
**THE LUBRIZOL CORPORATION
1988 ANNUAL REPORT**



ABOUT THIS REPORT

A key factor in the strength of The Lubrizol Corporation is the dedication of employees to the company, its shareholders and customers. Within the pages of this report, representatives of the 4,800 men and women who make up The Lubrizol Corporation explain their views on the importance of providing superior products and outstanding services to customers worldwide.

ABOUT THE COMPANY

Founded in 1928, The Lubrizol Corporation is a specialty chemical company comprised of two business units that employ chemical, mechanical and biological technologies to develop products for diverse markets. Some 4,800 men and women in plants, offices and laboratories around the world are engaged in:

Lubrizol's successful and growing Specialty Chemical segment which serves worldwide markets in transportation and industry. Lubrizol Petroleum Chemicals Company is the recognized leader in developing and marketing additive systems which provide the characteristics required in modern motor oils, automatic transmission fluids, gear oils and other automotive, industrial and marine lubricants. Lubrizol Business Development Company seeks to create new business units which focus on the use of the company's technical resources to satisfy customer requirements for industrial fluids, fuels and specialty chemicals. It also supports commercial technical development and furnishes venture capital assistance to evolving strategic business units company-wide.

The Agribusiness segment, through the Agrigenetics Company, carries out research, development and marketing of premium crop seeds and specialty vegetable oils, and markets superior products to the agricultural, food and chemical industries.

Financial Highlights

(In Thousands of Dollars Except Per Share Data)

| | 1988 | 1987 | Increase |
|---|-------------|-------------|----------|
| Revenues | \$1,125,731 | \$1,022,277 | 10% |
| Net income | 139,957 | 81,335 | 72 |
| Net income per share | 3.62 | 2.06 | 76 |
| Dividends per share | 1.30 | 1.22 | 7 |
| Capital investments | 71,891 | 56,460 | 27 |
| Research and development expenses | 65,320 | 61,538 | 6 |
| Shareholders' equity | 664,308 | 621,633 | 7 |
| Total assets | 970,671 | 939,378 | 3 |

Common Share Price History

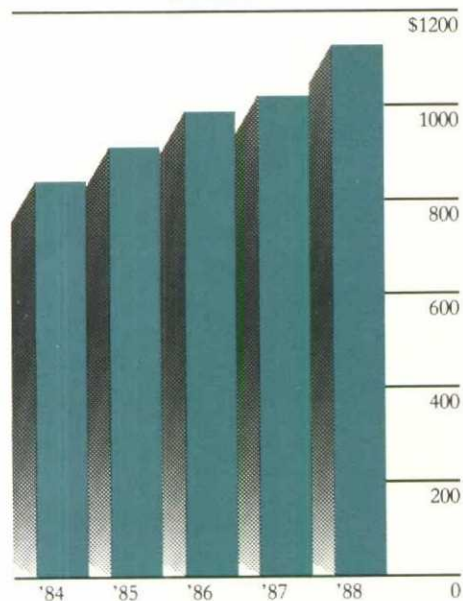
| | 1988 | | 1987 | |
|-----------------------|----------------------------------|------|----------------------------------|----------------------------------|
| | High | Low | High | Low |
| 1st quarter | \$42 ³ / ₈ | \$30 | \$39 ³ / ₄ | \$32 ⁵ / ₈ |
| 2nd quarter | 41 | 33 | 41 ³ / ₄ | 33 ³ / ₄ |
| 3rd quarter | 40 ¹ / ₂ | 34 | 41 ³ / ₈ | 35 ³ / ₄ |
| 4th quarter | 40 | 34 | 39 ¹ / ₄ | 25 ¹ / ₄ |

Dividends per Common Share

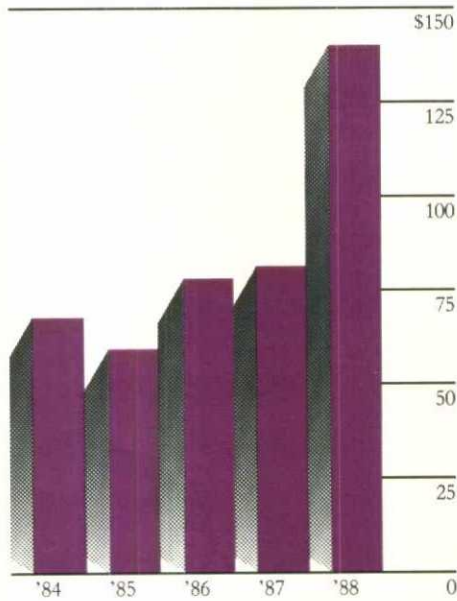
| | 1988 | 1987 |
|-----------------------|--------|--------|
| 1st quarter | \$.32 | \$.30 |
| 2nd quarter | .32 | .30 |
| 3rd quarter | .32 | .30 |
| 4th quarter | .34 | .32* |
| Total | \$1.30 | \$1.22 |

*Paid in January 1988.

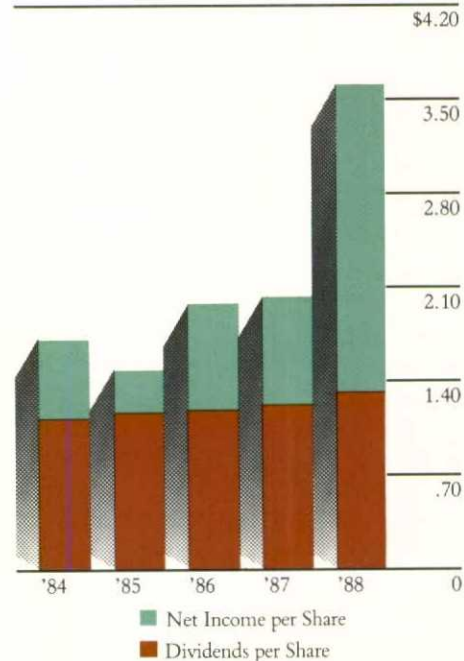
Revenues
(millions)



Net Income
(millions)



**Net Income per Share /
Dividends per Share**



■ Net Income per Share
■ Dividends per Share

TO OUR SHAREHOLDERS:



W. G. Bares

L. E. Coleman

We are pleased to report that 1988, our 60th anniversary, was a very good year for Lubrizol with substantial increases in revenues, net income and income per share.

It was a year of challenge and unusual circumstances resulting, in part, from decisions to consolidate our businesses and to strengthen our marketing position. We took important steps to realign the company's operating segments to support continuing progress, a strategy designed to continue the development of businesses resulting from our diversification program undertaken several years ago.

From a financial standpoint, 1988 results clearly demonstrated progress. Consolidated revenues were \$1,125,731,000, an increase of 10 percent over the strong results of 1987. Net income from operations increased 19 percent to \$2.29 per share. Product shipments increased by 7 percent.

Consolidated net income was \$139,957,000 and net income per share was \$3.62. This included after-tax gains on the settlement of a patent suit of \$1.37 per share, on the sale of investments of \$.18 per share and on an accounting standards change of \$.22 per share. The year also included after-tax charges for certain discontinued agricultural research programs and the write-down of several investments of \$.44 per share. For your convenience, these gains and charges are summarized in a table on page 20 of this report.

Rewarding shareholders by providing a high return on invested capital is one of the commitments included in our Corporate Philosophy. In the fourth quarter of 1988, the

quarterly dividend was increased from \$.32 per share to \$.34 per share for an annualized rate of \$1.36 per share. This was the fifth consecutive year in which the dividend was raised. Dividends to shareholders in 1988 totaled \$50,422,000.

During the year, the company purchased one million outstanding shares, an action which will have a favorable impact on earnings per share in future years.

Exxon Litigation

Since its founding, Lubrizol has supported an active and growing research program, which our shareholders have consistently supported. The resultant technology and superior products have enabled Lubrizol not only to compete with companies many times its size but to become the leader in our business. In order to protect this technology and ensure its continued profitable use, Lubrizol has been granted many patents.

With the issuance by the American Petroleum Institute of Category SG specifications for passenger car motor oil in March 1988, it became apparent that continued use by Exxon and its additive unit, Paramins, of products covered by a particular Lubrizol patent posed the threat of serious and lasting harm to Lubrizol. This patent was one of eleven Lubrizol patents involved in three suits brought against Exxon to protect our technology.

Because of the immediacy of the problem, we filed for a preliminary injunction in federal district court in Cleveland requesting that Exxon be enjoined from making and selling these products. The federal court conducted a five-day hearing that concluded on May 19. The court granted the preliminary injunction on June 17.

Full trial on the first of the infringement suits was scheduled to begin in federal court on October 31. Late in the day on Sunday, October 30, a settlement was reached with Exxon and a final consent order was issued by the court. In this order, Exxon recognized the validity and enforceability of the Lubrizol patents. Exxon further agreed to stop marketing more than 300 accused products and to pay Lubrizol \$80 million in cash and \$6 million in trade credits.

We are pleased with this settlement. It confirms the validity of our patents and supports our strong action in protecting the rights of the company and its shareholders to gain from the proceeds of the commercial application of the products covered by these patents. Legal action against Exxon continues with patent infringement suits proceeding in France and Canada.

New Business Segment Structure

Lubrizol has revised its operating business structure since last year's annual report. The company is now organized into two business segments. These are Specialty Chemicals, consisting of Lubrizol Petroleum Chemicals Company and newly designated Lubrizol Business Development Company, and Agribusiness, which is Agrigene-

tics Company, plus our investments in the development of other commercially viable agriculture technology.

The petroleum industry is our traditional core business. We continue to assess this dynamic and profitable market for opportunities to use our technology and marketing capabilities to address changing demands. The mission of Lubrizol Petroleum Chemicals Company is to develop, manufacture and market additive chemicals for lubricants and functional fluids in alliance and cooperation with petroleum companies and other suppliers of these materials.

William D. Manning is the president of Lubrizol Petroleum Chemicals Company. Bill has 26 years of Lubrizol service with responsibilities in sales, marketing and general management positions.

Lubrizol Business Development Company is a new name but not a new business area for the company. The major element of this business was established in 1981 as the Business Development Division to manage, strengthen and broaden our activities in industrial lubricants, fuel products and diversified specialty chemicals.

The mission of Lubrizol Business Development Company is to create new business units focused on the use of the company's technical resources to satisfy customer requirements for specialty chemicals, fuels and industrial fluids. It also supports commercial development and furnishes venture capital assistance to evolving strategic business units within the Corporation. The Company has been given responsibility for a number of opportunities created through Lubrizol's past investment in companies active in complementary and related technology.

R. John Senz is president of this unit. John has 25 years of experience with Lubrizol in sales, marketing, research and general management.

Agribusiness consists of Agrigenetics Company, with its eight seed divisions; SVO Enterprises, the specialty vegetable oil development group; and our research activities in the field of agriculture.

The mission of Agrigenetics Company is to maximize long-term return on investments in the plant genetics supply business and agricultural-related technologies through careful management of today's business and prudent investments for future growth.

To carry out this mission, Agrigenetics will develop, produce and market new products using plant genetics to meet the needs of agriculture and the food and chemical industry. Focus is on improving efficiency within the plant genetic supply sector, expanding and developing products for the food and chemical industry and maximizing impact on these businesses from our research investments.

John A. Studebaker is president of Agrigenetics Company which was acquired in 1985 and became a division of Lubrizol in late 1988. John, who joined Lubrizol in 1986,

has more than 30 years experience in the seed development and production business.

In past years, we reported on the New Technologies segment which was responsible for our venture capital investments. Beginning in the late 1970's, this group invested in 16 companies which were involved in developing new technology in biological, chemical and material sciences.

This effort has evolved from one of seeking investments to a concentrated thrust aimed at developing new commercial business opportunities for Lubrizol from existing holdings. In order to capitalize on the potential resulting from the development of those investments which relate to agriculture, they have been consolidated into the Agribusiness operation. Those units pursuing the chemical and material sciences now are managed by Lubrizol Business Development Company. This new structure will ensure a rigorous evaluation of the strengths of these investments and their potential for becoming commercially successful businesses.

The restructuring of what has been a highly visible investment strategy to efficiently explore new technology into a business-oriented function to exploit the new technology underscores the company's strong commitment to identifying opportunities that will sustain our reach into new and existing markets.

We have obtained valuable insight into extensive market opportunities and are confident that the long-term thrust of our current strategy will further brighten the company's prospects and performance. In short, we believe that this is the organization that makes the most effective use of our existing assets and will produce meaningful results well into the future as our markets and worldwide demands and requirements continue to change.

Corporate Officers

During 1988, Douglas W. Richardson retired as vice president after 33 years of service.

As we prepare to move into the decade of the 1990's, we are confident that the company is strategically positioned to capitalize on its wealth of technology and that it is financially and organizationally stronger than at any time in its 60-year history. We are optimistic about the future and the role Lubrizol will have in serving its expanding markets.

On behalf of the Board of Directors and the company's 4,800 employees, we want to express appreciation for your continued support.



L. E. Coleman
Chairman of the Board
March 15, 1989



W. G. Bares
President

The company's new operating structure strengthens existing business activities and focuses on programs aimed at providing rapid response to worldwide market demand for additive systems used in transportation and industrial applications.

The Specialty Chemicals segment consists of the Lubrizol Petroleum Chemicals Company and the Lubrizol Business Development Company. Each has its specific mission and their combined thrust broadens Lubrizol's worldwide position as the leader in the development and marketing of specialty chemicals used in lubricants, fuels and functional fluids for industry.

From its inception sixty years ago, Lubrizol has concentrated on research and technical innovation. The company currently markets more than 1,000 formulations for lubricating oils and fuels and nearly 200 specialty products for industry. We serve more than 4,000 customers worldwide including the largest national and international petroleum companies and lubricant formulators.

1988 sales of specialty chemicals were: 32% in North America; 32% in Europe; 16% in the Far East; 8% in Latin America; and 12% in other areas.

In 1988, consolidated research expenditures were \$65.3 million, or 6 percent of revenues. Of these expenses, \$43.1 million, or approximately 66 percent of the total, was for the development of products for this segment. In addition, testing expenses were \$43 million for the year.

LUBRIZOL PETROLEUM CHEMICALS COMPANY

This company was formed in 1987 to direct concentrated efforts on the needs of the petroleum industry.

This is our traditional core business. Lubrizol Petroleum Chemicals Company is responsible for the full spectrum of activities to successfully reach new and expand existing worldwide markets.

Its mission is to develop, manufacture and market additive chemicals for lubricants and functional fluids in alliance and cooperation with petroleum companies and other suppliers of these materials.

