

1997

FORM 10-K

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

(Mark One)

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 1997

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934

Commission file number 1-2516

MONSANTO COMPANY

(Exact name of registrant as specified in its charter)

DELAWARE(State or other jurisdiction of
incorporation or organization)43-0420020(I.R.S. Employer
Identification No.)800 NORTH LINDBERGH BLVD., ST. LOUIS, MO. 63167

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code (314) 694-1000

Securities Registered Pursuant to Section 12(b) of the Act:

Title of each class

Name of each exchange
on which registered

Common Stock \$2 par value

New York Stock Exchange

Preferred Stock Purchase Rights

New York Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Act:

None

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

State the aggregate market value of the voting stock held by nonaffiliates of the registrant: approximately \$29.9 billion as of the close of business on February 27, 1998.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date: 595,560,990 shares of Common Stock, \$2 par value, outstanding at February 27, 1998.

Documents Incorporated by Reference

1. Portions of Monsanto Company Annual Report to security holders for the year ended December 31, 1997. (Parts I and II of Form 10-K.)
2. Portions of Monsanto Company Notice of Annual Meeting and Proxy Statement dated March 13, 1998. (Part III of Form 10-K.)

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PART I

Item 1. BUSINESS.

Monsanto Company and its subsidiaries are engaged in the worldwide manufacture and sale of a diversified line of agricultural products, nutrition and consumer products, pharmaceuticals, and other products. Monsanto Company was incorporated in 1933 under Delaware law and is the successor to a Missouri corporation, Monsanto Chemical Works, organized in 1901. Unless otherwise indicated by the context, "Monsanto" means Monsanto Company and consolidated subsidiaries, and the "Company" means Monsanto Company only.

Recent Developments

On February 18, 1998, the Company and G.D. Searle & Co. ("Searle"), a wholly-owned subsidiary of the Company, entered into agreements with Pfizer Inc. ("Pfizer") covering the promotion of Searle's celecoxib and its second generation compound in the United States. Both agents are novel Cox-2 (cyclooxygenase-2) inhibitors under development for the treatment of arthritis and pain. Pursuant to the agreements, Searle will receive \$85 million as an upfront payment. In addition, the agreements provide for milestone payments upon the achievement of specified objectives, and for sharing of certain expenses and revenues. Additionally, Monsanto, Searle and Pfizer are negotiating an agreement to expand the collaboration to certain other world areas.

Industry Segments; Principal Products

For 1997, Monsanto reported its business under four industry segments: Agricultural Products, Nutrition and Consumer Products, Pharmaceuticals, and Corporate and Other. The tabular and narrative information appearing under "Segment Data" and "Geographic Data" on pages 35 and 42 of the Company's Annual Report to shareowners for the year ended December 31, 1997 (the "1997 Annual Report") is incorporated herein by reference.

The following is a list of principal products categorized by major end-use markets, within the industry segments in which they were reported for 1997.

AGRICULTURAL PRODUCTS

<u>Major End-Use Markets</u>	<u>Major Products</u>	<u>Major End-Use Products & Applications</u>	<u>Manufacturing Locations</u>	<u>Major Raw Materials & Components</u>
Agricultural, industrial, turf and ornamental herbicides	<i>Roundup</i> herbicide and other glyphosate-based herbicides	Nonselective agricultural and industrial applications	Alvin, Texas; Antwerp, Belgium; Fayetteville, N.C.; Luling, La.; Muscatine, Iowa; São José dos Campos, Brazil; West Footscray, Australia; Zarate, Argentina	Chlorine; Diethanolamine; Disodiumiminodiacetic acid; Hydrogen cyanide; Phosphorus; Sodium hydroxide
	<i>Lasso and Harness</i> * herbicides and other acetanilide-based herbicides *Corn only	Corn, soybean, peanut and milo (sorghum) crops	Antwerp, Belgium; Muscatine, Iowa; São José dos Campos, Brazil	Chloroacetyl chloride; Diethylaniline; Methylethylaniline
	<i>Avadex</i> BW herbicide, <i>Far-Go</i> herbicide	Wheat crops	Antwerp, Belgium; Melbourne, Australia; Muscatine, Iowa	Ammonium thiocyanate; Diisopropylamine; Methylethylaniline; Trichloropropane
	<i>Machete</i> herbicide	Rice crops	Antwerp, Belgium; Canlubang, Philippines; Muscatine, Iowa; São José dos Campos, Brazil; Silvassa, India; Tangerang, Indonesia	Butanol; Chloroacetyl chloride; Diethylaniline; Formalin

AGRICULTURAL PRODUCTS (Cont'd)

Major End-Use Markets	Major Products	Major End-Use Products & Applications	Manufacturing Locations	Major Raw Materials & Components
	<i>Permit, Manage and Semptra</i> herbicides	Postemergence control of sedges and broadleaf weeds in corn and grain sorghum, turf and sugarcane crops	Manufactured by third party	Halosulfuron
Agricultural seeds	<i>Roundup Ready</i> canola, <i>Roundup Ready</i> cotton, <i>Roundup Ready</i> soybeans	Crops tolerant of <i>Roundup</i> herbicide	Seeds propagated by contract farmers	No major raw materials
	<i>Bollgard</i> insect-protected cotton, <i>NewLeaf</i> insect-protected potatoes, <i>YieldGard</i> insect-protected corn	Crops protected against certain insect pests	Seeds propagated by contract farmers	No major raw materials
	<i>AgriPro</i> , <i>Agrocere</i> , <i>Asgrow</i> , <i>Hartz</i> , <i>Holden's</i> , <i>Hybritech</i> , <i>Monsoy</i> and <i>Stoneville</i> branded seeds	Corn hybrids, soybean varieties, alfalfa, grain sorghum and forage varieties, sunflowers, cotton varieties and wheat hybrids	Seeds propagated by contract farmers	No major raw materials
Animal agricultural applications	<i>Posilac</i> bovine somatotropin	Increase efficiency of milk production in dairy cows	Manufactured by third party	Glucose; Idoleacrylic acid; Methonine

PHARMACEUTICALS

Pharmaceuticals	<i>Daypro</i> (oxaprozin), <i>Arthrotec</i> (misoprostol/diclofenac), <i>Tramadol</i> (tramadol hydrochloride)	Anti-inflammatory	Augusta, Ga.; Caguas, Puerto Rico; Morpeth, United Kingdom; Stolberg, Germany; São Paolo, Brazil	Benzoin; Diclofenac; Misoprostol; Tramadol hydrochloride
	<i>Aldactone</i> (spironolactone), <i>Aldactazide</i> (spironolactone/hydrochlorothiazide), <i>Calan</i> formulations and <i>Covera-HS</i> (verapamil hydrochloride), <i>Norpace</i> formulations (disopyramide phosphate)	Cardiovascular	Augusta, Ga.; Caguas, Puerto Rico; Evreux, France; Morpeth, United Kingdom	Androstenedione; Betaxolol; Disopyramide phosphate; Hydrochlorothiazide; Verapamil HCl
	<i>Ambien</i> (zolpidem tartrate)	Central nervous system (sleep)	Caguas, Puerto Rico	Zolpidem
	<i>Cytotec</i> (misoprostol), <i>Lomotil</i> (diphenoxylate hydrochloride)	Gastrointestinal	Caguas, Puerto Rico; Coapa, Mexico; Fairfield, Australia; Guarenas, Venezuela; Morpeth, United Kingdom; Oakville, Canada; São Paolo, Brazil	Norprostol; Diphenoxylate hydrochloride

