

MONSANTO CO /NEW/  
Form 10-K  
October 23, 2013

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
FORM 10-K

(MARK ONE)

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

For the fiscal year ended Aug. 31, 2013

or

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

For the transition period from            to

Commission file number 001-16167

MONSANTO COMPANY

Exact name of registrant as specified in its charter

Delaware

43-1878297

(State or other jurisdiction of incorporation or  
organization)

(I.R.S. Employer Identification No.)

800 North Lindbergh Blvd., St. Louis, Missouri

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 \$0.01 par value

New York Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes ☐ No ☒

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 whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). 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. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check One): Large Accelerated Filer ☒ Accelerated Filer ☐

Non-Accelerated Filer ☐ Smaller Reporting Company ☐

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Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter (Feb. 28, 2013): approximately \$53.8 billion.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date: 525,837,818 shares of common stock, \$0.01 par value, outstanding at Oct. 18, 2013.

Documents Incorporated by Reference

Portions of Monsanto Company's definitive proxy statement, which is expected to be filed with the Securities and Exchange Commission pursuant to Regulation 14A in December 2013, are incorporated herein by reference into Part III of this Annual Report on Form 10-K.

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**INTRODUCTION**

This Annual Report on Form 10-K is a document that U.S. public companies file with the Securities and Exchange Commission ("SEC") every year. Part II of the Form 10-K contains the business information and financial statements that many companies include in the financial sections of their annual reports. The other sections of this Form 10-K include further information about our business that we believe will be of interest to investors. We hope investors will find it useful to have all of this information in a single document.

The SEC allows us to report information in the Form 10-K by "incorporating by reference" from another part of the Form 10-K or from the proxy statement. You will see that information is "incorporated by reference" in various parts of our Form 10-K. The proxy statement will be available on our Web site after it is filed with the SEC in December 2013.

Monsanto was incorporated in Delaware on Feb. 9, 2000, as a subsidiary of Pharmacia Corporation. Monsanto includes the operations, assets and liabilities that were previously the agricultural business of Pharmacia. Pharmacia is now a subsidiary of Pfizer Inc.

"Monsanto," "the company," "we," "our," and "us" are used interchangeably to refer to Monsanto Company or to Monsanto Company and its subsidiaries, as appropriate to the context. With respect to the time period prior to Sept. 1, 2000, these defined terms also refer to the agricultural business of Pharmacia.

Unless otherwise indicated, trademarks owned or licensed by Monsanto or its subsidiaries are shown in special type. Unless otherwise indicated, references to "Roundup herbicides" mean Roundup branded herbicides, excluding all lawn-and-garden herbicides, and references to "Roundup and other glyphosate-based herbicides" exclude all lawn-and-garden herbicides.

Information in this Form 10-K is current as of Oct. 23, 2013, unless otherwise specified.

**CAUTION REGARDING FORWARD-LOOKING STATEMENTS**

In this report, and from time to time throughout the year, we share our expectations for our company's future performance. These forward-looking statements include statements about our business plans; the potential development, regulatory approval, and public acceptance of our products; our expected financial performance, including sales performance, and the anticipated effect of our strategic actions; the anticipated benefits of recent acquisitions; the outcome of contingencies, such as litigation and the previously announced SEC investigation; domestic or international economic, political and market conditions; and other factors that could affect our future results of operations or financial position, including, without limitation, statements under the captions "Legal Proceedings," "Overview — Executive Summary — Outlook," "Seeds and Genomics Segment," "Agricultural Productivity Segment," "Financial Condition, Liquidity, and Capital Resources," and "Outlook." Any statements we make that are not matters of current reportage or historical fact should be considered forward-looking. Such statements often include words such as "believe," "expect," "anticipate," "intend," "plan," "estimate," "will," and similar expressions. By their nature, these types of statements are uncertain and are not guarantees of our future performance.

Our forward-looking statements represent our estimates and expectations at the time that we make them. However, circumstances change constantly, often unpredictably, and investors should not place undue reliance on these statements. Many events beyond our control will determine whether our expectations will be realized. We disclaim any current intention or obligation to revise or update any forward-looking statements, or the factors that may affect their realization, whether in light of new information, future events or otherwise, and investors should not rely on us to do so. In the interests of our investors, and in accordance with the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, Part I. Item 1A. Risk Factors below sets forth some of the important reasons that actual results may be materially different from those that we anticipate.

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## PART I

## ITEM 1. BUSINESS

Monsanto Company, along with its subsidiaries, is a leading global provider of agricultural products for farmers. Our seeds, biotechnology trait products, and herbicides provide farmers with solutions that improve productivity, reduce the costs of farming, and produce better foods for consumers and better feed for animals.

We manage our business in two segments: Seeds and Genomics and Agricultural Productivity. We view our Seeds and Genomics segment as the driver for future growth for our company. In our Agricultural Productivity segment, global glyphosate producers have substantial capacity to supply the market and we expect this global capacity to maintain pressure on margins.

We provide information about our business, including analyses, significant news releases, and other supplemental information, on our Web site: [www.monsanto.com](http://www.monsanto.com). In addition, we make available through our Web site, free of charge, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports, as soon as reasonably practicable after they have been filed with or furnished to the SEC pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934. Forms 3, 4 and 5 filed with respect to our equity securities under Section 16(a) of the Exchange Act are also available on our site by the end of the business day after filing. All of these materials can be found under the “Investors” tab. Our Web site also includes the following corporate governance materials, under the tab “Corporate Responsibility”: our Code of Business Conduct, our Code of Ethics for Chief Executive and Senior Financial Officers, our Board of Directors’ Charter and Corporate Governance Guidelines, and charters of our Board committees. These materials are also available on paper. Any shareowner may request them by contacting the Office of the General Counsel, Monsanto Company, 800 N. Lindbergh Blvd., St. Louis, Missouri, 63167. Information on our Web site does not constitute part of this report.

A description of our business follows.

## SEEDS AND GENOMICS SEGMENT

Through our Seeds and Genomics segment, we produce leading seed brands, including DEKALB, Asgrow, Deltapine, Seminis, and De Ruiter, and we develop biotechnology traits that assist farmers in controlling insects and weeds. We also provide other seed companies with genetic material and biotechnology traits for their seed brands. The tabular information about net sales of our seeds and traits that appears in Item 7 — Management’s Discussion and Analysis of Financial Condition and Results of Operations (MD&A) — Seeds and Genomics Segment — is incorporated herein by reference.

Major Products	Applications	Major Brands
Germplasm	Row crop seeds:	
	Corn hybrids and foundation seed	
	Soybean varieties and foundation seed	
	Cotton varieties, hybrids and foundation seed	DEKALB, Channel for corn
Germplasm	Other row crop varieties and hybrids, such as canola	Asgrow for soybeans
	Vegetable seeds:	Deltapine for cotton
	Open field and protected-culture seed for tomato, pepper, melon, cucumber, pumpkin, squash, beans, broccoli, onions, and lettuce, among others	Seminis and De Ruiter for vegetable seeds
Biotechnology traits <sup>(1)</sup>	Enable crops to protect themselves from borers and rootworm in corn, certain lepidopteran insects in soybeans, and leaf- and boll-feeding worms in cotton, reducing the need for applications of insecticides	SmartStax, YieldGard, YieldGard VT Triple, VT Trip PRO and VT Double PRO for corn; Intacta RR2 PRO for soybeans;
	Enable crops, such as corn, soybeans, cotton and canola, to be tolerant of Roundup and	Bollgard and Bollgard II for cotton
		Roundup Ready and Roundup Ready 2 Yield (soybeans only)
		Genuity, global umbrella trait brand

other glyphosate-based herbicides

- (1) Monsanto also offers farmers stacked-trait products, which are single-seed products in which two or more traits are combined.

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**Distribution of Products**

We have a worldwide distribution and sales and marketing organization for our seeds and traits. We sell our products under Monsanto brands and license technology and genetic material to others for sale under their own brands. Through distributors, independent retailers and dealers, agricultural cooperatives, and agents, we market our DEKALB, Asgrow and Deltapine branded germplasm to farmers in every agricultural region of the world. In the United States, we market regional seed brands under our American Seeds, LLC and Channel Bio, LLC businesses to farmers directly, as well as through dealers, agricultural cooperatives and agents. In countries where they are approved for sale, we market and sell our trait technologies with our branded germplasm, pursuant to license agreements with our farmer customers. In Brazil and Paraguay, we have implemented a point-of-delivery, grain-based payment system. We contract with grain handlers to collect applicable trait fees when farmers deliver their grain. In addition to selling our products under our own brands, we license a broad package of germplasm and trait technologies to large and small seed companies in the United States and certain international markets. Those seed companies in turn market our trait technologies in their branded germplasm; they may also market our germplasm under their own brand name. Our vegetable seeds are predominantly marketed under either the Seminis or De Ruiter brand in more than 150 countries either directly to farmers or through distributors, independent retailers and dealers, agricultural cooperatives, plant raisers and agents.

**Competition**

The global market for the products of our Seeds and Genomics segment is competitive, and the competition has intensified. Both our row crops and our vegetable seed businesses compete with numerous multinational agrichemical and seed marketers globally and with hundreds of smaller companies regionally. Most of our seed competitors in row crops are also licensees of our germplasm or biotechnology traits and a few of our vegetable seed business competitors have licensed biotech traits for sweet corn or genetic improvements through advanced breeding. In certain countries, we also compete with government-owned seed companies. Our biotechnology traits compete as a system with other practices, including the application of agricultural chemicals, and traits developed by other companies. Our weed- and insect-control systems compete with chemical and seed products produced by other agrichemical and seed marketers. Competition for the discovery of new traits based on biotechnology or genomics is likely to come from major global agrichemical companies, smaller biotechnology research companies and institutions, state-funded programs and academic institutions. Enabling technologies to enhance biotechnology trait development may also come from academic researchers and biotechnology research companies. Competitors using our technology outside of license terms and farmers who save seed from one year to the next (in violation of license or other commercial terms) also affect competitive conditions.

Product performance (in particular, crop vigor and yield for our row crops and quality for our vegetable seeds), customer support and service, intellectual property rights and protection, product availability and planning and price are important elements of our market success in seeds. In addition, distributor, retailer and farmer relationships are important in the United States and many other countries. The primary factors underlying the competitive success of traits are performance and commercial viability; timeliness of introduction; value compared with other practices and products; market coverage; service provided to distributors, retailers and farmers; governmental approvals; value capture; public acceptance; and environmental characteristics.

**Patents, Trademarks and Licenses**

In the United States and many foreign countries, Monsanto holds a broad business portfolio of patents, trademarks and licenses that provide intellectual property protection for its seeds and genomics-related products and processes. Monsanto routinely obtains patents and/or plant variety protection for its breeding technology, commercial varietal seed products, and for the parents of its commercial hybrid seed products. Monsanto also routinely obtains registrations for its commercial seed products in registration countries, as well as Plant Variety Protection Act Certificates in the United States and equivalent plant breeders' rights in other countries. In soybeans, while Monsanto's patent coverage on the first generation Roundup Ready trait for soybeans has expired in some markets and will expire in the United States in 2014, most Roundup Ready soybeans in the U.S. are protected by utility patents covering specific varieties. In addition, most of our customers and licensees are choosing our second generation Roundup Ready 2 Yield trait containing soybean seed with patents that extend into the next decade. In Brazil, we expect



farmers to adopt our next generation Intacta RR2 PRO soybean traits, which will also have patent coverage extending into the next decade. In corn, patent coverage on our first generation YieldGard trait has already expired in some markets and will expire in 2014 in the United States; however, most farmers have already upgraded to next generation Genuity corn traits with patent coverage extending into the next decade. In cotton, most growers globally are already using our second generation traits with patent coverage extending into the next decade.

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Monsanto broadly licenses technology and patents to other parties. For example, Monsanto has licensed the Roundup Ready trait in soybean, corn, canola and cotton seeds and the YieldGard traits in corn to a wide range of commercial entities and academic institutions. Monsanto also holds licenses from other parties relating to certain products and processes. For example, Monsanto has obtained licenses to certain technologies that it uses to produce Roundup Ready seeds and Genuity SmartStax corn. These licenses generally last for the lifetime of the applicable patents. Monsanto owns trademark registrations and files trademark applications for the names and for many of the designs used on its branded products around the world. Important company trademarks include Roundup Ready, Bollgard, Bollgard II, YieldGard, Genuity, Roundup Ready 2 Yield, Intacta RR2 PRO and SmartStax for traits; Acceleron for seed treatment products; DEKALB, Asgrow and Deltapine for row crop seeds; and Seminis and De Ruiter for vegetable seeds.

**Raw Materials and Energy Resources**

In growing locations throughout the world, we produce directly or contract with third-party growers for corn seed, soybean seed, vegetable seeds, cotton seed, canola seed and other seeds. The availability of seed and the cost of seed production depend primarily on seed yields, weather conditions, grower contract terms and commodity prices. We seek to manage commodity price fluctuations through the use of futures contracts and other hedging instruments. Where practicable, we attempt to minimize weather risks by producing seed at multiple growing locations and under irrigated conditions. Our Seeds and Genomics segment also purchases the energy we need to process our seed; these energy purchases are managed in conjunction with our Agricultural Productivity segment.

**AGRICULTURAL PRODUCTIVITY SEGMENT**

Through our Agricultural Productivity segment, we manufacture Roundup brand herbicides and other herbicides and provide lawn-and-garden herbicide products for the residential market. The tabular information about net sales of agricultural productivity products that appears in Item 7 — Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) — Agricultural Productivity Segment — is incorporated by reference herein.

Major Products	Applications	Major Brands
	Nonselective agricultural, industrial, ornamental, turf and residential lawn and garden applications for weed control	Roundup branded products
Herbicides	Control of preemergent annual grass and small seeded broadleaf weeds in corn and other crops	Harness for corn and cotton

**Distribution of Products**

We have a worldwide distribution and sales and marketing organization for our agricultural productivity products. In some world areas, we use the same distribution and sales and marketing organization for our agricultural productivity products as for our seeds and traits. In other world areas, we have separate distribution and sales and marketing organizations for our agricultural productivity products. We sell our agricultural productivity products through distributors, independent retailers and dealers and agricultural cooperatives. In some cases outside the United States, we sell such products directly to farmers. We also sell certain of the chemical intermediates of our agricultural productivity products to other major agricultural chemical producers, who then market their own branded products to farmers. Certain agricultural productivity products are marketed through The Scotts Miracle-Gro Company.