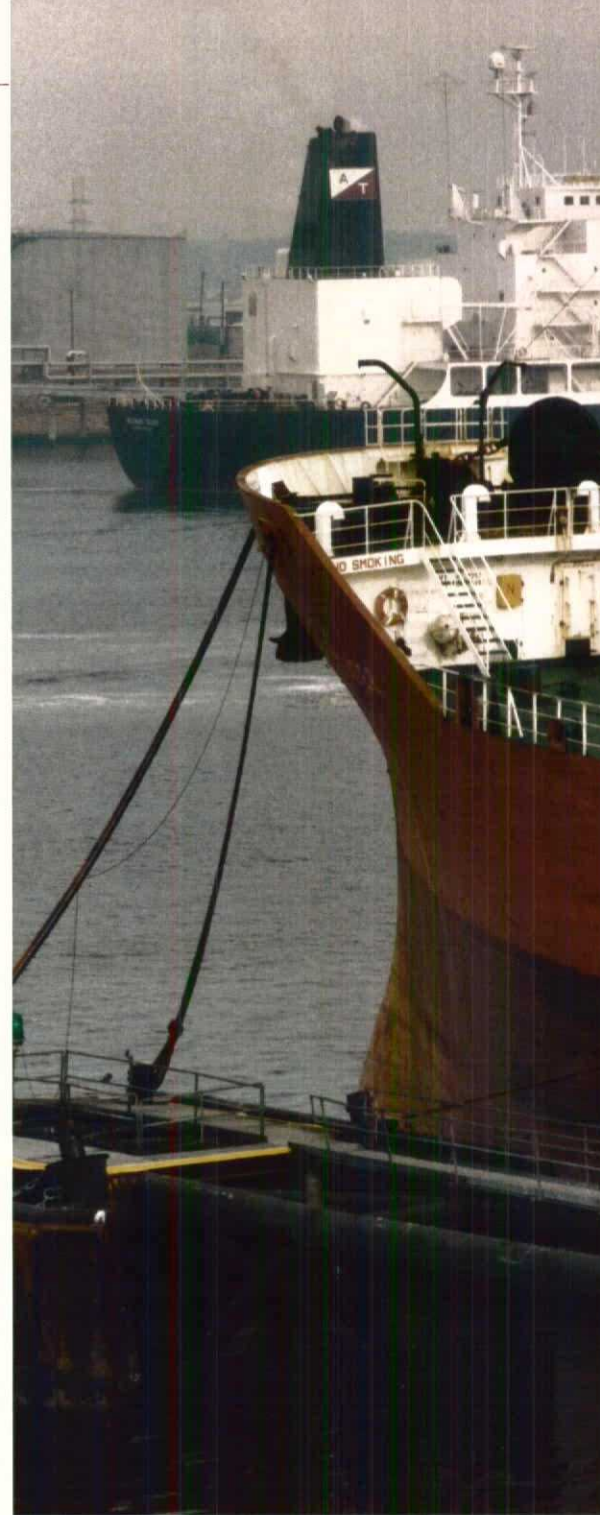
Operations of Lubrizol Petroleum Chemicals Company are supported by a worldwide organization including 18 manufacturing facilities, 40 sales and service offices and almost 3,000 employees. Customers include lubricant producers and blenders in more than 100 nations.

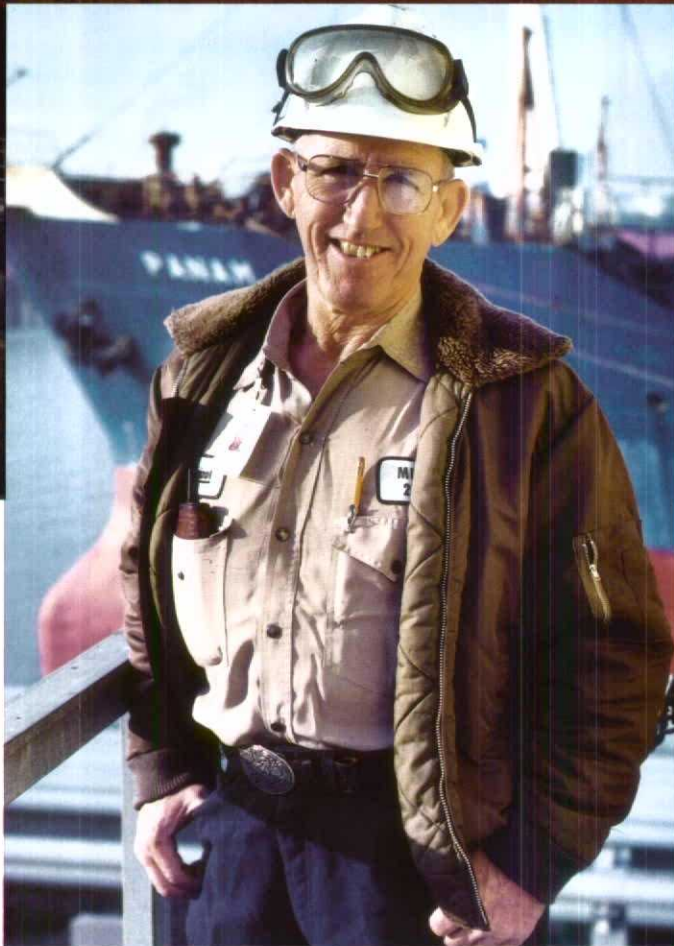
Significant international developments in 1988 include:

- The renewal of a long-standing agreement to produce and sell additives in India with the Government of India as the majority partner. This agreement provides for the continuous upgrading of the technology employed and the quality of additives produced.
- The completion in China of a lubricant additive manufacturing facility, the first of its kind in that nation. Working with indigenous raw materials, the company adapted the technology to produce modern additive systems.
- The strengthening of the additive business in Mexico and Brazil despite generally poor economic climates. Lubrizol has joint venture manufacturing facilities in both nations.

Passenger Car Motor Oil

The introduction of the American Petroleum Institute (API) Service Category SG motor oil standards in





“HANDLING UP TO THIRTY MILLION GALLONS OF ADDITIVES FOR WORLDWID SHIPMENT EVERY YEAR REQUIRES EVERYBODY’S CLOSE ATTENTION SO CUSTOMERS CAN COUNT ON OUR PRODUCT TO DO THE JOB WHEN IT’S DELIVERED.”

Delroy Mulkey, Loading Terminal Operator



**“BRINGING
PROJECT TEAMS TOGETHER
TO FOCUS ON EVERY ASPECT
OF ADDITIVE PRODUCTION
WILL CONTRIBUTE SIGNIFICANTLY
TO LUBRIZOL’S PRODUCT
QUALITY WORLDWIDE.”**

Mary Ann Jamiol, Process Development Engineer





March 1988 was the petroleum industry's response to the fast-paced development of more complex, smaller, electronically controlled engines, many with turbocharging and fuel injection. This evolution in engine technology has increased the need for higher quality motor oils. In addition, changes in refining techniques have affected base stock characteristics and have contributed to additive use.

The motoring public is again showing a preference for more frequent oil changes as an important step in long-term engine efficiency. It is estimated that there are 390 million autos worldwide, with a net addition of more than 14 million cars in 1988. These vehicles, along with vans, trucks and off-highway vehicles, require a variety of lubricants but motor oil is the largest segment of the market.

New vehicle warranties are being extended on drive train components such as engines and transmissions. Motor oils are a major contributor to engine life and efficiency, and U.S. auto manufacturers have specified the new standards either as a requirement or option on all 1989 models and as a requirement in 1990.

Consumers are also more aware of the need for clean, high quality motor oils to keep engines operating at peak performance. Even though manufacturers have established longer drain intervals for crankcase oil, the growth and convenience of drive-through oil change locations coupled with higher vehicle prices and consumer demand for peak engine performance should have a positive impact on oil consumption. Frequent oil changes are generally regarded as a small investment toward extending the life of a vehicle.

The European auto manufacturers also have high standards for motor

oils. In fact, while the API SG category oil has been accepted by all U.S. manufacturers, the major car producers in Europe have historically imposed even higher standards. And unlike the U.S., where a single standard is agreed upon, many European car makers have exacting standards of their own.

The impact of testing requirements was very noticeable at the company's Hazelwood, England, testing lab in 1988. The facility has been modified to enable engines to be moved rapidly and easily into test so a greater volume of work can be accomplished more rapidly. This, combined with increased use of computer control, has improved the productivity of the lab and enabled the company to move forward in developing the additive packages used in lubricants required by car manufacturers.

The technology and procedures are complex, and this has meant a heavy investment in time and equipment for Lubrizol. The result, however, will be the ongoing and timely development and introduction of the required additives. This investment in technology will be rewarded as oil companies and blenders turn to Lubrizol for their additive products.

The major upgrades in standards in the company's two biggest markets provided difficult challenges in 1988. Lubrizol technology developed over many years played an important role in the company's ability to provide solutions which resulted in the higher quality products demanded by car makers. At the same time, new technology is being developed which will play a role in the future as engines and lubricants continue to evolve.

One positive factor is that the amount of additives required to meet

new standards continues to increase. Lubrizol is well situated to benefit by this expanding business opportunity.

Automatic Transmission Fluids

Automatic transmissions have undergone changes in technology just as engines have been designed to meet new demands for performance and efficiency. The automatic transmission fluids (ATF) required by today's marketplace reflect the closer tolerances and lighter weight materials found throughout modern vehicles. While engines are not physically larger than in the past, they are developing more power and torque, and this has resulted in the need for improved transmissions.

Vehicle manufacturers have established strict standards for ATF products, but unlike API SG standards for motor oil, each manufacturer has its own specifications. General Motors continues to improve its DEXRON® II standard, and in 1987, Ford introduced its MERCON® specification.

Working closely with these manufacturers as well as with companies which produce transmissions for heavy duty vehicles, such as Allison and Caterpillar, the company has developed a multifunctional universal ATF system that meets many end use requirements. Designated the 7900 Series, this additive system has rapidly gained a large share of the market in North America and overseas.

ATF chemistry is one of the most complicated of the lubricant additives. Lubrizol's ability to produce a universal product to meet manufacturer's requirements for a wide variety of complex equipment underscores the company's long-standing expertise in this specialty field. From the consumers' viewpoint, the product ensures that

transmissions will operate smoothly and efficiently.

Significantly, a large volume of ATF is used outside of the transmission market in hydraulic applications. The 7900 Series also meets the requirements of this market.

Gear Oils

Changes in lubricant specifications have affected virtually every product used in a vehicle, and the requirements for gear oils have kept pace. The major market for these products is the heavy duty truck industry.

New trucks have higher output engines which create more stress on the rear axle and aerodynamic styling that restricts cooling air flow over critical heat generating components such as differentials and transmissions. This increased stress from heat build-up can affect the lubricant. Lubrizol has created a new gear lubricant additive system with greater thermal stability and durability under these higher temperatures. It reduces sludge and other deposits that may lead to oil seal failure and poor shifting characteristics. In addition, the system is environmentally safe, reducing problems with disposal or leakage.

While the overall market for gear lubricants is not expected to change dramatically, the technology has advanced and new products are required. For instance, achievement in developing improved products for European customers has resulted in the need for additional production capacity, and the company is planning a new manufacturing unit in France.

Marine Lubricants

Two important factors are impacting the marine industry and the demand for better performing lubricants. After a long period of slow shipping





**"A STRONG COMMITMENT
TO FIELD TESTING OF GEAR
LUBRICANT ADDITIVES IN HEAVY-DUTY
EQUIPMENT UNDER THE MOST
RUGGED CONDITIONS ASSURES
CUSTOMERS OF PRODUCTS THAT
MEET THEIR REQUIREMENTS."**

Robert H. Arndt, Fleet Technical Specialist



**"WE WANT
TO BE GOOD NEIGHBORS
WITH OUR SURROUNDING COMMUNITY.
THE EMERGENCY RESPONSE TEAM
EXISTS PRIMARILY TO ASSURE
THE SAFETY OF OUR EMPLOYEES
AND THE COMMUNITY."**

Richard Crawley, Emergency Response Coordinator



activity, the industry is showing increasing activity worldwide. At the same time, there is a trend in the construction of new vessels toward larger ships with new engine designs that yield more power using less expensive fuels.

The consumption of lubricants was reduced during the period of low shipping volume and delayed maintenance schedules. Today, higher shipping volume, the desire to improve operating efficiency and the influence of new engine design have resulted in the demand for better lubricants that will lower operating costs in the long term.

While the new engines achieve greater power using lower quality fuel, they require higher quality lubricants. Improved high temperature performance and the ability to neutralize the acid materials generated by lower quality fuels are two of the characteristics necessary in modern marine lubricants.

As a result, shipping operators are showing a preference for the new lubricant additive packages that reduce engine wear and deposit formation, providing important benefits over the life of engines.

This change in the perception of value caused by the upturn in the shipping industry and new engine design has opened another window of opportunity as the company works with the marine industry and lubricant makers.

LUBRIZOL BUSINESS DEVELOPMENT COMPANY

Lubrizol Business Development Company was formed in 1988. It brings together the operating groups of the former Business Development Division with the venture investment and commercial development groups

creating an organization with a broad base of unique technical skills and management expertise.

Its mission is to create new specialty chemical business units focused on the use of Lubrizol technical resources to meet customer requirements for specialty chemicals, fuel additives and industrial fluids, to support commercial development and to furnish venture capital assistance to evolving strategic business units.

The growth of the operating groups, Industrial Products, Fuel Products and New Ventures, has been substantial in recent years. This progress should continue as marketing strategies are refined and existing and developing technology is applied to produce new products that have superior performance, are competitive in price and are environmentally acceptable and safe to use.

The Venture Investment Division manages investments in companies that are working in chemical and material sciences and provides venture investment assistance to emerging businesses within the Corporation.

The Commercial Development Department uses a disciplined decision-making process to evaluate ideas, create business plans and generate substantive businesses.

Industrial Products

Hydraulic fluids and lubricants are used throughout the world in a vast number of applications demanding specific characteristics to ensure efficient equipment operation. The company entered the market for high performance hydraulic additives in 1982 with the introduction of Lubrizol 5178. Continuing research has resulted in the development of a family of anti-wear hydraulic oil additives which

have broad application in manufacturing, mining, materials handling, construction and marine transportation.

The additive system is designed to perform in situations where heat and humidity are present, such as in paper machines, compressors and steel mill applications, and to meet these performance requirements over extended periods of use.

The products meet all of the specifications of major original equipment builders and pump manufacturers. In the period since its introduction, the 5178 Series has become a market leader.

