanto is also a major supplier of packaging material to pharmaceutical and detergent markets which consume about 70 percent of our blowware plastic bottles. Although Monsanto is recognized as a leader in quality and service, blowware sales suffered due to overcapacity and price competition. A cross-licensing agreement with Yoshino Kogyosho Co., Ltd., in Japan permits Monsanto to exchange rights on technology and patents for production of plastic containers. As a result, Monsanto expects significant advances in this area.

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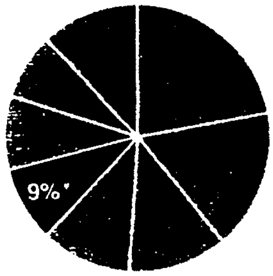
Motor Vehicles



In North America fewer automobiles were produced in 1982 than in any year since 1961. Widespread recession and anxiety about unemployment caused American consumers to curtail motor vehicle purchases dramatically. Domestic spending on U.S.-built automobiles as a percent of gross national product was at its lowest level ever. As a result, sales were down for most Monsanto products serving this important industry, including rubber chemicals and plasticizers.

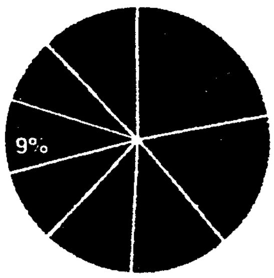
Several Monsanto products turned in a relatively good performance in spite of lowered motor vehicle volumes. Shipments of *Lustran* ABS resin for automotive components held their own, including two new impact-resistant and color-fast grades of *Lustran* ABS. *Saflex* interlayer for laminated automotive windshields also maintained its share in a declining market.

During the year, Monsanto commercialized *Nyrim* catalyst and prepolymer for nylon block copolymer reaction injection molding systems. *Nyrim*'s long-term market potential is replacement of conventional materials like steel and fiberglass in automotive body panels.

Two entirely new materials introduced in 1981 performed well in test applications. *Santoprene* elastomer, the first multi-purpose thermoplastic rubber, is already being specified in high-performance applications. Monsanto's unique thermoplastic resin, *Cadon*, has been rapidly adopted for interior applications.

The use in automobiles of electronic devices, many of which contain Monsanto silicon, has grown dramatically. Microprocessor control units that monitor and govern engine functions, such as fuel-air mixture for increased mileage, became almost universally accepted in 1982.

Chemicals and Petroleum Refining



The production of basic and industrial chemicals in the United States declined more than 15 percent during 1982 due to weak demand around the world, particularly in the United States and Europe. Petroleum refining did not fare as badly with only a 6 percent drop in production.

Monsanto strengthened its oil and gas exploration activities by forming Monsanto Oil Company, a wholly owned subsidiary, to direct its worldwide hyrdocarbon operations. This enhanced its identity in the oil and gas industry and improved its flexibility in joint venture activity. Monsanto's yearend oil reserves totalled 38 million barrels and natural gas reserves totalled 607 billion cubic feet, up from 1981 levels by 12 percent and 1 percent respectively. With a drilling success ratio of 83 percent, Monsanto Oil Company increased oil production to nearly 4 million barrels during the year. However, natural gas production declined due to reduced demand. Monsanto Oil Company now holds leases on more than one million net acres and has begun an exploratory drilling program on one of its several United Kingdom leases in the North Sea.

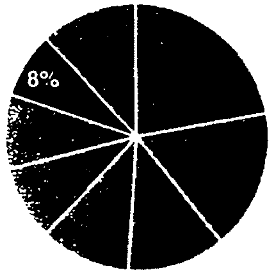
Monsanto's process chemicals are used by manufacturers to make many industrial and consumer products. Monsanto has the world's leading technology for acetic acid. Licensed in seven major industrialized countries, our methanol-based technology provides approximately 35 percent of the world's capacity for this chemical. Monsanto continued to expand its worldwide maleic anhydride capacity as a new plant at Pensacola, Florida, neared completion.

Therminol heat transfer fluids are used for indirect heating and cooling in chemical processing, on offshore drilling platforms, and in solar heating. Monsanto's major position in these markets continued to improve during the year.

**Numbers shown indicate percentages of Monsanto sales.*

DSW 021473

Apparel



In 1982, the demand created by increased consumer spending on apparel was largely filled from imports and existing inventories, putting downward pressure on all apparel fibers. However, acrylics showed growing competitive strength over other fibers, with particularly strong performance in half hose and all activewear categories.

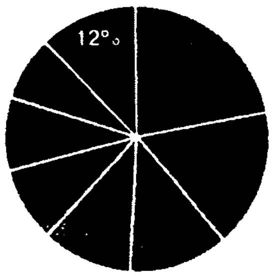
Acrylic fiber products introduced over the past few years, including *Pa-Qel*, *So-Lara* and *Fi-Lana*, enhanced Monsanto's position by offering strong branded programs in market segments which moved against the downward trend of the industry in 1982.

Monsanto reached two important milestones during the year when the Company commemorated the 20th anniversary of its warranty program for *Wear-Dated* products and the 10th anniversary of the introduction of *SEF* modacrylic fiber.

Since 1962, when Monsanto first offered a warranty for qualified apparel products made with the Company's fiber, the *Wear-Dated* trademark has become a recognized symbol for quality and value. The warranty is the strongest of its kind in the textile industry. *SEF* modacrylic fiber was developed to help Monsanto's customers meet the federal flammability standards for various apparel products. Its primary application in apparel is in children's sleepwear.

In other apparel areas, Monsanto started to convert a major portion of its textile-denier nylon yarn facilities to manufacture a product more suitable for use with the high-speed texturing equipment being installed by customers. When completed, this should provide Monsanto with an attractive low-cost nylon product for women's hosiery, men's half hose and activewear.

Other Markets



Monsanto sells a variety of other products to diverse markets ranging from food to graphic arts to water treatment chemicals. These were affected by the 8-percent drop in industrial production which reflected the longest post-war recession in the United States.

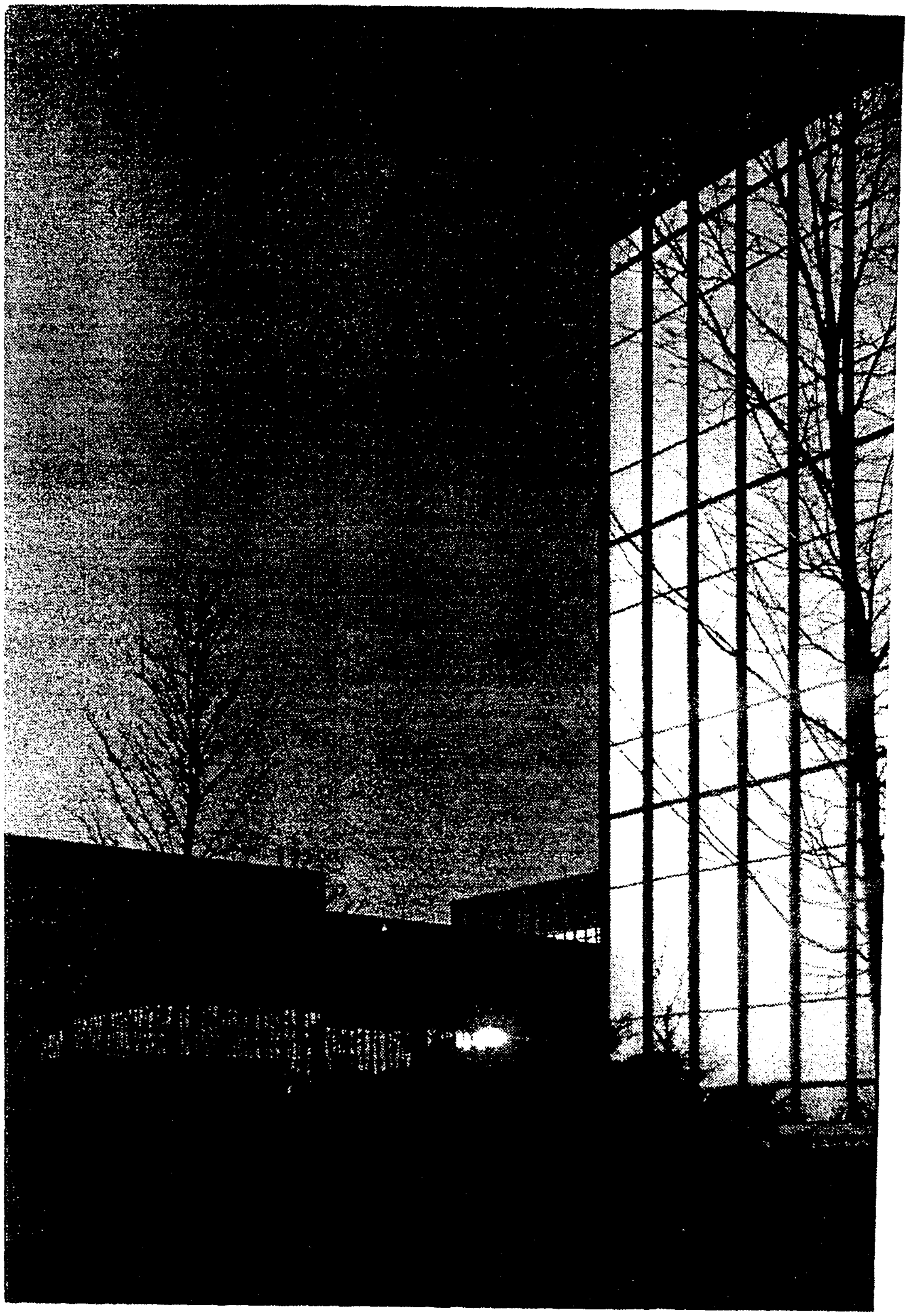
Monsanto's food ingredients include flavorings, acidulants and preservatives used in carbonated soft drinks, juices and wines. In the dairy industry, Monsanto's food ingredients preserve freshness and improve flavor. *Monitor* potassium sorbate food preservative, widely used by bakeries, increased penetration of this market while production costs were reduced. In the export market, the strong U.S. dollar had some negative effect on prices, but the outlook had improved by year's end.

Fome-Cor board has gained wide acceptance in the graphic arts industry in addition to its traditional use as energy-saving sheathing in manufactured housing and headliners for automobiles.