**Competition**

We compete with numerous major global manufacturing companies for sales of agricultural herbicides. Competition from local or regional companies may also be significant. Global glyphosate producers have substantial capacity to supply the market and we expect this global capacity to affect margins. Our lawn-and-garden business has fewer than five significant national competitors and a larger number of regional competitors in the United States. The largest market for our lawn-and-garden herbicides is the United States.

Competitive success in agricultural productivity products depends on price, product performance, the scope of solutions offered to farmers, market coverage, product availability and planning, and the service provided to distributors, retailers and farmers. Our lawn-and-garden herbicides compete on product performance and the brand

value associated with our trademark Roundup.

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For additional information on competition for our agricultural herbicides, see Item 7 — MD&A — Outlook — Agricultural Productivity, which is incorporated by reference herein.

#### Patents, Trademarks, Licenses, Franchises and Concessions

Monsanto also relies on patent protection for the Agricultural Productivity segment of its business. Patents covering glyphosate, an active ingredient in Roundup branded herbicides, have expired in the United States and all other countries. However, some of the patents on Monsanto glyphosate formulations and manufacturing processes in the United States and other countries extend beyond 2015. Monsanto has obtained licenses to chemicals used to make Harness herbicides and holds trademark registrations for the brands under which its chemistries are sold. The most significant trademark in this segment is Roundup. Monsanto owns trademark registrations for numerous variations of Roundup such as for Roundup WeatherMAX.

Monsanto holds (directly or by assignment) numerous phosphate mineral leases issued on behalf of or granted by the U.S. government, the state of Idaho, and private parties. None of these leases are material individually, but are significant in the aggregate because elemental phosphorus is a key raw material for the production of glyphosate-based herbicides. The phosphate mineral leases have varying terms. The leases obtained from the U.S. government are of indefinite duration, subject to the modification of lease terms at 20-year intervals.

#### Environmental Matters

Our operations are subject to environmental laws and regulations in the jurisdictions in which we operate. Some of these laws restrict the amount and type of emissions that our operations can release into the environment. Other laws, such as the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601 et seq. (Superfund), can impose liability for the entire cost of cleanup on any former or current site owners or operators or any parties who sent waste to these sites, without regard to fault or to the lawfulness of the original disposal. These laws and regulations may be amended from time to time; they may become more stringent. We are committed to long-term environmental protection and compliance programs that reduce and monitor emissions of hazardous materials into the environment, and to the remediation of identified existing environmental concerns. Although the costs of our compliance with environmental laws and regulations cannot be predicted with certainty, such costs are not expected to have a material adverse effect on our earnings or competitive position. In addition to compliance obligations at our own manufacturing locations and off-site disposal facilities, under the terms of our Sept. 1, 2000, Separation Agreement with Pharmacia (the Separation Agreement), we are required to indemnify Pharmacia for any liability it may have for environmental remediation or other environmental responsibilities that are primarily related to Pharmacia's former agricultural and chemicals businesses. For information regarding certain environmental proceedings, see Item 3 — Legal Proceedings. See also information regarding environmental liabilities, appearing in Note 26 — Commitments and Contingencies, which is incorporated herein by reference.

#### Raw Materials and Energy Resources

We are a significant purchaser of basic and intermediate raw materials. Typically, we purchase major raw materials and energy through long-term contracts with multiple suppliers. Certain important raw materials are supplied by a few major suppliers. We expect the markets for our raw materials to remain balanced, though pricing may be volatile given the current state of the global economy. Energy is available as required, but pricing is subject to market fluctuations. We seek to manage commodity price fluctuations through the use of futures contracts and other hedging instruments.

Our proprietary technology is used in various global locations to produce the catalysts used in various intermediate steps in the production of glyphosate. We believe capacity is sufficient for our requirements and adequate safety stock inventory reduces the risks associated with production outages. We manufacture and purchase disodium iminodiacetic acid, a key ingredient in the production of glyphosate. We manufacture almost all of our global supply of elemental phosphorus, a key raw material for the production of Roundup herbicides. We have multiple mineral rights which, subject to obtaining and maintaining appropriate mining permits, we believe will provide a long term supply of phosphate ore to meet our needs into the foreseeable future. As part of the ongoing course of operating our phosphorus production, we are required to periodically permit new mining leases.

RESEARCH AND DEVELOPMENT

Monsanto's expenses for research and development (R&D) were \$1,533 million in 2013, \$1,517 million in 2012 and \$1,386 million in 2011.

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**SEASONALITY AND WORKING CAPITAL; BACKLOG**

For information on seasonality and working capital and backlog practices, see information in Item 7 — MD&A — Financial Condition, Liquidity and Capital Resources, which is incorporated herein by reference.

**EMPLOYEE RELATIONS**

As of Aug. 31, 2013, we employed about 21,900 regular employees worldwide and more than 4,300 temporary employees. The number of temporary employees varies greatly during the year because of the seasonal nature of our business. We believe that relations between Monsanto and its employees are satisfactory.

**CUSTOMERS**

In 2013, our four largest U.S. agricultural distributors and their affiliates represented, in the aggregate, 21 percent of our worldwide net sales and 39 percent of our U.S. net sales. During 2013, one major U.S. distributor and its affiliates represented 12 percent of the worldwide net sales for our Seeds and Genomics segment, and 21 percent of the U.S. net sales for our Seeds and Genomics segment.

**INTERNATIONAL OPERATIONS**

See Item 1A under the heading “Our operations outside the United States are subject to special risks and restrictions, which could negatively affect our results of operations and profitability” and Note 27 — Segment and Geographic Data, which are incorporated herein by reference. Approximately 46 percent of Monsanto’s sales, including 41 percent of our Seeds and Genomics segment’s sales and 57 percent of our Agricultural Productivity segment’s sales, originated from our legal entities outside the United States during fiscal year 2013.

**SEGMENT AND GEOGRAPHIC DATA**

For information on segment and geographic data, see Item 8 — Financial Statements and Supplementary Data — Note 27 — Segment and Geographic Data, which is incorporated by reference herein.

**ITEM 1A. RISK FACTORS**

Competition in seeds and traits and agricultural chemicals has significantly affected, and will continue to affect, our sales.

Many companies engage in research and development of plant biotechnology and breeding and agricultural chemicals, and speed in getting a new product to market can be a significant competitive advantage. Our competitors’ success could render our existing products less competitive, resulting in reduced sales compared to our expectations or past results. We expect to see increasing competition from agricultural biotechnology firms and from major agrichemical and seed companies. We also expect to face continued competition for our Roundup herbicides and selective herbicides product lines, which could be influenced by trade and industrial policies of foreign countries. The extent to which we can realize cash and gross profit from our business will depend on our ability to: control manufacturing and marketing costs without adversely affecting sales; predict and respond effectively to competitor products, pricing and marketing; provide marketing programs meeting the needs of our customers and of the farmers who are our end users; maintain an efficient distribution system; and develop new products and services with features attractive to our end users.

Efforts to protect our intellectual property rights and to defend claims against us can increase our costs and will not always succeed; any failures could adversely affect sales and profitability or restrict our ability to do business. Intellectual property rights are crucial to our business, particularly our Seeds and Genomics segment. We endeavor to obtain and protect our intellectual property rights in jurisdictions in which our products are produced or used and in jurisdictions into which our products are imported. Different nations may provide limited rights and inconsistent duration of protection for our products. We may be unable to obtain protection for our intellectual property in key jurisdictions. Even if protection is obtained, competitors, farmers, or others in the chain of commerce may raise legal challenges to our rights or illegally infringe on our rights, including through means that may be difficult to prevent or detect. For example, the practice by some farmers of saving seeds from non-hybrid crops (such as soybeans, canola and cotton) containing our

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biotechnology traits has prevented and may continue to prevent us from realizing the full value of our intellectual property, particularly outside the United States. In addition, because of the rapid pace of technological change, and the confidentiality of patent applications in some jurisdictions, competitors may be issued patents from applications that were unknown to us prior to issuance. These patents could reduce the value of our commercial or pipeline products or, to the extent they cover key technologies on which we have unknowingly relied, require that we seek to obtain licenses or cease using the technology, no matter how valuable to our business. We cannot assure we would be able to obtain such a license on acceptable terms. The extent to which we succeed or fail in our efforts to protect our intellectual property will affect our costs, sales and other results of operations.

We are subject to extensive regulation affecting our seed biotechnology and agricultural products and our research and manufacturing processes, which affects our sales and profitability.

Regulatory and legislative requirements affect the development, manufacture and distribution of our products, including the testing and planting of seeds containing our biotechnology traits and the import of crops grown from those seeds, and non-compliance can harm our sales and profitability. Obtaining permits for mining and production, and obtaining testing, planting and import approvals for seeds or biotechnology traits can be time-consuming and costly, with no guarantee of success. The failure to receive necessary permits or approvals could have near- and long-term effects on our ability to produce and sell some current and future products. Planting approvals may also include significant regulatory requirements that can limit our sales. Sales of our traits can be affected in jurisdictions where planting has been approved if we have not received approval for the import of crops containing such biotechnology traits by key importing markets. Concern about unintended but unavoidable trace amounts (sometimes called “low-level presence”) of commercial biotechnology traits in conventional (non-biotechnology) seed, or in the grain or products produced from conventional or organic crops, among other things, could lead to increased regulation or legislation, which may include: liability transfer mechanisms that may include financial protection insurance; possible restrictions or moratoria on testing, planting or use of biotechnology traits; and requirements for labeling and traceability, which requirements may cause food processors and food companies to avoid biotechnology and select non-biotechnology crop sources and can affect farmer seed purchase decisions and the sale of our products. Further, the detection of the presence of biotech traits not approved in the country of planting (sometimes called “adventitious presence”) may affect seed availability or result in compliance actions, such as crop destruction or product recalls. Legislation encouraging or discouraging the planting of specific crops can also harm our sales. In addition, concern and claims that increased use of glyphosate-based herbicides or biotechnology traits increases the potential for the development of glyphosate-resistant weeds or pests resistant to our traits could result in restrictions on the use of glyphosate-based herbicides or seeds containing our traits or otherwise reduce our sales.

The degree of public acceptance or perceived public acceptance of our biotechnology products can affect our sales and results of operations by affecting planting approvals, regulatory requirements and customer purchase decisions. Although all of our products go through rigorous testing, some opponents of our technology actively raise public concern about the potential for adverse effects of our products on human or animal health, other plants and the environment. The potential for low-level or adventitious presence of commercial biotechnology traits in conventional seed, or in the grain or products produced from conventional or organic crops, is another factor that can affect general public acceptance of these traits. Public concern can affect the timing of, and whether we are able to obtain, government approvals. Even after approvals are granted, public concern may lead to increased regulation or legislation or litigation against government regulators concerning prior regulatory approvals, which could affect our sales and results of operations by affecting planting approvals, and may adversely affect sales of our products to farmers, due to their concerns about available markets for the sale of crops or other products derived from biotechnology. In addition, opponents of agricultural biotechnology have attacked farmers’ fields and facilities used by agricultural biotechnology companies, and may launch future attacks against farmers’ fields and our field testing sites and research, production, or other facilities, which could affect our sales and our costs.

The successful development and commercialization of our pipeline products will be necessary for our growth.

We use advanced breeding technologies to produce hybrids and varieties with superior performance in a farmer’s field, and we use biotechnology to introduce traits that enhance specific characteristics of our crops. We also use advanced analytics, software tools, mobile communications and new planting and monitoring equipment to provide agronomic

recommendations to growers. There are a number of reasons why new product concepts in these areas may be abandoned, including greater than anticipated development costs, technical difficulties, regulatory obstacles, competition, inability to prove the original concept, lack of demand and the need to divert focus, from time to time, to other initiatives with perceived opportunities for better returns. The processes of breeding, biotechnology trait discovery and development and trait integration are lengthy, and a very small percentage of the genes and germplasm we test is selected for



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commercialization. The length of time and the risk associated with the breeding and biotech pipelines are interlinked because both are required as a package for commercial success in markets where biotech traits are approved for growers. In countries where biotech traits are not approved for widespread use, our sales depend on our germplasm. Commercial success frequently depends on being the first company to the market, and many of our competitors are also making considerable investments in similar new biotechnology, improved germplasm products, and agronomic recommendation products. Consequently, if we are not able to fund extensive research and development activities and deliver new products to the markets we serve on a timely basis, our growth and operations will be harmed. Adverse outcomes in legal proceedings could subject us to substantial damages and adversely affect our results of operations and profitability.

From time to time, we have been involved in major lawsuits concerning intellectual property, biotechnology, torts, contracts, antitrust allegations, and other matters, as well as governmental inquiries and investigations. Pending and future lawsuits and governmental inquiries and investigations may have outcomes that may be significant to results of operations in the period recognized or limit our ability to engage in our business activities. While we have insurance related to our business operations, it may not apply to or fully cover any liabilities we incur as a result of these lawsuits. In addition, pursuant to the Separation Agreement, we are required to indemnify Pharmacia for certain liabilities related to its former chemical and agricultural businesses. We have recorded reserves for potential liabilities where we believe the liability to be probable and reasonably estimable. However, our actual costs may be materially different from this estimate. The degree to which we may ultimately be responsible for the particular matters reflected in the reserve is uncertain.

Our operations outside the United States are subject to special risks and restrictions, which could negatively affect our results of operations and profitability.