The evolution of the product to a complex family of additives illustrates the company's ongoing examination and commitment to industries and markets which require high performance products. Laboratory and field testing is continuously undertaken by Lubrizol scientists to identify problems and develop solutions.

As the market expands through increasing acceptance, Lubrizol will draw on its basic technology to meet specifications for new equipment. Already in progress is development of products which provide high performance fluids with superior thermal stability, prevent sludge, control acid formation, minimize water contamination problems and ensure proper lubrication of all hydraulic system parts.

The system is universal, and the company holds more than 30 qualifications for use in base stocks from the United States, Canada, the North Sea, Middle East, Asia and South America.

Fuel Products

Research shows that the smaller, precisely engineered and electronically

controlled engines in today's cars are sensitive to any deposits which disturb the air / fuel mixture into the cylinders. These disturbances affect engine performance, particularly during warm-up, and result in increased fuel consumption and higher exhaust emissions.

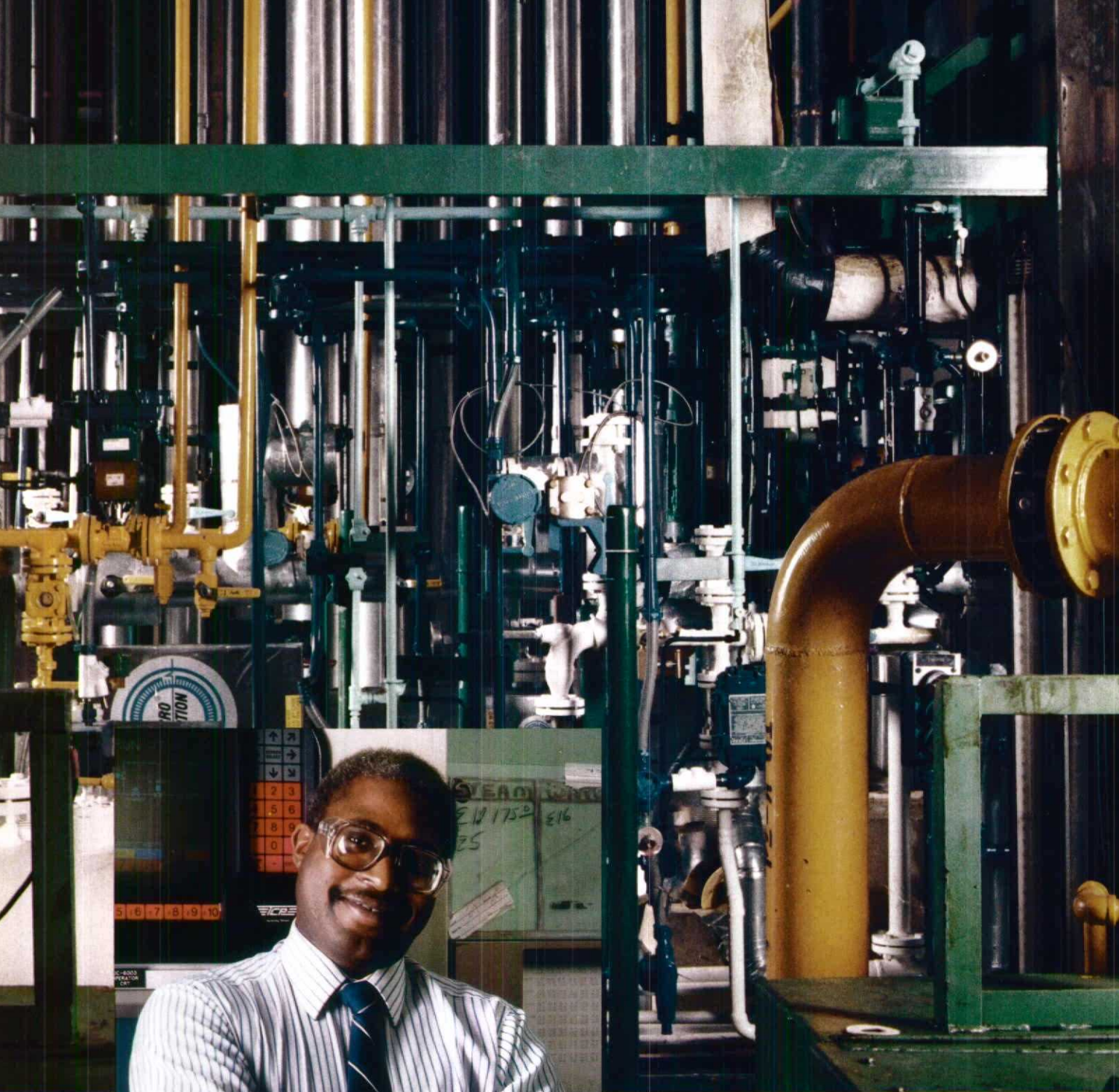
The need for fuel to match the requirements of today's engine design has ushered in a new phase in additive chemistry. Focusing on the serious problem of intake valve deposits (IVD), the company has developed and introduced the Triadd™ gasoline additive system.

The results of Triadd testing were described to the Society of Automotive Engineers at its International Fuels and Lubricants Meeting and Exposition in October 1988. The program described in this paper concluded that while intake valve deposits can cause significant performance losses in a variety of European and U.S. engines, practical additive systems can be formulated to provide excellent intake valve cleanliness and also ensure cleanliness of carburetors and fuel injectors.

The Triadd additive system maintains total intake system cleanliness through a wide variety of fuel requirements. It cleans port fuel injectors and prevents formation of deposits on injectors and intake valves.

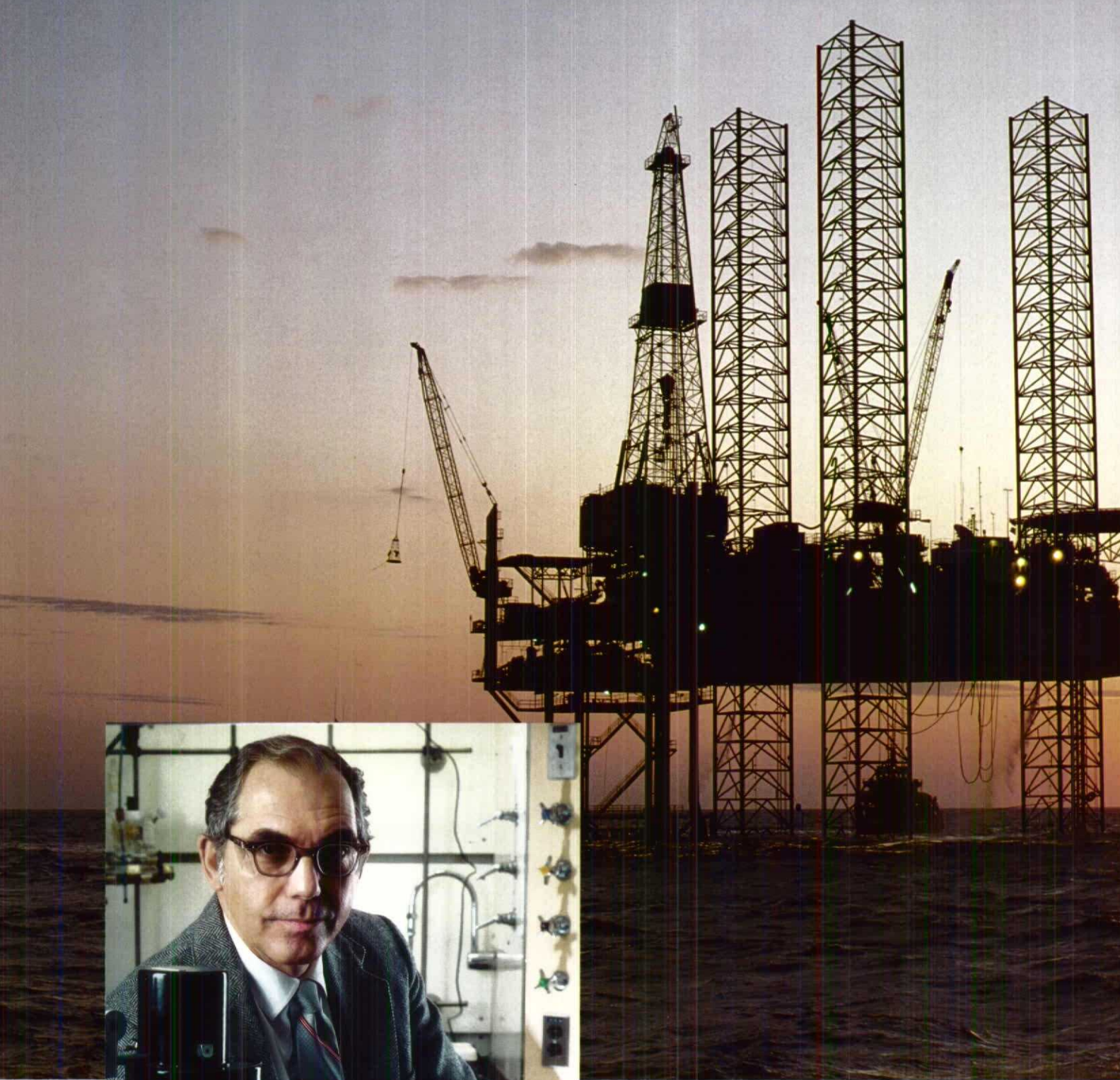
The market for intake valve deposit control additives is large. It can require the use of a much greater volume of additives to maintain intake valve cleanliness than for PFI (Port Fuel Injection) control alone. The company is adding production capacity and is working hard to maximize the opportunities resulting from the strong demand for fuel additives.





**"A NEW COMPUTER CONTROLLED,
IN-LINE FUEL ADDITIVE
BLENDING SYSTEM STRENGTHENS
OUR ABILITY TO MEET CUSTOMER
QUALITY AND QUANTITY DEMANDS
ON A MORE TIMELY AND
EFFICIENT BASIS."**

Albert Earl Murphy, Production Superintendent



**“ADAPTATION OF LUBRIZOL’S
ADDITIVE TECHNOLOGY TO PRODUCE
ENVIRONMENTALLY ACCEPTABLE,
WATER-BASED LUBRICANTS HAS
CREATED OPPORTUNITIES FOR US
IN BROAD NEW MARKETS SUCH
AS OIL FIELD OPERATIONS.”**

John W. Forsberg, Director of Applications Technology



In a move to strengthen its fuel additive business, Lubrizol recently acquired the Gate City Oil Equipment Company of Atlanta, Georgia. Gate City is the leading manufacturer of the specialized equipment required to blend additives accurately into gasoline and diesel fuels. Lubrizol is now able to provide the customer with both the performance additive and the blending equipment.

New Ventures

The extent of the company's search into areas where its complex technology can be applied is evident by its focus within New Ventures on two widely diverse target industries, mining and coatings. In addition, the Process Chemicals Unit is examining other market segments such as plastic additives, textile chemicals and oil field chemicals.

Mining chemicals is a new business area for Lubrizol. It has three distinct segments — exploration, extraction and processing. Research into these areas has led to the introduction of a number of products. These include emulsion explosives which have desirable safety and handling characteristics and flotation agents.

The company is developing and marketing functional fluids used in a variety of applications where performance and environmental protection are important. For example, a water-based hydraulic fluid is used in pit props in long-wall mining. It has proven to be capable of dealing with environments of different mine water quality.

Significantly, Lubrizol works with each customer in formulating the additive that will meet individual requirements. Each mining customer faces different conditions and requires dif-

ferent products, packaging and distribution methods to meet its unique situations.

Flotezol™ ore flotation agents have successfully demonstrated their efficiency in separating sulphide ores of gold, silver and copper from "tailings."

Additional opportunities are expected to result from the better understanding of mine operators' needs and development of perspective on the market and its trends.

Coating technology research began more than 20 years ago, when Lubrizol introduced a highly successful rustproofing product that continues to have strong acceptance. While the application to vehicles is the major focus, there are other opportunities which are being developed as the basis for continued growth of the product line.

In recent years, the company has been involved in the development of coatings that use existing technology. This has resulted in the introduction of a hot-melt coating used by original equipment manufacturers for protection of structural parts such as frames and axles. An upgraded version with improved handleability has been developed and will be introduced soon.

Another promising market is that of paint additives. These products are added to paints to control spread and minimize sag, run and drip. Environmental considerations have prompted the demand for the control of solvent emissions in paints and have resulted in a major change in the market.

Lubrizol, as part of its total commitment to meeting market needs, is working closely with major coatings manufacturers to create products that will perform effectively under a wide variety of conditions while meeting environmental standards.

Lubrizol's activities in the Agribusiness segment include plant breeding, production and marketing of crop seeds, production and marketing of high oleic sunflower oil and its derivatives, and research and development of new superior agricultural products for selected markets. The segment includes the Agrigenetics Company, with its eight seed divisions and one overseas affiliate seed company, SVO Enterprises, and our activities in strategic agricultural research.

The Agribusiness mission is to maximize long-term return on investments in the plant genetics supply business and agricultural-related technologies through careful management of today's business and prudent investment for future growth.

Crop Seeds

Agrigenetics Company, which became a division of Lubrizol in 1988, derives a major portion of its revenues from the sale of crop seeds. In 1988, segment revenues were \$89.9 million. Corn represented 52 percent of seed sales, soybeans 16 percent, sorghum 11 percent, sunflowers 9 percent and seeds of other crops 12 percent. Export sales were 15 percent of total.

Agrigenetics' eight seed divisions are strategically located in the principal agricultural areas of the Central United States. The newest addition is Golden Acres Seed Company of Croton, Ohio, which was formed in 1988. These companies serve the farmers' requirements for crop seeds through a network of local dealers. Each company offers seed for sale under its own brand name. An affiliated company, Helizea-Agrigenetics S.p.A. of Ferrara, Italy, serves the Italian market.

A serious drought in the United States in 1988 adversely affected crop production in widespread areas. However, it did not lower 1988 crop seed sales since the seed for spring planting was produced in 1987 and shipped early in the year. Its effects did cut sharply into production of crop seeds for sale in 1989.

Fortunately, approximately 60 percent of our U.S. seed corn production was on irrigated land and production was good. In addition, we are growing some seed in Mexico during the winter months. The combination of summer production, winter production and inventory carryover will enable us to increase units sold this year.

Most estimates indicate that the crop acreage will increase in 1989 following a period of several years during which the government offered incentives to reduce the planting of several major crops in an effort to cut agricultural surplus.

The lower summer production and higher cost of off-season production have resulted in higher prices for seed.