Monsize, *Mersize* and *Scripset* paper sizing agents maintained their share in a weak market, while *Santo-Res* wetstrength resins increased sales during 1982. Monsanto is a leading supplier to this important industry.

Monsanto is also a major supplier of nylon fiber for various industrial applications and tires. Sales here were depressed due to conditions in end-use markets. *Cerex* spunbounded nylon fabric, used in such applications as filtration and disposable garments, demonstrated strong potential for medical and non-industrial markets, even though sales were down somewhat in 1982.

DSW 021474



DSW 021475

"G" Building is one of Monsanto's most modern office buildings at the St. Louis headquarters.

Financial Report

Contents

Except where otherwise indicated by the context, the term "Monsanto" means Monsanto Company and its consolidated subsidiaries and the term "Company" means Monsanto Company alone. All dollar amounts are in millions, except those amounts shown on a per share basis.

DSW 021476

Responsibilities for Financial Data

Management Report

The management of Monsanto Company 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. Inherent limitations in any system include the possibility of undetected errors or irregularities. Also, significant changes in circumstances could result in inadequate current procedures, or deterioration in compliance with those procedures. Management believes that the effectiveness of Monsanto's system is maintained by: (1) personnel selection and training; (2) division of responsibilities; (3) establishment and communication of policies; and (4) on-going internal review programs and audits.

As ratified by shareowner vote at the 1982 Annual Meeting, Deloitte Haskins & Sells was appointed to examine, and express an opinion as to the fair presentation of, the consolidated financial statements. This opinion appears on page 48. At management's request, Deloitte Haskins & Sells also expressed an opinion, which appears below, on the internal accounting control system in the United States.

Monsanto's Audit Committee, consisting of four non-employee directors, periodically meets with representatives of the Controllership Staff, the Internal Audit Staff and Deloitte Haskins & Sells to review internal controls, financial reporting and accounting practices. Both the independent and internal auditors have complete access to meet with the Committee, with or without the presence of management, to discuss their examinations, the adequacy of internal controls and the quality of financial reporting.

John W. Hanley
John W. Hanley
Chairman of the Board and
Chief Executive Officer

F A Stroble
Francis A. Stroble
Senior Vice President and
Chief Financial Officer

February 25, 1983

Independent Auditors' Opinion on System of Internal Accounting Control

We have made a study and evaluation of the system of internal accounting control of Monsanto Company and its United States subsidiaries in effect during the year ended December 31, 1982. These companies constitute approximately 81 percent of consolidated total assets at December 31, 1982 and approximately 71 percent of 1982 consolidated revenues. Our study and evaluation were conducted in accordance with standards established by the American Institute of Certified Public Accountants. The above report explains management's responsibility for maintaining a system of internal accounting control and the objectives and limitations of such a system.

In our opinion, this system of internal accounting control in effect during the year ended December 31, 1982, taken as a whole, was sufficient to meet the objectives referred to above that pertain to the prevention or detection of errors or irregularities in amounts material in relation to the consolidated financial statements.

Deloitte Haskins & Sells
Saint Louis, Missouri
February 25, 1983

DSW 021477

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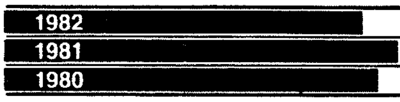
Consolidated Sales



1982	$6,325
1981	6,948
1980	6,574

Sales for 1982 decreased 9 percent as compared to 1981. In 1981, sales were 6 percent higher than the prior year. Sales volume for 1982 was down 11 percent versus 1981, with 1981 sales volume down 2 percent from the previous year. Higher selling prices contributed approximately 2 percent to 1982 sales in contrast with 1981 selling price increases of approximately 8 percent over the prior year.

Worldwide recession impacts sales

Sales volume the last two years was adversely impacted by worldwide recessionary conditions, especially in those businesses dependent on the automotive and housing industries. Polymer products, industrial chemicals and man-made fibers were particularly affected. Although agricultural sales in 1982 were negatively impacted by the farm economy's depressed financial condition, sales did increase albeit at a more modest rate than in the past.

Divestitures of various businesses (see "Principal Divestitures" note to the financial statements) adversely impacted both 1982 and 1981 sales. The continuing strength of the United States dollar against many foreign currencies also negatively impacted domestic export sales.

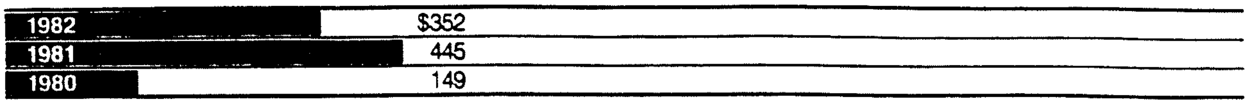
Sales by Product Group

	1982	1981	1980
Agricultural and Nutritional Products			
Agricultural products	**$1,165**	$1,099	$ 905
Nutrition chemicals	**146**	135	125
Total	**1,311**	1,234	1,030
Fibers and Intermediates			
Man-made fibers	**880**	1,014	1,041
Textile intermediates	**377**	418	330
Total	**1,257**	1,432	1,371
Industrial Chemicals			
Detergent and fine chemicals	**552**	609	608
Specialty chemicals	**258**	289	282
Total	**810**	898	890
Polymer Products			
Plastics	**775**	1,052	1,094
Resin products	**742**	813	807
Rubber chemicals and instruments	**269**	282	298
Total	**1,786**	2,147	2,199
Engineered Products and Other Businesses			
Engineered products and materials	**357**	414	365
Oil & gas	**216**	186	126
Total	**573**	600	491
Fisher Controls			
Valves, regulators & electronic process controls	**588**	637	593
Total consolidated	**$6,325**	$6,948	$6,574

See "Restatement" discussion on page 37.

DSW 021478

Consolidated Net Income



Profitability sustained in difficult economic climate by cost reduction and asset management programs

Reported net income for 1982 was off 21 percent from 1981's results. Part of this decrease is attributable to unusual and extraordinary items year-to-year. However, the decline also reflects recessionary conditions, excess manufacturing capacity and depressed prices in the chemical industry worldwide. In 1981, net income was up significantly versus 1980, but unusual items in 1981 and 1980 also impact this comparison.

Net income in 1982 benefited from a $23 million extraordinary gain on the exchange of outstanding debt for common shares. Lower equity income from affiliated companies, which also includes substantially all of the Mexican peso devaluation impact, adversely impacted 1982 results. Net income for 1981 included a $68 million gain from the sale of net assets related to a joint venture. In 1980, net income was significantly depressed by charges totaling $108 million related to various divestitures. See the "Principal Divestitures" note to the financial statements.

During the past few years, Monsanto has initiated comprehensive programs of asset management and cost reduction. These programs were significant contributors to minimizing the 1982 net income decline by lowering the overall breakeven point of manufacturing facilities. Inventory levels were curtailed as part of these programs and resulted in aftertax income of $43 million and $21 million in 1982 and 1981, respectively, from nonreplacement of low cost inventories under the LIFO (last-in, first-out) inventory method.

Aftertax foreign currency losses in 1982 of $6 million were reported under a new accounting method. In 1981, reported foreign currency gains were $29 million, up substantially versus 1980. See the "Foreign Currency" discussion on page 39.

The effective tax rate for 1982 was lower than in 1981 due principally to the larger impact of investment tax credits. In 1981, the effective tax rate was higher than in 1980 as a result of lower investment tax credits and Domestic International Sales Corporation (DISC) tax benefits.

Earnings per share were $8.79 in 1982, versus $11.50 and $4.10 in 1981 and 1980, respectively. In 1982 and 1981, earnings per share were impacted by additional shares issued in those years. Pro forma earnings per share for 1982 are disclosed in the "Earnings per Share" note to the financial statements.

Analysis of Change in Earnings per Share — Increase (Decrease)

	1982 vs. 1981	1981 vs. 1980
Selling prices	**$ 2.30**	$10.31
Sales volume and mix	**(3.96)**	2.87
Raw material prices	**2.77**	(3.47)
Other manufacturing costs	**(1.22)**	(4.10)
Divestitures	**(2.01)**	4.72
Start-up costs	**(0.09)**	0.62
Nonmanufacturing expenses	**(1.13)**	(1.14)
Operating income	**(3.34)**	9.81
Interest expense	**0.31**	0.22
Other income credits — net	**(0.36)**	(0.31)
Effective tax rate	**0.40**	(1.55)
Extraordinary item	**0.58**	
Shares outstanding	**(0.30)**	(0.77)
Change in earnings per share	**$(2.71)**	$ 7.40

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Quarterly Results

Year	Quarter	Net Sales	Cost of Goods Sold	Aftertax Foreign Currency Gains (Losses)	Net Income	Earnings per Share
1982:	**First**	**$1,732**	**$1,264**	**$ 14**	**$147**	**$ 3.71**
	Second	**1,623**	**1,240**	**(1)**	**87**	**2.17**
	Third	**1,505**	**1,166**	**(8)**	**71**	**1.79**
	Fourth	**1,465**	**1,142**	**(11)**	**47**	**1.12**
Total		**$6,325**	**$4,812**	**$ (6)**	**$352**	**$ 8.79**
1981:	First	$1,900	$1,390	$ 10	$176	$ 4.81
	Second	1,856	1,473	23	94	2.35
	Third	1,634	1,190	(1)	123	3.09
	Fourth	1,558	1,248	(3)	52	1.25
Total		$6,948	$5,301	$ 29	$445	$11.50

Agricultural seasonality; cost reduction programs; nonrecurring items; and recession impact results

Income before the extraordinary gain on the exchange of outstanding debt for common shares was $24 million ($0.54 per share) for the fourth quarter of 1982.

Quarterly consolidated sales and income typically exhibit the seasonality of the agricultural business. Agricultural products' sales are heavily concentrated in the first half of the year, particularly in the first quarter, and have greater profitability than other lines of businesses. On a year-to-year basis, quarterly consolidated sales in 1982 trailed those of 1981. However, it is important to note that the period-to-period sales comparison reflects a combination of business divestiture impacts, year-to-year recessionary factors, and the influence of a strengthening United States dollar on export sales.