We engage in manufacturing, seed production, research and development and sales in many parts of the world. Although we have operations in virtually every region, our sales outside the United States in fiscal year 2013 were principally to customers in Brazil, Argentina, Canada and Mexico. Accordingly, developments in those parts of the world generally have a more significant effect on our operations than developments in other places. Our operations outside the United States are subject to special risks and restrictions, including: fluctuations in currency values and foreign-currency exchange rates; exchange control regulations; changes in local political or economic conditions; governmental pricing directives; import and trade restrictions; import or export licensing requirements and trade policy; restrictions on the ability to repatriate funds; and other potentially detrimental domestic and foreign governmental practices or policies affecting U.S. companies doing business abroad. Acts of terror or war may impair our ability to operate in particular countries or regions, and may impede the flow of goods and services between countries. Customers in weakened economies may be unable to purchase our products, or it could become more expensive for them to purchase imported products in their local currency, or sell their commodity at prevailing international prices, and we may be unable to collect receivables from such customers. Further, changes in exchange rates may affect our net income, the book value of our assets outside the United States, and our shareowners' equity.

In the event of any diversion of management's attention to matters related to acquisitions or any delays or difficulties encountered in connection with integrating acquired operations, our business, and in particular our results of operations and financial condition, may be harmed.

We have recently completed acquisitions and we expect to make additional acquisitions. We must fit such acquisitions into our long-term growth strategies to generate sufficient value to justify their cost. Acquisitions also present other challenges, including geographical coordination, personnel integration and retention of key management personnel, systems integration and the reconciliation of corporate cultures. Those operations could divert management's attention from our business or cause a temporary interruption of or loss of momentum in our business and the loss of key personnel from the acquired companies.

Fluctuations in commodity prices can increase our costs and decrease our sales.

We contract production with multiple growers at fair value and retain the seed in inventory until it is sold. These purchases constitute a significant portion of the manufacturing costs for our seeds. Additionally, our chemical manufacturing operations use chemical intermediates and energy, which are subject to increases in price as the costs

of oil and natural gas increase. Accordingly, increases in commodity prices may negatively affect our cost of goods sold or cause us to increase seed or chemical prices, which could adversely affect our sales. We use hedging strategies and raw material supply agreements that contain terms designed to mitigate the risk of short-term changes in commodity prices. However, we are unable to avoid the risk of medium- and long-term increases. Farmers' incomes are also affected by commodity prices; as a

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result, fluctuations in commodity prices could have an impact on farmers' purchasing decisions and negatively affect their ability and decisions to purchase our seed and chemical products.

Compliance with quality controls and regulations affecting our manufacturing may be costly, and failure to comply may result in decreased sales, penalties and remediation obligations.

Because we use hazardous and other regulated materials in our manufacturing processes and engage in mining operations, we are subject to operational risks including the potential for unintended environmental contamination, which could lead to potential personal injury claims, remediation expenses and penalties. Should a catastrophic event occur at any of our facilities, we could face significant reconstruction or remediation costs, penalties, third party liabilities and loss of production capacity, which could affect our sales. In addition, lapses in quality or other manufacturing controls could affect our sales and result in claims for defective products.

Our ability to match our production to the level of product demanded by farmers or our licensed customers has a significant effect on our sales, costs, and growth potential.

Farmers' decisions are affected by market, economic and weather conditions that are not known in advance. Failure to provide distributors with enough inventories of our products will reduce our current sales. However, product inventory levels at our distributors may reduce sales in future periods, as those distributor inventories are worked down. In addition, inadequate distributor liquidity could affect distributors' abilities to pay for our products and, therefore, affect our sales or our ability to collect on our receivables. Global glyphosate producers have the capacity to supply the market, but global dynamics including demand, environmental regulation compliance and raw material availability can cause fluctuations in supply and the price of generic products. We expect the fluctuation in global production will impact the selling price and margin of Roundup brands and our third party sourcing business.

Our ability to issue short-term debt to fund our cash flow requirements and the cost of such debt may affect our financial condition.

We regularly extend credit to our customers in certain areas of the world to enable them to acquire crop production products and seeds at the beginning of their growing seasons. Because of these credit practices and the seasonality of our sales and costs, we may need to issue short-term debt at certain times of the year to fund our cash flow requirements. The amount of short-term debt will be greater to the extent that we are unable to collect customer receivables when due and to manage our costs and expenses. Any downgrade in our credit rating, or other limitation on our access to short-term financing or refinancing, could increase our interest cost and adversely affect our profitability.

Our results of operations and financial condition may be significantly affected by disruptions caused by weather, natural disasters, accidents, and security breaches, including cyber-security incidents.

Weather and field conditions can adversely affect the timing of crop planting, acreage planted, crop yields and commodity prices. In turn, seed production volumes, quality and cost may also be adversely affected which could impact our sales and profitability. Natural disasters or industrial accidents could also affect our manufacturing facilities, or those of our major suppliers or major customers, which could affect our costs and our ability to meet supply requirements. One of our major U.S. glyphosate manufacturing facilities is located in Luling, Louisiana, which is an area subject to hurricanes. In addition, several of our key raw material and utility suppliers have production assets in the U.S. gulf coast region and are also susceptible to damage risk from hurricanes. Hawaii and Puerto Rico, which are also subject to hurricanes, are major seeds and traits locations for our pipeline products.

Security breaches and disruptions to our information technology systems could seriously harm our operations. We utilize and critically rely on information technology systems in all aspects of our business, including increasingly large amounts of data to support our products and advance our research and development pipeline. We have experienced cyber-security attacks that have not had a material impact on our financial results, but it is not possible to predict the impact of future incidents. Failure to effectively prevent, detect and recover from the increasing number and sophistication of information security threats could result in theft, misuse, modification and destruction of information, including trade secrets and confidential business information, and cause business disruptions, delays in research and development, reputational damage, and third-party claims, which could significantly affect our results of operation and financial condition.

**ITEM 1B. UNRESOLVED STAFF COMMENTS**

At Aug. 31, 2013, there were no unresolved comments from the staff of the SEC related to our periodic or current reports under the Exchange Act.

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**ITEM 2. PROPERTIES**

We and our subsidiaries own or lease manufacturing facilities, laboratories, seed production and other agricultural facilities, office space, warehouses, and other land parcels in North America, South America, Europe, Asia, Australia and Africa. Our general offices, which we own, are located in St. Louis County, Missouri. These office and research facilities are principal properties.

Additional principal properties used by the Seeds and Genomics segment include seed production and conditioning plants at Boone, Grinnell and Williamsburg, Iowa; Constantine, Michigan; Enkhuizen and Bergschenhoek, Netherlands; Illiopolis, Waterman and Farmer City, Illinois; Remington, Indiana; Kearney and Waco, Nebraska; Oxnard, California; Peyrehorade and Trèbes, France; Rojas, Argentina; Sinesti, Romania; Nagyigmand, Hungary; Uberlândia and Petrolina, Brazil; Thobontle, South Africa; and Hyderabad, India, and research sites at Ankeny, Iowa; Research Triangle Park, North Carolina; Maui, Molokai and Oahu, Hawaii; Middleton, Wisconsin; Mystic, Connecticut; and Woodland, California. We own all of these properties, except Research Triangle Park and some sites in Hawaii. The Seeds and Genomics segment also uses seed foundation and production facilities, breeding facilities, and genomics and other research laboratories at various other locations worldwide.

The Agricultural Productivity segment has principal chemicals manufacturing facilities at Antwerp, Belgium; Camaçari, Brazil; Luling, Louisiana; Muscatine, Iowa; São José dos Campos, Brazil; Soda Springs, Idaho; Zárate, Argentina; and Rock Springs, Wyoming. We own all of these properties, except the one in Antwerp, Belgium, which is subject to a lease for the land underlying the facility.

We believe that our principal properties are suitable and adequate for their use. Our facilities generally have sufficient capacity for our existing needs and expected near-term growth. Expansion projects are undertaken as necessary to meet future needs. Use of these facilities may vary with seasonal, economic and other business conditions, but none of the principal properties is substantially idle. In certain instances, we have leased portions of sites not required for current operations to third parties.

**ITEM 3. LEGAL PROCEEDINGS**

We are involved in various legal proceedings that arise in the ordinary course of our business, as well as proceedings that we have considered to be material under SEC regulations. These include proceedings to which we are party in our own name and proceedings to which our former parent Pharmacia LLC or its former subsidiary Solutia Inc. is a party but that we manage and for which we are responsible. Information regarding certain material proceedings and the possible effects on our business of proceedings we are defending is disclosed in Note 26 — Commitments and Contingencies — under the subheading “Environmental and Litigation Liabilities — Litigation” and is incorporated by reference herein. Following is information regarding other material proceedings for which we are responsible.

**Patent and Commercial Proceedings**

Two purported class action suits were filed against us on Sept. 26, 2006, supposedly on behalf of all farmers who purchased our Roundup brand herbicides in the United States for commercial agricultural purposes since Sept. 26, 2002. Plaintiffs essentially allege that we have monopolized the market for glyphosate for commercial agricultural purposes. Plaintiffs seek an unspecified amount of damages and injunctive relief. In late February 2007, three additional suits were filed, alleging similar claims. All of these suits were filed in the U.S. District Court for the District of Delaware. On July 18, 2007, the court ruled that any such suit had to be filed in federal or state court in Missouri; the court granted our motion to dismiss the two original cases. On Aug. 8, 2007, plaintiffs in the remaining three cases voluntarily dismissed their complaints, which have not been re-filed. On Aug. 10, 2007, the same set of counsel filed a parallel action in federal court in San Antonio, Texas, on behalf of a retailer of glyphosate named Texas Grain. Plaintiffs seek to certify a national class of all entities that purchased glyphosate directly from us since August 2003. The magistrate judge issued his recommendation to the District Court on Aug. 7, 2009, denying class certification and the litigation has remained dormant since that event. We believe we have meritorious legal positions and will continue to represent our interests vigorously in this matter.

**Governmental Proceedings and Undertakings**

On May 25, 2011, the EPA issued a Notice of Violation to us, alleging violations of federal environmental release reporting requirements at our phosphorous manufacturing plant in Soda Springs, Idaho. The EPA has asserted that the alleged violations may subject us to civil penalties. We are working with the EPA to reach a resolution of this matter.



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ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

Executive Officers

See Part III — Item 10 of this Report on Form 10-K for information about our Executive Officers.

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## PART II

## ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS, AND ISSUER PURCHASES OF EQUITY SECURITIES

Monsanto's common stock is traded principally on the New York Stock Exchange, under the symbol MON. The number of shareowners of record as of Oct. 18, 2013, was 33,462.

The following table sets forth dividend declarations, as well as the high and low sales prices for Monsanto's common stock, for the fiscal years 2013 and 2012 quarters indicated.

Dividends per Share		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Fiscal Year
2013		\$—	\$0.75 <sup>(1)</sup>	\$—	\$0.81 <sup>(1)</sup>	\$1.56
2012		\$—	\$0.60 <sup>(2)</sup>	\$—	\$0.68 <sup>(2)</sup>	\$1.28
Common Stock Price		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Fiscal Year
2013	High	\$93.00	\$104.19	\$109.33	\$106.80	\$109.33
	Low	82.70	88.56	98.92	94.00	82.70
2012	High	\$78.71	\$83.95	\$83.27	\$89.73	\$89.73
	Low	58.89	67.09	69.70	74.77	58.89

(1) Monsanto board of directors declared four dividends in 2013, \$0.375 per share on Dec. 3, 2012, \$0.375 per share on Jan. 31, 2013, \$0.375 per share on June 6, 2013, and \$0.43 per share on Aug. 6, 2013.

(2) Monsanto board of directors declared four dividends in 2012, \$0.30 per share on Dec. 5, 2011, \$0.30 per share on Jan. 24, 2012, \$0.30 per share on June 6, 2012, and \$0.375 per share on Aug. 8, 2012.

## Issuer Purchases of Equity Securities

The following table summarizes purchases of equity securities during the fourth quarter of fiscal year 2013 by Monsanto and affiliated purchasers, pursuant to SEC rules.

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid per Share <sup>(1)</sup>	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
June 2013:				
June 1, 2013, through June 30, 2013	920,000	\$102.56	920,000	\$ 392,859,197
July 2013:				
July 1, 2013, through July 31, 2013	3,192,855	\$99.96	3,192,855	\$ 73,706,706
August 2013:				
Aug. 1, 2013, through Aug. 31, 2013	1,075,817	\$96.32	1,075,817	\$ 1,970,083,300
Total	5,188,672	\$99.67	5,188,672	\$ 1,970,083,300

(1) The average price paid per share is calculated on a trade date basis and excludes commission.

In June 2012, the board of directors authorized a new three-year repurchase program of up to an additional \$1 billion of the company's common stock. This repurchase program commenced on Jan. 14, 2013, and was completed on Aug. 20, 2013.

In June 2013, the board of directors authorized a new three-year repurchase program of up to an additional \$2 billion of the company's common stock. This repurchase program commenced on Aug. 20, 2013. There were no other publicly announced plans outstanding as of Aug. 31, 2013.





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## Stock Price Performance Graph

The graph below compares the performance of Monsanto's common stock with the performance of the Standard & Poor's 500 Stock Index (a broad-based market index) and a peer group index over a 60-month period extending through the end of the 2013 fiscal year. The graph assumes that \$100 was invested on Sept. 1, 2008, in our common stock, in the Standard & Poor's 500 Stock Index and the peer group index, and that all dividends were reinvested. Because we are involved both in the agricultural products business and in the seeds and genomics business, no published peer group accurately mirrors our portfolio of businesses. Accordingly, we created a peer group index that includes Bayer AG ADR, Dow Chemical Company, DuPont (E.I.) de Nemours and Company, BASF AG and Syngenta AG. The Standard & Poor's 500 Stock Index and the peer group index are included for comparative purposes only. They do not necessarily reflect management's opinion that such indices are an appropriate measure of the relative performance of the stock involved, and they are not intended to forecast or be indicative of possible future performance of our common stock.

	8/31/2008	8/31/2009	8/31/2010	8/31/2011	8/31/2012	8/31/2013
Monsanto Company	100	74.34	47.43	63.12	80.99	92.41
S&P 500 Index	100	81.75	85.76	101.63	119.92	142.35
Peer Group	100	82.82	91.17	113.62	128.43	162.85

In accordance with the rules of the SEC, the information contained in the Stock Price Performance Graph on this page shall not be deemed to be "soliciting material," or to be "filed" with the SEC or subject to the SEC's Regulation 14A, or to the liabilities of Section 18 of the Exchange Act, except to the extent that Monsanto specifically requests that the information be treated as soliciting material or specifically incorporates it by reference into a document filed under the Securities Act, or the Exchange Act.