PHARMACEUTICALS (Cont'd)

Major End-Use Markets	Major Products	Major End-Use Products & Applications	Manufacturing Locations	Major Raw Materials & Components
	<i>Demulen</i> (ethynodiol diacetate), <i>Flagyl</i> formulations (metronidazole), <i>Synarel</i> (nafarelin acetate), <i>Tri-Norinyl</i> (norethindrone and ethinyl estradiol)	Women's health	Caguas, Puerto Rico; Morpeth, United Kingdom	Ethinyl estradiol; Ethynodiol diacetate; Metronidazole; Nafarelin acetate; Norethindrone

NUTRITION AND CONSUMER PRODUCTS

Food/Beverage ingredients	<i>NutraSweet</i> brand sweetener	High-intensity sweetener used primarily in beverages and food products	Augusta, Ga.	Aspartic acid; Phenylalanine
	<i>Keltone</i> and <i>Manugel</i> sodium alginates, <i>Kelcoloid</i> propylene glycol alginate, <i>Keltrol</i> xanthan gum, <i>Kelcogel</i> gellan gum	Soups, sauces, gravies, dressings, beverages, snack foods, breadings, batters, bakery products, dairy products, pet foods	Girvan, United Kingdom; Knowsley, United Kingdom; Okmulgee, Okla.; San Diego, Calif.	Corn syrup; Seaweed
Consumer foods	<i>Equal</i> , <i>Canderel</i> , <i>NutraSweet</i> , <i>SweetMate</i> , <i>Chuker</i> , <i>Misura</i> and other tabletop sweeteners	Tabletop sweeteners	Coapa, Mexico; Evreux, France; Fairfield, Australia; Manteno, Ill.; Morpeth, United Kingdom; Zarate, Argentina	Aspartame; Cyclamate; Saccharin; Sugar
Residential lawn and garden applications* *Alternatives for this business are currently being considered.	<i>Roundup</i> herbicide, and <i>Ortho</i> , <i>Green Cross</i> , <i>Phostrogen</i> , <i>Defender</i> , and <i>White Swan</i> brand lawn-and-garden products; <i>Ortho</i> books	Herbicides, insecticides, fungicides, fertilizers, applicators, flower seeds, garden decorative items	Antwerp, Belgium; Fort Madison, Iowa; Corwen, United Kingdom; Melbourne, Australia	Acephate; Chlorpyrifos; Diazinon; Glyphosate; Malathion
Industrial	<i>Manutex</i> and <i>Kelgin</i> sodium alginates, <i>Kelzan</i> AR xanthan gum	Cleaners, textile printing, paper sizings and coatings, firefighting foams	Girvan, United Kingdom; Knowsley, United Kingdom; Okmulgee, Okla.; San Diego, Calif.	Corn syrup; Seaweed
	<i>Kelzan</i> XC, <i>Kelzan</i> XCD and <i>Xanvis</i> xanthan gums, <i>Biozan</i> welan gum	Oil and gas well drilling applications	Knowsley, United Kingdom; Okmulgee, Okla.; San Diego, Calif.	Corn syrup

CORPORATE AND OTHER

Capital equipment	<i>EnviroChem</i> engineering and construction management services for processing plants using sulfuric acid; proprietary equipment and air pollution control systems	Processing plants for fertilizer producers, basic metals production, oil refining	Martinez, Calif.; On-site construction	Various construction components
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Principal Equity Affiliates

Monsanto participates in a number of joint ventures in which it shares management control with other companies. For example, aspartame is manufactured and sold in Europe by fifty percent-owned joint ventures; and Monsanto has a 60% ownership interest in a joint venture with Solutia Inc., from which it purchases elemental phosphorus. In addition, the Company has a significant equity position in DeKalb Genetics Corporation ("DeKalb").

Sale of Products

Monsanto's products are sold directly to customers in various industries, to wholesalers and other distributors and jobbers, to retailers and to the ultimate consumer, principally by its own sales force, or, in some cases, through third parties. With respect to pharmaceuticals, such sales force concentrates on detailing to physicians and managed health care providers. As indicated on page 43 of the 1997 Annual Report, Monsanto's net income is historically higher during the first half of the year, primarily because of the concentration of generally more profitable sales of the Agricultural Products segment during that part of the year. Monsanto's marketing and distribution practices do not result in unusual working capital requirements on a consolidated basis, although the seasonality of sales of the Agricultural Products segment results in short-term borrowings to finance customer accounts receivable and inventories. Inventories of finished goods, goods in process and raw materials are maintained to meet customer requirements and Monsanto's scheduled production. In general, Monsanto does not manufacture its products against a backlog of firm orders; production is geared primarily to the level of incoming orders and to projections of future demand. Monsanto generally is not dependent upon one or a group of customers. The Nutrition and Consumer Products segment, however, makes significant sales to a few companies for use in carbonated soft drinks. Monsanto has no material contracts with the government of the United States or any state, local or foreign government. However, pursuant to contracts executed under U.S. federal and state laws, the Pharmaceuticals segment pays rebates to state governments for pharmaceuticals sold under state Medicaid programs and under state-funded programs for the indigent. The Pharmaceuticals segment also grants discounts to certain managed health care providers. Sales through managed health care providers constitute an increasing percentage of that segment's sales.

Introduction of new products by the Agricultural Products and Pharmaceuticals segments typically is, and introduction of new products by other segments may be, subject to prior review and approval by the U.S. Food & Drug Administration ("FDA"), the U.S. Environmental Protection Agency and/or the U.S. Department of Agriculture (or comparable agencies of ex-U.S. governments) before they can be sold. Such reviews are often time-consuming and costly. These agencies also have continuing jurisdiction over many existing products of these segments. Governmental actions may also affect the pricing of certain products, particularly in the Pharmaceuticals segment.

Raw Materials and Energy Resources

Monsanto is both a producer and significant purchaser of a wide spectrum of its basic and intermediate raw material requirements. Major requirements for key raw materials and fuels are typically purchased pursuant to long-term contracts. Monsanto is not dependent on any one supplier for a material amount of its raw materials or fuel requirements, but certain important raw materials are obtained from a few major suppliers. Monsanto purchases its North American supply, and has the option to purchase its ex-North American supplies, of elemental phosphorus, a key raw material for the production of Roundup® brand herbicides, from P4 Production, L.L.C., a joint venture between the Company and Solutia Inc. In general, where Monsanto has limited sources of raw materials, it has developed contingency plans to minimize the effect of any interruption or reduction in supply. Information with respect to specific raw materials is set forth in the table above under "Industry Segments; Principal Products."