All quarterly results in 1982, as compared to the corresponding prior year's quarter, reflect the impact of the adoption of a new accounting method for foreign currency translation (see "Foreign Currency" on page 39). Other nonrecurring and/or unusual items impacting 1982's results are as follows:

				1982
Impact on Earnings per Share	**First Quarter**	**Second Quarter**	**Third Quarter**	**Fourth Quarter**
Gain from nonreplacement of low cost inventory tiers under LIFO method	$0.06	$ 0.13	$ 0.13	$ 0.76
Mexican peso devaluation	0.25	0.02	(0.18)	(0.27)
Gain or loss from facilities shutdown or sold		(0.22)	0.03	(0.07)
Early retirement program cost			(0.05)	(0.21)
Extraordinary gain on exchange of debt for common shares				0.58
Total	**$0.31**	**$(0.07)**	**$(0.07)**	**$0.79**

Third quarter 1981 includes a $1.75 per share gain from the sale of the Company's net assets related to a joint venture. In 1981, aftertax gains from nonreplacement of low cost inventories under the LIFO method were $0.09, $0.12, $0.18 and $0.16 per share in the first through fourth quarters, respectively.

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Operating Unit Segment Data

1982	Net Sales	Operating Income (Loss)	Total Assets	Depreciation and Obsolescence	Capital Expenditures
Agricultural and Nutritional Products	$1,311	$426	$1,180	$ 71	$125
Fibers and Intermediates	1,257	(25)	1,152	136	91
Industrial Chemicals	810	100	779	56	163
Polymer Products	1,786	23	1,138	76	73
Engineered Products and Other Businesses	573	(27)	985	85	188
Fisher Controls	588	52	418	13	27
Eliminations		(5)			
Corporate expenses		(43)		2	
Total operating	6,325	501	5,652	439	667
Income charges — net		—			
Nonoperating assets			425		6
Total consolidated	$6,325	$501	$6,077	$439	$673

1981	Net Sales	Operating Income (Loss)	Total Assets	Depreciation and Obsolescence	Capital Expenditures
Agricultural and Nutritional Products	$1,234	$414	$1,011	$ 55	$108
Fibers and Intermediates	1,432	36	1,300	96	118
Industrial Chemicals	898	140	670	68	105
Polymer Products	2,147	77	1,390	(25)	97
Engineered Products and Other Businesses	600	5	853	54	210
Fisher Controls	637	68	435	13	24
Eliminations		(2)			
Corporate expenses		(36)		2	
Total operating	6,948	702	5,659	263	662
Income charges — net		9			
Nonoperating assets			410		6
Total consolidated	$6,948	$693	$6,069	$263	$668

1980	Net Sales	Operating Income (Loss)	Total Assets	Depreciation and Obsolescence	Capital Expenditures
Agricultural and Nutritional Products	$1,030	$355	$ 811	$ 43	$ 75
Fibers and Intermediates	1,371	(270)	1,449	231	152
Industrial Chemicals	890	171	618	63	127
Polymer Products	2,199	(82)	1,601	157	218
Engineered Products and Other Businesses	491	5	634	41	180
Fisher Controls	593	72	413	10	23
Eliminations		(2)			
Corporate expenses		(39)		2	
Total operating	6,574	210	5,526	547	775
Income charges — net		4			
Nonoperating assets			270		6
Total consolidated	$6,574	$206	$5,796	$547	$781

The above data should be read in conjunction with the "Restatement" discussion which follows and the "Segment Information" note to financial statements on page 56.

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Internal operating structure reorganized

Restatement Effective January 1, 1983, Monsanto's internal operating structure was reorganized to integrate raw materials with downstream products and to better serve related markets and technologies. Consistent with this new direction, certain product management responsibilities were realigned. The Company is using a market-based transfer price policy for materials moving between operating units. All operating unit financial data shown in this Annual Report have been restated to reflect the reorganization.

Prior to the reorganization, certain chemicals such as acrylonitrile, ammonia, styrene monomer, nylon salt, phosphorus and phenol were used by several operating units as intermediate "building block" materials. One operating unit was responsible for the management of the manufacturing operations related to most of these materials. However, each operating unit that used the "building block" chemicals in the manufacture of end products was considered to be the joint owner of the manufacturing facilities and shared the product manufacturing costs and investments based on its annual production commitment.

Agricultural business strong but impacted by weak farm economy

Agricultural and Nutritional Products Sales for 1982 were up 6 percent over 1981 levels due to the full year impact of prior period selling price increases and 1982 volume improvements, with 1982 operating income growing 3 percent. Despite the poor U.S. farm income situation, sales of *Lasso* and *Roundup* herbicides improved over 1981 levels, but *Roundup* sales growth in 1982 was less than experienced in prior years for this leading crop chemical. Nutrition chemicals' sales continued to grow in 1982. In 1981, agricultural and nutritional products' sales increased 20 percent from the prior year, with a 17 percent increase in operating income.

Man-made fibers hard hit by recession

Fibers and Intermediates In 1982, sales declined 12 percent from 1981 levels due to recession driven volume decreases and discontinuation of the polyester staple business. The 1982 operating loss, as compared to a 1981 profit, reflects significant reduction in man-made fibers industry demand, a $15 million obsolescence charge for the polyester staple discontinuation and a $20 million loss on the planned sale of the acrylic fibers business in Europe. These factors were mitigated somewhat in 1982 by an $18 million reduction in the estimated costs related to prior years' shutdowns and a $20 million favorable impact from nonreplacement of lower cost LIFO inventories. Although impacted by the 1980 withdrawal from the polyester filament business, sales in 1981 were up 4 percent versus 1980. Operating results improved in 1981, favorably impacted by a $25 million gain due to nonreplacement of low cost LIFO inventories. In 1980, operating results included a $121 million write-off for the polyester filament discontinuation.

Industrial chemical markets depressed

Industrial Chemicals Sales for 1982 decreased 10 percent from the prior year and related operating income was down 29 percent. Depressed activity in several markets served by these products accounts for the year-to-year decrease. Operating income in 1982 includes a $27 million favorable impact from the nonreplacement of low cost LIFO inventories and an $11 million net gain as a result of the sale or shutdown of various production facilities. In 1981, sales were flat compared to 1980, and operating income was down 18 percent due to the recessionary conditions that were also evident in 1981.

Weak automotive and housing markets impact polymer products

Polymer Products Sales decreased 17 percent in 1982 versus 1981 due to declining volumes as a result of recessionary conditions, particularly in the automotive and housing markets, and a 1981 divestiture. Operating income also declined in 1982. The year-to-year decline was due to inclusion in 1981 of a $124 million gain from the divestiture. Excluding this item, operating income improved in 1982 reflecting benefits from asset management and cost reduction programs and a $35 million favorable impact from nonreplacement of low cost LIFO inventories. Offsetting these favorable factors in 1982 were poor economic conditions and a $15 million charge for shutdowns of various production facilities. Sales in 1981 were down slightly versus 1980, although operating results improved substantially. This improvement was principally due to a $124 million gain from a 1981 sale of net assets related to a joint venture, whereas 1980 was negatively impacted by a $66 million charge from a divestiture.

Engineered Products and Other Businesses This operating unit segment includes fabricated products, electronic materials, chemical and environmental systems and oil and gas activities. Sales decreased over 4 percent in 1982 versus 1981 due principally to the Monsanto Enviro-Chem Systems, Inc. (Enviro-Chem) — a

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subsidiary — reduced level of construction projects and lower fabricated products sales. These reductions were offset partially by increased Oil and Gas sales. Operating results were down significantly in 1982 from 1981 levels mainly because of higher idle plant costs in the electronics' business, fewer Enviro-Chem construction projects, and lower fabricated products business. In 1981, sales increased 22 percent over 1980, although operating income was flat due to start-up and idle plant costs in the electronics business, partially offset by better Oil and Gas and Enviro-Chem profitability.

Other businesses also hurt by the recession

Depressed capital spending impacts Fisher

Fisher Controls Sales were down 8 percent in 1982 compared to 1981, and operating income decreased 24 percent. Lower sales in 1982 were due to the depressed level of worldwide capital spending, particularly in the oil and gas industry, and increased competition and economic instability in Mexico. These factors were offset somewhat by higher selling prices. In 1981, sales increased 7 percent over the prior year, although operating income was down slightly. A combination of selling price and volume increases accounts for the 1981 sales improvement, but a strong U.S. dollar and a faltering European economy adversely affected that year's results.

International Area Basis Data

The world area segment data in the notes to the financial statements on pages 56-57 were prepared on an "entity basis" — i.e., sales and income as recorded in the financial statements of the legal entity are assigned to the world area where the entity is located (e.g., a sale from a United States' subsidiary to a customer in Brazil is reported as a United States transaction). This presentation is required by generally accepted accounting principles. However, Monsanto views internal financial results on an "area basis" wherein sales and income are assigned to the world area where the customer is located (e.g., a sale from a United States' subsidiary to a customer in Brazil is reported as a Latin American transaction). The table and discussion which follow summarize Monsanto's "area basis" results of operations.

Ex-U.S. sales and income depressed by global recession and strong U.S. dollar

International Sales and Operating Income	**1982**	1981	1980
Sales by ex-U.S. subsidiaries (entity basis)	**$1,976**	$2,218	$2,199
U.S. export sales	**864**	1,042	1,027
Inter-area eliminations	**(601)**	(698)	(625)
International sales (area basis)	**$2,239**	$2,562	$2,601
Operating income (loss) of ex-U.S. subsidiaries (entity basis)	**$ 80**	$ 104	$ (7)
U.S. export operating profit, net of allocated administrative expenses	**35**	76	142
Equity in ex-U.S. affiliates' net income (loss)	**(11)**	34	16
International operating income (area basis)	**$ 104**	$ 214	$ 151

European economies generally weak

Europe-Africa Area sales for 1982 were $1,092 million, down 14 percent from 1981 levels because local manufacturing operations were depressed by general recessionary factors. Area operating income for 1982 was $48 million, a decrease of 25 percent from 1981. Included in 1982 results was a $20 million loss on the planned sale of the acrylic fibers business in Europe and a $4 million net charge due to the discontinuation or sale of other production facilities in the United Kingdom. The change in accounting principles for foreign currency translation (see "Foreign Currency" on page 39) favorably impacted the 1982 to 1981 income comparison. In 1981, area sales were down from the prior year reflecting the 1980 divestiture of the Company's Spanish subsidiary. Area operating results in 1981 were much improved over 1980, as the 1980 results reflected a $66 million charge due to the divestiture.