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## ITEM 6. SELECTED FINANCIAL DATA

SELECTED FINANCIAL DATA<sup>(1)</sup>

	Year Ended Aug. 31,				
(Dollars in millions, except per share amounts)	2013	2012	2011	2010 <sup>(4)</sup>	2009 <sup>(4)</sup>
<b>Operating Results:</b>					
Net sales	\$14,861	\$13,504	\$11,822	\$10,483	\$11,685
Income from operations	3,570	3,148	2,502	1,603	3,061
Income from continuing operations including portion attributable to noncontrolling Interest	2,514	2,087	1,657	1,111	2,105
Income on discontinued operations	11	6	2	4	11
Net income attributable to Monsanto Company	2,482	2,045	1,607	1,096	2,092
<b>Basic Earnings per Share Attributable to Monsanto Company:</b>					
Income from continuing operations	\$4.63	\$3.82	\$2.99	\$2.01	\$3.80
Income on discontinued operations	0.02	0.01	0.01	0.01	0.02
Net income attributable to Monsanto Company	4.65	3.83	3.00	2.02	3.82
<b>Diluted Earnings per Share Attributable to Monsanto Company:</b>					
Income from continuing operations	\$4.58	\$3.78	\$2.96	\$1.99	\$3.75
Income on discontinued operations	0.02	0.01	—	—	0.02
Net income attributable to Monsanto Company	4.60	3.79	2.96	1.99	3.77
<b>Financial Position at End of Period:</b>					
Total assets	\$20,664	\$20,224	\$19,844	\$17,852	\$17,831
Working capital <sup>(2)</sup>	5,741	5,437	4,080	3,494	4,056
Current ratio <sup>(2)</sup>	2.32:1	2.29:1	1.86:1	1.98:1	2.09:1
Long-term debt	2,061	2,038	1,543	1,862	1,724
Debt-to-capital ratio <sup>(3)</sup>	14	% 15	% 16	% 17	% 15
<b>Other Data:</b>					
Dividends per share	\$1.56	\$1.28	\$1.14	\$1.08	\$1.04
<b>Stock price per share:</b>					
High	\$109.33	\$89.73	\$77.09	\$87.06	\$121.32
Low	\$82.70	\$58.89	\$47.07	\$44.61	\$63.47
End of period	\$97.89	\$87.11	\$68.93	\$52.65	\$83.88
Basic shares outstanding	533.7	534.1	536.5	543.7	547.1
Diluted shares outstanding	539.7	540.2	542.4	550.8	555.6

<sup>(1)</sup> For comparative purposes, the following factors have an effect on certain line items within the years specified below:

Effective Sept. 1, 2009, we retrospectively adopted the new accounting guidance related to the Consolidation topic of the ASC as it relates to non-controlling interest.

Fiscal years 2009 and 2010 include restructuring charges. See Note 5 — Restructuring.

<sup>(2)</sup> Working capital is total current assets less total current liabilities; current ratio represents total current assets divided by total current liabilities.

<sup>(3)</sup> Debt-to-capital ratio is the sum of short-term and long-term debt, divided by total Monsanto Company shareowner's equity, short-term and long-term debt.

<sup>(4)</sup> See Note 26 — Commitments and Contingencies.

See Item 7 — Management's Discussion and Analysis of Financial Condition and Results of Operations — for information regarding the factors that have affected or may affect the comparability of our business results.



**ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS****OVERVIEW****Background**

Monsanto Company, along with its subsidiaries, is a leading global provider of agricultural products for farmers. Our seeds, biotechnology trait products and herbicides provide farmers with solutions that improve productivity, reduce the costs of farming and produce better foods for consumers and better feed for animals.

We manage our business in two segments: Seeds and Genomics and Agricultural Productivity. Through our Seeds and Genomics segment, we produce leading seed brands, including DEKALB, Asgrow, Deltapine, Seminis and De Ruiter, and we develop biotechnology traits that assist farmers in controlling insects and weeds. We also provide other seed companies with genetic material and biotechnology traits for their seed brands. Through our Agricultural Productivity segment, we manufacture Roundup and Harness brand herbicides and other herbicides. Approximately 46 percent of our total company sales, 41 percent of our Seeds and Genomics segment sales and 57 percent of our Agricultural Productivity segment sales, originated from our legal entities outside the United States during fiscal year 2013.

In the fourth quarter of 2008, we entered into an agreement to divest the animal agricultural products business (the Dairy business). This transaction was consummated on Oct. 1, 2008. As a result, financial data for this business has been presented as discontinued operations as outlined below. Accordingly, for all periods presented herein, the Statements of Consolidated Operations and Consolidated Financial Position have been conformed to this presentation. The Dairy business was previously reported as part of the Agricultural Productivity segment.

This MD&A should be read in conjunction with Monsanto’s consolidated financial statements and the accompanying notes. The notes to the consolidated financial statements referred to throughout this MD&A are included in Part II — Item 8 — Financial Statements and Supplementary Data — of this Report on Form 10-K. Unless otherwise indicated, “earnings per share” and “per share” mean diluted earnings per share. Unless otherwise noted, all amounts and analyses are based on continuing operations.

**Non-GAAP Financial Measures**

MD&A includes financial information prepared in accordance with U.S. generally accepted accounting principles (GAAP), as well as two other financial measures, EBIT and free cash flow, that are considered “non-GAAP financial measures.” Generally, a non-GAAP financial measure is a numerical measure of a company’s financial performance, financial position or cash flows that exclude (or include) amounts that are included in (or excluded from) the most directly comparable measure calculated and presented in accordance with GAAP. The presentation of EBIT and free cash flow information is intended to supplement investors’ understanding of our operating performance and liquidity. Our EBIT and free cash flow measures may not be comparable to other companies’ EBIT and free cash flow measures. Furthermore, these measures are not intended to replace net income (loss), cash flows, financial position or comprehensive income (loss), as determined in accordance with GAAP.

EBIT is defined as earnings (loss) before interest and taxes. Earnings (loss) is intended to mean net income (loss) as presented in the Statements of Consolidated Operations under GAAP. EBIT is an operating performance measure for our two business segments. We believe that EBIT is useful to investors and management to demonstrate the operational profitability of our segments by excluding interest and taxes, which are generally accounted for across the entire company on a consolidated basis. EBIT is also one of the measures used by Monsanto management to determine resource allocations within the company. See Note 27 — Segment and Geographic Data — for a reconciliation of EBIT to net income (loss) for fiscal years 2013, 2012 and 2011.

We also provide information regarding free cash flow, an important liquidity measure for Monsanto. We define free cash flow as the total of net cash provided or required by operating activities and net cash provided or required by investing activities. Free cash flow does not represent the residual cash flow available for discretionary expenditures. We believe that free cash flow is useful to investors and management as a measure of the ability of our business to generate cash. Once business needs and obligations are met, this cash can be used to reinvest in the company for future growth or to return to our shareowners through dividend payments or share repurchases. Free cash flow is also used by management as one of the performance measures in determining incentive compensation. See the “Financial

Condition, Liquidity and Capital Resources — Cash Flow” section of MD&A for a reconciliation of free cash flow to net cash provided by operating activities and net cash required by investing activities on the Statements of Consolidated Cash Flows.

### Executive Summary

**Consolidated Operating Results** — Net sales increased \$1,357 million, 10 percent, in fiscal year 2013 compared to fiscal year 2012. The primary contributor to the increase is both our global Roundup and other glyphosate-based herbicides and corn businesses. In both of these businesses we have achieved pricing and volume benefits. Net income attributable to Monsanto Company in fiscal year 2013 was \$4.60 per share, compared with \$3.79 per share in fiscal year 2012.

**Financial Condition, Liquidity and Capital Resources** — In fiscal year 2013, working capital was \$5,741 million compared with \$5,437 million in fiscal year 2012, an increase of \$304 million. For a detailed discussion of the factors affecting the working capital comparison, see the "Working Capital and Financial Condition" section of the "Financial Condition, Liquidity and Capital Resources" section in this MD&A.

In fiscal year 2013, net cash provided by operating activities was \$2,740 million compared with \$3,051 million in fiscal year 2012. Net cash required by investing activities was \$777 million in fiscal year 2013 compared with \$1,034 million in fiscal year 2012. Free cash flow was \$1,963 million in fiscal year 2013 compared with \$2,017 million in fiscal year 2012. For a detailed discussion of the factors affecting the free cash flow comparison, see the "Cash Flow" section of the "Financial Condition, Liquidity and Capital Resources" section in this MD&A.

In fiscal year 2013, our debt-to-capital ratio was 14 percent compared with 15 percent in fiscal year 2012, a decrease of 1 percentage point. The decrease was primarily driven by an increase in shareowners' equity as a result of increased earnings.

In fiscal year 2013, capital expenditures were \$741 million compared with \$646 million in fiscal year 2012, an increase of \$95 million. The primary driver of the increase relates to higher overall spending on projects related to our additional corn seed plant expansions in North America, Latin America and Europe.

In October 2013, we signed a definitive agreement with The Climate Corporation to acquire 100 percent of their outstanding stock for a purchase price of approximately \$930 million, to be paid at closing. For a detailed discussion see the "Capital Resources and Liquidity" section of the "Financial Condition, Liquidity and Capital Resources" section in this MD&A.

**Outlook** — We plan to continue to innovate and improve our products in order to maintain market leadership and to support near-term performance. We are focused on applying innovation and technology to make our farmer customers more productive and profitable by protecting and improving yields and improving the ways they can produce food, fiber, feed and fuel. We use the tools of modern biology and technology in an effort to make seeds easier to grow, to allow farmers to do more with fewer resources, and to help produce healthier foods for consumers. Our current R&D strategy and commercial priorities are focused on bringing our farmer customers second- and third-generation traits, on delivering multiple solutions in one seed ("stacking"), and on developing new pipeline products. Our capabilities in biotechnology and breeding research are generating a rich product pipeline that is expected to drive long-term growth. The viability of our product pipeline depends in part on the speed of regulatory approvals globally, continued patent and legal rights to offer our products and the value they will deliver to the market.

Roundup herbicides remain the largest crop protection brand globally. We have oriented the focus of Monsanto's crop protection business to strategically support Monsanto's Roundup Ready crops through our weed management platform that delivers weed control offerings for farmers. We are focused on managing the costs associated with our agricultural chemistry business as that sector matures globally.

See the "Outlook" section of MD&A for a more detailed discussion of some of the opportunities and risks we have identified for our business. For additional information related to the outlook for Monsanto, see "Caution Regarding Forward-Looking Statements" above and Part I — Item 1A — Risk Factors of this Form 10-K.

**New Accounting Pronouncements** — See Note 3 — New Accounting Standards — for information on recently issued accounting guidance.

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## RESULTS OF OPERATIONS

	Year Ended Aug. 31,			Change			
(Dollars in millions, except per share amounts)	2013	2012	2011	2013 vs. 2012	2012 vs. 2011		
Net Sales	\$14,861	\$13,504	\$11,822	10	% 14		%
Cost of goods sold	7,208	6,459	5,743	12	% 12		%
Gross Profit	7,653	7,045	6,079	9	% 16		%
Operating Expenses:							
Selling, general and administrative expenses	2,550	2,390	2,190	7	% 9		%
Research and development expenses	1,533	1,517	1,386	1	% 9		%
Restructuring charges, net	—	(10	) 1	NM	NM		
Total Operating Expenses	4,083	3,897	3,577	5	% 9		%
Income from Operations	3,570	3,148	2,502	13	% 26		%
Interest expense	172	191	162	(10	)% 18		%
Interest income	(92	) (77	) (74	) 19	% 4		%
Other expense, net	61	46	40	33	% 15		%
Income from Continuing Operations Before Income Taxes	3,429	2,988	2,374	15	% 26		%
Income tax provision	915	901	717	2	% 26		%
Income from Continuing Operations Including Portion Attributable to Noncontrolling Interest	2,514	2,087	1,657	20	% 26		%
Discontinued Operations:							
Income from operations of discontinued businesses	17	10	3	NM	NM		
Income tax provision	6	4	1	NM	NM		
Income on Discontinued Operations	11	6	2	NM	NM		
Net Income	\$2,525	\$2,093	\$1,659	21	% 26		%
Less: Net income attributable to noncontrolling interest	43	48	52	(10	)% (8		)%
Net Income Attributable to Monsanto Company	\$2,482	\$2,045	\$1,607	21	% 27		%
Diluted Earnings per Share Attributable to Monsanto Company:							
Income from continuing operations	\$4.58	\$3.78	\$2.96	21	% 28		%
Income on discontinued operations	0.02	0.01	—	NM	NM		
Net Income Attributable to Monsanto Company	\$4.60	\$3.79	\$2.96	21	% 28		%
NM = Not Meaningful							
Effective Tax Rate	27	% 30	% 30	%			
Comparison as a Percent of Net Sales:							
Cost of goods sold	49	% 48	% 49	%			
Gross profit	51	% 52	% 51	%			
Selling, general and administrative expenses	17	% 18	% 19	%			
Research and development expenses	10	% 11	% 12	%			
Total operating expenses	27	% 29	% 30	%			
	23	% 22	% 20	%			



Income from continuing operations before  
income taxes

Net income attributable to Monsanto Company	17	% 15	% 14	%
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## MONSANTO COMPANY

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## Overview of Financial Performance (2013 compared with 2012)

The following section discusses the significant components of our results of operations that affected the comparison of fiscal year 2013 with fiscal year 2012.