While temporary shortages of raw materials and fuels may occasionally occur, these items are generally sufficiently available to cover current and projected requirements. However, their continuing availability and price are subject to unscheduled plant interruptions occurring during periods of high demand, or due to domestic and world market and political conditions, as well as to the direct or indirect effect of U.S. and other countries' government regulations. The impact of any future raw material and energy shortages on Monsanto's

business as a whole or in specific world areas cannot be accurately predicted. Operations and products may, at times, be adversely affected by legislation, shortages or international or domestic events.

Patents, Trademarks, Licenses, Franchises and Concessions

Monsanto owns a large number of patents which relate to a wide variety of products and processes and has pending a substantial number of patent applications. In addition, Monsanto holds a number of licenses granted by other parties, some of which may be significant particularly to the Agricultural Products segment. Also, Monsanto owns a considerable number of established trademarks in many countries under which it markets its products. Monsanto's patents and trademarks in the aggregate are of material importance in the operation of its business, particularly in the Agricultural Products and Pharmaceuticals segments and with respect to *NutraSweet*® brand sweetener. Certain proprietary products such as *Roundup*® herbicide are covered by patents. Although patents protecting *Roundup*® herbicide have now expired in most countries, compound *per se* patent protection for the active ingredient in *Roundup*® herbicide continues in the United States into the year 2000. All patents covering the use of aspartame as a sweetener have expired. *NutraSweet*® brand sweetener is currently manufactured under several patents owned or licensed by The NutraSweet Company, a subsidiary of the Company. *Calan*® SR, an antihypertensive pharmaceutical, is licensed through the year 2004 to Searle by a third party, which has retained co-marketing rights. The product no longer has patent protection nor non-patent regulatory exclusivity conferred by the Waxman-Hatch amendments to the U.S. Food, Drug and Cosmetics Act. *Cytotec*® ulcer preventive drug is protected by a U.S. composition patent until July 29, 2000. *Ambien*® short-term treatment for insomnia is licensed to a joint venture, of which Searle is a general partner and holds a controlling interest, for the duration of the venture. Pursuant to the joint venture agreement, the other partner has the right to purchase Searle's interest and thereby terminate the venture beginning in December, 1999. *Ambien*® is protected by a U.S. patent to October 21, 2006. *Daypro*® once-a-day arthritis treatment is licensed to Searle until January 5, 2003 in the U.S. and varying dates in other countries. This product is protected by a U.S. process patent that expires on February 26, 2002, and by non-patent regulatory exclusivity extending to October 29, 1999. Monsanto's insect-resistant plant products (including *NewLeaf*® potato, *YieldGard*® corn and *Bollgard*® cotton) are protected by patents which extend until at least 2013. Monsanto's herbicide-resistant plant products, *Roundup Ready*® cotton, corn, canola and soybeans, are protected by patents which extend until at least 2014. (Certain of Monsanto's patents and licenses are currently the subject of litigation. See "Legal Proceedings" below.)

Monsanto leases or subleases a number of kelp beds off the coast of California from the State of California and several private parties. Monsanto also has leases to harvest seaweed off the coasts of Scotland and (through a joint venture) Ireland. None of these leases taken individually is deemed by Monsanto to be material, although the leases to harvest seaweed in the aggregate are significant to the Nutrition and Consumer Products segment. The leases have varying terms.

Competition

Monsanto encounters substantial competition in each of its industry segments. This competition, from other manufacturers of the same products and from manufacturers of different products designed for the same uses, is expected to continue in both U.S. and ex-U.S. markets. Depending on the product involved, various types of competition are encountered, including price, delivery, service, performance, product innovation, product recognition and quality.

The number of Monsanto's principal competitors varies from product to product. It is not practical to discuss Monsanto's numerous competitors because of the large variety of Monsanto's products, the markets served and the worldwide business interests of Monsanto. Overall, however, Monsanto regards its principal product groups to be competitive with many other products of other producers and believes that it is an important producer of many of such product groups.

Research and Development

Research and development constitute an important part of Monsanto's activities. See "Review of Consolidated Results of Operations," "Nutrition and Consumer Products," "Pharmaceuticals" and "Supplemental Data" on pages 33, 39, 40-41 and 61, respectively, of the 1997 Annual Report, incorporated herein by reference.

Environmental Matters

Monsanto remains strongly committed to complying with various laws and government regulations concerning environmental matters and employee safety and health in the United States and other countries. Monsanto is dedicated to long-term environmental protection and compliance programs that reduce and monitor emissions of hazardous materials into the environment, as well as to the remediation of identified existing environmental concerns. While the costs of compliance with environmental laws and regulations cannot be predicted with certainty, Monsanto does not expect such costs to have a material adverse effect upon its capital expenditures, earnings, or competitive position. See information regarding remediation of waste disposal sites appearing under "Commitments and Contingencies" on page 61 of the 1997 Annual Report, incorporated herein by reference.

Employee Relations

As of December 31, 1997, Monsanto had approximately 21,900 employees worldwide. Satisfactory relations have prevailed between Monsanto and its employees.

International Operations

Monsanto and affiliated companies are engaged in manufacturing, sales and/or research and development in the United States, Europe, Canada, Latin America, Australia, Asia and Africa. A number of products are manufactured abroad. Ex-U.S. operations are potentially subject to a number of unique risks and limitations, including: fluctuations in currency values; exchange control regulations; import and trade restrictions, including embargoes; governmental instability; economic conditions in other countries; and other potentially detrimental domestic and foreign governmental practices or policies affecting U.S. companies doing business abroad. See "Geographic Data" on page 42 of the 1997 Annual Report, incorporated herein by reference.

Legal Proceedings

Because of the size and nature of its business, Monsanto is a party to numerous legal proceedings. Most of these proceedings have arisen in the ordinary course of business and involve claims for money damages or seek to restrict the Company's business activities. While the results of litigation cannot be predicted with certainty, Monsanto does not believe these matters or their ultimate disposition will have a material adverse effect on Monsanto's financial position, profitability or liquidity in any one year, as applicable.

In 1974, G. D. Searle & Co., a subsidiary of the Company ("Searle"), introduced in the United States an intrauterine contraceptive product, commonly referred to as an intrauterine device ("IUD"), under the name Cu-7®. Following extensive testing by Searle and review by the FDA, the Cu-7® was approved for sale as a prescription drug. Searle has been named a defendant in a number of product liability lawsuits alleging that the Cu-7® caused personal injury resulting from pelvic inflammatory disease, perforation, pregnancy or ectopic pregnancy. As of March 9, 1998, there were approximately 5 cases pending in various U.S. state and federal courts and approximately 270 cases filed outside the United States (the vast majority in Australia). The lawsuits seek damages in varying amounts, including compensatory and punitive damages, with most suits seeking at least \$50,000 in damages. Searle believes it has meritorious defenses and is vigorously defending each of these lawsuits. On January 31, 1986, Searle voluntarily discontinued the sale of the Cu-7® in the United States, citing the cost of defending such litigation.