Canadian economy weak; Mexican peso impacts profits

Canada-Latin America Area sales in 1982 were $597 million, down 14 percent from 1981 levels. Some Latin American economies were relatively strong but could not offset the impacts of the Mexican peso devaluation and of the significant recession in Canada. Area operating income was $35 million in 1982, a 61 percent decrease from the prior year, reflecting lower results from Mexican operations including a $9 million loss from devaluation of the Mexican peso, decreased U.S. exports to the weak

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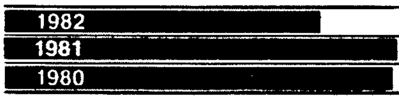
Canadian and Brazilian economies, and an $8 million write-off from the shutdown of a Canadian production facility. In 1981, area sales and operating income increased as compared to the prior year.

U.S. exports suffer in Asia-Pacific

Asia-Pacific Area sales in 1982 were $550 million, an 8 percent decrease compared to 1981. Area operating income in 1982 was $21 million, a 67 percent decline from 1981. The decreased 1982 results were due principally to a lower level of U.S. exports. A stronger United States dollar versus other currencies adversely impacted the competitiveness of U.S. exports. In 1981, area sales and operating income improved over the prior period.

Raw Materials and Energy



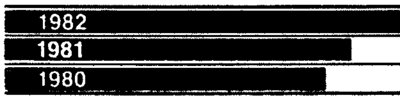
1982	$2,435
1981	3,042
1980	2,990

Raw material and energy costs decline

Raw materials and energy include petrochemical feedstocks and energy used in production processes. Overall, these costs decreased significantly in 1982, after a relatively small increase in raw material and energy costs in 1981 over 1980. Raw material prices decreased approximately 5 percent in 1982, following increases of approximately 13 percent and 25 percent in 1981 and 1980, respectively.

Raw material contracts for key materials have been secured with terms and conditions which support the economic and security of supply requirements of Monsanto's business units. In addition, the Company continues to have available hydrocarbon resources from its Monsanto Oil Company subsidiary, which resources can be used in hydrocarbon sourcing programs, if required.

Research and Development



1982	$256
1981	225
1980	208

Research and development funding increased in 1982

Research and development costs continued at a high level in 1982, increasing to 4 percent of sales as compared to 3 percent in 1981 and 1980. In addition to these period costs, substantial new capital expenditure commitments were made in 1982 for expanded research facilities at a new St. Louis County, Missouri, location. This level of funding, in light of the worldwide recessionary conditions and necessary cost reduction measures in 1982, testifies to Monsanto's continuing commitment to generate new products and processes.

Research in traditional areas of strength such as catalysis, polymer science, agricultural chemistry, chemical engineering systems, and application research is on-going. The Company also has intensive and growing R&D programs in plant biology, animal nutrition, electronic materials, biotechnology, molecular biology, and human health care.

In 1982, Monsanto entered into a five-year, $24 million collaborative agreement with Washington University aimed at discovering new therapies for major human diseases. In January 1983, Monsanto announced the formation of the Health Care Division which will coordinate the Company's biomedical research and development programs.

Foreign Currency

Classification of Gains (Losses)	**1982** (SFAS No. 52)	1981 (SFAS No. 8)	1980 (SFAS No. 8)
Income Statement:			
Pretax gains (losses)	**$ (15)**	$ (28)	$ 12
Income taxes	**(9)**	(57)	11
Aftertax gains (losses)	**$ (6)**	$ 29	$ 1
Per share	**$(0.15)**	$0.75	$0.03
Balance Sheet:			
Accumulated currency adjustment net change	**$ (106)**		

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New accounting method adopted for foreign currency impacts

As mentioned in the Summary of Significant Accounting Policies, Monsanto adopted Statement of Financial Accounting Standards No. 52 (SFAS No. 52), "Foreign Currency Translation," beginning in 1982. Accordingly, in 1982 most ex-U.S. assets and liabilities were translated at current exchange rates and most translation impacts were reflected in a new accumulated currency adjustment account in shareowners' equity. In addition to the reported impacts as reflected in the above table, income was adversely impacted in 1981 under SFAS No. 8 (the previously required translation procedures) by the use of historical currency rates to translate inventory and depreciation expense.

The Company significantly reduced its hedging actions (i.e., the use of forward exchange contracts) in 1982. Because of hedging actions by the Company under SFAS No. 8, it is not practical to restate prior years' foreign currency impacts on a basis comparable to 1982. Also, for the same reasons, 1982 foreign currency impacts were not accumulated on a "pro forma" SFAS No. 8 basis.

Mexican peso devaluation adversely impacts profitability

The 1982 reported foreign currency loss was principally due to the Mexican peso devaluations. The 1981 aftertax gain reflects the general strengthening of the United States dollar against several currencies.

The Company's ex-U.S. subsidiaries and affiliates generally use the local currency as the functional currency under SFAS No. 52 because of their relatively "self-contained" operations. Working and fixed capital needs for these entities are generally met through internal operations and local country borrowings, supplemented by additional equity capital or intercompany borrowings from the Company when appropriate or necessary. Monsanto has subsidiaries or affiliates in Argentina, Brazil and Mexico, for which the U.S. dollar was designated the functional currency because of the hyperinflationary conditions in those countries. There are no currency restrictions that are expected to have a significant impact on the Company's total cash flow, liquidity or capital resources as a result of ex-U.S. operations.

Monsanto's major functional currencies, in terms of currency exposure, are the United Kingdom pound sterling and Belgian franc. Other important currencies include the West German mark, French franc, Canadian dollar and Australian dollar. Significant currencies of Monsanto's equity affiliates are the Japanese yen and Mexican peso.

Inflation-Adjusted Data

	Year ended December 31, 1982	
	Historical Cost	**Current Cost (In Average 1982 Dollars)**
Net sales	$6,325	$6,325
Cost of goods sold, excluding depreciation	4,416	4,499
Depreciation expense	396	567
Marketing, administrative and technological expense	1,012	1,012
Other expense and income — net	—	—
Income taxes	172	172
Income before extraordinary item	**$ 329**	**$ 75**

The "current cost" disclosures, which reflect adjustments based on estimates of the current cost to replace existing assets in kind, attempt to measure the impact of inflation on specific Monsanto assets. The following items are adjusted for inflation: inventories; property, plant and equipment; cost of goods sold; and depreciation expense. Income tax provisions are not adjusted for the inflation effects. All current cost data is stated in average 1982 dollars using the U.S. Consumer Price Index — All Urban Consumers calculation method. This method is otherwise known as the "translate-restate" method.

Cumulative effects of inflation continue to distort historical results

In a period of inflation, historical cost earnings can overstate the ability of most manufacturing companies to generate cash flow from operations sufficient to provide for business and dividend growth in a "real" sense. Inflation's effects must first be "financed" from historical cost earnings by increased expenditures to replace worn out and obsolete facilities. While many of these facilities will not be replaced in their current form as the computational methods of the current cost data suggest — tech-

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Profit improvement programs, asset redeployment and technology advances lessen inflation impact

nological advances will be incorporated as replacement occurs and some facilities will never be replaced — nevertheless, the data are useful in approximating certain inflation effects.

To maintain profitability in an inflationary environment, Monsanto increases selling prices as cost and competitive conditions warrant and continually searches for ways to reduce costs. Improved technology, increased productivity and successful energy conservation and asset management programs allow Monsanto to remain competitive from a selling price standpoint, while mitigating some of the impact of rising costs. In addition, management is constantly reviewing Monsanto's businesses to determine those with long-term economics that will not justify continued investment. Monsanto has disposed of several such businesses in recent years.

The 1982 increase in current cost of inventories and property, plant and equipment, stated in average 1982 dollars, was $144 million. At December 31, 1982, the current cost of inventory and property, plant and equipment (net of accumulated depreciation) was $1,272 million and $4,230 million, respectively, stated in yearend 1982 dollars.

Inventories determined on a FIFO (first-in, first-out) basis were used to approximate inventories on a current cost basis. Cost of goods sold as determined on a LIFO basis (after adjustment for the impact of nonreplacement of low cost inventories) or similar techniques were used to approximate cost of goods sold on a current cost basis. The current cost of property, plant and equipment was generally estimated using appropriate construction and equipment indices. Accumulated depreciation for the current cost of existing facilities and related expenses were estimated using the same overall methods and rates as used in the historical cost financial statements.

Selected Financial Data

	1982	1981	1980	1979	1978
Historical cost, as reported (see notes):					
Net sales	**$6,325**	$6,948	$6,574	$6,193	$5,019
Income before extraordinary item	**329**	445	149	331	303
Income before extraordinary item per share	**8.21**	11.50	4.10	9.11	8.29
Total assets	**6,077**	6,069	5,796	5,539	5,036
Long-term debt	**1,003**	1,110	1,371	1,203	1,224
Dividends per common share	**3.95**	3.75	3.55	3.35	3.175
Current cost data, in average 1982 dollars:					
Income (loss) before extraordinary item	**75**	225	(36)	250	
Income (loss) before extraordinary item per share	**1.87**	5.81	(1.00)	6.87	
Purchasing power gain on net monetary items	**33**	104	158	163	
Increase in specific prices of inventory and property over (under) increase caused solely by general inflation	**(73)**	(32)	(327)	128	
Aggregate foreign currency translation adjustment, net of income taxes	**(176)**				
Net assets	**4,799**	5,179	4,762	4,952	
Other data, in average 1982 dollars:					
Net sales	**6,325**	7,374	7,702	8,235	7,426
Dividends per common share	**3.96**	4.01	4.20	4.51	4.73
Market price of common stock at yearend	**$75.39**	$72.02	$76.80	$74.97	$67.00
Average consumer price index	**289.1**	272.4	246.8	217.4	195.4

Notes: In 1982, the requirements of Statement of Financial Accounting Standards No. 52, "Foreign Currency Translation," were adopted. Beginning in 1980, interest costs related to construction-in-progress expenditures were capitalized in accordance with Statement of Financial Accounting Standards No. 34, "Capitalization of Interest Cost." In years prior to 1980, all interest costs were expensed as incurred. The effect of the new accounting principle was to increase 1980 net income by $28 million, or $0.76 per share.