Net sales increased \$1,357 million in fiscal year 2013 from fiscal year 2012. Our Seeds and Genomics segment net sales increased \$551 million, and our Agricultural Productivity segment net sales increased \$806 million. The following table presents the percentage changes in fiscal year 2013 worldwide net sales by segment compared with net sales in fiscal year 2012, including the effect that volume, price and currency had on these percentage changes:

	2013 Percentage Change in Net Sales vs. 2012			
	Volume	Price	Currency	Total
Seeds and Genomics Segment	4%	4%	(2)%	6%
Agricultural Productivity Segment	6%	19%	(3)%	22%
Total Monsanto Company	4%	8%	(2)%	10%

Cost of goods sold increased \$749 million in fiscal year 2013 from fiscal year 2012. Our Seeds and Genomics segment cost of goods sold increased \$527 million and our Agricultural Productivity segment cost of goods sold increased \$222 million. Cost of goods sold as a percent of net sales for the total company increased 1 percentage point to 49 percent. The following table represents the percentage changes in fiscal year 2013 worldwide cost of goods sold by segment compared with cost of goods sold in fiscal year 2012, including the effect that volume, costs and currency had on these percentage changes:

	2013 Percentage Change in Cost of Goods Sold vs. 2012			
	Volume	Costs	Currency	Subtotal
Seeds and Genomics Segment	3%	12%	(1)%	14%
Agricultural Productivity Segment	4%	6%	(2)%	8%
Total Monsanto Company	5%	9%	(2)%	12%

Gross profit increased \$608 million. Total company gross profit as a percent of net sales decreased 1 percentage point to 51 percent in fiscal year 2013.

For a more detailed discussion of the factors affecting the net sales, cost of goods sold and gross profit comparison, see the “Seeds and Genomics Segment” and the “Agricultural Productivity Segment” sections.

Operating expenses increased \$186 million in fiscal year 2013 from fiscal year 2012. Selling, general and administrative (SG&A) expenses increased 7 percent primarily because of higher spending for commissions, marketing and administrative functions. R&D expenses increased 1 percent due to increased investment in our product pipeline. As a percent of net sales, SG&A and R&D expenses each decreased 1 percentage point to 17 percent and 10 percent of net sales, respectively, in fiscal year 2013.

Other expense — net increased \$15 million in fiscal year 2013 due to foreign currency activity, offset by a legal settlement recorded in the prior year.

Income tax provision for 2013 increased to \$915 million, an increase of \$14 million from 2012 primarily as a result of the increase in pretax income from continuing operations, offset by a higher discrete tax benefit in 2013. The effective tax rate decreased to 27 percent, a decrease of 3 percentage points from fiscal year 2012. Fiscal year 2013 included several discrete tax adjustments resulting in a tax benefit of \$153 million. The majority of this benefit resulted from the favorable resolution of tax matters, a capital loss from a deemed liquidation of a subsidiary, the expiration of statutes in various jurisdictions and the retroactive extension of the US Research and Development (R&D) credit pursuant to the enactment of the American Taxpayer Relief Act of 2012 on January 2, 2013. Fiscal year 2012 included several discrete tax adjustments resulting in a tax benefit of \$47 million. The majority of this benefit resulted from the favorable resolution of tax matters, the expiration of statutes in various jurisdictions, and favorable adjustments from the filing of tax returns, partially offset by deferred tax adjustments and

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tax reserves established in multiple jurisdictions. Without the discrete items, our effective tax rate for fiscal year 2013 would have still been lower than the 2012 rate, primarily due to the extension of the R&D credit.

#### Overview of Financial Performance (2012 compared with 2011)

The following section discusses the significant components of our results of operations that affected the comparison of fiscal year 2012 with fiscal year 2011.

Net sales increased 14 percent in 2012 from 2011. Our Seeds and Genomics segment net sales improved 14 percent, and our Agricultural Productivity segment net sales improved 15 percent. The following table presents the percentage changes in 2012 worldwide net sales by segment compared with net sales in 2011, including the effect that volume, price, currency and acquisitions had on these percentage changes:

	2012 Percentage Change in Net Sales vs. 2011			
	Volume	Price	Currency	Total
Seeds and Genomics Segment	7%	10%	(3)%	14%
Agricultural Productivity Segment	17%	2%	(4)%	15%
Total Monsanto Company	10%	7%	(3)%	14%

Cost of goods sold increased \$716 million in 2012 from 2011. Cost of goods sold as a percent of net sales for the total company decreased 1 percentage point to 48 percent. The following table represents the percentage changes in 2012 worldwide cost of goods sold by segment compared with cost of goods sold in 2011, including the effect that volume, costs and currency had on these percentage changes:

	2012 Percentage Change in Cost of Goods Sold vs. 2011			
	Volume	Costs	Currency	Total
Seeds and Genomics Segment	7%	10%	(3)%	14%
Agricultural Productivity Segment	15%	(1)%	(3)%	11%
Total Monsanto Company	10%	5%	(3)%	12%

For a more detailed discussion of the factors affecting the net sales and cost of goods sold comparison, see the “Seeds and Genomics Segment” and the “Agricultural Productivity Segment” sections.

Gross profit increased 16 percent, or \$966 million. Total company gross profit as a percent of net sales increased 1 percentage point to 52 percent in 2012. Gross profit as a percent of net sales for the Seeds and Genomics segment remained consistent at 62 percent in the 12-month comparison. Gross profit as a percent of net sales for the Agricultural Productivity segment increased 3 percentage points to 27 percent in the 12-month comparison. See the “Seeds and Genomics Segment” and “Agricultural Productivity Segment” sections of MD&A for details.

Operating expenses increased 9 percent, or \$320 million, in 2012 from 2011. Selling, general and administrative (SG&A) expenses increased 9 percent primarily because of higher spending for marketing and administrative functions as well as higher incentive compensation. R&D expenses increased 9 percent due to an increased investment in our product pipeline and identified intangible impairments of \$63 million. See Note 16 — Fair Value Measurements — for further information. As a percent of net sales, SG&A and R&D expenses each decreased 1 percentage point to 18 percent and 11 percent of net sales, respectively, in 2012.

Interest expense increased 18 percent, or \$29 million, in 2012 primarily due to increased customer financing activities, as well as interest expense related to our April 2011 bond issuance.

Other expense — net was \$46 million in 2012, compared with \$40 million in 2011. The current year balance is due to a legal settlement for claims related to a previously owned chemical plant located in Nitro, West Virginia.

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Income tax provision for 2012 increased to \$901 million, an increase of \$184 million from 2011 primarily as a result of the increase in pretax income from continuing operations. The effective tax rate remained consistent at 30 percent in fiscal year 2012 and 2011. Fiscal year 2012 included several tax adjustments resulting in a tax benefit of \$47 million. The majority of this benefit resulted from the favorable resolution of tax matters, including legacy matters of \$62 million, the expiration of statutes in various jurisdictions, and favorable adjustments from the filing of tax returns, partially offset by deferred tax adjustments and tax reserves established in multiple jurisdictions. Fiscal year 2011 included several tax adjustments resulting in a tax benefit of \$17 million. The majority of this benefit resulted from the retroactive extension of the R&D credit pursuant to the enactment of the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010, favorable return-to-provision true-up adjustments, and the expiration of statutes in several jurisdictions, partially offset by deferred tax adjustments. Without these tax adjustments, our effective tax rate for fiscal year 2012 would have been higher than the 2011 rate primarily driven by a shift in our earnings mix to higher tax rate jurisdictions.

## SEEDS AND GENOMICS SEGMENT

(Dollars in millions)	Year Ended Aug. 31,			Change			
	2013	2012	2011	2013 vs. 2012	2012 vs. 2011		
Net Sales							
Corn seed and traits	\$6,596	\$5,814	\$4,805	13	% 21		%
Soybean seed and traits	1,653	1,771	1,542	(7)	)% 15		%
Cotton seed and traits	695	779	847	(11)	)% (8		)%
Vegetable seeds	821	851	895	(4)	)% (5		)%
All other crops seeds and traits	575	574	493	—	% 16		%
Total Net Sales	\$10,340	\$9,789	\$8,582	6	% 14		%
Gross Profit							
Corn seed and traits	\$3,929	\$3,589	\$2,864	9	% 25		%
Soybean seed and traits	948	1,160	1,045	(18)	)% 11		%
Cotton seed and traits	519	585	642	(11)	)% (9		)%
Vegetable seeds	337	419	534	(20)	)% (22		)%
All other crops seeds and traits	350	306	221	14	% 38		%
Total Gross Profit	\$6,083	\$6,059	\$5,306	—	% 14		%
EBIT <sup>(1)</sup>	\$2,412	\$2,570	\$2,106	(6)	)% 22		%

EBIT is defined as earnings (loss) before interest and taxes. Interest and taxes are recorded on a total company <sup>(1)</sup> basis. We do not record these items at the segment level. See Note 27 — Segment and Geographic Data and the “Overview — Non-GAAP Financial Measures” section of MD&A for further details.

## Seeds and Genomics Financial Performance for Fiscal Year 2013

The net sales increase of \$782 million in corn seed and traits was primarily driven by an overall global increase in pricing and volume. In the United States, Argentina and Brazil prices were higher due to improved germplasm and trait mix. In Europe and Mexico prices were higher driven by germplasm mix. Global volumes were higher due to increased demand for our corn technologies. Larger planted area in Mexico also contributed to the increase in volume. The net sales decrease of \$118 million in soybean seed and traits was primarily driven by the reduction in revenue in Brazil due to decreased collections of Roundup Ready royalties. This decrease was partially offset by volume growth in the United States due to stronger customer demand and increases in pricing from improved germplasm and trait mix.

The net sales decrease of \$84 million in cotton seed and traits is the result of lower planted acres in the United States and Australia due to decreased cotton commodity prices which caused a shift to other crops being planted.

Cost of goods sold in the Seeds and Genomics segment primarily represents field growing, plant processing and distribution costs. Cost of goods sold increased \$527 million, or 14 percent, to \$4,257 million in fiscal year 2013 compared to \$3,730 million in fiscal year 2012. The increase was primarily the result of higher plant processing and field costs driven by lower corn production yields and higher corn winter production resulting from drought

conditions in the summer of 2012, higher

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commodity prices and inflation. Also contributing to this increase was higher sales volume as noted in the net sales discussion above.

Gross profit remained relatively consistent with fiscal year 2012 and gross profit as a percent of sales for this segment decreased 3 percentage points to 59 percent in fiscal year 2013.

Gross profit for soybean seed and traits decreased 18 percent compared to the 7 percent decrease in net sales for soybean seed and traits. This additional percentage decrease in gross profit over the net sales decrease is the result of the reduction in revenue in Brazil due to decreased collections of Roundup Ready royalties, which carry higher gross margins, and increased manufacturing costs in the United States due to higher production, additional treatment costs and higher commodity prices.

Gross profit for vegetable seeds decreased 20 percent compared to the 4 percent decrease in net sales for vegetable seeds. This additional percentage decrease in gross profit over the net sales decrease is the result of an increase in inventory obsolescence.

Gross profit for all other crops seeds and traits increased 14 percent despite the consistent net sales. This increase is primarily the result of lower production costs.

#### Seeds and Genomics Financial Performance for Fiscal Year 2012

Net sales of corn seed and traits increased 21 percent, or \$1,009 million, in the 12-month comparison. In 2012, sales improved primarily in the United States, Brazil, Latin America and Europe. The increases in these regions were primarily driven by higher volumes due to an increase in planted acres and stronger customer demand. Net sales of corn seed and traits also improved because of increased trait penetration in Brazil and increased pricing and mix in the United States.

Soybean seed and traits net sales increased 15 percent, or \$229 million, in 2012 primarily because of product mix and pricing increases in the United States and increased penetration in Brazil.

Cotton seed and traits net sales decreased 8 percent, or \$68 million, in 2012. The decrease was primarily a result of a reduction in planted acres in the United States and India. This was partially offset by increased planted acres in Australia.

Vegetable net sales decreased 5 percent, or \$44 million, in 2012. This sales decrease was primarily driven by decreased demand as a result of market weakness in Europe.

All other crops seeds and traits net sales increased 16 percent, or \$81 million, in 2012 primarily due to improved sales of canola seed and traits in Canada and the United States and improved sales of alfalfa and sugarbeets in the United States.

Cost of goods sold in the Seeds and Genomics segment primarily represents field growing, plant processing and distribution costs. Cost of goods sold increased \$454 million, or 14 percent, to \$3,730 million in 2012 compared to \$3,276 million in 2011. The increase was primarily the result of increased volume in corn seed and traits and soy seed and traits. Also contributing to this increase were higher field costs, driven by inflation and commodity prices.

Gross profit increased 14 percent for this segment due to increased net sales. Gross profit as a percent of sales for this segment remained consistent at 62 percent in 2012. EBIT for the Seeds and Genomics segment increased \$464 million to \$2,570 million in 2012.

#### AGRICULTURAL PRODUCTIVITY SEGMENT

(Dollars in millions)	Year Ended Aug. 31,			Change		
	2013	2012	2011	2013 vs. 2012	2012 vs. 2011	
Net Sales						
Agricultural Productivity	\$4,521	\$3,715	\$3,240	22	% 15	%
Total Net Sales	\$4,521	\$3,715	\$3,240	22	% 15	%
Gross Profit						
Agricultural Productivity	1,570	986	773	59	% 28	%
Total Gross Profit	\$1,570	\$986	\$773	59	% 28	%
EBIT <sup>(1)</sup>	\$1,048	\$477	\$281	120	% 70	%

(1)

EBIT is defined as earnings (loss) before interest and taxes. Interest and taxes are recorded on a total company basis. We do not record these items at the segment level. See Note 27 — Segment and Geographic Data — and the “Overview — Non-GAAP Financial Measures” section of MD&A for further details.

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## Agricultural Productivity Financial Performance for Fiscal Year 2013

Net sales in our Agricultural Productivity segment increased \$806 million in fiscal year 2013 from increased average net selling prices of Roundup and other glyphosate-based herbicides in all markets. In addition, sales volumes of Roundup and other glyphosate-based herbicides increased 7 percent in fiscal year 2013 primarily from increased demand for our products in Brazil and Argentina due to increased market size.