Searle has been named, together with numerous other prescription pharmaceutical manufacturers and in some cases wholesalers or distributors, as a defendant in a large number of related actions brought in federal and/or state court, based on the practice of providing discounts or rebates to managed care organizations and certain other large purchasers. The federal cases have been consolidated for pre-trial proceedings in the

Northern District of Illinois. The federal suits include a certified class action on behalf of retail pharmacies representing the majority of retail pharmacy sales in the United States. The class plaintiffs allege an industry-wide agreement in violation of the Sherman Act to deny favorable pricing on sales of brand-name prescription pharmaceuticals to certain retail pharmacies in the United States. The other federal suits, brought as individual claims by several thousand pharmacies, allege price discrimination in violation of the Robinson-Patman Act as well as Sherman Act claims. Several defendants, not including Searle, have settled the federal class action case. Searle has entered into an agreement that would significantly limit its liability (based generally on its share of the relevant market) should the federal class action result in an adverse judgment. Trial of the federal class action case is set for September 14, 1998. In addition, consumers and a number of retail pharmacies have filed suit in various state courts throughout the country alleging violations of state antitrust and pricing laws. Searle believes it has meritorious defenses and is vigorously defending each of these lawsuits.

In 1996 the Company was the first to commercially introduce cotton containing a gene encoding for *Bacillus thuringiensis* ("Bt") endotoxin. Monsanto is a leader in this scientific field and has engaged in Bt research and biotechnology development over many years and owns a number of present and pending patents which relate to this technology. On October 22, 1996, Mycogen Corporation filed suit in U.S. District Court in Delaware seeking damages and injunctive relief against the Company, DeKalb and Delta & Pine Land alleging infringement of Bt related U.S. Patent Nos. 5,567,600 and 5,567,862 issued to Mycogen on that date. The Company has several meritorious defenses including non-infringement, lack of validity of Mycogen's patent and prior invention by the Company. Jury trial in this matter concluded on February 3, 1998 with a verdict in favor of all defendants. The patents of Mycogen were found invalid on the basis that Monsanto was a prior inventor. On February 20, 1998 Mycogen filed motions requesting that the Court set aside the jury's verdict. The Company will continue to vigorously defend against Mycogen's lawsuit.

Several other lawsuits are pending between the Company and other parties involving Bt. On March 19, 1996, the Company was issued U.S. Patent No. 5,500,365 and filed suit in U.S. District Court in Delaware seeking damages and injunctive relief against Mycogen Plant Science, Inc., Agrigenetics, Inc. and Ciba-Geigy Corporation (Seed Division) (now Novartis Seeds, Inc.) for infringement of that patent. Trial of this matter is currently scheduled for June 15, 1998. On May 19, 1995, Mycogen initiated suit in U.S. District Court in California against the Company alleging infringement of U.S. Patent No. 5,380,831 involving synthetic Bt genes and seeking damages and injunctive relief. The District Court has granted motions dismissing virtually all of Mycogen's patent claims on the basis that products containing Bt genes made prior to January 1995 do not infringe the patent. The Company has various meritorious defenses to the claims of Mycogen including non-infringement, lack of validity, prior invention and collateral estoppel as a result of the outcome in the jury trial in which Mycogen's related patents were found invalid. The Company is also a party in interference proceedings against Mycogen in the U.S. Patent and Trademark Office to determine the first party to invent certain inventions related to Bt technology. In all of the foregoing actions the Company is vigorously litigating its position.

In 1997 the Company commercially introduced corn containing a gene providing glyphosate resistance. Monsanto is a leader in this scientific field and has engaged in such research and biotechnology development over many years and owns a number of present and pending patents which relate to this technology. On November 20, 1997, Rhone Poulenc Agrochimie S. A. ("Rhone Poulenc") filed suit in U. S. District Court in North Carolina (Charlotte) against the Company and DeKalb contending they did not have a right to license, make or sell products using Rhone Poulenc technology for glyphosate resistance. DeKalb has sublicensed to Monsanto certain technology previously licensed from Rhone Poulenc. The terms of Rhone Poulenc's license to DeKalb are now in dispute and have resulted in Rhone Poulenc's claim that the Company's sale of Roundup Ready® corn infringes on the Rhone Poulenc patent. Rhone Poulenc also contends that Monsanto is in violation of certain antitrust laws. The Company has meritorious defenses to the allegations and is vigorously defending the litigation.

In 1997 the Company commercially introduced corn containing a gene encoding for Bt endotoxin. Monsanto is a leader in this scientific field and has engaged in Bt research and biotechnology development over many years and owns a number of present and pending patents which relate to this technology. On January 21, 1997, Novartis Seeds, Inc. ("Novartis") filed suit in U.S. District Court in Delaware seeking damages and injunctive relief against the Company, alleging infringement of Bt related U.S. Patent No. 5,595,733 issued to

Ciba-Geigy Corporation (Seed Division) and now held by Novartis. Trial in this matter is currently scheduled for October 1998. The Company has several meritorious defenses including non-infringement and lack of validity of Novartis' patent. The Company is vigorously defending against Novartis' lawsuit.

On March 20, 1997, the Georgia Environmental Protection Division ("EPD") issued a Notice of Violation alleging violations by the Company of certain sections of the Resource Conservation and Recovery Act. The alleged violations related to the waste heat recovery units at the Company's *NutraSweet*® sweetener plant in Augusta, Georgia. On December 31, 1997, the Company and EPD executed a Consent Order whereby the Company agreed to pay \$99,000 to settle the alleged violations, and agreed to complete a Supplemental Environmental Project to secure environmental improvements at the facility estimated at \$120,000.

Risk Management

Monsanto continually evaluates risk retention and insurance levels for product liability, property damage and other potential areas of risk. Monsanto devotes significant effort to maintaining and improving safety and internal control programs, which reduce its exposure to certain risks. Management decides the amount of insurance coverage to purchase from unaffiliated companies and the appropriate amount of risk to retain, based on the cost and availability of insurance and the likelihood of a loss. Since 1986, Monsanto's liability insurance has been on the "claims made" policy form. Management believes that the current levels of risk retention are consistent with those of other companies in the various industries in which Monsanto operates. There can be no assurance that Monsanto will not incur losses beyond the limits of, or outside the coverage of, its insurance. Monsanto's liquidity, financial position and profitability are not expected to be affected materially by the levels of risk retention that the Company accepts.