Specialty Vegetable Oils

SVO Enterprises, a division of Agrigenetics, develops and markets specialty vegetable oils. TRISUN® oil, SVO's major product, is a high oleic sunflower oil used in a wide variety of food products. The hybrid sunflower from which it is made was developed and is produced by SIGCO Research, also a division of Agrigenetics.

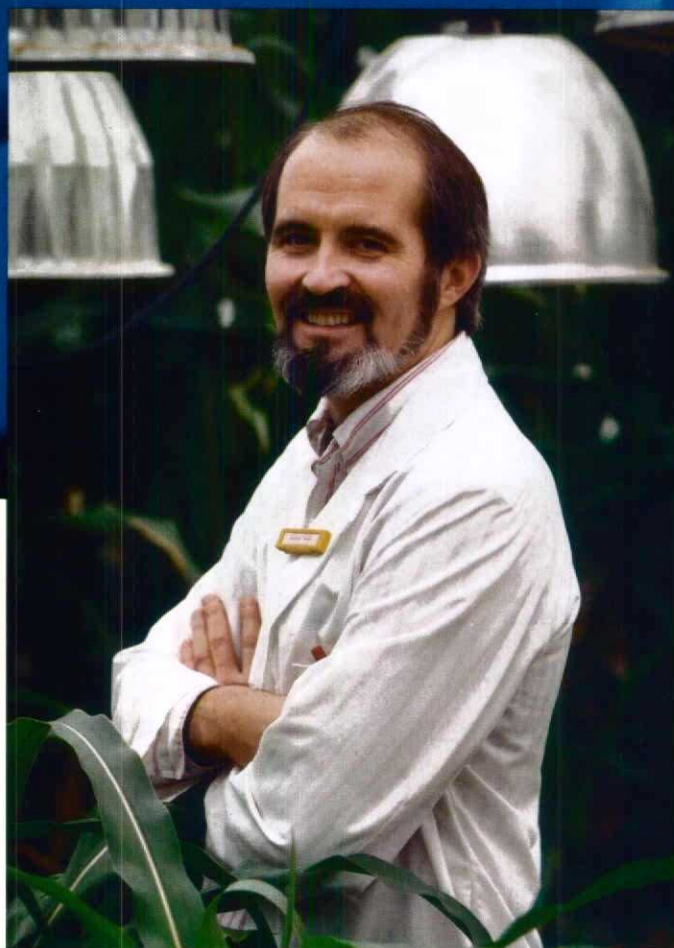
TRISUN is a mono-unsaturated oil with many of the nutritional qualities of olive oil. Vegetable oils are ingredients in such products as non-dairy creamers and baby formula. They are

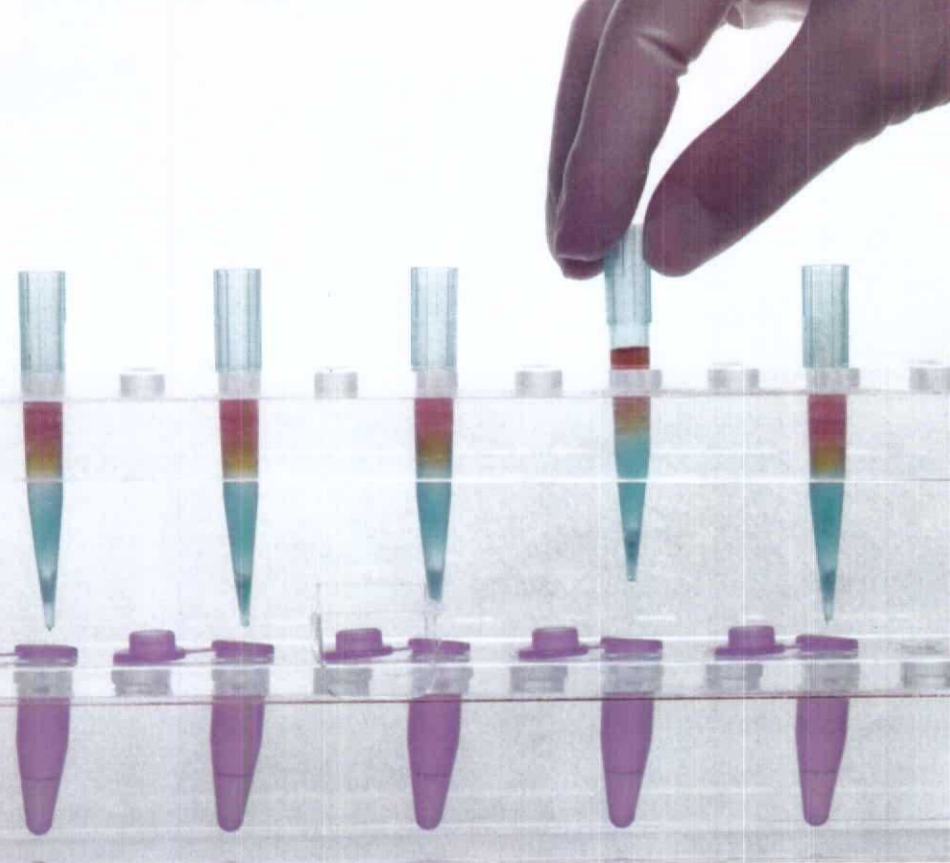




**"WE USE THE MOST ADVANCED
MOLECULAR TECHNOLOGY AND
GENE-MAPPING TECHNIQUES
TOGETHER WITH TRADITIONAL
PLANT BREEDING PRACTICES
TO SPEED UP THE DEVELOPMENT
OF SUPERIOR CROP SEEDS."**

Michael G. Murray, Director of Molecular Genetics





also used in cookies, crackers and cereals to prevent the penetration of moisture and keep the product “crisp.”

Palm and coconut oils are used widely in these applications, but consumers have become aware that tropical oils are high in saturated fats which raise cholesterol levels.

TRISUN oil is an excellent product for these applications. A 100 percent natural product, it does not contribute to increased cholesterol levels. TRISUN has no objectionable taste and is nearly colorless. It has excellent oxidation stability which increases the shelf life of products.

Several major food companies are adding TRISUN to their products. Others are conducting tests in various product areas. Agrigenetics has established a food laboratory to aid in these evaluations.

TRISUN is higher priced than tropical oils, but we believe that its desirable properties and superior performance more than offset its premium cost.

Strategic Research

During 1988, all research activities relating to agriculture were consoli-

dated into Agrigenetics. The purpose of the move was to focus the total effort in biotechnology research and development toward objectives which conform to Agrigenetics' long-term strategy.

To differentiate this effort from our traditional research, which has concentrated on plant breeding and selection, we call it strategic research. It is aimed at producing new products using molecular biology for the agriculture, food and chemical industries.

Our strategic research projects include development of elite germplasm for corn, sunflower and rapeseed; isolation of novel protein biotoxins and their related genes to impart insect resistance; gene mapping, a powerful tool to increase the efficiency of the plant breeding and selection process; and other advanced science programs. These programs are carried out in Agrigenetics' own research facilities and through their management of the investments in Mycogen Corporation, Sunagra Research and Sungene Technologies Corporation.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Lubrizol is a specialty chemical company using chemical, mechanical and biological technologies to develop products for world markets in transportation, industry and agriculture. Lubrizol's business segments have been realigned to reflect the current focus and organization of the business. The segments are now Specialty Chemicals and Agribusiness. The Specialty Chemicals segment develops, produces and sells chemical additives for automotive and industrial lubricants and functional fluids, fuel additives and diversified specialty chemical products, and also manages related venture development investments. The Agribusiness segment includes the traditional operations which develop, produce and sell planting seeds for agricultural and oilseed crops, and develop and market specialty vegetable oils. Agribusiness also includes strategic activities which consist of both in-house and contract research, and management of investments relating to plant biotechnology.

Results of Operations

Consolidated revenues increased \$103 million or 10% in 1988 compared to 1987 primarily due to a \$96 million or 10% increase in revenues of Specialty Chemicals, the company's largest segment. Gross profit (Sales less Cost of Sales) increased 11% and remained constant at 30% of sales in both years.

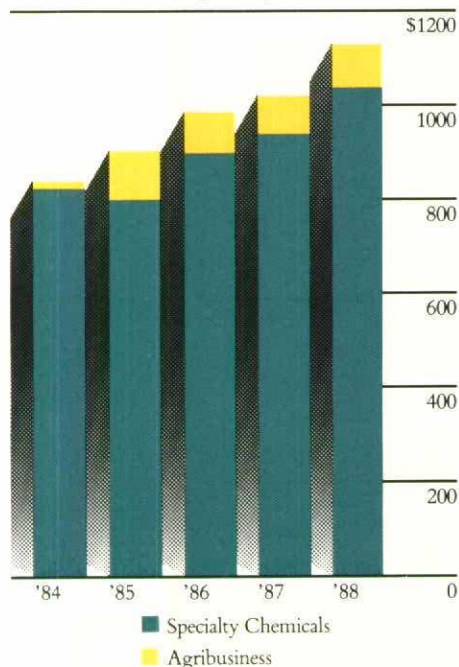
The increased gross profit in 1988 was partially offset by increased selling, testing and administrative expenses and higher research and development expenses in both segments. As a result, revenues increased by \$10 million more than cost and expenses.

A significant patent litigation settlement from Exxon Corporation, after deducting related expenses and income taxes, added \$53.2 million to net income in 1988. Income in 1988 was reduced by special charges of \$31.2 million (\$17.1 million after tax) for write-downs of several investments in the venture development area and the discontinuance of certain agricultural biotechnology research programs. In 1987, write-downs of intangible research program assets and vegetable oil inventories were \$10.2 million (\$6.4 million after tax). Gain on sale of investments was \$10.2 million (\$7.0 million after tax) in 1988, compared to \$21.2 million (\$14.0 million after tax) in 1987. Net income was also increased by \$8.8 million due to the cumulative effect of adopting Statement of Financial Accounting Standards (SFAS) No. 96, Accounting for Income Taxes, effective January 1, 1988.

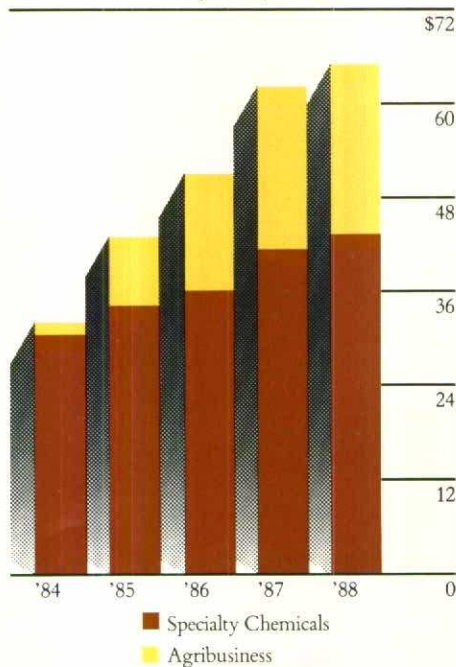
Net income in 1988 increased \$58.6 million to \$139.9 million or \$3.62 per share. The improved net income resulted from the increase in revenue over cost and expenses, from the items discussed in the previous paragraph and from lower statutory income tax rates.

In 1987, consolidated revenues increased \$37 million or 4% due to a \$50 million or 6% increase in Specialty Chemicals revenues. This was partially offset by a \$13 million decline in Agribusiness revenues. Gross profit as a percentage of sales improved 1% to 30% because of improvements in both segments.

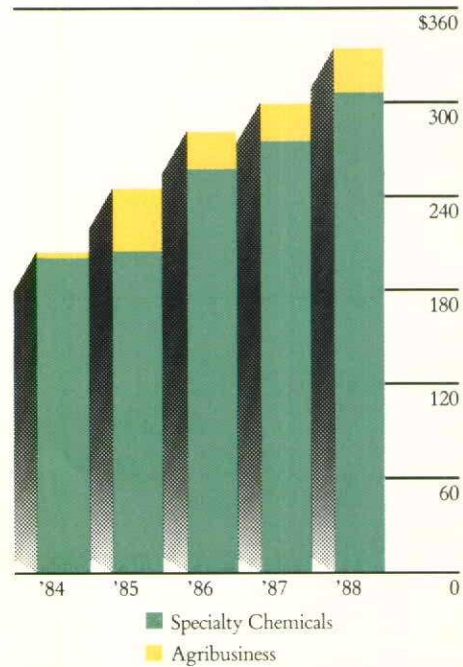
Revenues by Segment
(millions)



Research & Development by Segment
(millions)



Gross Profit by Segment
(millions)



Improved gross profit in 1987 was offset by increased selling, testing and administrative expenses and higher research and development expenses in both segments. As a result, cost and expenses increased slightly more than revenues.

An increase in interest income (net of interest expense) in 1987, due primarily to lower average borrowings, together with a lower effective income tax rate resulted in 4% higher net income. Net income was \$81.3 million or \$2.06 per share in 1987, compared to \$1.97 per share in 1986.

In 1986, consolidated revenues increased \$72 million or 8% due to increased Specialty Chemicals revenues which offset a decline in Agribusiness revenue. Net income increased 30% in 1986 to \$78.2 million or \$1.97 per share, due to improved gross profit in Specialty Chemicals and higher gain on sale of investments.

Return on average shareholders' equity, including unusual items, was 22% in 1988 and 14% in both 1987 and 1986.

The accompanying table presents an analysis of net income per share for the years 1988, 1987 and 1986.

Specialty Chemicals Segment

In 1988, Specialty Chemicals revenues, which accounted for 92% of consolidated revenues, increased 10%. This increase resulted primarily from a 7% improvement in volume and the effect of translating stronger foreign currencies into U.S. dollars. Both domestic and international markets contributed to the increase in volume. The gross profit percentage was stable at 30%. Selling, testing and administrative expenses increased 14% because of increased customer testing to meet the new SG motor oil specification and other new product development requirements. Research and development expenses increased 6%.

The above factors, together with higher equity earnings from non-consolidated companies, increased segment income by \$12.1 million in 1988. The patent litigation settlement added \$81.2 million, gain on sale of investments was \$11.0 million lower than 1987, and special charges for write-downs of investments in several venture development companies reduced segment income by \$14.1 million. The net result was an increase of \$68.2 million in segment income to \$223.4 million for 1988.

In 1987, Specialty Chemicals revenues increased 6% because of a 4% improvement in volume and the effect of translating stronger foreign currencies into U.S. dollars. The volume increase was broadly based in overseas markets. Higher margin after material costs during the first half of 1987 was partially offset by higher manufacturing expenses, resulting in an increase in gross profit percentage of 1% to 30%. Selling, testing and administrative expenses increased 15% because of increased sales and market development activities, overseas testing, and administrative support including legal expenses and computer system enhancements. Research and development expenses increased 11%. As a result of these factors and a \$5.6 million increase in gain on sale of investments, Specialty Chemicals segment income in 1987 increased \$5.7 million or 4% compared to 1986.