Cost of goods sold in the Agricultural Productivity segment primarily represents material, conversion and distribution costs. Cost of goods sold increased \$222 million, or 8 percent, in fiscal year 2013 to \$2,951 million compared to \$2,729 million in fiscal year 2012. Roundup and other glyphosate-based herbicides cost of goods sold increased as fiscal year 2013 sales shifted to branded products, which are more costly to produce. Increased volume in our Roundup and other glyphosate-based herbicides business, as discussed above, also contributed to this increase.

The net sales and cost of goods sold discussed above resulted in \$584 million higher gross profit in fiscal year 2013.

Gross profit as a percent of sales for the Agricultural Productivity segment increased 8 percentage points to 35 percent in fiscal year 2013 primarily due to the increased average net selling price discussed above.

## Agricultural Productivity Financial Performance for Fiscal Year 2012

Net sales for Agricultural Productivity increased 15 percent, or \$475 million, in 2012. The increase was primarily the result of increased sales for Roundup and other glyphosate-based herbicides. Roundup and other glyphosate-based herbicides volume increased 17 percent over the prior year because U.S. distributors elected to purchase Roundup and other glyphosate-based herbicides closer to the use season in FY12 in comparison to FY11 as well as increased customer demand primarily in the United States, Canada and Brazil. In addition, the average net selling price for Roundup and other glyphosate-based herbicides increased as sales shifted to higher priced branded products in 2012.

Cost of goods sold in the Agricultural Productivity segment primarily represents material, conversion and distribution costs. Cost of goods sold increased \$262 million or 11 percent in 2012 to \$2,729 million compared to \$2,467 million in 2011. The increase was primarily the result of increased volume for Roundup and other glyphosate-based herbicides. Also contributing to this increase were higher priced raw material costs, which were offset by cost improvements related to production efficiencies.

The net sales increase resulted in \$213 million higher gross profit in 2012. Gross profit as a percent of sales increased 3 percentage points for the Agricultural Productivity segment to 27 percent when compared to the prior year. This increase was primarily the result of cost improvements related to production efficiencies. EBIT for the Agricultural Productivity segment increased \$196 million to \$477 million in 2012.

## RESTRUCTURING

In fiscal year 2013, we did not record any charges relating to our 2009 Restructuring Plan (the Plan). The Plan was substantially completed in the first quarter of fiscal year 2011, and the remaining payments were made in fiscal year 2012. The cumulative pretax charges under the Plan were \$723 million through Aug. 31, 2013.

The Plan was designed to reduce costs in light of the changing market supply environment for glyphosate and to better align resources in our global seeds and traits business. The actions related to the overall restructuring plan were expected to produce annual cost savings of \$300 million to \$340 million, primarily in cost of goods sold and SG&A. The full benefit of the Plan was realized in 2011. See Note 5 — Restructuring — for further information.



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## FINANCIAL CONDITION, LIQUIDITY AND CAPITAL RESOURCES

## Working Capital and Financial Condition

(Dollars in millions, except current ratio)	As of Aug. 31,	
	2013	2012
Cash and Cash Equivalents <sup>(1)</sup>	\$3,668	\$3,283
Trade Receivables, Net <sup>(1)</sup>	1,715	1,897
Inventory, Net	2,947	2,839
Other Current Assets <sup>(1)(2)</sup>	1,747	1,639
Total Current Assets	\$10,077	\$9,658
Short-Term Debt	\$51	\$36
Accounts Payable	995	794
Accrued Liabilities <sup>(3)</sup>	3,290	3,391
Total Current Liabilities	\$4,336	\$4,221
Working Capital <sup>(4)</sup>	\$5,741	\$5,437
Current Ratio <sup>(4)</sup>	2.32:1	2.29:1

(1) May include restrictions as a result of our variable interest entities. See the Statements of Consolidated Financial Position and Note 8 — Variable Interest Entities — for more information.

(2) Includes short-term investments, miscellaneous receivables, deferred tax assets and other current assets.

(3) Includes income taxes payable, accrued compensation and benefits, accrued marketing programs, deferred revenues, grower production accruals, dividends payable, customer payable and miscellaneous short-term accruals.

(4) Working capital is total current assets less total current liabilities; current ratio represents total current assets divided by total current liabilities.

Working capital increased \$304 million between Aug. 31, 2013, and Aug. 31, 2012, primarily because of the following factors:

Cash and cash equivalents increased \$385 million. For a more detailed discussion of the factors affecting the cash flow comparison, see the “Cash Flow” section in this section of MD&A.

Inventory, net increased \$108 million between respective periods primarily because of increased inventories from our seeds and genomics segment due to larger crop production plans in Europe and Brazil. Agricultural Productivity contributed to this increase as a result of expected fiscal year 2014 demand. Vegetables also contributed to the increase due to the decline in sales over the prior year.

Other current assets increased \$108 million primarily from miscellaneous receivables due to an increase in value added tax, as a result of strong earnings, and various other fluctuations in miscellaneous receivables.

Accrued liabilities decreased \$101 million primarily due to the following fluctuations:

Accrued marketing programs decreased \$203 million due to recording of amounts within accounts receivable with the right of offset primarily in the U.S.

Grower production accruals decreased \$134 million primarily as the result of the later corn harvest in fiscal year 2013 and lower weighted average price in the U.S. In Brazil, the decrease was also impacted by the regulatory approval of Intacta RR2 PRO soybeans in fiscal year 2013 as we are no longer required to purchase all production from the growers.

Accrued compensation and benefits decreased \$54 million due to matching cash contributions made in relation to the 2004 and 2008 ESOP. See Note 20 — Employee Savings Plans — for a further description of the ESOP.

These decreases in accrued liabilities were offset by the following increases:

Miscellaneous short term accruals increased \$127 million due to increased withholding taxes in Argentina, contingent consideration related to the Precision Planting acquisition that is expected to be paid out in fiscal year 2014 and reserves related to a prior year legal settlement that is expected to be paid out in fiscal year 2014.

Deferred revenue increased \$121 million primarily as a result of customer pre-payments in Brazil to secure Roundup products due to increased demand.



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These increases to working capital were partially offset by the following factors:

• Trade receivables, net decreased \$182 million primarily due to increased collections and recording of marketing programs with the right of offset primarily in the U.S., which more than offset the impact of increased sales activity.

• Accounts payable increased \$201 million primarily due to the reclassification of cash overdrafts and additional investments in capital projects.

Backlog: Inventories of finished goods, goods in process and raw materials and supplies are maintained to meet customer requirements and our scheduled production. As is consistent with the nature of the seed industry, we generally produce in one growing season the seed inventories we expect to sell the following season. In general, we do not manufacture our products against a backlog of firm orders; production is geared to projected demand.

Customer Financing Programs: We participate in various customer financing programs in an effort to reduce our receivable risk and to reduce our reliance on commercial paper borrowings. As of Aug. 31, 2013, the programs had \$392 million in outstanding balances and we received \$365 million of proceeds in fiscal year 2013 under these programs. Our future maximum payout under the programs, including our responsibility for our guarantees with lenders, was \$92 million as of Aug. 31, 2013. See Note 7 — Customer Financing Programs — for further discussion of these programs.

## Cash Flow

(Dollars in millions)	Year Ended Aug. 31,		
	2013	2012	2011
Net Cash Provided by Operating Activities	\$2,740	\$3,051	\$2,814
Net Cash Required by Investing Activities	(777	) (1,034	) (975
Free Cash Flow <sup>(1)</sup>	1,963	2,017	1,839
Net Cash Required by Financing Activities	(1,485	) (1,165	) (864
Cash Assumed from Initial Consolidation of Variable Interest Entities	—	—	77
Effect of Exchange Rate Changes on Cash and Cash Equivalents	(93	) (141	) 35
Net Increase in Cash and Cash Equivalents	385	711	1,087
Cash and Cash Equivalents at Beginning of Period	3,283	2,572	1,485
Cash and Cash Equivalents at End of Period	\$3,668	\$3,283	\$2,572

Free cash flow represents the total of net cash provided or required by operating activities and provided or required

<sup>(1)</sup> by investing activities (see the “Overview — Non-GAAP Financial Measures” section in MD&A for a further discussion).

2013 compared with 2012:

Operating: The decrease in cash provided by continuing operations in fiscal year 2013 compared to fiscal year 2012 was primarily due to the following:

• Increase in tax payments due to increased earnings and timing of tax payments;

• Increase in payments, which were accrued in fiscal year 2012, related to marketing programs due to increased fiscal year sales;

• Increase in payments for inventory due to higher corn production costs and higher commodity prices; and

• Increase in incentive payments based on increased company results in fiscal year 2012 and additional cash contributions related to our ESOP.

The above factors were offset by the following:

• Increased earnings from fiscal year 2012 to fiscal year 2013.

Investing: The reduction in cash required by investing activities in fiscal year 2013 compared to fiscal year 2012 was primarily due to higher proceeds from the sale of assets and a decrease in the purchase price of current year acquisitions, offset by an increase in capital expenditures as discussed below.

Financing: The increase in cash required by financing activities in fiscal year 2013 compared to fiscal year 2012 was primarily due to the following:

- Increased treasury stock activity and dividend payments in order to provide increased returns to our shareholders; and
- Reduction in long-term debt proceeds due to debt issuance in fiscal year 2012 that did not occur in fiscal year 2013.

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The above factors were offset by the following:

• Decrease in long-term debt reductions due to the repayment of outstanding debt in fiscal year 2012, which was partially paid with the debt issuance in fiscal year 2012 noted above;

• Higher short-term borrowings to support ex-U.S. operations; and

• Increased proceeds from stock option activity.

2012 compared with 2011: In 2012, our free cash flow was a source of cash of \$2,017 million, compared with \$1,839 million in 2011. Cash provided by operating activities increased eight percent, or \$237 million, in 2012. The increase was primarily driven by higher net income of \$434 million in the twelve-month comparison from \$1,659 million to \$2,093 million, an increase in trade receivables, net of \$399 million caused mainly by customer financing activities and lower pension contributions of \$208 million. These increases were offset by a decrease of \$578 million in inventory due to early harvest and increased commodity costs and a decrease in accounts payable and other accrued liabilities of \$464 million primarily as a result of increased income tax and incentive compensation payments in 2012. Cash required by investing activities was \$1,034 million in 2012 compared with \$975 million in 2011. The increase was primarily driven by increased maturities of short term investments of \$316 million offset by capital expenditures increasing \$106 million. Additionally, there was an increase of \$223 million due to acquisitions. See Note 4 - Business Combinations - for further discussion of these acquisitions.

The amount of cash required by financing activities was \$1,165 million in 2012 compared with \$864 million in 2011. The net change in short-term financing was an increased use of cash of \$207 million driven by the repayment of short-term debt. Additionally, there was an increase in the repayment of long term debt of \$436 million, offset by an increase in the issuance of new long-term debt of \$200 million.

#### Capital Resources and Liquidity

(Dollars in millions, except debt-to-capital ratio)	As of Aug. 31,	
	2013	2012
Short-Term Debt	\$51	\$36
Long-Term Debt	2,061	2,038
Total Monsanto Company Shareowners' Equity	12,559	11,833
Debt-to-Capital Ratio	14	% 15 %

A major source of our liquidity is operating cash flows, which can be derived from net income. This cash-generating capability and access to long-term investment grade debt financing markets provides us with the financial flexibility we need to meet operating, investing and financing needs. We believe our sources of liquidity will be sufficient to sustain operations and to finance anticipated investments. To the extent that cash provided by operating activities is not sufficient to fund our cash needs, we believe short-term commercial paper borrowings can be used to finance these requirements. We had no commercial paper borrowings outstanding at Aug. 31, 2013.

We have a \$2 billion credit facility agreement with a group of banks that provides a senior unsecured revolving credit facility through April 1, 2016. As of Aug. 31, 2013, we did not have any borrowings under this credit facility and we were in compliance with all debt covenants.

Our debt-to-capital ratio decreased 1 percentage point compared with Aug. 31, 2012, ratio, primarily due to the increase in shareowners' equity as a result of increased earnings.

We held cash and cash equivalents and short-term investments of \$3,922 million and \$3,585 million at Aug. 31, 2013, and Aug. 31, 2012, respectively, of which \$2,319 million and \$1,744 million was held by foreign entities, respectively. Our intent is to indefinitely reinvest earnings of our foreign operations and our current operating plans do not demonstrate a need to repatriate foreign earnings to fund our U.S. operations. However, if these funds were needed for our operations in the United States, we would be required to accrue and pay any applicable U.S. and local taxes to repatriate these funds.

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Dividends: In fiscal year 2013, we declared the following dividends:

Quarter Ending	Declaration Date	Dividend	Payable Date	To Shareowners of Record as of:
August 31, 2013	August 2013	43 cents	Oct. 25, 2013	Oct. 4, 2013
August 31, 2013	June 2013	37.5 cents	July 26, 2013	July 5, 2013
Feb. 28, 2013	January 2013	37.5 cents	April 26, 2013	April 5, 2013
Feb. 28, 2013	December 2013	37.5 cents	Jan. 25, 2013	Jan. 4, 2013

We paid dividends totaling \$802 million in fiscal year 2013, \$642 million in fiscal year 2012 and \$602 million in fiscal year 2011.

We continue to review our options for returning value to shareowners, including the possibility of continued dividend increases and additional share repurchase programs.

Share Repurchases: In June 2010, the board of directors authorized a repurchase program of up to \$1 billion of the company's common stock over a three-year period beginning July 1, 2010. This repurchase program commenced Aug. 24, 2010, and was completed on Jan. 14, 2013.

In June 2012, the board of directors authorized a new three-year repurchase program of up to an additional \$1 billion of the company's common stock. This repurchase program commenced on Jan. 14, 2013, and was completed on Aug. 20, 2013.

In June 2013, the board of directors authorized a new three-year repurchase program of up to an additional \$2 billion of the company's common stock. This repurchase program commenced on Aug. 20, 2013.

There were no other publicly announced plans outstanding as of Aug. 31, 2013. The timing and number of shares purchased in the future under the repurchase programs, if any, depends upon capital needs, market conditions and other factors.