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Short-Term Liquidity and Capital Resources

Funds Provided from Operations

1982	$880
1981	806
1980	668

Monsanto's 1982-1980 sources and uses of funds, defined as cash, time deposits, certificates of deposit and short-term securities, are shown in the Statement of Changes in Consolidated Financial Position on page 52.

Monsanto maintains strong cash position while funding future growth opportunities

Monsanto has substantially maintained its strong cash position at yearend 1982, with cash and cash equivalents decreasing slightly to $414 million as compared to the 1981 level of $426 million. Funds provided from operations, before working capital changes, increased $74 million in 1982 versus 1981. A continued emphasis on managing the Company's assets has resulted in good control over working capital requirements, while capital expenditures in the last two years have been essentially level. In addition, funds were provided by new common shares issued during 1981 and used to liquidate outstanding debt. In 1981, significant proceeds were also received from the sale of the Company's net assets related to a joint venture.

While cash is generated by operations throughout the year, significant receipts from agricultural products sales are concentrated in the first half. Tax and dividend payments are generally made quarterly, but most other significant sources and uses of funds occur throughout the year with the general level of operations.

Working capital position improves

The current ratio, an indication of liquidity, continued to improve in 1982 to 2.6:1. The 1981 current ratio was 2.4:1 compared to 2.1:1 in 1980. Management believes a working capital ratio of at least 2.0:1 is desirable. Working capital (current assets less current liabilities) increased in 1982 to $1,503 million as compared to $1,486 million in 1981, as current liabilities declined more than current assets. Inventory reductions in 1982 reflect continued stringent control of inventory levels and the discontinuation of certain product lines. Yearend 1982 receivables were comparable with 1981.

Short-term debt decreases

The Company has available various short-term bank facilities, which are further discussed in the "Short-Term Debt and Bank Credit Arrangements" note to the financial statements. When necessary, short-term lines of credit and commercial paper are used to finance working capital and provide "bridge" financing for capital requirements until more attractive rates prevail in long-term debt markets. Short-term debt decreased to $131 million in 1982 as compared to $175 million in 1981.

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Long-Term Liquidity and Capital Resources

Capital Expenditures

Capital expenditures shown in the graph include $46 million, $44 million and $52 million of capitalized interest for 1982-1980, respectively.

Ample capital resources provide future flexibility

At December 31, 1982, Monsanto had purchase orders and contracts outstanding amounting to approximately $126 million in connection with uncompleted additions to property. Expenditures for capital equipment are typically financed by a combination of cash provided from operations and long-term debt. In 1981, the Company issued 3,000,000 new common shares and used the proceeds to reduce debt that had been incurred to fund the capital expenditure program. Long-term debt was further reduced in 1982 through an exchange for 988,075 common shares. As a result of the common share issuances and the reduction of long-term debt, the long-term debt to capitalization ratio decreased to 22 percent in 1982 as compared to 25 and 33 percent in 1981 and 1980, respectively. Over the long term, Monsanto believes that its appropriate long-term debt to capitalization ratio is approximately 33 percent. The interest coverage ratio (times), excluding the 1982 extraordinary item and the effect of capitalized interest, was 4.6 in 1982, as compared to 5.5 in 1981.

The Company has made extensive use of pollution control and industrial development bonds, including an additional $38 million in 1982, to finance qualified projects. Because of the tax status of these obligations, the associated interest rates are very favorable. The Company will continue to pursue this form of financing when available in the future. While industrial development bond obligations now comprise 25 percent of all Monsanto's outstanding long-term debt, the individual issues have not been substantial.

Monsanto has available various long-term financing alternatives

In addition to the use of long-term debt, Monsanto has occasionally used other forms of financing, principally lease arrangements and joint venture arrangements involving take-or-pay contracts. These alternative forms of financing are used when the effective interest cost is attractive or the nature of the capital project requires their use. The Company will consider using lease, joint venture and other innovative financing arrangements in the future, as appropriate, but the extent of their use in Monsanto's overall financial structure has not been significant in the past.

Virtually all of the assets reflected in Monsanto's financial statements are free from lien and are not used to collateralize debt. Accordingly, these assets represent a source of additional debt capacity, although the Company has no present plans to pursue this source of financing.

Through the Monsanto Oil Company subsidiary, Monsanto is involved in oil and gas exploration activities and owns reserves with a significant current value that is not reflected in the accompanying financial statements. The Company's proved reserves represent a valuable asset that could be used to increase its total debt capacity. In addition, Monsanto Oil Company's undeveloped acreage, or some portion of it, could be used in future joint arrangements with outside parties to provide funding for exploration and development of the acreage.

Common Stock Data

Dividends per Common Share

Quarter	1982	1981
First	**$0.95**	$0.90
Second	**1.00**	0.95
Third	**1.00**	0.95
Fourth	**1.00**	0.95
Total year	**$3.95**	$3.75

Common Stock Prices

Quarter	1982		1981	
	High	**Low**	High	Low
First	**$70¾**	**$60**	$77¾	$67
Second	**68⅜**	**56⅝**	87½	69½
Third	**79¾**	**57⅞**	81¾	59½
Fourth	**89**	**72**	72⅞	60⅝

	1982	1981
Shareowners' equity per common share	**$85.97**	$84.37

Monsanto's common stock is traded principally on the New York Stock Exchange. The number of common shareowners of record as of February 22, 1983, was 74,979 and the high and low common stock price on that date was $84⅝-$83⅞.

During the past two years, the Company issued nearly 4,000,000 additional new common shares in two major transactions. In addition, Monsanto has convertible preferred stock, convertible debentures and convertible loan stock outstanding which result in periodic issuances of common stock upon conversion. Common shares are also regularly issued under employee stock option plans. There were 2,146,379 common shares reserved for convertible securities and stock option plans at December 31, 1982. A treasury stock acquisition program is in place to mitigate, when appropriate, the dilutive effect of the issuance of common shares under stock option and employee stock ownership plans and outstanding convertible securities. Also, the Company has an employee stock purchase program whose requirements are immediately funded with the purchase of treasury shares.

Dividends increase for 10th consecutive year

The Company has paid dividends on its common shares — without interruption or reduction — since 1928. The dividend is paid quarterly and has been increased in each of the past ten years. The dividend payout of 45 percent for 1982 is slightly higher than the average dividend payout over the last ten years because of the increased dividend rate and the somewhat lower level of earnings in 1982. The Company's dividend policies are not necessarily tied to a set payout percentage.

DSW 021489

Oil and Gas Activities

Proved Reserves (Oil Equivalent-Millions of Barrels)

1982	139
1981	134
1980	133

In recent years, Monsanto has expanded its exploration efforts for hydrocarbon reserves. The Company's former Oil and Gas Division was established in 1982 as a separate wholly-owned subsidiary, Monsanto Oil Company, with activities principally located in the United States. Certain data regarding Monsanto Oil Company follow.

Quantities of proved reserves increase

Net Quantities of Proved Reserves

Developed and Undeveloped Reserves	**Oil(1)**	**Natural Gas(2)**
December 31, 1979	29	614
Revisions of previous estimates		(24)
Purchases of minerals-in-place		1
Extensions and discoveries	4	64
Production	(3)	(36)
December 31, 1980	30	619
Revisions of previous estimates	(1)	(26)
Purchases of minerals-in-place	2	1
Extensions and discoveries	6	45
Production	(3)	(40)
December 31, 1981	34	599
Revisions of previous estimates	**2**	
Purchases of minerals-in-place	**1**	
Extensions and discoveries	**5**	**46**
Production	**(4)**	**(38)**
December 31, 1982	**38**	**607**

(1) Stated in millions of barrels.
(2) Stated in billions of cubic feet (Bcf).

In determining the estimated future cash inflow data which follow, actual 1982 yearend selling prices for oil and gas were used as prescribed by Statement of Financial Accounting Standards No. 69, "Disclosures about Oil and Gas Producing Activities." Similarly, future production and development costs were determined by using the actual 1982 yearend cost levels. A discount rate of 10 percent was used. The Company cautions that changes in the discount rate, future selling prices, or cost, production or reserve estimates made in developing the data could significantly affect the results. The capitalized costs of proved reserves, net of related accumulated depreciation, depletion and amortization, were $346 million as of December 31, 1982.

DSW 021490

Discounted future net cash flows from proved reserves remain significant

Standardized Measure of Discounted Future Net Cash Flows

	1982	1981	1980
Future cash inflows	**$3,491**	$3,003	$2,945
Future production and development costs	**736**	530	471
Future income tax expenses	**1,190**	1,064	1,102
Future net cash flows	**1,565**	1,409	1,372
Annual discount for estimated timing of cash flows	**1,113**	950	1,053
Standardized measure of discounted future net cash flows	**$ 452**	$ 459	$ 319

Change in Standardized Measure of Discounted Future Net Cash Flow	1982	1981	1980
Beginning of year	**$459**	$319	$202
Sales, net of production costs	**(149)**	(126)	(88)
Net change in prices and production costs	**52**	5	211
Extensions, discoveries and improved recovery, less related costs	**118**	123	58
Purchases of minerals-in-place	**10**	39	3
Development costs incurred	**4**	23	8
Revisions in previous quantities	**16**	(30)	(16)
Accretion of discount	**46**	32	20
Net change in income taxes	**37**	(65)	(80)
Other, principally change in estimate of production rate	**(141)**	139	1
End of year	**$452**	$459	$319

DSW 021491

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Summary of Significant Accounting Policies

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

Foreign Currency Translation Effective January 1, 1982, foreign currency transactions and financial statements are translated in accordance with Statement of Financial Accounting Standards No. 52 (SFAS No. 52). The functional currency of substantially all ex-U.S. subsidiaries is the local currency. Intercompany advances to ex-U.S. subsidiaries are generally presumed to be of a long-term investment nature. The hyperinflationary countries in which Monsanto had significant operations in 1982 were Brazil, Mexico and Argentina.

For 1980 and 1981, foreign currency transactions and financial statements were translated in accordance with Statement of Financial Accounting Standards No. 8. It was not practical to restate these years under SFAS No. 52.