Disclosure of Forward-Looking Statements

Under the Private Securities Litigation Reform Act of 1995, companies are provided a "safe harbor" for making forward-looking statements about the potential risks and rewards of their strategies. Monsanto believes it's in the best interests of our shareowners to use these provisions in discussing future events, as we do in this Form 10-K (including portions incorporated by reference from the 1997 Annual Report) and other communications. These forward-looking statements include our plans for growth; the potential for the development, regulatory approval and public acceptance of new products from our pipeline; and other factors that could affect Monsanto's future operations or financial position.

Monsanto's ability to achieve its goals depends on many, known and unknown risks and uncertainties, as well as on changes in general economic and business conditions. These factors could cause the anticipated performance and results of the company to differ materially from those described or implied in forward-looking statements.

Factors that could cause or contribute to such differences include, but aren't limited to Monsanto's ability to: generate cash flows or obtain financing to fund its growth, including research and development; identify new technologies and commercialize from that research innovative and competitive new products worldwide; obtain regulatory approvals and gain consumer acceptance of new products worldwide; secure and defend its intellectual property rights and, when appropriate, license required technology; manufacture its products competitively and cost effectively; manage its businesses in the face of adverse weather or other environmental conditions; respond to challenges in international markets, including changes in currency exchange rates, political or economic conditions, and trade and regulatory matters; complete and integrate appropriate acquisitions, strategic alliances and joint ventures; and manage other factors as may be discussed in Monsanto's reports filed with the U.S. Securities and Exchange Commission.

Item 2. PROPERTIES.

The General Offices of the Company are located on a 285-acre tract of land in St. Louis County, Missouri. The Company also owns a 210-acre tract in St. Louis County on which additional research facilities are located. Monsanto also has research laboratories and technical centers throughout the world. Information with respect to Monsanto's manufacturing locations worldwide and the industry segments which use such plants as of January 1, 1998, is set forth under "Business—Industry Segments; Principal Products" in Item 1 of this Report, which is incorporated herein by reference.

Monsanto's principal plants are suitable and adequate for their use. Utilization of these facilities may vary with seasonal, economic and other business conditions, but none of the principal plants is substantially idle. The facilities generally have sufficient capacity for existing needs and expected near-term growth. Most of these plants are owned in fee. However, the land at the Antwerp, Belgium plant, and major portions of the San Diego, California plant, are leased. In addition, a portion of a plant at Augusta, Georgia is currently leased with an option to purchase, pursuant to an industrial revenue bond financing. The Company also leases the land underlying facilities that it owns at Alvin, Texas. In certain instances, Monsanto has granted leases on portions of other plant sites not required for current operations.

Item 3. LEGAL PROCEEDINGS.

For information concerning certain legal proceedings involving Monsanto, see "Business—Environmental Matters," "Business—Legal Proceedings" and "Business—Disclosure of Forward-Looking Statements" contained in Item 1 of this Report.

Item 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

No matters were submitted to the security holders during the fourth quarter of 1997.

EXECUTIVE OFFICERS OF THE REGISTRANT.

Information regarding executive officers is contained in Item 10 of Part III of this Report (General Instruction G) and is incorporated herein by reference.

PART II

Item 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS.

The narrative or tabular information regarding the market for the Company's common equity and related stockholder matters appearing under "Review of Cash Flow" on page 48 and "Quarterly Data" (for the years 1996 and 1997) on page 43 of the 1997 Annual Report is incorporated herein by reference.

Item 6. SELECTED FINANCIAL DATA.

The tabular information under "Financial Summary—Operating Results, Earnings per Share and Year-End Financial Position" and the amounts of Dividends per Share, all for the years 1993 through 1997, appearing on page 62 of the 1997 Annual Report, is incorporated herein by reference.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATION.

The tabular and narrative information appearing under "Review of Consolidated Results of Operations" on pages 31 through 34, "Segment Data" and information regarding segments on pages 35 through 41, "Review of Changes in Financial Position" on page 45, and "Review of Cash Flow" on pages 47 and 48, and the narrative information appearing under "Geographic Data" on page 42 of the 1997 Annual Report is incorporated herein by reference.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISKS.

The tabular and narrative information appearing under "Financial Instruments" on pages 48 and 49 of the 1997 Annual Report is incorporated herein by reference.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

The consolidated financial statements of Monsanto appearing on pages 30, 44, 46, 50 and 51 through 61; the Independent Auditors' Report appearing on page 29; and the tabular and narrative information appearing under "Quarterly Data" on page 43 of the 1997 Annual Report are incorporated herein by reference.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

PART III

Item 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT.

Information regarding directors and executive officers appearing under "Election of Directors" on pages 2 through 4 of the Monsanto Company Notice of Annual Meeting and Proxy Statement (the "1998 Proxy Statement") dated March 13, 1998, is incorporated herein by reference. The following information with respect to the Executive Officers of the Company on March 1, 1998, is included pursuant to Instruction 3 of Item 401(b) of Regulation S-K:

Name—Age	Present Position with Registrant	Year First Became an Executive Officer	Other Business Experience since January 1, 1993
Richard U. De Schutter, 57	Vice Chairman—Monsanto Company; Chairman, Chief Executive Officer and President—G.D. Searle & Co.	1995	President, G.D. Searle & Co., 1991; President and Chief Operating Officer, G.D. Searle & Co., 1993; Chairman, Chief Executive Officer and President, G.D. Searle & Co.; Advisory Director—Monsanto Company, 1995; and present position, 1997.
Arnold W. Donald, 43	Senior Vice President—Monsanto Company	1998	Vice President and General Manager of the Crop Protection Products Division—Monsanto Company, 1992; Group Vice President North America Division—Monsanto Company, 1993; Group Vice President and General Manager—Monsanto Company, 1994; President, Crop Protection—Monsanto Company, 1995; Co-President, Agricultural Sector—Monsanto Company, 1997; and present position, 1998.
Steven L. Engelberg, 55	Senior Vice President—Monsanto Company	1995	Partner, Keck, Mahin & Cate, 1986; Partner-in-Charge, Keck, Mahin & Cate, Washington, D.C. office, 1986; Chief of Staff of Office of the United States Trade Representative (on leave from Keck, Mahin & Cate until May 1993), 1993; Vice President, Worldwide Government Affairs—Monsanto Company, 1994; and present position, 1996.
Patrick J. Fortune, 50	Vice President and Chief Information Officer—Monsanto Company	1997	Corporate Vice President, Information Management—Bristol-Myers Squibb, 1991; President and Chief Operation Officer—Coram Healthcare Corporation, 1994; Vice President, Information Technology—Monsanto Company, 1995; and present position, 1997.
Pierre Hochuli, 50	Executive Vice President—Monsanto Company	1995	Vice President and General Manager, New Products Division—The Agricultural Group, 1992; Group Vice President and General Manager, New Products Division—The Agricultural Group, 1993; Vice President, Corporate Planning—Monsanto Company, 1993; Vice President—Monsanto Company; President—Growth Enterprises, 1995; Vice President—Monsanto Company; President—Growth Enterprises Business Unit; Chairman, Monsanto Europe-Africa, 1996; and present position, 1997.
Robert B. Hoffman, 61	Vice Chairman and Chief Financial Officer—Monsanto Company	1994	Vice President, FMC Corporation, 1990; Chief Financial Officer and Advisory Director—Monsanto Company, 1994; and present position, 1997.