Capital Expenditures: Our capital expenditures were \$741 million in fiscal year 2013, \$646 million in fiscal year 2012 and \$540 million in fiscal year 2011. The primary driver of this year's increase relates to higher overall spending on projects related to our additional corn seed plant expansions in North America, Latin America and Europe. We expect fiscal year 2014 capital expenditures to be \$1 billion to \$1.2 billion. The primary driver of this increase compared with 2013 is expected global seed manufacturing expansions and additional investment in one of our technology research facilities.

Healthcare Benefits: We are currently evaluating the impact of the Healthcare Acts, but we do not expect them to have a material impact on our consolidated financial statements in the short term. The longer term potential impacts of the Healthcare Acts to our consolidated financial statements are currently uncertain. We will continue to assess how the Healthcare Acts apply to us and how best to meet the stated requirements.

Pension Contributions: In addition to contributing amounts to our pension plans if required by pension plan regulations, we continue to also make discretionary contributions if we believe they are merited. Although contributions to the U.S. qualified plan were not required, we contributed \$36 million in fiscal year 2013, \$60 million in fiscal year 2012 and \$266 million in fiscal year 2011. For fiscal year 2014, contributions in the range of \$60 million are planned for the U.S. qualified pension plan. Although the level of required future contributions is unpredictable and depends heavily on return on plan asset experience and interest rate levels, we expect to continue contributing to the plan on a regular basis in the near term.

In July 2012, the Surface Transportation Extension Act (the Act), also referred to as the Moving Ahead for Progress in the 21<sup>st</sup> Century Act, was passed by Congress and signed by the President. The Act includes pension funding stabilization provisions and specifically will impact the discount rate companies use to determine future funding requirements, which in turn could potentially reduce required pension contributions in the near term. Our fiscal year 2014 contribution range, noted above, takes into account the impact of the provisions of the Act.

Fiscal year 2014 pension expense will be determined using assumptions as of Aug. 31, 2013. Our expected rate of return on assets assumption will remain consistent at 7.50 percent for the U.S. Plan. This assumption was 7.50 percent in fiscal year 2013, 7.50 percent in fiscal year 2012 and 7.50 percent in fiscal year 2011. To determine the rate of return, we consider the historical experience and expected future performance of the plan assets, as well as the current

and expected allocation of the plan assets. The U.S. qualified pension plan's asset allocation as of Aug. 31, 2013, was approximately 56 percent equity securities, 39 percent debt securities and 5 percent other investments, in line with our policy ranges. We periodically evaluate

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the allocation of plan assets among the different investment classes to ensure that they are within policy guidelines and ranges. Although we do not currently expect to change the assumed rate of return in the near term, holding all other assumptions constant, we estimate that a half-percent decrease in the expected return on plan assets would lower our fiscal year 2014 pre-tax income by approximately \$9 million.

Our discount rate assumption for the 2014 U.S. pension expense is 4.44 percent. This assumption was 3.44 percent, 4.59 percent and 4.35 percent in fiscal years 2013, 2012 and 2011, respectively. In determining the discount rate, we use yields on high-quality fixed-income investments (including among other things, Moody's Aa corporate bond yields) that match the duration of the pension obligations. To the extent the discount rate increases or decreases, our pension obligation is decreased or increased accordingly. Holding all other assumptions constant, we estimate that a half-percent decrease in the discount rate would decrease our fiscal year 2014 pre-tax income by approximately \$7 million. Our salary rate assumption as of Aug. 31, 2013, was approximately 4.0 percent. Holding all other assumptions constant, we estimate that a half-percent decrease in the salary rate assumption would increase our fiscal year 2014 pretax income by \$2 million.

**Divestiture:** In October 2008, we consummated the sale of the Dairy business after receiving approval from the appropriate regulatory agencies and received \$300 million in cash, and may receive additional contingent consideration. The contingent consideration is a 10-year earn-out with potential annual payments being earned by the company if certain revenue levels are exceeded.

**2013 Acquisitions:** In August 2013, Monsanto acquired certain assets and manufacturing capabilities of Dieckmann GmbH & Co.KG, a business based in Germany which specializes in the breeding of oilseed rape and rye seeds. The acquisition, which qualifies as a business under the Business Combinations topic of the ASC, is expected to complement Monsanto's existing activities in the breeding, production and marketing of oilseed rape in Europe. The total fair value and cash paid for the acquisition was \$30 million. The fair value of the acquisition was primarily allocated to goodwill and intangibles.

In June 2013, Monsanto acquired 100 percent of the outstanding stock of GrassRoots Biotechnology, Inc., a business based in Durham, North Carolina, that is focused on gene expression and other agriculture technologies. The acquisition of the company, which qualifies as a business under the Business Combinations topic of the ASC, is expected to complement Monsanto's existing research platforms. The total fair value and cash paid for the acquisition was \$15 million (net of cash acquired). The fair value of the acquisition was primarily allocated to goodwill and intangibles.

In March 2013, Monsanto acquired substantially all of the assets of Rosetta Green Ltd., a business based in Israel which specializes in the identification and use of unique genes to guide key processes in major crops including corn, soybeans and cotton. The acquisition of the company, which qualifies as a business under the Business Combinations topic of the ASC, is expected to complement Monsanto's existing research platforms. The total fair value and cash paid for the acquisition was \$35 million. The fair value of the acquisition was primarily allocated to goodwill and intangibles.

In January 2013, Monsanto acquired select assets of Agradis, Inc., a business focused on developing sustainable agricultural solutions. The acquisition, which qualifies as a business under the Business Combinations topic of the ASC, is intended to support Monsanto's efforts to provide farmers with sustainable biological products to improve crop health and productivity. The total cash paid and the fair value of the acquisition was \$85 million, and the purchase price was primarily allocated to goodwill and intangibles.

**2012 Acquisitions:** In June 2012, we acquired 100 percent of the outstanding stock of Precision Planting, Inc., a planting technology developer based in Tremont, Illinois. Precision Planting develops technology to improve yields through on-farm planting performance. The acquisition of the company will become part of our Integrated Farming Systems unit, which utilizes advanced agronomic practices, seed genetics and innovative on-farm technology to deliver optimal yield to farmers while using fewer resources. The acquisition of Precision Planting qualifies as a business under the Business Combinations topic of the ASC. The total fair value of the acquisition was \$255 million, including contingent consideration of \$39 million, and the total cash paid for the acquisition was \$209 million (net of cash acquired). The fair value was primarily allocated to goodwill and intangibles. The contingent consideration is to



be paid in cash if certain operational and financial milestones are met on or before Aug. 31, 2020, up to a maximum target of \$40 million.

In September 2011, we acquired 100 percent of the outstanding stock of Beeologics, a technology start-up business based in Israel, which researches and develops biological tools to provide targeted control of pests and diseases. The acquisition of the company, which qualifies as a business under the Business Combinations topic of the ASC, will allow us to further explore the use of biologicals broadly in agriculture to provide farmers with innovative approaches to the challenges they face. We intend to use the base technology from Beeologics as a part of its continuing discovery and development pipeline. The total cash paid and the fair value of the acquisition was \$113 million (net of cash acquired), and was primarily allocated to goodwill and intangibles.

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For all acquisitions described above, the business operations and employees of the acquired entities were added into the Seeds and Genomics segment results upon acquisition. These acquisitions were accounted for as purchase transactions. Accordingly, the assets and liabilities of the acquired entities were recorded at their estimated fair values at the dates of the acquisitions. See Note 4 — Business Combinations — for further discussion of these acquisitions. 2014 Acquisition: In October 2013, we signed a definitive agreement to acquire The Climate Corporation for a purchase price of approximately \$930 million to be paid at closing. The Climate Corporation, located in San Francisco, California, is a leading data analytics company with core capabilities around hyper local weather monitoring, weather simulation and agronomic modeling which has allowed them to develop risk management tools and agronomic decision support tools for growers. The acquisition will combine The Climate Corporation's expertise in agriculture risk-management with Monsanto's R&D capabilities, and is expected to further enable farmers to significantly improve productivity and better manage risk from variables that greatly limit agriculture production. The acquisition is expected to expand both near and long-term growth opportunities for Monsanto's Integrated Farming Systems platform. Monsanto would hold 100 percent of the outstanding stock of The Climate Corporation following the acquisition. The fair value of the acquisition will be primarily allocated to goodwill and intangibles. Closing is expected to occur in the first quarter of our 2014 fiscal year subject to customary closing conditions. The acquisition is expected to be financed through existing cash balances and debt.

Contractual Obligations: We have certain obligations and commitments to make future payments under contracts. The following table sets forth our estimates of future payments under contracts as of Aug. 31, 2013. See Note 26 — Commitments and Contingencies — for a further description of our contractual obligations.

## Payments Due by Fiscal Year Ending Aug. 31,

(Dollars in millions)	Total	2014	2015	2016	2017	2018	2019 beyond
Total Debt, including Capital Lease Obligations	\$2,112	\$51	\$15	\$309	\$1	\$301	\$1,435
Interest Payments Relating to Long-Term Debt and Capital Lease Obligations <sup>(1)</sup>	1,471	92	92	92	84	84	1,027
Operating Lease Obligations	508	113	85	71	59	53	127
Purchase Obligations:							
Uncompleted additions to property	112	84	3	25	—	—	—
Commitments to purchase inventories	2,474	1,441	271	251	225	227	59
Commitments to purchase breeding research	660	55	55	55	55	55	385
R&D alliances and joint venture obligations	133	41	23	20	17	14	18
Other purchase obligations	8	6	1	1	—	—	—
Other Liabilities:							
Postretirement liabilities <sup>(2)</sup>	92	92	—	—	—	—	—
Unrecognized tax benefits <sup>(3)</sup>	110	—	—	—	—	—	—
Other liabilities	181	23	20	10	6	6	116
Total Contractual Obligations	\$7,861	\$1,998	\$565	\$834	\$447	\$740	\$3,167

<sup>(1)</sup>For variable rate debt, interest is calculated using the applicable rates as of Aug. 31, 2013.

Includes the company's planned pension and other postretirement benefit contributions for 2014. The actual amounts funded in 2014 may differ from the amounts listed above. Contributions in 2015 through 2019 are excluded as those

<sup>(2)</sup> amounts are unknown. Refer to Note 18 — Postretirement Benefits — Pensions and Note 19 — Postretirement Benefits — Health Care and Other Postemployment Benefits — for more information.

<sup>(3)</sup>Unrecognized tax benefits relate to uncertain tax positions recorded under the Income Taxes topic of the ASC. The company is unable to reasonably predict the timing of tax settlements, as tax audits can involve complex issues and

the resolution of those issues may span multiple years, particularly if subject to negotiation or litigation. See Note 14 — Income Taxes — for more information.

#### Off-Balance Sheet Arrangements

Under our Separation Agreement with Pharmacia, we are required to indemnify Pharmacia for certain matters, such as environmental remediation obligations and litigation. To the extent we are currently managing any such matters, we evaluate

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them in the course of managing our own potential liabilities and establish reserves as appropriate. However, additional matters may arise in the future, and we may manage, settle or pay judgments or damages with respect to those matters in order to mitigate contingent liability and protect Pharmacia and Monsanto. See Note 26 — Commitments and Contingencies and Part I — Item 3 — Legal Proceedings — for further information.

We have entered into various customer financing programs which are accounted for in accordance with the Transfers and Servicing topic of the ASC. See Note 7 — Customer Financing Programs — for further information.

#### Other Information

As discussed in Note 26 — Commitments and Contingencies and Item 3 — Legal Proceedings, Monsanto is responsible for significant environmental remediation and is involved in a number of lawsuits and claims relating to a variety of issues. Many of these lawsuits relate to intellectual property disputes. We expect that such disputes will continue to occur as the agricultural biotechnology industry evolves.

#### Seasonality

Our fiscal year end of August 31 synchronizes our quarterly and annual results with the natural flow of the agricultural cycle in our major markets. It provides a more complete picture of the North American and South American growing seasons in the same fiscal year. Sales by our Seeds and Genomics segment, and to a lesser extent, by our Agricultural Productivity segment, are seasonal. In fiscal year 2013, approximately 72 percent of our Seeds and Genomics segment sales occurred in the second and third quarters. This segment's seasonality is primarily a function of the purchasing and growing patterns in North America. Agricultural Productivity segment sales were more evenly spread across our fiscal year quarters in 2013.

Net income is the highest in second and third quarters, which correlates with the sales of the Seeds and Genomics segment and its gross profit contribution. Sales and income may shift somewhat between quarters, depending on planting and growing conditions. Our inventory is at its lowest level at the end of our fiscal year, which is consistent with the agricultural cycles in our major markets. Additionally, our trade accounts receivable are at their lowest levels in our fourth quarter, primarily because of collections received on behalf of both segments in the United States and Latin America, and the seasonality of our sales.

As is the practice in our industry, we regularly extend credit to enable our customers to acquire crop protection products and seeds at the beginning of the growing season. Because of the seasonality of our business and the need to extend credit to customers, we sometimes use short-term borrowings to finance working capital requirements. Our need for such financing is generally higher in the first and third quarters of the fiscal year and lower in the second and fourth quarters of the fiscal year. Our customer financing programs are expected to continue to reduce our receivable risk and to reduce our reliance on commercial paper borrowings.

#### OUTLOOK

We believe we have achieved an industry-leading position in the areas in which we compete in both of our business segments. However, the outlook for each part of our business is quite different. In the Seeds and Genomics segment, our seeds and traits business is expected to expand via our investment in new products. In the Agricultural Productivity segment, we expect to deliver competitive products in a more steady-state business.

We believe that our company is positioned to deliver value-added products to growers enabling us to grow our gross profit in the future. We expect to see strong cash flow in the future, and we remain committed to returning value to shareowners through vehicles such as investments that expand the business, dividends and share repurchases. We will remain focused on cost and cash management, both to support the progress we have made in managing our investment in working capital and to realize the full earnings potential of our businesses. We plan to continue to seek additional external financing opportunities for our customers as a way to manage receivables for each of our segments.

Outside of the United States, our businesses will continue to face additional challenges related to the risks inherent in operating in emerging markets. We will continue to consider, assess and address these developments and the challenges and issues they place on our businesses. We believe we have taken appropriate measures to manage our credit exposure, which has the potential to affect sales negatively in the near term. In addition, volatility in foreign currency exchange rates may negatively affect our profitability, the book value of our assets outside the United States, and our shareowners' equity.