In 1986, Specialty Chemicals revenues increased 11% because of an 8% improvement in volume and the effect of translating stronger foreign currencies into U.S. dollars. Gross profit increased \$51.8 million due to the above factors and lower material costs, offset in part by \$6.4 million of expenses for early retirement programs. An increase of \$10.2 million in gain on sale of investments also contributed to substantially increased segment income.

Analysis of Net Income Per Share

| | 1988 | 1987 | 1986 |
|---|---------------|---------------|---------------|
| Net income before unusual items | \$2.29 | \$1.88 | \$1.92 |
| Patent litigation settlement | 1.37 | | |
| Special charges and unusual expenses: | | | |
| Specialty Chemicals | (.17) | | (.09) |
| Agribusiness-Traditional | | (.05) | (.14) |
| Agribusiness-Strategic | (.27) | (.12) | |
| | (.44) | (.17) | (.23) |
| Gain on sale of investments | .18 | .35 | .28 |
| Change in accounting for income taxes | .22 | | |
| Net income | <u>\$3.62</u> | <u>\$2.06</u> | <u>\$1.97</u> |

NOTE: The above amounts are net of income tax effects. Patent litigation settlement is after deducting \$4.1 million of expenses reported in the Consolidated Statements of Income as cost and expenses. Special charges and unusual expenses include amounts reported in the Consolidated Statements of Income as special charges and as cost and expenses.

Agribusiness Segment

Agribusiness revenues increased 9% in 1988 to \$90 million due to increased sales volume of specialty vegetable oils. The gross profit in 1988 increased primarily due to the vegetable oil inventory write-down in 1987. Gross profit as a percentage of sales increased 2% to 31%. Higher marketing and research expenses partially offset the increase in gross profit. As a result, the \$2.4 million segment loss from traditional operations was \$1.9 million less than in 1987.

The drought in the United States in Summer 1988 did not have a significant effect on 1988 traditional operations since most sales were made earlier in the year. The drought will result in increased unit costs in 1989 which the company expects to recover through higher selling prices. An anticipated increase in

acreage planted by farmers is expected to result in higher sales volume in 1989.

Strategic Agribusiness activities consisted of research expense, legal and administrative expenses, and equity investment losses. In 1988, the loss from strategic Agribusiness activities of \$37.8 million was comprised of these expenses and special charges of \$17.1 million. The special charges were for the discontinuance of certain biotechnology research programs at Agrigenetics Advanced Science Company on August 31, 1988, and the write-down of an investment. Prior to discontinuance, these research programs contributed \$7 million to 1988 expenses. The loss from strategic activities in 1987 increased \$14.3 million compared with 1986 because of higher research expense due to additional programs and special charges of \$7.2 million for a write-off of intangible program assets.

Operating Results By Business Segment

(In Thousands of Dollars)

| | 1988 | 1987 | 1986 |
|--|--------------------|--------------------|------------------|
| Revenues: | | | |
| Specialty Chemicals | \$1,035,858 | \$ 939,766 | \$889,220 |
| Agribusiness | 89,873 | 82,511 | 95,962 |
| Total | <u>\$1,125,731</u> | <u>\$1,022,277</u> | <u>\$985,182</u> |
| Gross Profit: | | | |
| Specialty Chemicals | \$ 306,241 | \$ 276,138 | \$257,248 |
| Agribusiness | 28,139 | 24,140 | 24,460 |
| Total | <u>\$ 334,380</u> | <u>\$ 300,278</u> | <u>\$281,708</u> |
| Research and development expenses: | | | |
| Specialty Chemicals | \$ 43,144 | \$ 40,628 | \$ 36,455 |
| Agribusiness – Traditional | 4,874 | 4,033 | 5,003 |
| – Strategic | 17,302 | 16,877 | 9,765 |
| Total | <u>22,176</u> | <u>20,910</u> | <u>14,768</u> |
| Total | <u>\$ 65,320</u> | <u>\$ 61,538</u> | <u>\$ 51,223</u> |
| Segment income (loss): | | | |
| Specialty Chemicals | \$ 223,389 | \$ 155,182 | \$149,530 |
| Agribusiness – Traditional | (2,394) | (4,275) | (10,624) |
| – Strategic | (37,840) | (24,670) | (10,360) |
| Total | <u>(40,234)</u> | <u>(28,945)</u> | <u>(20,984)</u> |
| Total | <u>\$ 183,155</u> | <u>\$ 126,237</u> | <u>\$128,546</u> |
| Identifiable assets: | | | |
| Specialty Chemicals | \$ 730,456 | \$ 699,894 | \$634,927 |
| Agribusiness | 124,702 | 152,021 | 166,019 |
| Corporate short-term investments | 115,513 | 87,463 | 76,961 |
| Total | <u>\$ 970,671</u> | <u>\$ 939,378</u> | <u>\$877,907</u> |

Segment income is before interest and income taxes.

Agribusiness revenues decreased in 1987 to \$83 million because of lower volume resulting from reduced acreage planted by farmers under the U.S. government farm program and loss of revenues from the Sunseeds division which was sold in 1986. Prior to its sale, Sunseeds revenues were \$5.5 million in 1986.

Gross profit in 1987 was reduced by \$3.0 million for the write-down of vegetable oil inventory to estimated market value since it did not meet the desired standard for a specialty oil. Gross profit in 1986 was reduced by charges of \$7.5 million for the write-down of seed inventories and the closing of seed processing plants. Although volume was lower in 1987, gross profit was approximately the same as 1986 because of the reduced effect of unusual items.

Agribusiness reported a smaller loss from traditional operations in 1987 than in 1986. While gross profit was the same in both years, reduced marketing expenses attributable to lower volume, and lower administrative and research expenses improved operating results.

In 1986, Agribusiness revenues decreased 12% compared to 1985 because of the sale of the Sunseeds division early in 1986, and lower volume from remaining activities. Agribusiness reported a \$10.6 million loss from traditional operations because of the asset write-downs discussed above and a loss on the sale of the Sunseeds division.

Working Capital, Liquidity and Capital Resources

The company's cash flows for the years 1986 through 1988 are presented in the consolidated statements of cash flows. Cash provided from operating activities during 1988 was \$212 million,

an increase of \$98 million compared with 1987. This increase was due primarily to cash received from the patent litigation settlement and from customers as a result of higher sales and was reduced by larger payments to suppliers and employees.

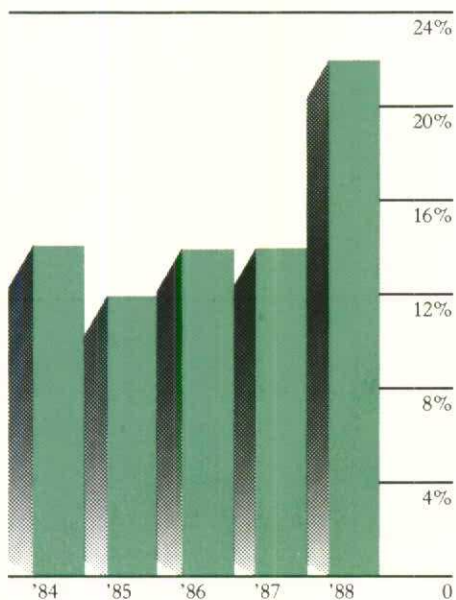
The increased cash from operating activities was offset in part by increased capital expenditures, dividend payments, share repurchases and repayments of short-term debt. Cash and short-term investments at the end of 1988 amounted to \$124 million.

The company's financial position continues to be strong. At the end of 1988 and 1987, the ratio of current assets to current liabilities was 3 to 1. Long-term debt as a percent of total capitalization (shareholders' equity plus long-term debt) was 8% at the end of both years.

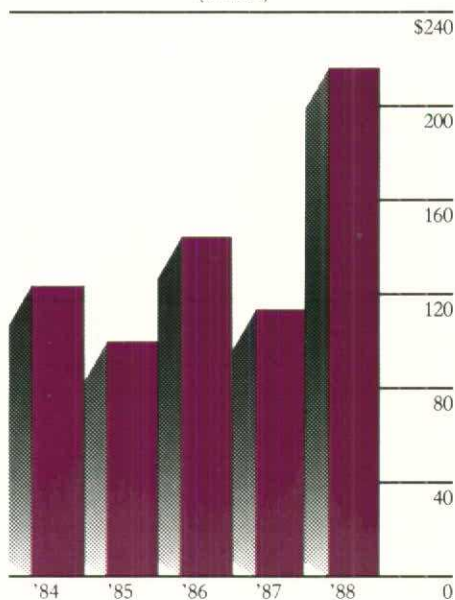
During 1988, working capital needs were financed by internally generated funds, and when needed due to the seasonality of Agribusiness, through the issuance of commercial paper. The company has unused revolving credit agreements and other credit lines aggregating \$70 million. The company believes its credit facilities and internally generated funds will be sufficient to meet its capital needs during 1989. The company also believes it has the financial strength to obtain additional credit facilities and other financing as needed.

Capital expenditures, primarily to provide manufacturing, administrative and technical support to Specialty Chemicals, are anticipated to be approximately \$80 million in 1989. In addition, the company has Board authorization to repurchase up to two million of its shares.

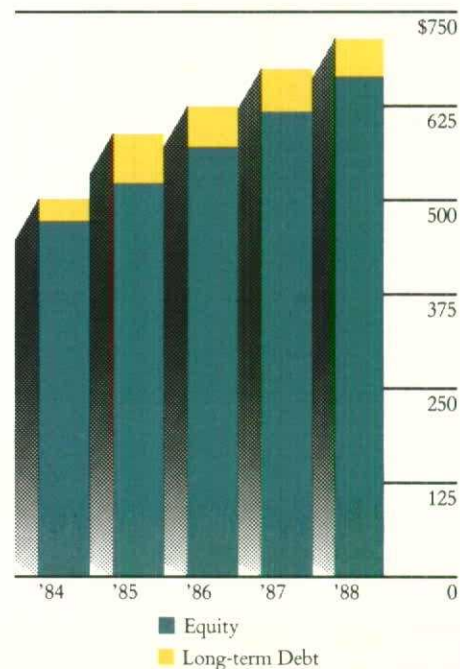
Return on Equity
(percent)



Cash Provided from Operating Activities
(millions)



Capitalization
(millions)



Consolidated Statements of Income

| | Year Ended December 31 | | |
|--|--------------------------|-------------------------|-------------------------|
| | 1988 | 1987 | 1986 |
| <i>(In Thousands of Dollars Except Per Share Data)</i> | | | |
| Net sales | \$1,117,493 | \$1,013,430 | \$976,776 |
| Royalties and other revenues | <u>8,238</u> | <u>8,847</u> | <u>8,406</u> |
| Total revenues | 1,125,731 | 1,022,277 | 985,182 |
| Cost of sales | 783,113 | 713,152 | 695,068 |
| Selling, testing and administrative expenses | 161,456 | 141,698 | 129,427 |
| Research and development expenses | <u>65,320</u> | <u>61,538</u> | <u>51,223</u> |
| Total cost and expenses | 1,009,889 | 916,388 | 875,718 |
| Patent litigation settlement | 81,180 | | |
| Special charges | (31,154) | (7,192) | |
| Other income — net | 17,287 | 27,540 | 19,082 |
| Interest income | 8,798 | 9,235 | 8,058 |
| Interest expense | <u>(6,203)</u> | <u>(6,273)</u> | <u>(7,940)</u> |
| Income before income taxes and accounting change | 185,750 | 129,199 | 128,664 |
| Provision for income taxes | <u>54,544</u> | <u>47,864</u> | <u>50,479</u> |
| Income before cumulative effect of accounting change | 131,206 | 81,335 | 78,185 |
| Cumulative effect of change in accounting for income taxes | <u>8,751</u> | | |
| Net income | <u>\$ 139,957</u> | <u>\$ 81,335</u> | <u>\$ 78,185</u> |
| Net income per share: | | | |
| Before accounting change | \$3.40 | \$2.06 | \$1.97 |
| Cumulative effect of accounting change | <u>.22</u> | | |
| Net income | <u>\$3.62</u> | <u>\$2.06</u> | <u>\$1.97</u> |

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

Consolidated Balance Sheets

| | December 31 | |
|--|------------------|------------------|
| <i>(In Thousands of Dollars)</i> | 1988 | 1987 |
| Assets | | |
| Cash and short-term investments | \$124,236 | \$ 92,747 |
| Receivables | 206,859 | 198,343 |
| Inventories | 224,764 | 208,184 |
| Other | 17,143 | 14,068 |
| Total current assets | <u>573,002</u> | <u>513,342</u> |
| Property and equipment-at cost | 731,252 | 704,511 |
| Less accumulated depreciation | 432,582 | 406,938 |
| Property – net | <u>298,670</u> | <u>297,573</u> |
| Investments in non-consolidated companies | 73,212 | 91,074 |
| Intangible and other assets | 25,787 | 37,389 |
| TOTAL | <u>\$970,671</u> | <u>\$939,378</u> |
| Liabilities and Shareholders' Equity | | |
| Short-term debt | \$ 5,483 | \$ 13,561 |
| Accounts payable | 105,199 | 91,063 |
| Income taxes and other current liabilities | 74,206 | 64,542 |
| Total current liabilities | <u>184,888</u> | <u>169,166</u> |
| Long-term debt | 55,339 | 56,138 |
| Non-current liabilities | 26,851 | 23,952 |
| Deferred income taxes | 39,285 | 68,489 |
| Total liabilities | <u>306,363</u> | <u>317,745</u> |
| Common shares without par value – Outstanding 38,009,911 shares in 1988 and 38,960,822 shares in 1987 | 77,260 | 77,142 |
| Retained earnings | 597,124 | 541,315 |
| Accumulated translation adjustment | (10,076) | 3,176 |
| Total shareholders' equity | <u>664,308</u> | <u>621,633</u> |
| TOTAL | <u>\$970,671</u> | <u>\$939,378</u> |