Name—Age	Present Position with Registrant	Year First Became an Executive Officer	Other Business Experience since January 1, 1993
R. William Ide III, 57	Senior Vice President, General Counsel and Secretary—Monsanto Company	1996	Partner, Kutak Rock, 1989; President, American Bar Association, 1993-1994; Partner, Long, Aldridge & Norman, 1993; and present position, 1996.
Donna A. Kindl, 40	Vice President, Human Resources—Monsanto Company	1996	Director of Human Resources Planning and Development, Clorox Corporation, 1990; Director of Human Resources, Staff of the Vice Chairman—Monsanto Company, 1993; Director, Human Resources, Crop Protection Business Unit—Monsanto Company, 1995; and present position, 1996.
David L. Morley, 41	Senior Vice President—Monsanto Company	1998	Vice President, Finance and Planning—The Agricultural Group, 1992; Group Vice President and General Manager, Global Strategies and Operations—The Agricultural Group, 1993; Group Vice President and General Manager, Americas Division, Crop Protection Business Unit—Monsanto Company, 1995; President, Nutrition and Consumer Products—Monsanto Company, 1997; and present position, 1998.
Philip Needleman, 59	Senior Vice President, Research and Development and Chief Scientist; President, Research and Development, G.D. Searle & Co.	1991	Vice President, Research and Development; Advisory Director—Monsanto Company, 1991; Vice President, Research and Development; Advisory Director—Monsanto Company; President, Research and Development, G.D. Searle & Co., 1992; and present position, 1993.
Nicholas L. Reding, 63	Director; Vice Chairman of the Board—Monsanto Company	1976	Executive Vice President, Environment, Safety, Health and Manufacturing and Advisory Director—Monsanto Company, 1990; and present position, 1993.
Robert W. Reynolds, 54	Vice Chairman—Monsanto Company	1994	Vice President and Managing Director, Latin America World Area—Monsanto Company, 1992; Vice President, International Operations and Development—Monsanto Company, 1994; and present position, 1997.
Robert B. Shapiro, 59	Director; Chairman and Chief Executive Officer—Monsanto Company	1987	Executive Vice President and Advisory Director—Monsanto Company; President—The Agricultural Group, 1990; Director; President and Chief Operating Officer—Monsanto Company, 1993; Director; Chairman, Chief Executive Officer and President—Monsanto Company, 1995; and present position, 1997.
Hendrik A. Verfaillie, 52	President—Monsanto Company	1993	Vice President and General Manager, Roundup Division—The Agricultural Group, 1990; Vice President and Advisory Director—Monsanto Company; President—The Agricultural Group, 1993; Vice President and Advisory Director—Monsanto Company, 1995; Executive Vice President and Advisory Director—Monsanto Company, 1995; and present position, 1997.

Mr. Reding will retire May 1, 1998. Otherwise, the above-listed individuals are elected to the offices set opposite their names to hold office until their successors are duly elected and have qualified, or until their earlier death, resignation or removal.

Item 11. EXECUTIVE COMPENSATION.

Information appearing under "Directors' Fees and Other Arrangements" on pages 8 through 10 and under "Executive Compensation" on page 16 through "Certain Agreements" on page 22 of the 1998 Proxy Statement is incorporated herein by reference.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT.

Information appearing under "Stock Ownership of Management and Certain Beneficial Owners" on pages 5 and 6 of the 1998 Proxy Statement is incorporated herein by reference.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

Information appearing under "Other Information Regarding Management" on page 22 of the 1998 Proxy Statement is incorporated herein by reference.

PART IV

Item 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K.

(a) Documents filed as part of this Report:

1. The financial statements set forth at pages 30, 44, 46, 50 and 51 through 61 of the 1997 Annual Report (See Exhibit 13 under Paragraph (a)3 of this Item 14)

2. Financial Statement Schedules

None required

3. Exhibits—See the Exhibit Index beginning at page 15 of this Report. For a listing of all management contracts and compensatory plans or arrangements required to be filed as exhibits to this Form 10-K, see the Exhibits listed under Exhibit Nos. 10.4 through 10.32 on pages 15 through 17 of the Exhibit Index. The following Exhibits listed in the Exhibit Index are filed with this Report:

13 The Company's 1997 Annual Report to shareowners

21 Subsidiaries of the registrant (See page 19)

23 1. Consent of Independent Auditors (See page 20)

2. Consent of Company Counsel (See page 20)

24 1. Powers of attorney submitted by Robert M. Heyssel, Michael Kantor, Gwendolyn S. King, Philip Leder, Jacobus F.M. Peters, Nicholas L. Reding, John S. Reed, John E. Robson, William D. Ruckelshaus, Robert B. Shapiro, Robert B. Hoffman, and Michael R. Hogan

2. Certified copy of Board resolution authorizing Form 10-K filing utilizing powers of attorney

27 Financial Data Schedule (part of electronic submission only)

99 Computation of the Ratio of Earnings to Fixed Charges for Monsanto Company and Subsidiaries (See page 21)

(b) Reports on Form 8-K during the quarter ended December 31, 1997:

A Form 8-K as of December 5, 1997, was filed by the Company, including financial information restated to present the results of operations, cash flows and financial position of Monsanto's former chemical businesses as discontinued operations.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

MONSANTO COMPANY

(Registrant)

By /s/ MICHAEL R. HOGAN

Michael R. Hogan
Vice President and Controller
(Principal Accounting Officer)

Date: March 17, 1998

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
• (Robert B. Shapiro)	Chairman and Director (Principal Executive Officer)	March 17, 1998
• (Nicholas L. Reding)	Vice Chairman of the Board and Director	March 17, 1998
• (Robert B. Hoffman)	Vice Chairman (Principal Financial Officer)	March 17, 1998
/s/ MICHAEL R. HOGAN (Michael R. Hogan)	Vice President and Controller (Principal Accounting Officer)	March 17, 1998
• (Robert M. Heyssel)	Director	March 17, 1998
• (Michael Kantor)	Director	March 17, 1998
• (Gwendolyn S. King)	Director	March 17, 1998
• (Philip Leder)	Director	March 17, 1998
• (Jacobus F.M. Peters)	Director	March 17, 1998

<u>Signature</u>	<u>Title</u>	<u>Date</u>
_____ (John S. Reed)	Director	March 17, 1998
_____ (John E. Robson)	Director	March 17, 1998
_____ (William D. Ruckelshaus)	Director	March 17, 1998

*R. William Ide III, by signing his name hereto, does sign this document on behalf of the above noted individuals, pursuant to powers of attorney duly executed by such individuals which have been filed as an Exhibit to this Report.