Depreciation The straight-line method of computing depreciation is generally used, with approximate weighted average assigned lives of 23 years for buildings and 12 years for machinery and equipment.

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

Income taxes have not been provided on undistributed earnings of ex-U.S. subsidiaries since any taxes on dividends would be substantially offset by foreign tax credits. Income taxes have not been provided on a substantial portion of the undistributed earnings of domestic subsidiaries, including domestic international sales corporations (DISC's), because Monsanto intends to indefinitely reinvest those earnings.

Inventory Valuation Inventories are stated at the lower of cost or market. 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 elements for direct labor, raw material and manufacturing overhead based on practical capacity. The cost of substantially all domestic inventories is determined by the last-in, first-out (LIFO) method. The cost of other inventories is generally determined by the first-in, first-out (FIFO) method.

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

Independent Auditors' Opinion on Financial Statements

To the Shareowners of Monsanto Company:

We have examined the statement of consolidated financial position of Monsanto Company and Subsidiaries as of December 31, 1982 and 1981 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, 1982. 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, 1982 and 1981, and the results of their operations and changes in their financial position for each of the three years in the period ended December 31, 1982, in conformity with generally accepted accounting principles consistently applied during the period except for the change, with which we concur, in 1982 in the method of translating foreign currency transactions and financial statements as described in the Summary of Significant Accounting Policies.

Deloitte Haskins & Sells

Saint Louis, Missouri
February 25, 1983

Statement of Consolidated Income

(Dollars in millions, except per share)

Monsanto Company and Subsidiaries

	1982	1981	1980
Net Sales	**$6,325**	$6,948	$6,574
Cost of goods sold	**4,812**	5,301	5,476
Marketing and administrative expenses	**691**	656	615
Technological expenses	**321**	289	273
	5,824	6,246	6,364
Operating Income	**501**	702	210
Other expense and income:			
Interest expense	**82**	101	112
Interest income	**63**	68	36
Other income — net	**19**	24	72
	—	9	4
Income Before Income Taxes and Extraordinary Gain	**501**	693	206
Income taxes	**172**	248	57
Income Before Extraordinary Gain	**329**	445	149
Extraordinary gain from exchange of debt for common shares	**23**		
Net Income	**$ 352**	$ 445	$ 149
Earnings per Share:			
Before extraordinary gain	**$ 8.21**	$11.50	$ 4.10
After extraordinary gain	**8.79**	11.50	4.10

The above statement should be read in conjunction with page 47 and pages 54 through 57 of this report.

DSW 021494

Statement of Consolidated Financial Position

(Dollars in millions, except per share)

Assets	At December 31 1982	1981
Current Assets:		
Cash	**$ 51**	$ 82
Time deposits and certificates of deposit	**92**	127
Short-term securities, at cost which approximates market	**271**	217
Trade receivables, net of allowances of $38 in 1982 and $39 in 1981	**1,076**	1,073
Miscellaneous receivables and prepaid expenses	**140**	178
Inventories	**824**	873
	2,454	2,550
Investments and Other Assets:		
Investments in affiliates	**137**	175
Other assets	**173**	160
	310	335
Property, Plant and Equipment, at Cost:		
Land	**61**	58
Buildings	**675**	666
Machinery and equipment	**4,920**	4,600
Mineral rights and oil and gas properties	**625**	475
Construction-in-progress	**249**	419
	6,530	6,218
Less accumulated depreciation	**3,217**	3,034
	3,313	3,184
Total Assets	**$6,077**	$6,069

The above statement should be read in conjunction with page 47 and pages 54 through 57 of this report.

DSW 021495

Liabilities and Shareowners' Equity	At December 31 1982	1981
Current Liabilities:		
Accounts payable	**$ 379**	$ 492
Wages and commissions	**102**	107
Income and other taxes	**123**	99
Miscellaneous accruals	**216**	191
Short-term debt	**131**	175
	951	1,064
Long-Term Debt	**1,003**	1,110
Deferred Credits and Other Liabilities:		
Deferred income taxes	**493**	421
Other liabilities	**31**	30
	524	451
Minority Interests in Subsidiaries	**109**	114
Shareowners' Equity:		
Preferred stock — authorized, 10,000,000 shares, no par value; issued and outstanding, 91,902 shares in 1982 and 99,151 shares in 1981	**—**	—
Common stock — authorized, 100,000,000 shares, par value $2; issued, 40,966,159 shares in 1982 and 39,978,084 shares in 1981	**82**	80
Additional contributed capital	**931**	853
Accumulated currency adjustment	**(122)**	
Reinvested earnings	**2,621**	2,423
	3,512	3,356
Less treasury stock, at cost (common shares of 368,548 in 1982 and 509,800 in 1981)	**22**	26
	3,490	3,330
Total Liabilities and Shareowners' Equity	**$6,077**	$6,069

DSW 021496

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Statement of Changes in Consolidated Financial Position
(Dollars in millions)

Monsanto Company
and Subsidiaries

Sources (Uses) of Funds	1982	1981	1980
Operations:			
Income before extraordinary gain	**$ 329**	$ 445	$ 149
Charges not using (credits not providing) funds:			
Depreciation and obsolescence	**439**	263	547
Deferred income taxes	**85**	83	60
Other — net	**27**	15	(88)
Funds provided from operations, before changes in working capital	**880**	806	668
Investment and Other Transactions:			
Working capital changes:			
Trade receivables	**(3)**	33	(21)
Inventories	**49**	(41)	78
Other current assets	**38**	51	(36)
Accounts payable and accrued liabilities	**(69)**	(23)	9
Short-term debt	**(44)**	(64)	6
Property, plant and equipment additions	**(673)**	(668)	(781)
Net proceeds from sale of assets related to joint venture		219	
Property disposals	**31**	33	8
Foreign currency adjustments	**(60)**		
Other — net	**10**	51	(70)
	(721)	(409)	(807)
Financial Transactions:			
Issuance of common stock	**75**	205	
Long-term financing	**38**	32	266
Long-term debt reduction	**(149)**	(273)	(60)
Extraordinary gain from exchange of debt for common shares	**23**		
Dividends	**(158)**	(145)	(128)
	(171)	(181)	78
Increase (Decrease) in Funds	**$ (12)**	$ 216	$ (61)

Increase (Decrease) in Elements of Funds:			
Cash	**$ (31)**	$ 37	$ 1
Time deposits and certificates of deposit	**(35)**	23	10
Short-term securities	**54**	156	(72)
Increase (Decrease) in Funds	**$ (12)**	$ 216	$ (61)

The above statement should be read in conjunction with page 47 and pages 54 through 57 of this report.

DSW 021497

STLCOPCB4006806

Statement of Consolidated Shareowners' Equity

(Dollars in millions, except per share)

Monsanto Company
and Subsidiaries

	1982	1981	1980
Preferred Stock:			
Balance, January 1	$ —	$ —	$ —
Conversion to common stock (7,249, 23,988 and 35,042 shares in 1982-1980, respectively)	—	—	—
Balance, December 31	$ —	$ —	$ —
Common Stock:			
Balance, January 1	$ 80	$ 74	$ 74
New shares issued (988,075 and 3,000,000 shares in 1982-1981, respectively)	2	6	
Balance, December 31	$ 82	$ 80	$ 74
Additional Contributed Capital:			
Balance, January 1	$ 853	$ 652	$ 653
New shares issued	73	199	
Other	5	2	(1)
Balance, December 31	$ 931	$ 853	$ 652
Accumulated Currency Adjustment:			
Initial adjustment for SFAS No. 52	$ (16)		
Translation adjustments	(111)		
Income taxes	9		
Transferred to net income	(4)		
Balance, December 31	$ (122)		
Reinvested Earnings:			
Balance, January 1	$2,423	$2,123	$2,102
Deferred taxes adjustment for SFAS No. 52	4		
Net income	352	445	149
Preferred dividends ($2.75 per share)	—	—	—
Common dividends ($3.95, $3.75 and $3.55 per share for 1982-1980, respectively)	(158)	(145)	(128)
Balance, December 31	$2,621	$2,423	$2,123
Common Stock in Treasury:			
Balance, January 1	$ (26)	$ (41)	$ (48)
Shares purchased (171,940, 21,641 and 83,243 shares in 1982-1980, respectively)	(13)	(1)	(4)
Conversion of convertible securities and issuances under employee stock plans (313,192, 320,276 and 221,724 shares in 1982-1980, respectively)	17	16	11
Balance, December 31	$ (22)	$ (26)	$ (41)

The above statement should be read in conjunction with page 47 and pages 54 through 57 of this report.

DSW 021498

Principal Divestitures In February 1983, the Company's Board of Directors approved the planned sale of the acrylic fibers business in Europe and the establishment of a 1982 loss provision of $18 million ($0.46 per share) net of related taxes. The pretax loss of $20 million is reflected in obsolescence expense in cost of goods sold. An agreement in principle for the sale has been reached with the buyer, a company that is a joint venture partner with Monsanto in a nylon intermediates facility in the United Kingdom. The agreement also provides for Monsanto to purchase the buyer's interest in the nylon intermediates facility. The acrylic fibers business in Europe is a part of the Fibers and Intermediates operating unit and had 1982 sales of approximately $139 million.

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

Cost of goods sold for 1980 included a provision for losses of $121 million, or $69 million ($1.90 per share) net of related tax effects, from the Company's withdrawal from the polyester filament business in the United States. Certain manufacturing facilities and other assets were sold and the remaining manufacturing facilities have been shut down and will be disposed of as soon as practical. This business was part of the Fibers and Intermediates operating unit and had sales of approximately $134 million in 1980.

In 1980, Monsanto decided to terminate its interest in Aiscondel, S.A., a majority-owned Spanish subsidiary, and in 1981 sold its interest to the minority shareholders. Cost of goods sold for 1980 included a provision for losses on termination of $66 million, or $39 million ($1.07 per share) net of related tax effects. This business was reported as part of the Polymer Products operating unit and had sales of approximately $126 million in 1980.

As of December 31, 1982, the remaining accruals for the divestitures discussed above and the 1979 withdrawal from nylon operations in Europe have been reduced to $49 million through actual expenditures for shutdown or withdrawal costs, disposal of certain facilities, and operating losses subsequent to the recording of the provisions. The remaining accruals are expected to be sufficient to absorb future costs related to these actions.