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

Consolidated Statements of Cash Flows

Year Ended December 31

*(In Thousands of Dollars)***Cash provided from (used for):****Operating activities:**

| | 1988 | 1987 | 1986 |
|--|----------------|----------------|----------------|
| Received from customers | \$1,109,333 | \$1,008,750 | \$976,630 |
| Paid to suppliers and employees | (957,945) | (866,274) | (802,241) |
| Received from patent litigation settlement | 80,000 | | |
| Income taxes paid | (44,566) | (58,372) | (55,284) |
| Received from the sale of investments | 16,529 | 22,043 | 17,572 |
| Interest and dividends received | 11,640 | 10,293 | 9,608 |
| Interest paid | (5,447) | (7,087) | (6,118) |
| Other – net | 2,238 | 4,440 | 4,930 |
| Total operating activities | <u>211,782</u> | <u>113,793</u> | <u>145,097</u> |

Investing activities:

| | | | |
|---|-----------------|-----------------|-----------------|
| Capital expenditures | (54,611) | (42,040) | (40,460) |
| Investments in non-consolidated companies | (6,526) | (14,420) | (12,526) |
| Acquisition of subsidiary | (10,754) | | |
| Proceeds from the sale of a division | | | 7,879 |
| Other – net | 57 | 1,411 | 1,148 |
| Total investing activities | <u>(71,834)</u> | <u>(55,049)</u> | <u>(43,959)</u> |

Financing activities:

| | | | |
|-----------------------------------|------------------|-----------------|-----------------|
| Short-term borrowings (repayment) | (7,682) | 8,191 | (28,476) |
| long-term borrowings | | | 32,317 |
| Long-term debt repayment | (238) | (241) | (53,067) |
| Dividends paid | (62,998) | (47,631) | (34,418) |
| Common shares issued (purchased) | (33,609) | (20,580) | 429 |
| Total financing activities | <u>(104,527)</u> | <u>(60,261)</u> | <u>(83,215)</u> |

| | | | |
|---|--------------------------|-------------------------|-------------------------|
| Effect of exchange rate changes on cash | (3,932) | 8,621 | 4,693 |
| Net increase in cash and short-term investments | 31,489 | 7,104 | 22,616 |
| Cash and short-term investments at the beginning of year | 92,747 | 85,643 | 63,027 |
| Cash and short-term investments at the end of year | <u>\$ 124,236</u> | <u>\$ 92,747</u> | <u>\$ 85,643</u> |

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

Consolidated Statements of Shareholders' Equity

| | Number of Shares Outstanding | Shareholders' Equity | | |
|--|------------------------------------|----------------------------------|----------------------|--|
| | | Common Shares | Retained Earnings | Accumulated Translation Adjustment |
| | | <i>(In Thousands of Dollars)</i> | | |
| Balance, December 31, 1985 | 39,660,740 | \$75,108 | \$498,605 | \$(54,415) |
| Net income for 1986 | | | 78,185 | |
| Cash dividends (\$1.17 per share) | | | (46,423) | |
| Translation adjustment for 1986 | | | | 21,190 |
| Common shares – Treasury: | | | | |
| Shares purchased | (30,535) | (23) | (939) | |
| Shares issued upon exercise of stock options | <u>60,603</u> | <u>1,391</u> | | |
| Balance, December 31, 1986 | 39,690,808 | 76,476 | 529,428 | (33,225) |
| Net income for 1987 | | | 81,335 | |
| Cash dividends (\$1.22 per share) | | | (48,202) | |
| Translation adjustment for 1987 | | | | 36,401 |
| Common shares – Treasury: | | | | |
| Shares purchased | (777,832) | (637) | (21,246) | |
| Shares issued upon exercise of stock options | <u>47,846</u> | <u>1,303</u> | | |
| Balance, December 31, 1987 | 38,960,822 | 77,142 | 541,315 | 3,176 |
| Net income for 1988 | | | 139,957 | |
| Cash dividends (\$1.30 per share) | | | (50,422) | |
| Translation adjustment for 1988 | | | | (13,252) |
| Common shares – Treasury: | | | | |
| Shares purchased | (1,014,760) | (1,574) | (33,726) | |
| Shares issued upon exercise of stock options | <u>63,849</u> | <u>1,692</u> | | |
| Balance, December 31, 1988 | <u>38,009,911</u> | <u>\$77,260</u> | <u>\$597,124</u> | <u>\$(10,076)</u> |

The accompanying notes to financial statements are in integral part of these statements.

Notes to Financial Statements

(In Thousands of Dollars Unless Otherwise Indicated)

Note 1 — Accounting Policies

CONSOLIDATION — The consolidated financial statements include the accounts of The Lubrizol Corporation and its subsidiaries. For non-consolidated companies (affiliates), the equity method of accounting is used when ownership exceeds 20% and the company has the ability to exercise significant influence over the policies of the investee. Other affiliates are carried at cost.

INVENTORIES — Inventories are stated at cost which is not in excess of market. Cost of Specialty Chemicals segment inventories is determined by the last-in, first-out (LIFO) method in the United States and the first-in, first-out (FIFO) method overseas. Agribusiness inventory cost is determined by the average cost method.

DEPRECIATION — Accelerated depreciation methods are used in computing depreciation on approximately 72% of the depreciable assets. The remaining assets are depreciated using the straight-line method. For income tax purposes, different methods and rates are used in certain instances. Deferred income taxes relating to these differences have been provided.

FOREIGN CURRENCY TRANSLATION — The assets and liabilities of most overseas subsidiaries are translated into U.S. dollars at exchange rates in effect at the balance sheet date. Operating results are translated at weighted average exchange rates in effect during the period. Net unrealized translation adjustments are recorded as a separate component of shareholders' equity.

PER SHARE AMOUNTS — Net income per share has been computed by dividing net income by the average number of Common Shares outstanding during the year. Net income per share has not been adjusted for the effect of stock options as the dilution effect would be less than 2% in any year.

Note 2 — Inventories

| | 1988 | 1987 |
|----------------------------|------------------|------------------|
| Finished products | \$100,032 | \$ 96,577 |
| Products in process | 64,022 | 58,904 |
| Raw materials and supplies | 60,710 | 52,703 |
| | <u>\$224,764</u> | <u>\$208,184</u> |

Inventories on the LIFO method at December 31, 1988 and 1987 were 23% and 20% of consolidated inventories. The current replacement cost of these inventories exceeded the LIFO cost at December 31, 1988 and 1987 by \$32.3 million and \$29.5 million. At December 31, 1988 and 1987, inventories of the Specialty Chemicals segment were \$163.4 million and \$145.9 million, and Agribusiness inventories were \$61.4 million and \$62.3 million.

Note 3 — Investments in Non-consolidated Companies

| | 1988 | 1987 |
|-------------------------------|-----------------|-----------------|
| Investments carried at equity | \$55,239 | \$73,001 |
| Investments carried at cost | 17,973 | 18,073 |
| | <u>\$73,212</u> | <u>\$91,074</u> |

Investments carried at equity exceeded the company's equity in the underlying book values by \$17.5 million and \$28.7 million at December 31, 1988 and 1987. The excess is being amortized over periods not exceeding 20 years.

Investments include marketable equity securities of \$21.7 million in 1988 and \$23.1 million in 1987. The market value of these securities exceeded the cost by \$90 million and \$260 million at December 31, 1988 and 1987.

Note 4 — Short-Term and Long-Term Debt

Short-term debt of \$5.5 million and \$13.6 million at December 31, 1988 and 1987 consisted of short-term bank loans.

Long-term debt consists of:

| | 1988 | 1987 |
|---|-----------------------|-----------------|
| 7.875% Marine terminal / Industrial development revenue bonds, due 2000 | \$19,375 | \$19,375 |
| Term Loans | | |
| 7.99% due 1992 | 20,000 | 20,000 |
| 5.8% yen denominated, due 1993 | 15,200 | 15,702 |
| Other (various rates) | 764 | 1,061 |
| | <u>Total \$55,339</u> | <u>\$56,138</u> |

At December 31, 1988, the company had revolving credit agreements and other credit lines aggregating \$70 million. These facilities, unused in 1988, would permit the company to borrow at or below the U.S. prime rate.

Note 5 — Other Balance Sheet Information

| | | |
|----------------------|------------------|------------------|
| Receivables: | | |
| | 1988 | 1987 |
| Customers | \$170,614 | \$162,851 |
| Affiliates | 19,370 | 22,768 |
| Other | 16,875 | 12,724 |
| | <u>\$206,859</u> | <u>\$198,343</u> |

Receivables are net of allowance for doubtful accounts of \$1.5 million in 1988 and \$2.0 million in 1987.

| | | |
|--------------------------------------|------------------|------------------|
| Property and Equipment: | | |
| | 1988 | 1987 |
| Land and improvements | \$ 64,858 | \$ 63,749 |
| Buildings and improvements | 129,931 | 127,678 |
| Machinery and equipment | 508,068 | 495,814 |
| Construction in progress | 28,395 | 17,270 |
| | <u>\$731,252</u> | <u>\$704,511</u> |

Depreciation expense was \$46.6 million in 1988, \$47.2 million in 1987 and \$42.6 million in 1986.

| | | |
|----------------------|------------------|-----------------|
| Accounts Payable: | | |
| | 1988 | 1987 |
| Trade | \$ 97,173 | \$86,959 |
| Affiliates | 8,026 | 4,104 |
| | <u>\$105,199</u> | <u>\$91,063</u> |

| | | |
|---|-----------------|-----------------|
| Income Taxes and Other Current Liabilities: | | |
| | 1988 | 1987 |
| Income taxes | \$28,029 | \$15,273 |
| Employee compensation | 19,672 | 18,861 |
| Dividends payable | | 12,576 |
| Taxes other than income | 6,586 | 7,822 |
| Other | 19,919 | 10,010 |
| | <u>\$74,206</u> | <u>\$64,542</u> |

Note 6 — Shareholders' Equity

There are 2,000,000 shares of serial preferred stock without par value that have been authorized. None of these shares have been issued.

Authorized common stock of the company at December 31, 1988 and 1987 was 120,000,000 shares without par value. Outstanding Common Shares were 38,009,911 and 38,960,822 at December 31, 1988 and 1987 after deducting treasury shares of 5,088,036 and 4,137,125.

In September 1987, the company adopted a shareholder rights plan under which one right to buy one-half share of the company's common stock was distributed for each share of common stock held. The rights may become exercisable under certain circumstances involving actual or potential acquisitions of 20% or more of the company's common stock by a person or affiliated persons who acquire such stock without complying with the requirements of the company's articles of incorporation. The rights would entitle shareholders, other than such person or affiliated persons, to purchase common stock of the company or certain acquiring persons at 50% of then current market value. The rights will expire in October 1997 unless earlier redeemed.

In October 1988, the company adopted another shareholder rights plan under which one right to buy preferred stock of the company was distributed for each share of common stock held. The dividend and redemption value of the preferred stock would be determined in relation to after-tax amounts which have been or may be recovered by the company from Exxon Corporation or its affiliates as a result of certain patent claims. In the event such recoveries exceed a specified sum, the rights may become exercisable under certain circumstances involving actual or potential acquisitions of 20% or more of the company's common stock by a person or affiliated persons. The rights would entitle shareholders, other than such person or affiliated persons, to purchase shares of preferred stock at a purchase price of \$1 plus 25 rights per share. The rights will expire in November 1991 unless earlier redeemed.

Note 7 — Patent Litigation Settlement and Other Items

The patent litigation settlement in 1988 consisted of \$80 million in cash and \$6 million in trade credits and is presented net of directly related expenses.

The special charges recorded in 1988 include \$17.1 million for discontinuance of certain agricultural biotechnology research programs and the write-down of an investment, and \$14.1 million for write-down of several investments in the venture development area. In 1987, special charges were for a write-off of intangible assets in a plant science research program.

Other income-net consists of the following:

| | | | |
|---|-----------------|-----------------|-----------------|
| | 1988 | 1987 | 1986 |
| Gain on sale of investments | \$10,242 | \$21,234 | \$15,637 |
| Equity earnings of non-consolidated companies | 5,024 | 1,474 | 480 |
| Gains on investee stock issuances | | 1,776 | |
| Other — net | 2,021 | 3,056 | 2,965 |
| | <u>\$17,287</u> | <u>\$27,540</u> | <u>\$19,082</u> |

Note 8 — Income Taxes

Effective January 1, 1988, the company adopted Statement of Financial Accounting Standards (SFAS) No. 96, Accounting for Income Taxes, which requires use of the liability method for recording income taxes. For prior periods, income taxes were determined by the deferred method as prescribed by previous accounting standards. As a result of adopting SFAS No. 96, the company reduced its net deferred tax liabilities at January 1, 1988 by \$8.8 million, and recorded that amount in the consolidated statement of income as the cumulative effect of the accounting change. The effect of the accounting change on the 1988 provision for income taxes was not significant.

Income before income taxes consists of the following:

| | 1988 | 1987 | 1986 |
|-------------------------|------------------|------------------|------------------|
| United States | \$ 88,109 | \$ 54,747 | \$ 54,594 |
| Foreign | 97,641 | 74,452 | 74,070 |
| Total | <u>\$185,750</u> | <u>\$129,199</u> | <u>\$128,664</u> |

The provision for income taxes consists of the following:

| | 1988 | 1987 | 1986 |
|-------------------------|-----------------|-----------------|-----------------|
| Current: | | | |
| United States | \$26,384 | \$16,687 | \$ 8,092 |
| Foreign | 41,652 | 34,847 | 38,843 |
| | <u>68,036</u> | <u>51,534</u> | <u>46,935</u> |
| Deferred: | | | |
| United States | (13,641) | (3,313) | 5,261 |
| Foreign | 149 | (357) | (1,717) |
| | <u>(13,492)</u> | <u>(3,670)</u> | <u>3,544</u> |
| Total | <u>\$54,544</u> | <u>\$47,864</u> | <u>\$50,479</u> |

Foreign taxes include withholding taxes. The United States tax provision includes the U.S. tax on foreign income distributed to the company. The differences between the provision for income taxes at the statutory rate (34% in 1988; 40% in 1987; and 46% in 1986) and the tax shown in the consolidated statements of income are summarized as follows:

| | 1988 | 1987 | 1986 |
|--|-----------------|-----------------|-----------------|
| Tax at statutory rate | \$63,155 | \$51,680 | \$59,185 |
| Tax rate differential on capital gains and dividends | | (1,550) | (3,639) |
| Foreign sales corporation earnings | (2,380) | (2,716) | (1,979) |
| Earnings of non-consolidated companies | (4,695) | (1,481) | (1,180) |
| Other | (1,536) | 1,931 | (1,908) |
| Tax shown in the statement of income | <u>\$54,544</u> | <u>\$47,864</u> | <u>\$50,479</u> |

The components of deferred income tax expense are as follows:

| | 1988 | 1987 | 1986 |
|---|-------------------|------------------|-----------------|
| Accelerated depreciation | \$ 1,358 | \$ (448) | \$ 2,735 |
| Partnership expense allocations | 687 | 2,378 | 3,540 |
| Inventory adjustments | (1,538) | (1,309) | (2,428) |
| Prepaid / accrued expenses | (970) | (5,376) | 614 |
| Write-down of investments | (10,741) | | |
| Other | (2,288) | 1,085 | (917) |
| | <u>\$(13,492)</u> | <u>\$(3,670)</u> | <u>\$ 3,544</u> |

U.S. income taxes or foreign withholding taxes are not provided on undistributed earnings of foreign subsidiaries which are considered to be indefinitely reinvested in the operations of such subsidiaries. The amount of such earnings was approximately \$192 million at December 31, 1988. Determination of the net amount of unrecognized U.S. income taxes with respect to these earnings is not practicable. If such earnings were to be repatriated, foreign withholding taxes of approximately \$19 million would be incurred. A portion or all of such withholding taxes may be offset by credits in the United States.