/s/ R. WILLIAM IDE III

R. William Ide III
Attorney-in-Fact

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EXHIBIT INDEX

These Exhibits are numbered in accordance with the Exhibit Table of Item 601 of Regulation S-K.

<u>Exhibit No.</u>	<u>Description</u>
2	Omitted—Inapplicable
3	1. Restated Certificate of Incorporation of the Company as of October 28, 1997 (incorporated herein by reference to Exhibit 3(i) of the Company's Form 10-Q for the quarter ended September 30, 1997) 2. By-Laws of the Company, as amended effective September 26, 1997 (incorporated herein by reference to Exhibit 3(ii) of the Company's Form 10-Q for the quarter ended September 30, 1997)
4	1. Form of Rights Agreement, dated as of January 26, 1990 between the Company and First Chicago Trust Company as successor to The First National Bank of Boston (incorporated herein by reference to Form 8-A filed on January 31, 1990) 2. Registrant agrees to furnish to the Securities and Exchange Commission upon request copies of instruments defining the rights of holders of certain long-term debt not being registered of the registrant and all subsidiaries for which consolidated or unconsolidated financial statements are required to be filed.
9	Omitted—Inapplicable
10	1. Distribution Agreement by and between Monsanto Company and Solutia Inc., as of September 1, 1997, plus identification of contents of omitted schedules and exhibits and agreement to furnish supplementally a copy of any omitted schedule or exhibit to the Securities and Exchange Commission upon request (incorporated herein by reference to Exhibit 2.1 of the Company's Form 8-K filed September 16, 1997) 2. Employee Benefits and Compensation Allocation Agreement between Monsanto Company and Solutia Inc., dated as of September 1, 1997 (incorporated herein by reference to Exhibit 99.1 of the Company's Form 8-K filed September 16, 1997) 3. Tax Sharing and Indemnification Agreement dated as of September 1, 1997, by and between Monsanto Company and Solutia Inc. (incorporated herein by reference to Exhibit 99.2 of the Company's Form 8-K filed September 16, 1997) 4. Monsanto Company Non-Employee Director Deferred Compensation Plan (incorporated herein by reference to Exhibit 10.3 of the Company's Form 10-Q for the quarter ended September 30, 1997) 5. Monsanto Company Non-Employee Director Equity Incentive Compensation Plan (incorporated herein by reference to Exhibit 10.4 of the Company's Form 10-Q for the quarter ended September 30, 1997) 6. Non-Employee Directors Stock Plan, as amended in 1991 (incorporated herein by reference to Exhibit 19(ii)1 of the Company's Form 10-Q for the quarter ended June 30, 1991) 7. Amendment to Non-Employee Directors Stock Plan (incorporated herein by reference to Exhibit 10.8 of the Company's Form 10-Q for the quarter ended June 30, 1997)

EXHIBIT INDEX (Cont'd)

Exhibit No.

Description

8. Charitable Contribution Program effective April 1, 1992 (incorporated herein by reference to Exhibit 19(i)1 of the Company's Form 10-K for the year ended December 31, 1991)
9. Deferred Compensation Plan for Non-Employee Directors, as amended in 1983 and 1991 (incorporated herein by reference to Exhibit 19(ii)1 of the Company's Form 10-K for the year ended December 31, 1991)
10. Excerpt of Resolutions of Monsanto Company Board of Directors Regarding Directors' Compensation, adopted by Unanimous Consent effective August 4, 1997 (incorporated herein by reference to Exhibit 10.5 of the Company's Form 10-Q for the quarter ended September 30, 1997)
11. Consulting Agreement between the Company and Philip Leder dated January 17, 1990 (incorporated herein by reference to Exhibit 19(i)3 of the Company's Form 10-K for the year ended December 31, 1989)
12. Monsanto Management Incentive Plan of 1984, as amended in 1987, 1988, 1989, April 1997 and July 1997 (incorporated herein by reference to Exhibit 10.1 of the Company's Form 10-Q for the quarter ended June 30, 1997)
13. Monsanto Management Incentive Plan of 1988/I, as amended in 1988, 1989, 1991, 1992, April 1997 and July 1997 (incorporated herein by reference to Exhibit 10.3 of the Company's Form 10-Q for the quarter ended June 30, 1997)
14. Monsanto Management Incentive Plan of 1988/II, as amended in 1989, 1991, 1992, April 1997 and July 1997 (incorporated herein by reference to Exhibit 10.4 of the Company's Form 10-Q for the quarter ended June 30, 1997)
15. Monsanto Management Incentive Plan of 1994, as amended in April 1997 and July 1997 (incorporated herein by reference to Exhibit 10.5 of the Company's Form 10-Q for the quarter ended June 30, 1997)
16. Monsanto Management Incentive Plan of 1996 as amended April 1997, July 1997 and August 1997 (incorporated herein by reference to Exhibit 10.6 of the Company's Form 10-Q for the quarter ended September 30, 1997)
17. Monsanto Executive Stock Purchase Incentive Plan (incorporated herein by reference to Appendix B of the Monsanto Company Notice of Annual Meeting and Proxy Statement dated March 14, 1996)
18. Annual Incentive Program for Executive Officers (incorporated herein by reference to the description on pages 12-13 of the Monsanto Company Notice of Annual Meeting and Proxy Statement dated March 13, 1998)
19. Long-Term Incentive Program and Premium Option Purchase Program for Executive Officers (incorporated herein by reference to the description on pages 13-15 of the Monsanto Company Notice of Annual Meeting and Proxy Statement dated March 13, 1998)
20. Split-dollar Life Insurance Plan (incorporated herein by reference to Exhibit 10(iii)19 of the Company's Form 10-K for the year ended December 31, 1987)

EXHIBIT INDEX (Cont'd)

Exhibit No.