Supplemental Income and Expense Data

	1982	1981	1980
Depreciation and obsolescence:			
Depreciation	**$396**	$361	$327
Obsolescence (includes gains and losses from divestitures)	**43**	(98)	220
Total depreciation and obsolescence	**$439**	$263	$547
Rent expense	**$ 78**	$ 74	$ 71
Technological expenses:			
Research and development	**$256**	$225	$208
Engineering, commercial development and patent	**65**	64	65
Total technological expenses	**$321**	$289	$273
Interest expense:			
Total interest costs incurred	**$128**	$145	$164
Less capitalized interest	**46**	44	52
Net interest expense	**$ 82**	$101	$112
Equity income:			
Equity in affiliates' income and losses	**$ (6)**	$ 22	$ 34
Equity in affiliates' foreign currency gains and losses	**(5)**	16	(17)
Total equity income (loss)	**$ (11)**	$ 38	$ 17
Foreign currency gains and losses (including equity in affiliates' gains and losses)	**$ (15)**	$ (28)	$ 12

Pension Plans Most Monsanto employees are covered by noncontributory pension plans. The related pension expense was $136 million, $127 million and $98 million in 1982-1980, respectively, and includes charges applicable to current service and amortization of unfunded prior service costs over periods generally ranging from 10 to 30 years. It is Monsanto's policy to fund pension costs accrued. Actuarial assumptions reflect an investment return of 7.5 percent and, when applicable, an overall average salary increase of 6.5 percent.

Effective for 1981, Monsanto increased retirement benefits and reduced the eligibility requirements for early retirement and surviving spouses' automatic retirement benefits for its major domestic plans. The net effect of these changes was to increase 1981 expense by approximately $52 million.

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

		1982	1981
Actuarial present value of accumulated plan benefits:	Vested	**$1,366**	$1,221
	Nonvested	**177**	157
Total		**$1,543**	$1,378
Net assets available for benefits		**$1,697**	$1,358

DSW 021499

Income Taxes

The components of income before income taxes were:

	1982	1981	1980
U.S.	**$425**	$549	$212
Ex-U.S.	**76**	144	(6)
Total	**$501**	$693	$206

The components of income tax expense were:

		1982	1981	1980
Current:	Federal	**$ 53**	$ 91	$ (5)
	State	**8**	8	5
	Ex-U.S.	**39**	38	24
		100	137	24
Deferred:	Federal	**72**	103	19
	State	**4**	9	3
	Ex-U.S.	**(4)**	(1)	11
		72	111	33
Total		**$172**	$248	$ 57

Investment tax credits for 1982-1980 were $53 million, $22 million and $49 million, respectively.

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

	1982	1981	1980
Additional depreciation and obsolescence for (book) tax purposes	**$ 49**	$ 66	$ (8)
Intangible drilling and development costs	**19**	23	15
Interest capitalization	**18**	14	23
Other	**(14)**	8	3
Total	**$ 72**	$111	$ 33

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

	1982	1981	1980
Federal statutory rate	**46%**	46%	46%
Investment tax credit	**(10)**	(3)	(24)
Benefits attributable to DISC earnings	**(3)**	(3)	(12)
Non-tax effected ex-U.S. subsidiaries' results	**1**	(3)	19
Other		(1)	(1)
Effective income tax rate	**34%**	36%	28%

Undistributed earnings of subsidiaries, for which additional taxes that may be required in the event of distribution have not been provided, were:

	1982	1981	1980
Ex-U.S. subsidiaries	**$216**	$186	$ 78
U.S. subsidiaries, including DISC's	**390**	349	290
Total	**$606**	$535	$368

Ex-U.S. net operating loss carryforwards at December 31, 1982, for which no tax benefits have been recorded were approximately $115 million, a substantial portion of which has an unlimited carryforward period.

Earnings per Share Earnings per share were computed using the weighted average number of common and common equivalent shares outstanding each year (39,975,498, 38,703,604 and 36,287,214 in 1982-1980, respectively). Common share equivalents included in the computation consist of common stock issuable upon exercise of outstanding stock options (159,858, 200,801 and 24,611 in 1982-1980, respectively), and conversion of loan stock of Monsanto p.l.c. (109,904, 144,952 and 202,204 in 1982-1980, respectively). Earnings per share assuming full dilution were not significantly different from the primary amounts.

Had the common shares issued in October 1982 (see "Long-Term Debt" note) been issued as of January 1, 1982, pro forma earnings per share for 1982 would have been $8.71. The pro forma amount reflects the effect of decreased aftertax interest expense through the reduction of long-term debt and the increased number of shares outstanding.

Inventories Inventories at December 31, 1982 and 1981 would have been $447 million and $548 million, respectively, higher than reported if the FIFO basis of inventory valuation (which approximates current cost) had been used for all inventories. Under the LIFO inventory method used, it is not practical to identify inventories by classification (i.e., finished goods, goods in process, raw materials and supplies). As a result of liquidation of lower cost inventory "tiers" under the LIFO method, 1982 earnings were favorably impacted by approximately $83 million before taxes.

Short-Term Debt and Bank Credit Arrangements

	1982	1981
Notes payable to banks	**$105**	$139
Current portion of long-term debt	**26**	36
Total	**$131**	$175

The Company has available a $100 million domestic Revolving Credit/Term Loan Agreement and $100 million of short-term lines of credit with twenty-one banks. The Agreement provides for revolving credit through 1986 with any borrowings outstanding at the end of that period convertible into a three-year term loan. The interest rates on any borrowings under these domestic facilities will generally be at or near prevailing prime rates.

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

No borrowings were made under the above credit facilities through February 25, 1983.

In addition, certain ex-U.S. subsidiaries have short-term loan facilities aggregating approximately $403 million, under which loans totaling $76 million were outstanding at December 31, 1982. Interest on these loans is related to various ex-U.S. bank rates.

DSW 021500

Long-Term Debt Long-term debt (exclusive of current maturities) repayable in U.S. dollars, except where indicated, was:

	1982	1981
Monsanto Company:		
8% notes due 1985	**$ 100**	$ 100
4¾% promissory notes due 1993	**49**	53
9⅛% sinking fund debentures due 1997	**67**	90
8½% sinking fund debentures due 2000	**127**	174
3¾% income debentures due 2002	**85**	89
4¼% income debentures due 2008	**50**	50
8¾% sinking fund debentures due 2008	**169**	199
4⅘%-11⁹⁄₁₀% industrial development bond obligations due 1984/2021	**247**	211
Capitalized lease obligations	**10**	13
Monsanto (Suisse) S.A. (Swiss subsidiary) (Swiss franc):		
6½% sinking fund debentures due 1986	**24**	27
Monsanto Europe, S.A. (Belgian subsidiary) (Belgian franc):		
9¾%-14½% bank loans due 1984/1988 (a)	**25**	56
Other, principally ex-U.S. subsidiaries (b)	**50**	48
Total	**$1,003**	$1,110

Notes:
(a) The interest rates on certain of these bank loans are reduced by a government subsidy of 4 percent, which is scheduled to expire in 1983.
(b) Includes $5 million at December 31, 1982 of Monsanto International Finance Company 4½% sinking fund debentures convertible into the Company's common stock at $85 per share, and $4 million at December 31, 1982, of Monsanto p.l.c. (U.K. subsidiary) 5% loan stock convertible into the Company's common stock at a rate equivalent to $55 per share.

Maturities and sinking fund requirements on long-term debt are $26 million, $30 million, $153 million, $64 million and $27 million for the five years ending December 31, 1983 through 1987, 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, 1982.

Monsanto has various parallel loan agreements, scheduled to expire from 1983 through 1986, with U.K. companies. Monsanto's borrowings of $66 million and $85 million in British pounds sterling and U.S. dollar loans of $69 million and $82 million as of December 31, 1982 and 1981, respectively, are reflected net in the accompanying Statement of Consolidated Financial Position since both parties have the legal right of offset in case of default. Interest rates on the sterling loan are 2½ percent to 2¾ percent higher than the interest rates on the corresponding dollar loans.

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

On October 22, 1982, the Company exchanged 988,075 shares of its common stock for $100 million principal amount of various long-term debentures resulting in an extraordinary gain of $23 million ($0.58 per share).

Commitments and Contingencies Commitments in connection with uncompleted additions to property aggregated approximately $126 million at December 31, 1982. Monsanto was contingently liable as guarantor of bank loans and for discounted customers' receivables totaling approximately $72 million at December 31, 1982, including $13 million related to guarantees of loans of affiliates.

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

Capital Stock The outstanding preferred stock is stated at $2.24 per share, has a cumulative dividend of $2.75 per share and is convertible into 1.12 shares of the Company's common stock. Preferred stock may be redeemed solely at the Company's option at $73 per share (the voluntary liquidation preference) and has an involuntary liquidation preference of $35 per share, or an aggregate of $3 million at December 31, 1982.

At December 31, 1982, there were 296,738 common shares reserved for conversion of convertible securities and 1,849,641 common shares for employee stock options.

Stock Option Plans At December 31, 1982, there were 1,279,634 shares under options outstanding for the Company's 1969 and 1974 Plans at prices ranging from $48.50 to $92.88. Options for 829,989 shares were exercisable at December 31, 1982. During 1982, 239,650 options were granted and 237,387 options, granted at prices ranging from $47.25 to $73.19 per share, were exercised.

Stock appreciation rights (SAR's) are authorized to be granted under the 1974 Plan, and may be granted retroactively for unexercised options under the 1969 and 1974 Plans. At December 31, 1982, SAR's related to options for 303,028 shares were outstanding; of these, 187,321 were exercisable. During 1982, SAR's related to options for 57,900 shares were granted and 124,261 were exercised.

Segment Information Certain operating unit segment data for 1982-1980 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 the "Sales by Product Group" data on page 33. The operating unit segment information has been restated as described on page 37. Unusual or nonrecurring charges or credits were included in the operating units and world areas as discussed in the "Principal Divestitures" note. The liquidation of lower cost inventory "tiers" under the LIFO method increased 1982 operating income by $20 million, $27 million and $35 million for Fibers and Intermediates, Industrial Chemicals and Polymer Products, respectively.