Effective November 4, 1988, Agrigenetics Corporation, a wholly-owned subsidiary, was liquidated into The Lubrizol Corporation in a nontaxable transaction. As a result, net operating loss carryforwards, investment tax credits, and research and development tax credits were used to reduce taxes payable in 1988. This tax benefit was accounted for as a \$15.8 million reduction in intangible assets resulting from the acquisition of Agrigenetics.

Note 9 — Supplemental Cash Flow Information

In 1988, the company adopted SFAS No. 95, Statement of Cash Flows. Prior years statements of changes in financial position have been restated to statements of cash flows. All highly liquid investments purchased with a maturity of three months or less are considered to be cash equivalents.

The following is a reconciliation of net income to net cash provided by (used for) operating activities:

| | 1988 | 1987 | 1986 |
|---|------------------|------------------|------------------|
| Net income | \$139,957 | \$ 81,335 | \$ 78,185 |
| Depreciation and amortization . . | 50,680 | 53,108 | 47,807 |
| Deferred income taxes | (13,478) | (3,757) | 5,776 |
| Write-down of assets | 18,317 | 10,216 | 8,400 |
| Accounting change – taxes | (8,751) | | |
| Undistributed earnings of non-consolidated companies . . | (4,146) | (4,167) | (500) |
| Change in current assets and liabilities: | | | |
| Accounts receivable | (15,698) | (13,527) | (8,552) |
| Inventory | (20,395) | (1,710) | 23,207 |
| Accounts payable and accrued expenses | 55,536 | (17,028) | (15,361) |
| Other current assets | 75 | 1,320 | (1,136) |
| Increase in non-current liabilities . | 4,681 | 3,418 | 1,921 |
| Other items – net | 5,004 | 4,585 | 5,350 |
| Net cash provided by operating activities | <u>\$211,782</u> | <u>\$113,793</u> | <u>\$145,097</u> |

Note 10 — Retirement Plans

The company has several retirement plans including defined benefit pension plans and a profit sharing plan. Pension benefits are based on years of service, career average compensation and compensation during the last years before retirement. The company's funding policy for pension plans is to contribute amounts sufficient to provide for future benefits and, in the United States, to satisfy Internal Revenue Service funding standards. Plan assets are invested in listed equity securities and fixed income instruments including insurance contracts.

Expense of all retirement plans was \$7.8 million in 1988, \$5.0 million in 1987 and \$4.2 million in 1986, including profit sharing contributions of \$4.9 million in 1988 and \$2.9 million in 1987 and 1986.

The company has adopted SFAS No. 87, Employers' Accounting for Pensions, for its U.S. plans and effective January 1, 1987 for its U.K. plan. SFAS No. 87 has not been adopted for pension plans outside the U.S. and U.K. However, the assets of those plans exceeded the actuarially computed value of vested benefits at December 31, 1988 and 1987.

Cost of pension plans consisted of:

| | 1988 | 1987 | 1986 |
|---|-----------------|---------------|-----------------|
| | (U.S. and U.K.) | (U.S. Only) | |
| Service cost — benefits earned during the period | \$ 4,671 | \$ 4,490 | \$ 2,726 |
| Interest cost on projected benefit obligation | 6,355 | 5,573 | 3,498 |
| Actual return on plan assets | (13,029) | (4,242) | (10,463) |
| Net amortization and deferral . . . | 3,660 | (4,906) | 3,436 |
| Net periodic pension cost (income) | <u>\$ 1,657</u> | <u>\$ 915</u> | <u>\$ (803)</u> |

The funded status of pension plans at December 31 is as follows:

| | 1988 | 1987 | 1986 |
|--|------------------|------------------|-----------------|
| | (U.S. and U.K.) | (U.S. Only) | |
| Fair value of plan assets | \$114,139 | \$103,216 | \$72,551 |
| Projected benefit obligation | 85,822 | 75,420 | 47,572 |
| Excess of plan assets over projected benefit obligation | 28,317 | 27,796 | 24,979 |
| Unrecognized net gain: | | | |
| At initial adoption of SFAS No. 87 | (26,949) | (29,734) | (23,052) |
| Subsequent to adoption | (5,666) | (966) | (1,011) |
| Unrecognized prior service cost . . | 4,199 | 4,306 | |
| Prepaid (accrued) pension cost . . . | <u>\$ (99)</u> | <u>\$ 1,402</u> | <u>\$ 916</u> |
| Actuarial present value of accumulated benefit obligation | <u>\$ 61,980</u> | <u>\$ 54,511</u> | <u>\$30,672</u> |
| Vested benefits | <u>\$ 57,902</u> | <u>\$ 54,737</u> | <u>\$28,685</u> |

Weighted-average assumptions used as of December 31 were:

| | 1988 | 1987 | 1986 |
|---|-----------------|-------------|------|
| | (U.S. and U.K.) | (U.S. Only) | |
| Assumed discount rate | 8.3% | 8.3% | 7.5% |
| Assumed rate of compensation increase | 6.0% | 6.0% | 5.5% |
| Expected rate of return on plan assets | 8.3% | 8.3% | 8.0% |

Health care benefits for retired employees are expensed as paid. The cost was \$1.1 million in 1988 and \$1.2 million in 1987 and 1986.

Note 11 — Operations in Geographic Areas

Financial data by geographic area, based on the location of the subsidiary which conducted the activity, is as follows:

| | 1988 | 1987 | 1986 |
|--|--------------------|--------------------|-------------------|
| Revenues from customers: | | | |
| United States | \$ 527,208 | \$ 463,179 | \$ 481,011 |
| Europe | 345,611 | 339,403 | 310,018 |
| Far East | 130,137 | 110,678 | 97,174 |
| Other | 122,775 | 109,017 | 96,979 |
| | <u>1,125,731</u> | <u>1,022,277</u> | <u>985,182</u> |
| Intercompany transfers: | | | |
| United States | 163,042 | 149,809 | 122,303 |
| Europe | 10,691 | 5,007 | 4,400 |
| Other | 2,929 | 604 | 958 |
| | <u>176,662</u> | <u>155,420</u> | <u>127,661</u> |
| Gross revenues | 1,302,393 | 1,177,697 | 1,112,843 |
| Less: Intercompany transfers | (176,662) | (155,420) | (127,661) |
| Consolidated revenues . . . | <u>\$1,125,731</u> | <u>\$1,022,277</u> | <u>\$ 985,182</u> |
| Operating profit: | | | |
| United States | \$ 55,558 | \$ 55,822 | \$ 60,606 |
| Europe | 50,072 | 43,810 | 48,548 |
| Far East | 18,116 | 14,817 | 11,659 |
| Other | 13,465 | 9,795 | 5,977 |
| Eliminations | (1,970) | (1,669) | (3,331) |
| | <u>135,241</u> | <u>122,575</u> | <u>123,459</u> |
| General corporate expenses | (19,399) | (16,686) | (13,995) |
| Patent litigation settlement | 81,180 | | |
| Special charges | (31,154) | (7,192) | |
| Other income — net | 17,287 | 27,540 | 19,082 |
| Interest — net | 2,595 | 2,962 | 118 |
| Income before income tax and accounting change | <u>\$ 185,750</u> | <u>\$ 129,199</u> | <u>\$ 128,664</u> |
| Identifiable assets: | | | |
| United States | \$ 521,877 | \$ 483,124 | \$ 486,448 |
| Europe | 189,632 | 204,045 | 161,906 |
| Far East | 97,958 | 96,417 | 78,544 |
| Other | 52,911 | 37,090 | 38,739 |
| Eliminations | (80,432) | (59,834) | (42,654) |
| | <u>781,946</u> | <u>760,842</u> | <u>722,983</u> |
| Corporate assets | 188,725 | 178,536 | 154,924 |
| Total assets | <u>\$ 970,671</u> | <u>\$ 939,378</u> | <u>\$ 877,907</u> |

Notes:

- A. Intercompany transfers are made at prices comparable to normal unaffiliated customer sales for similar products.
- B. Affiliated companies are not allocated to geographic segments.
- C. Corporate assets consist of short-term investments and investments in affiliated companies.

Export sales from the United States to customers, primarily in Latin America and Asia, were \$110 million in 1988, \$99 million in 1987 and \$93 million in 1986. The consolidated statements of income include after-tax foreign currency loss of \$.6 million in 1988, and gains of \$.5 million in 1987 and \$.8 million in 1986.

Net assets of non-U.S. subsidiaries at December 31, 1988 and 1987 were \$287 million and \$290 million, respectively. Net income of these subsidiaries was \$55 million in 1988, \$40 million in 1987 and \$37 million in 1986 and dividends received from the subsidiaries were \$53 million, \$33 million and \$52 million, respectively.

Note 12 — Business Segment Information

A description of the company's segments and a summary of operating results and identifiable assets by segment are contained on pages 19 and 21. Following is additional industry segment information:

| | Capital Expenditures | Depreciation & Amortization |
|-------------------------------|----------------------|-----------------------------|
| 1988 | | |
| Specialty Chemicals | \$52,000 | \$43,147 |
| Agribusiness | 2,611 | 7,533 |
| | <u>\$54,611</u> | <u>\$50,680</u> |
| 1987 | | |
| Specialty Chemicals | \$40,077 | \$44,166 |
| Agribusiness | 1,963 | 8,942 |
| | <u>\$42,040</u> | <u>\$53,108</u> |
| 1986 | | |
| Specialty Chemicals | \$37,928 | \$38,357 |
| Agribusiness | 2,532 | 9,450 |
| | <u>\$40,460</u> | <u>\$47,807</u> |

The company's ten largest customers in the Specialty Chemicals segment, most of which are international oil companies and a number of which are groups of affiliated entities, accounted for approximately 43% of consolidated sales in 1988, 41% in 1987, and 40% in 1986.

Note 13 — Employee Stock Options

The 1985 Employee Stock Option Plan provides for the granting of either options intended to qualify as “incentive stock options” under the Internal Revenue Code or “non-statutory stock options” not intended to qualify, up to an aggregate of 1,500,000 shares. Options are granted for terms of up to ten years and are exercisable in cumulative annual increments of 25 percent each year, commencing one year after date of grant. The 1981 Incentive Stock Option Plan was superseded by the 1985 Plan, and the 1975 Employee Stock Option Plan expired in January 1985, although outstanding options under both plans are still exercisable. The option price under all plans is the fair market value of the shares on date of grant. All plans permit or permitted the granting of stock appreciation rights in connection with options. When Agrigenetics was acquired, options outstanding under a stock option plan of that company became fully vested and were converted to options to purchase Lubrizol shares, based on the fair market value of Lubrizol shares.

Information regarding these option plans is as follows:

| | Number of Shares | | |
|--|------------------|------------------|------------------|
| | 1988 | 1987 | 1986 |
| Outstanding, January 1 | 693,896 | 628,680 | 553,471 |
| Granted \$27.38 to \$39.74 per share | | 145,300 | 136,062 |
| Exercised at \$18.63 to \$32.13 per share | (70,154) | (69,195) | (60,603) |
| Surrendered at \$21.13 to \$39.74 per share | (16,049) | (10,889) | (250) |
| Outstanding, December 31 | <u>607,693</u> | <u>693,896</u> | <u>628,680</u> |
| Exercisable, December 31 | <u>333,443</u> | <u>391,990</u> | <u>327,252</u> |
| Available for grant, December 31 | <u>1,201,326</u> | <u>1,185,277</u> | <u>1,319,688</u> |

At December 31, 1988, there were stock appreciation rights outstanding relating to options for 8,000 shares, all of which were granted under the 1975 Plan.

The 1975 Plan options expire through November 1994, with an average option price of \$22.99. The 1981 Plan options expire November 1991 to November 1994, with an average option price of \$22.60. The 1985 Plan options expire June 1995 to November 1997, with an average option price of \$28.71. The Agrigenetics options expire December 1991 to July 1994, with an average option price of \$32.58.

Independent Auditors' Report**Deloitte
Haskins+Sells**

To the Shareholders and Board of Directors
The Lubrizol Corporation:

We have audited the accompanying consolidated balance sheets of The Lubrizol Corporation and its subsidiaries as of December 31, 1988 and 1987 and the related consolidated statements of income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 1988. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of The Lubrizol Corporation and its subsidiaries at December 31, 1988 and 1987 and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1988 in conformity with generally accepted accounting principles.

As discussed in Note 8 to the financial statements, in 1988 the Company changed its method of accounting for income taxes to conform with Statement of Financial Accounting Standards No. 96.