Description

21. Form of Employment Agreement for Executive Officers (incorporated herein by reference to Exhibit 10.7 of the Company's Form 10-Q for the quarter ended September 30, 1997)
22. Letter Agreement between the Company and Robert B. Shapiro entered into as of July 23, 1990 (incorporated herein by reference to Exhibit 19(i)3 of the Company's Form 10-Q for the quarter ended September 30, 1990)
23. Amendment to Letter Agreement between the Company and Robert B. Shapiro entered into as of July 23, 1990 (incorporated herein by reference to Exhibit 10.23 of the Company's Form 10-K for the year ended December 31, 1995)
24. Letter Agreement between the Company and Hendrik A. Verfaillie entered into as of June 27, 1988 (incorporated herein by reference to Exhibit 10.20 of the Company's Form 10-K for the year ended December 31, 1995)
25. Supplemental Retirement Plan regarding Richard U. De Schutter (incorporated herein by reference to Exhibit 10.26 of the Company's Form 10-K for the year ended December 31, 1996)
26. Searle Phantom Stock Option Plan of 1986, as amended in 1990, 1991, 1992 and 1995 (incorporated herein by reference in Exhibit 10.1 of the Company's Form 10-Q for the quarter ended March 31, 1995)
27. Minutes of Meeting of Executive Compensation and Development Committee regarding termination of Searle Phantom Stock Option Plan of 1986 (incorporated herein by reference to Exhibit 10.8 of the Company's Form 10-Q for the quarter ended March 31, 1997)
28. Searle Monsanto Stock Option Plan of 1986, as amended in 1988, 1989, 1990, 1991, 1995, April 1997 and July 1997 (incorporated herein by reference to Exhibit 10.2 of the Company's Form 10-Q for the quarter ended June 30, 1997)
29. Searle/Monsanto Stock Plan of 1994, as amended in 1995, April 1997 and July 1997 (incorporated herein by reference to Exhibit 10.6 of the Company's Form 10-Q for the quarter ended June 30, 1997)
30. G. D. Searle & Co. Split Dollar Life Insurance Plan, as amended in 1989 (incorporated herein by reference to Exhibit 19(ii)3 of the Company's Form 10-Q for the quarter ended June 30, 1989)
31. G. D. Searle & Co. Legal/Tax/Financial Counseling Plan (incorporated herein by reference to Exhibit 19(i)8 of the Company's Form 10-Q for the quarter ended June 30, 1988)
32. G. D. Searle & Co. Deferred Compensation Plan, as amended in 1994 (incorporated herein by reference to Exhibit 10.6 of the Company's Form 10-Q for the quarter ended June 30, 1994)
- 11 Omitted—Inapplicable; see "Earnings per Share" on page 60 of the 1997 Annual Report
- 12 Statement re Computation of the Ratio of Earnings to Fixed Charges—See Exhibit 99 below

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EXHIBIT INDEX (Cont'd)

<u>Exhibit No.</u>	<u>Description</u>
13	The Company's 1997 Annual Report to shareowners. (The electronic submission includes only the financial report section of the Annual Report, consisting of pages 28 through 62 of that Report.) Only those portions expressly incorporated by reference into this Form 10-K are deemed "filed"; other portions are furnished only for the information of the Commission.
18	Omitted—Inapplicable
21	Subsidiaries of the registrant (See page 19)
22	Omitted—Inapplicable
23	1. Consent of Independent Auditors (See page 20) 2. Consent of Company Counsel (See page 20)
24	1. Powers of attorney submitted by Robert M. Heyssel, Michael Kantor, Gwendolyn S. King, Philip Leder, Jacobus F.M. Peters, Nicholas L. Reding, John S. Reed, John E. Robson, William D. Ruckelshaus, Robert B. Shapiro, Robert B. Hoffman and Michael R. Hogan 2. Certified copy of Board resolution authorizing Form 10-K filing utilizing powers of attorney
27	Financial Data Schedule (part of electronic submission only)
99	Computation of the Ratio of Earnings to Fixed Charges for Monsanto Company and Subsidiaries (See page 21)

Only Exhibits Nos. 13, 21, 23.1, 23.2 and 99 have been included in the printed copy of this Report.

MAR 002573

SUBSIDIARIES OF THE REGISTRANT

The following is a list of the Company's subsidiaries and jurisdictions of incorporation as of December 31, 1997, except for unnamed subsidiaries which, considered in the aggregate as a single subsidiary, would not constitute a significant subsidiary.

G. D. Searle & Co. (Delaware)
Monsanto Europe, S.A. N.V. (Belgium)
Monsanto Do Brasil Ltda. (Brazil)
Monsanto International Sales Company, Inc.
(Virgin Islands)
Monsanto p.l.c. (United Kingdom)
Calgene LLC (Delaware)

MAR 002574

CONSENT OF INDEPENDENT AUDITORS

MONSANTO COMPANY:

We consent to the incorporation by reference in Monsanto Company's Registration Statements on Form S-8 (Nos. 2-36636, 2-76696, 2-90152, 33-13197, 33-21030, 33-39704, 33-39705, 33-39706, 33-39707, 33-49717, 33-53363, 33-53365, 33-53367, 333-02783, 333-02961, 333-02963, 333-33531, 333-38599 and 333-45341) of our report dated February 27, 1998, incorporated by reference in this annual report on Form 10-K of Monsanto Company for the year ended December 31, 1997.

DELOITTE & TOUCHE LLP

Saint Louis, Missouri
March 16, 1998

EXHIBIT 23.2

CONSENT OF COMPANY COUNSEL

I hereby consent to the reference to Company counsel in the "Commitments and Contingencies" note to the financial statements in the Company's 1997 Annual Report to shareowners and incorporated in the Company's Registration Statements on Form S-8 (Nos. 2-36636, 2-76696, 2-90152, 33-13197, 33-21030, 33-39704, 33-39705, 33-39706, 33-39707, 33-49717, 33-53363, 33-53365, 33-53367, 333-02783, 333-02961, 333-02963, 333-33531, 333-38599 and 333-45341). In giving this consent I do not thereby admit that I am within the category of persons whose consent is required under Section 7 of the Securities Act of 1933.

R. WILLIAM IDE III
General Counsel
Monsanto Company

Saint Louis, Missouri
March 17, 1998

MAR 002575

MONSANTO COMPANY AND SUBSIDIARIES
COMPUTATION OF THE RATIO OF EARNINGS TO FIXED CHARGES
(Dollars in millions)

	Year Ended December 31,				
	1997	1996	1995	1994	1993
Income from continuing operations before provision for income taxes.....	\$366*	\$ 553*	\$ 645*	\$ 636	\$ 427
Add					
Fixed charges	236	172	178	140	141
Less capitalized interest	(14)	(9)	(5)	(4)	(7)
Dividends from affiliated companies	4	6	3	2	5
Less equity income (add equity loss) of affiliated companies	(20)	42	(3)	(4)	(20)
Income as adjusted	<u>\$572</u>	<u>\$ 764</u>	<u>\$ 818</u>	<u>\$ 770</u>	<u>\$ 546</u>
Fixed charges					
Interest expense	\$170	\$ 119	\$ 132	\$ 100	\$ 101
Capitalized interest	14	9	5	4	7
Portion of rents representative of interest factor	52	44	41	36	33
Fixed charges	<u>\$236</u>	<u>\$ 172</u>	<u>\$ 178</u>	<u>\$ 140</u>	<u>\$ 141</u>
Ratio of earnings to fixed charges.....	<u>2.42</u>	<u>4.44</u>	<u>4.60</u>	<u>5.50</u>	<u>3.87</u>

*Includes charges for acquired in-process research and development of \$684 million in 1997, and charges for restructuring and other unusual items of \$376 million in 1996 and \$90 million in 1995. Excluding these unusual items, the ratio of earnings to fixed charges would have been 5.32, 6.60 and 5.10 in 1997, 1996 and 1995, respectively. The ratio was not materially affected by the restructuring and other unusual items in 1994 and 1993.

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