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Intercompany or inter-area receivables and profit derived from intercompany or inter-area sales are the principal items reflected in eliminations in arriving at the consolidated totals. Inter-area sales, which are sales from one Monsanto location to another Monsanto location in a different world area, were made on a market basis. Certain corporate expenses, primarily those related to the overall management of the Company, were not allocated to the operating units or world areas. Nonoperating assets principally include cash, time deposits and certificates of deposit, short-term securities and investments.

Total sales between operating units (made on a market basis) were $311 million, $393 million and $381 million in 1982-1980, respectively. These sales were not significant for any operating units except Industrial Chemicals ($151 million, $162 million and $147 million in 1982-1980, respectively).

Net sales by world area entities were:

	Outside Customer			Inter-Area		
	1982	1981	1980	**1982**	1981	1980
United States	**$4,483**	$4,874	$4,465	**$ 467**	$ 554	$ 535
Europe-Africa	**1,079**	1,247	1,378	**108**	115	59
Canada-Latin America	**448**	486	459	**5**	4	4
Asia-Pacific	**315**	341	272	**21**	25	27
	6,325	6,948	6,574	**601**	698	625
Eliminations				**(601)**	(698)	(625)
Total consolidated	**$6,325**	$6,948	$6,574	**$ —**	$ —	$ —

United States entities' export sales to outside customers were:

	1982	1981	1980
Europe-Africa	**$ 32**	$ 41	$ 69
Canada-Latin America	**144**	198	182
Asia-Pacific	**221**	249	241
Total	**$ 397**	$ 488	$ 492

Operating income (loss) and total assets by world area entities were:

	Operating Income (Loss)			Total Assets		
	1982	1981	1980	**1982**	1981	1980
United States	**$ 461**	$ 650	$ 255	**$4,711**	$4,437	$4,256
Europe-Africa	**39**	38	(44)	**790**	1,049	1,026
Canada-Latin America	**30**	41	24	**247**	280	291
Asia-Pacific	**11**	25	13	**172**	227	176
	541	754	248	**5,920**	5,993	5,749
Eliminations	**8**	(16)	1	**(268)**	(334)	(223)
Corporate expenses	**(48)**	(36)	(39)			
Total operating	**501**	702	210	**5,652**	5,659	5,526
Income charges—net	**—**	9	4			
Nonoperating assets				**425**	410	270
Total consolidated	**$ 501**	$ 693	$ 206	**$6,077**	$6,069	$5,796

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

	1982	1981	1980
Operating income (loss)	**$ 80**	$ 104	$ (7)
Income charges (credits)—net	**14**	(38)	48
Income taxes	**35**	30	11
Net income (loss) of consolidated ex-U.S. subsidiaries	**$ 31**	$ 112	$ (66)
Total operating assets	**$1,209**	$1,556	$1,493
Total liabilities, net of nonoperating assets	**440**	691	699
Net assets of consolidated ex-U.S. subsidiaries	**$ 769**	$ 865	$ 794

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Financial Summary
(Dollars in millions, except per share)

			1982(1)(2)	1981
Operating Results	Net Sales		**$6,325**	$6,948
	Operating Income		**501**	702
	Interest Expense		**82**	101
	Income Taxes		**172**	248
	Net Income		**352**	445
	Percent of Net Sales		**6%**	6%
	Percent of Average Shareowners' Equity		**10%**	15%
Earnings Per Share	Primary		**$ 8.79**	$11.50
	Fully Diluted		**8.74**	11.43
Yearend Financial Position	Total Assets		**$6,077**	$6,069
	Working Capital		**1,503**	1,486
	Property, Plant & Equipment:	Gross	**$6,530**	$6,218
		Net	**3,313**	3,184
	Long-Term Debt		**$1,003**	$1,110
	Shareowners' Equity		**3,490**	3,330
	Current Ratio		**2.58**	2.40
	Percent of Debt to Total Capitalization		**22%**	25%
Other Data	Per Common Share:	Dividends	**$ 3.95**	$ 3.75
		Shareowners' Equity	**85.97**	84.37
	Property, Plant & Equipment Additions		**$ 673**	$ 668
	Depreciation and Obsolescence		**439**	263
	Shareowners:	Common	**75,943**	79,029
		Preferred	**709**	775
	Common Shares Outstanding (in millions)		**41**	40
	Employees		**52,199**	57,391

(1) Net income for 1982 includes an extraordinary gain of $23 million, or $0.58 per primary share, from an exchange of debt for common shares.
(2) In 1982, the requirements of Statement of Financial Accounting Standards No. 52, "Foreign Currency Translation," were adopted.

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1980(3)	1979	1978	1977	1976	1975	1974(4)	1973	1972
$6,574	$6,193	$5,019	$4,595	$4,270	$3,625	$3,498	$2,648	$2,225
210	487	632	610	668	547	550	406	216
112	123	103	86	80	56	43	39	37
57	150	274	248	251	230	251	173	81
149	331	303	276	366	306	323	238	122
2%	5%	6%	6%	9%	8%	9%	9%	6%
5%	12%	12%	12%	17%	16%	20%	17%	10%

$ 4.10	$ 9.11	$ 8.29	$ 7.46	$10.05	$ 8.63	$ 9.25	$ 6.90	$ 3.49
4.06	9.03	8.21	7.37	9.77	8.22	8.73	6.54	3.40

$5,796	$5,539	$5,036	$4,350	$3,959	$3,451	$2,938	$2,545	$2,237
1,226	1,323	1,296	1,080	1,106	1,150	968	855	677
$6,074	$5,529	$5,167	$4,745	$4,208	$3,620	$3,157	$2,852	$2,765
3,109	2,818	2,605	2,409	2,090	1,660	1,312	1,152	1,133
$1,371	$1,203	$1,224	$1,031	$ 915	$ 845	$ 587	$ 579	$ 576
2,808	2,782	2,579	2,401	2,253	1,977	1,755	1,484	1,294
2.07	2.16	2.46	2.64	2.92	3.39	2.88	3.06	3.17
33%	30%	32%	30%	29%	30%	25%	28%	31%

$ 3.55	$ 3.35	$ 3.175	$ 3.025	$ 2.75	$ 2.55	$ 2.30	$ 1.90	$ 1.80
77.63	77.20	71.26	66.16	61.79	56.62	51.39	44.26	39.05
$ 781	$ 566	$ 480	$ 607	$ 647	$ 528	$ 313	$ 205	$ 168
547	413	288	296	226	173	172	170	194
82,441	85,608	86,775	85,021	84,647	91,725	98,542	98,964	104,369
871	952	1,156	1,404	1,956	2,836	3,709	3,855	3,939
36	36	36	36	36	35	34	33	33
61,836	63,926	62,851	61,519	61,903	59,242	60,926	58,277	57,891

(3) In 1980, interest costs related to construction-in-progress expenditures were capitalized in accordance with Statement of Financial Accounting Standards No. 34. Prior to 1980, all interest costs were expensed as incurred. The effect of the new accounting principle was to increase 1980 net income by $28 million or $0.76 per primary share.

(4) In 1974, the Company and certain of its domestic subsidiaries changed their method of inventory valuation for substantially all United States inventories from the FIFO basis to the LIFO basis. The effect of this change was to decrease 1974 income by $78 million or $2.26 per primary share.

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Directors and Officers

Board of Directors

John W. Hanley
St. Louis
Chairman of the Board and
Chief Executive Officer

Dr. Donald C. Carroll
Philadelphia
Dean of The Wharton School
University of Pennsylvania

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

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

Richard I. Fricke
Montpelier, Vermont
President and Chief Executive Officer
National Life Insurance Company

Howard M. Love
Pittsburgh
Chairman of the Board and
Chief Executive Officer
National Steel Corporation

Richard J. Mahoney
St. Louis
President and Chief Operating Officer

Dr. Jean Mayer
Medford, Massachusetts
President
Tufts University

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

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

Francis E. Reese
St. Louis
Senior Vice President

Monte C. Throdahl
St. Louis
Senior Vice President

Admiral Stansfield Turner
U.S. Navy, Retired
Arlington, Virginia
Consultant and Lecturer

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

Advisory Directors

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

Committees of the Board

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

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

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

Executive Compensation and Development
Richard I. Fricke
Howard M. Love
Buck Mickel

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

Nominating
C. Raymond Dahl
Howard M. Love
Buck Mickel

Pension and Savings Funds
Dr. Donald C. Carroll
Dr. Louis Fernandez
Richard I. Fricke
Admiral Stansfield Turner

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STLCOPCB4006814

Officers

Chairman of the Board and Chief Executive Officer
John W. Hanley

President and Chief Operating Officer
Richard J. Mahoney

Vice Chairman of the Board
Dr. Louis Fernandez

Executive Vice Presidents
Francis J. Fitzgerald
Earle H. Harbison Jr.
Nicholas L. Reding

Senior Vice Presidents
Robert L. Berra
Francis E. Reese
Dr. Howard A. Schneiderman
Monte C. Throdahl

Senior Vice President and Chief Financial Officer
Francis A. Stroble

Senior Vice President, Secretary and General Counsel
Richard W. Duesenberg

Group Vice Presidents
Robert E. Burke
Harold J. Corbett
Thomas L. Gossage
Robert G. Potter

Vice Presidents
Dr. Constantine E. Anagnostopoulos
Alfred W. Andrews
Leonard A. Cohn
Charles A. Faden
Dr. S. Allen Heininger
Martin J. Kallen
Dr. Joseph T. Nolan
Sam Pickard
Ernest S. Robson Jr.
Donald H. Swan

Vice President and Treasurer
Lawrence B. Skatoff

Vice President and Controller
Michael F. Mee

Annual Meeting

The next Annual Meeting of the shareowners of Monsanto Company will be held at 1:45 p.m., Friday, April 22, 1983, at the Company's General Offices, 800 N. Lindbergh Blvd., St. Louis, Missouri. A formal notice of the meeting, together with a proxy statement and form of proxy, is being mailed to each shareowner.

10-K Report, Corporate Data Book and Investor News

A copy of Monsanto Company's Form 10-K Report filed with the Securities and Exchange Commission for 1982; a 1982 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

Transfer Agent and Registrar

The First National Bank of Boston

DSW 021506

Monsanto Company

800 North Lindbergh Boulevard
St. Louis, Missouri 63167