Cleveland, Ohio
February 27, 1989

Quarterly Financial Data (Unaudited)

| | Three Months Ended | | | |
|---|--------------------|------------------|------------------|------------------|
| | March 31 | June 30 | Sept. 30 | Dec. 31 |
| 1988 | | | | |
| Net sales: | | | | |
| Specialty Chemicals | \$249,619 | \$250,968 | \$257,711 | \$269,322 |
| Agribusiness | 43,589 | 33,499 | 6,182 | 6,603 |
| Total | <u>\$293,208</u> | <u>\$284,467</u> | <u>\$263,893</u> | <u>\$275,925</u> |
| Gross profit: | | | | |
| Specialty Chemicals | \$ 70,199 | \$ 77,302 | \$ 81,493 | \$ 77,247 |
| Agribusiness | 16,536 | 10,628 | 518 | 457 |
| Total | <u>\$ 86,735</u> | <u>\$ 87,930</u> | <u>\$ 82,011</u> | <u>\$ 77,704</u> |
| Income before change in accounting for income taxes | <u>\$ 23,774</u> | <u>\$ 22,306</u> | <u>\$ 10,683</u> | <u>\$ 74,443</u> |
| Net income | <u>\$ 32,525</u> | <u>\$ 22,306</u> | <u>\$ 10,683</u> | <u>\$ 74,443</u> |
| Net income per share: | | | | |
| Before accounting change | \$.61 | \$.58 | \$.28 | \$ 1.93 |
| Net income | \$.83 | \$.58 | \$.28 | \$ 1.93 |
| 1987 | | | | |
| Net sales: | | | | |
| Specialty Chemicals | \$227,064 | \$235,884 | \$232,822 | \$235,149 |
| Agribusiness | 45,201 | 29,332 | 1,435 | 6,543 |
| Total | <u>\$272,265</u> | <u>\$265,216</u> | <u>\$234,257</u> | <u>\$241,692</u> |
| Gross profit (loss): | | | | |
| Specialty Chemicals | \$ 67,771 | \$ 72,491 | \$ 68,278 | \$ 67,598 |
| Agribusiness | 17,825 | 12,663 | (1,900) | (4,448) |
| Total | <u>\$ 85,596</u> | <u>\$ 85,154</u> | <u>\$ 66,378</u> | <u>\$ 63,150</u> |
| Net income | <u>\$ 25,975</u> | <u>\$ 23,779</u> | <u>\$ 18,913</u> | <u>\$ 12,668</u> |
| Net income per share | \$.65 | \$.60 | \$.48 | \$.33 |

Most of the sales of the Agribusiness segment are made during the first half of the year, and operating losses are incurred in the third and fourth quarters as a result of incurring operating expenses with low sales. Agribusiness' cost of sales includes certain period costs and, therefore, may exceed sales in a quarter which has low volume.

Net income per share reported above includes the following gains (losses):

| | Three Months Ended | | | | Year |
|---|--------------------|---------|----------|---------|--------|
| | March 31 | June 30 | Sept. 30 | Dec. 31 | |
| 1988 | | | | | |
| Gain on sale of investments | \$.12 | \$.06 | | | \$.18 |
| Change in accounting for income taxes | .22 | | | | .22 |
| Special charges: | | | | | |
| Discontinued research activities and write-down of investment | | | \$(.27) | | (.27) |
| Write-down of venture development investments | | | (.09) | \$(.08) | (.17) |
| Patent litigation settlement | | | | 1.37 | 1.37 |
| 1987 | | | | | |
| Gain on sale of investments | \$.10 | \$.08 | \$.09 | \$.08 | \$.35 |
| Special charges and unusual expenses: | | | | | |
| Write-off of intangible program assets | | | | (.12) | (.12) |
| Vegetable oil inventory write-down | | | | (.05) | (.05) |

Ten Year Summary*(In Thousands of Dollars Except Per Share Data)*

| | 1988 | 1987 | 1986 |
|--|-------------------|-------------------|------------------|
| Summary of Operations | | | |
| Revenues | \$1,125,731 | \$1,022,277 | \$985,182 |
| Cost of sales | 783,113 | 713,152 | 695,068 |
| Selling, testing, administrative & research expenses | 226,776 | 203,236 | 180,650 |
| Total cost and expenses | 1,009,889 | 916,388 | 875,718 |
| Other income (charges) | 69,908 | 23,310 | 19,200 |
| Income before income taxes | 185,750 | 129,199 | 128,664 |
| Provision for income taxes | 54,544 | 47,864 | 50,479 |
| Change in accounting for income taxes | 8,751 | | |
| Net income | <u>\$ 139,957</u> | <u>\$ 81,335</u> | <u>\$ 78,185</u> |
| For the Year: | | | |
| Net income per share | \$3.62 | \$2.06 | \$1.97 |
| Dividends declared per share | 1.30 | 1.22 | 1.17 |
| Average Common Shares outstanding (in thousands) | 38,695 | 39,559 | 39,678 |
| Consolidated Statement of Financial Position | | | |
| Current assets | \$ 573,002 | \$ 513,342 | \$462,982 |
| Current liabilities | 184,888 | 169,166 | 162,797 |
| Working capital | 388,114 | 344,176 | 300,185 |
| Property - net | 298,670 | 297,573 | 289,078 |
| Other assets | 98,999 | 128,463 | 125,847 |
| Total | 785,783 | 770,212 | 715,110 |
| Less: | | | |
| Long-term debt | 55,339 | 56,138 | 52,616 |
| Non-current liabilities | 26,851 | 23,952 | 16,806 |
| Deferred income taxes | 39,285 | 68,489 | 73,009 |
| Net assets - Shareholders' equity | <u>\$ 664,308</u> | <u>\$ 621,633</u> | <u>\$572,679</u> |
| Other Data | | | |
| Return on average shareholders' equity | 22% | 14% | 14% |
| Total assets | \$ 970,671 | \$ 939,378 | \$877,907 |
| Capital investments | 71,891 | 56,460 | 52,986 |
| Depreciation | 46,598 | 47,229 | 42,591 |
| At End of Year | | | |
| Number of employees | 4,781 | 4,817 | 4,802 |
| Number of shareholders | 7,782 | 8,335 | 9,240 |
| Common Shares outstanding (in thousands) | 38,010 | 38,961 | 39,691 |
| Shareholders' equity per share | \$ 17.48 | \$ 15.96 | \$ 14.43 |

| 1985 | 1984 | 1983 | 1982 | 1981 | 1980 | 1979 |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| \$913,351 | \$844,175 | \$800,303 | \$812,247 | \$899,161 | \$922,697 | \$741,518 |
| 659,130 | 627,378 | 588,266 | 610,717 | 653,748 | 644,080 | 511,038 |
| <u>158,358</u> | <u>114,501</u> | <u>113,363</u> | <u>107,470</u> | <u>96,006</u> | <u>86,980</u> | <u>73,135</u> |
| 817,488 | 741,879 | 701,629 | 718,187 | 749,754 | 731,060 | 584,173 |
| <u>7,582</u> | <u>12,788</u> | <u>15,032</u> | <u>(6,739)</u> | <u>8,168</u> | <u>3,575</u> | <u>2,489</u> |
| 103,445 | 115,084 | 113,706 | 87,321 | 157,575 | 195,212 | 159,834 |
| 43,221 | 47,353 | 48,962 | 39,760 | 65,544 | 83,701 | 69,059 |
| <u>\$ 60,224</u> | <u>\$ 67,731</u> | <u>\$ 64,744</u> | <u>\$ 47,561</u> | <u>\$ 92,031</u> | <u>\$111,511</u> | <u>\$ 90,775</u> |
| \$1.49 | \$1.73 | \$1.65 | \$1.21 | \$2.36 | \$2.87 | \$2.33 |
| 1.16 | 1.12 | 1.08 | 1.08 | 1.08 | .90 | .80 |
| 40,409 | 39,138 | 39,195 | 39,192 | 38,986 | 38,850 | 38,952 |
| \$447,441 | \$376,050 | \$361,964 | \$304,542 | \$341,825 | \$346,001 | \$303,008 |
| <u>182,543</u> | <u>132,252</u> | <u>129,766</u> | <u>115,255</u> | <u>129,696</u> | <u>136,835</u> | <u>116,304</u> |
| 264,898 | 243,798 | 232,198 | 189,287 | 212,129 | 209,166 | 186,704 |
| 290,298 | 251,735 | 274,337 | 288,504 | 284,088 | 248,664 | 180,405 |
| <u>116,706</u> | <u>74,189</u> | <u>46,563</u> | <u>50,698</u> | <u>47,252</u> | <u>56,472</u> | <u>36,529</u> |
| 671,902 | 569,722 | 553,098 | 528,489 | 543,469 | 514,302 | 403,638 |
| 73,444 | 30,416 | 27,213 | 19,428 | 25,268 | 22,846 | |
| 13,161 | 11,480 | 10,038 | 8,961 | 8,829 | 13,653 | 10,041 |
| <u>65,999</u> | <u>53,483</u> | <u>44,326</u> | <u>38,056</u> | <u>30,854</u> | <u>25,016</u> | <u>18,846</u> |
| <u>\$519,298</u> | <u>\$474,343</u> | <u>\$471,521</u> | <u>\$462,044</u> | <u>\$478,518</u> | <u>\$452,787</u> | <u>\$374,751</u> |
| 12% | 14% | 14% | 10% | 20% | 27% | 26% |
| \$854,445 | \$701,974 | \$682,864 | \$643,744 | \$673,165 | \$651,137 | \$519,942 |
| 103,990 | 49,001 | 27,961 | 64,044 | 77,214 | 99,403 | 74,611 |
| 44,605 | 38,723 | 37,038 | 37,168 | 32,068 | 23,414 | 18,406 |
| 5,205 | 4,176 | 4,165 | 4,322 | 4,237 | 4,155 | 3,905 |
| 10,803 | 10,804 | 11,277 | 10,615 | 9,986 | 9,004 | 8,305 |
| 39,661 | 39,111 | 39,195 | 39,195 | 39,946 | 39,863 | 39,750 |
| \$ 13.09 | \$ 12.13 | \$ 12.03 | \$ 11.79 | \$ 11.98 | \$ 11.36 | \$ 9.43 |

Directors

L. E. COLEMAN

Chairman of the Board
and Chief Executive Officer

W. G. BARES

President and Chief Operating Officer

ANDRE GILLET

Chairman and Chief Executive Officer,
International Multifoods Corporation,
a diversified food company

THOMAS C. MacAVOY

Professor of Business Administration,
Darden School, University of Virginia
and Retired Vice Chairman of the Board of
Corning Glass Works, a diversified glass
and glass products company

RICHARD A. MILLER

Chairman and Chief Executive Officer of
Centerior Energy Corporation, holding
company for two electric utilities, The
Cleveland Electric Illuminating Company
and The Toledo Edison Company

DAVID T. MORGENTHALER

Managing Partner, Morgenthaler Ventures,
a private investment firm specializing in
venture capital activities

LEWIS S. SALTER

Professor of Physics, Wabash College

RENOLD D. THOMPSON

President, Chief Executive Officer and
a Director of Oglebay Norton Company,
a raw materials and Great Lakes marine
transportation company

KARL E. WARE

Chairman and Chief Executive Officer
of Ware Industries, Inc., a company which
designs, manufactures and markets a broad
range of specialty wire forms and steel
components

Honorary Director

F. ALEX NASON

Founder of the Company

Officers

L. E. COLEMAN

Chairman of the Board
and Chief Executive Officer

W. G. BARES

President and Chief Operating Officer

PHILIP L. KRUG

Executive Vice President

W. T. BEARGIE

Senior Vice President - Finance

GEORGE R. HILL

Senior Vice President

ROGER Y. K. HSU

Senior Vice President - Law

WILLIAM D. MANNING

Senior Vice President

ROBERT W. SCHER

Senior Vice President

JEAN-POL ARZUL

Vice President

RAY A. ANDREAS

Corporate Controller

J. R. COOPER

Controller - Financial Services

WILLIAM R. JONES

Treasurer

J. I. RUE

Secretary

Transfer Agent, Registrar, and Dividend Disbursing Agent

National City Bank
P.O. Box 92301
Cleveland, Ohio 44193-0900
(216) 575-2529

Annual Meeting

The Annual Meeting of Shareholders
will be held at the offices of The
Lubrizol Corporation on Monday,
April 24, 1989.

Form 10-K

The Form 10-K Annual Report to the
Securities and Exchange Commission
will be available April 1. A copy may
be obtained without charge upon
written request to the Secretary of
the Corporation.

Shareholder Information

The Common Shares of The Lubrizol
Corporation are listed on the New
York Stock Exchange under the
symbol LZ. The number of share-
holders of record of Common Shares
was 7,880 as of February 10, 1989.



29400 Lakeland Boulevard
Wickliffe, Ohio 44092
(216) 943-4200

Specialty Chemicals

LUBRIZOL PETROLEUM CHEMICALS COMPANY
LUBRIZOL BUSINESS DEVELOPMENT COMPANY

Principal Subsidiaries

Lubrizol A.G. (Switzerland)
Lubrizol Australia
Lubrizol Canada Limited
Lubrizol de Chile Limitada
Lubrizol Eastern Pacific Limited
(Hong Kong)
Lubrizol Enterprises, Inc.
Lubrizol Española, S.A.
Lubrizol France S.A.
Lubrizol Gesellschaft m.b.H.
(Austria)
Lubrizol G.m.b.H.
(West Germany)
Lubrizol Great Britain Limited
Lubrizol International, Inc.
Lubrizol Italiana S.p.A.
Lubrizol Japan Ltd.
Lubrizol Limited (England)
Lubrizol de Mexico,
S. de R.L.
Lubrizol S.A. (Belgium)
Lubrizol Scandinavia AB
Lubrizol Servicios Tecnicos
S. de R.L. (Mexico)
Lubrizol South Africa
(Proprietary) Limited
Lubrizol Southeast Asia
(Pte.) Ltd. (Singapore)
Nippon Lubrizol Industries
Corporation (Japan)
Gate City Oil Equipment
Company, Inc.

Affiliates

Industria de Aditivos do Brasil
S.A.
Lubrizol India Limited
Industrias Lubrizol S.A. de
C.V. (Mexico)
Lubrizol Transarabian Company
Limited (Saudi Arabia)
C.A. Lubricantes Quimicos L.Q.
(Venezuela)

Manufacturing Plants

Painesville, Ohio
Bayport, Texas
Deer Park, Texas
Atlanta, Georgia
Sydney, Australia
Rio de Janeiro, Brazil
Niagara Falls, Canada
Bromborough, England
LeHavre, France
Rouen, France
Bombay, India
Kinuura, Japan
Apodaca, Mexico
Yanbu, Saudi Arabia
Jurong, Singapore
Durban, South Africa
Huelva, Spain
Valencia, Venezuela

Laboratories

Chemical Research
Wickliffe, Ohio
Mechanical Testing
Atsugi, Japan
Hazelwood, England
Wickliffe, Ohio

Agribusiness

AGRIGENETICS COMPANY

Seed Divisions

AgriGene
Des Moines, Iowa
Golden Acres Seed Company
Croton, Ohio
GroAgri Seed
Lubbock, Texas
Jacques Seed
Prescott, Wisconsin
McCurdy Seed
Fremont, Iowa
SIGCO Research
Breckenridge, Minnesota
Taylor-Evans Seed Company
Tulia, Texas
R.C. Young and Company
Lubbock, Texas

Specialty Vegetable Oil Division

SVO Enterprises
Eastlake, Ohio

Affiliate

Helizea-Agrigenetics S.p.A.
Ferrara, Italy



 **LUBRIZOL**

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