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## Seeds and Genomics

Our capabilities in plant breeding and biotechnology research and development are generating a rich and balanced product pipeline that we expect will drive long-term growth. We plan to continue to invest in the areas of seeds, genomics and biotechnology and to invest in technology arrangements that have the potential to increase the efficiency and effectiveness of our R&D efforts. We believe that our seeds and traits businesses will have significant near-term growth opportunities through a combination of improved breeding and continued growth of stacked and second- and third-generation biotech traits.

We expect advanced breeding techniques combined with improved production practices and capital investments will continue to contribute to improved germplasm quality and yields for our seed offerings, leading to increased global demand for both our branded germplasm and our licensed germplasm. We plan to improve our vegetable seeds business, which has a portfolio focused on 21 crops. While near term financial results for the vegetable business could be affected by lower sales in certain regions experiencing political or economic instability, the business integration into a global platform, along with a number of process improvements are expected to continue to improve our ability to develop, and deliver new, innovative products to our customer base. We plan to continue to pursue strategic acquisitions in our seed businesses to grow our branded seed share, expand our germplasm library, and strengthen our global breeding programs. We expect to see continued competition in seeds and genomics. We believe we will have a competitive advantage because of our global breeding capabilities and our multiple-channel sales approach in the United States for corn and soybean seeds.

Commercialization of second- and third-generation traits and the stacking of multiple traits in corn and cotton are expected to increase penetration in approved markets, particularly as we continue to price our traits in line with the value growers have experienced. In 2012 and 2013, we saw higher-value, stacked-trait products representing a larger share of our total U.S. corn seed sales than we did in 2011. We experienced an increase in competition in biotechnology as more competitors launched traits in the United States and internationally. Acquisitions may also present mid-to-longer term opportunities to increase penetration of our traits. We believe our competitive position continues to enable us to deliver second- and third-generation traits when our competitors are delivering their first-generation traits.

Full regulatory approval was received for a five percent refuge-in-a-bag (RIB) seed blend from the U.S. Environmental Protection Agency (EPA) and the Canadian Food Inspection Agency (CFIA) for Genuity SmartStax RIB Complete corn and Genuity VT Double PRO RIB Complete corn providing a single bag solution enabling farmers to plant corn without a separate refuge. The U.S. EPA in August 2012 granted registration for 10 percent refuge within Genuity VT Triple PRO RIB Complete corn. With this approval all of the products in Monsanto's reduced-refuge corn family now are RIB enabled for the U.S. Corn Belt. Genuity VT Triple PRO RIB Complete corn was broadly available to U.S. farmers in 2013.

On June 17, 2013, Monsanto received the safety certificates from China for the approval of Intacta RR2 PRO soybeans and the DroughtGard corn trait. This follows multiple other importation approvals and enables farmers to choose to plant Intacta traited soybeans in Brazil, Argentina and Paraguay and for U.S. growers to plant hybrids with the DroughtGard trait.

In Brazil, we expect to continue to operate our business model of collecting on the sale of certified seeds, a point-of-delivery payment system (Roundup Ready soybeans and Intacta RR2 PRO soybeans) and our indemnification collection system (Bollgard cotton), to capture value on all of our Roundup Ready soybeans and Bollgard cotton crops grown there. Following an adverse ruling from a panel of five judges in the Brazilian Superior Court of Justice denying our term correction for the first generation Roundup Ready patent term to 2014, we continue to defer collection of royalties for first generation Roundup Ready soybeans in Brazil until a final decision is reached by the courts. Growers can agree to gain royalty-free use of first generation Roundup Ready for the 2012-2013 and 2013-2014 seasons in exchange for a waiver of any claim for refunds for past payments by signing a new Grower License Agreement with reciprocal release governing Monsanto's technology. Almost all of the major grower unions in Mato Grosso (a key soybean state in Brazil) have committed to promote the new Grower License Agreements with their membership. The Supreme Court of Brazil has granted certiorari of the patent term correction case.

Longer term, income is expected to grow in Brazil as farmers choose to plant more of our approved traits in soybeans, corn and cotton. The agricultural economy in Brazil could be impacted by global commodity prices, particularly for corn and soybeans. We continue to maintain our strict credit policy, expand our grain-based collection system and focus on cash collection and sales, as part of a continuous effort to manage our risk in Brazil against such volatility. During 2007, we announced a long-term joint R&D and commercialization collaboration in plant biotechnology with BASF that focuses on high-yielding crops and crops that are tolerant to adverse conditions such as drought. We have received all North American and key import country regulatory approvals for the first biotech drought-tolerant corn product. These approvals enabled the U.S. launch in 2013. Over the life of the collaboration, we and BASF will dedicate a joint budget of potentially \$2.5 billion to fund a dedicated pipeline of yield and stress tolerance traits for corn, soybeans, cotton, canola and wheat.

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Our international traits businesses, in particular, will probably continue to face unpredictable regulatory environments that may be highly politicized. We operate in volatile, and often difficult, economic and political environments. Although we see growth potential in our India cotton business with the ongoing conversion to higher planting rates with hybrids and Bollgard II cotton, this business is currently operating under existing state governmental pricing directives and there is a potential for new state governmental pricing directives that we believe limit our near-term earnings potential in India.

Efforts to secure an orderly system in Argentina to support the introduction of new technology products are underway. To achieve this, we are pursuing grower and grain handler agreements to ensure we will be compensated for providing the technology. The majority of grain handlers have enrolled in the point of delivery system, and with the recent China approval, we plan to sell Intacta RR2 PRO in Argentina in this dual-path business model. Intacta RR2 PRO technology has been fully approved by Argentina and export markets. We intend to broaden our grower experience with Ground Breakers in the main production areas and modest commercial sales in the north. We also intend to finalize the last steps of the business model approach to enable farmer payments on new and legally saved seed as already exists in Brazil and Paraguay. We do not plan to collect on first generation Roundup Ready soybeans in Argentina.

In May 2013, the USDA announced an investigation into alleged glyphosate-resistant volunteer wheat reported on an Oregon farm, and we are cooperating in the investigation. The USDA noted that glyphosate tolerant wheat does not present a public health or food safety concern as the FDA completed its assessment of the product in 2004. The consultative process at the FDA was completed and the agency concluded that this product is as safe as non-GM wheat currently on the market. Initial development of glyphosate tolerant wheat was discontinued in 2005 under stringent stewardship procedures which were in compliance with USDA regulations. The USDA has recently reported that there is no indication that the genetically modified wheat product is found in U.S. wheat supplied to domestic or export markets. The USDA's investigation remains ongoing and the agency indicated that civil and criminal penalties could be imposed if circumstances warranted. Monsanto and the USDA have not determined the basis for the alleged detection of glyphosate-resistant wheat and are considering all possible scenarios. Multiple lawsuits, including putative class action lawsuits, have been filed against the company asserting numerous legal claims including negligence and strict liability, seeking punitive damages and alleging economic loss and damages to wheat farmers allegedly due to wheat trade price reduction and export contract impacts. On October 16, 2013, the Panel on Multi-District Litigation ordered the multiple lawsuits consolidated and transferred for case management to the Federal District Court of Kansas. Monsanto properly discontinued the development of the glyphosate tolerant wheat event in 2005, has meritorious legal arguments against liability and will vigorously represent its interests in the ongoing investigation and legal proceedings.

#### Agricultural Productivity

Our Agricultural Productivity businesses operate in markets that are competitive. Gross profit and cash flow levels will fluctuate in the future based on global business dynamics including market supply, demand and manufacturing capacity. We expect to maintain our brand prices at a slight premium over generic products and we believe our Roundup herbicide business will continue to be a sustainable source of cash and gross profit. We have oriented the focus of Monsanto's crop protection business to strategically support Monsanto's Roundup Ready crops through our weed management platform that delivers weed control offerings for farmers. In addition, we expect our lawn-and-garden business will continue to be a solid contributor to our Agricultural Productivity segment. Global glyphosate producers have the capacity to supply the market, but global dynamics including demand, environmental regulation compliance and raw material availability can cause fluctuation in supply and the price of those generic products. We maintain our brand prices at a slight premium over generic products and we expect the fluctuation in global capacity will impact the selling price and margin of Roundup brands and our third party sourcing opportunities.

The staff of the SEC is conducting an investigation of financial reporting associated with our customer incentive programs for glyphosate products for the fiscal years 2009 and 2010, and we have received subpoenas in connection therewith. It is not reasonably possible to assess the outcome of the investigation at this time, but potential outcomes could include the filing of an enforcement proceeding and the imposition of civil penalties as well as non-monetary



remedies, which may require the Company to incur future costs. We continue cooperating with the investigation.

#### CRITICAL ACCOUNTING POLICIES AND ESTIMATES

In preparing our financial statements, we must select and apply various accounting policies. Our most significant policies are described in Note 2 — Significant Accounting Policies. In order to apply our accounting policies, we often need to make estimates based on judgments about future events. In making such estimates, we rely on historical experience, market and other conditions, and on assumptions that we believe to be reasonable. However, the estimation process is by its nature uncertain given that estimates depend on events over which we may not have control. If market and other conditions change from those that we anticipate, our results of operations, financial condition and changes in financial condition may be materially affected.

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In addition, if our assumptions change, we may need to revise our estimates, or to take other corrective actions, either of which may also have a material effect on our results of operations, financial condition or changes in financial condition. Members of our senior management have discussed the development and selection of our critical accounting estimates, and our disclosures regarding them, with the audit and finance committee of our board of directors, and do so on a regular basis.

We believe that the following estimates have a higher degree of inherent uncertainty and require our most significant judgments. In addition, had we used estimates different from any of these, our results of operations, financial condition or changes in financial condition for the current period could have been materially different from those presented.

**Goodwill:** The majority of our goodwill relates to our seed company acquisitions. We are required to periodically assess whether any of our goodwill is impaired. In order to do this, we apply judgment in determining our reporting units, which represent component parts of our business. Our annual goodwill impairment assessment involves estimating the fair value of a reporting unit and comparing it with its carrying amount. If the carrying value of the reporting unit exceeds its fair value, additional steps are required to calculate a potential impairment loss. Calculating the fair value of the reporting units requires significant estimates and long-term assumptions. Any changes in key assumptions about the business and its prospects, or any changes in market conditions, interest rates or other externalities, could result in an impairment charge. We estimate the fair value of our reporting units by applying discounted cash flow methodologies. A discounted cash flow analysis requires us to make various judgmental estimates and assumptions that include, but are not limited to, sales growth, gross profit margin rates and discount rates. Discount rates were evaluated by reporting segment to account for differences in inherent industry risk. Sales growth and gross profit margin assumptions were based on our long range plan.

The annual goodwill impairment tests were performed as of Mar. 1, 2013, and Mar. 1, 2012. No indications of goodwill impairment existed as of either date. The results of management's Mar. 1, 2013, goodwill impairment test indicated that all reporting units had a calculated fair value greater than 10 percent in excess of its carrying value. In 2013 and 2012, we recorded goodwill related to our acquisitions (see Note 4 — Business Combinations). As part of the annual goodwill impairment tests, we compared our total market capitalization with the aggregate estimated fair value of our reporting units to ensure that significant differences are understood. At Mar. 1, 2013, and Mar. 1, 2012, our market capitalization exceeded the aggregate estimated fair value of our reporting units. Future declines in the fair value of our reporting units could result in an impairment of goodwill and reduce net income.

**Income Taxes:** Management regularly assesses the likelihood that deferred tax assets will be recovered from future taxable income. To the extent management believes that it is more likely than not that a deferred tax asset will not be realized, a valuation allowance is established. When a valuation allowance is established or increased, an income tax charge is included in the consolidated financial statements and net deferred tax assets are adjusted accordingly.

Changes in tax laws, statutory tax rates and estimates of the company's future taxable income levels could result in actual realization of the deferred tax assets being materially different from the amounts provided for in the consolidated financial statements. If the actual recovery amount of the deferred tax asset is less than anticipated, we would be required to write-off the remaining deferred tax asset and increase the tax provision, resulting in a reduction of net income and shareowners' equity.

Under the Income Taxes topic of the ASC, in order to recognize the benefit of an uncertain tax position, the taxpayer must be more likely than not of sustaining the position, and the measurement of the benefit is calculated as the largest amount that is more than 50 percent likely to be realized upon resolution of the position. Tax authorities regularly examine the company's returns in the jurisdictions in which we do business. Management regularly assesses the tax risk of the company's return filing positions and believes its accruals for uncertain tax positions are adequate as of Aug. 31, 2013.

As of Aug. 31, 2013, management has recorded deferred tax assets of approximately \$425 million in Brazil primarily related to net operating loss carryforwards (NOLs) that have no expiration date. We also had available approximately \$34 million of U.S. foreign tax credit carryforwards. Management continues to believe it is more likely than not that we will realize our deferred tax assets in Brazil and the United States.

Revenue Recognition: Monsanto sells its products directly to customers as well as through distributors. We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable, and collection is probable. Product is considered delivered to the customer once it has been shipped and title and risk of loss have been transferred.

We may enter into multiple element arrangements, including those where a customer purchases technology and licenses. When elements of a multiple element arrangement do not have stand alone value, we account for such elements as a combined unit of

accounting. We allocate revenue to each unit of accounting in a multiple element arrangement based upon the relative selling price of each deliverable. When applying the relative selling price method, we determine the selling price for each deliverable by using vendor-specific objective evidence (“VSOE”) of selling price, if it exists, or third-party evidence (“TPE”) of selling price. If neither VSOE nor TPE of selling price exist for a unit of accounting, we use our best estimate of selling price for that unit of accounting. When we use our best estimate to determine selling price, significant judgment is required. The significant assumptions used to estimate selling price for significant units of accounting may consist of cost, gross margin objectives or forecasted customer selling volumes. Changes in assumptions used to estimate selling price could result in a different allocation of arrangement consideration across the units of accounting within an arrangement. Revenue allocated to each unit of accounting is recognized when all revenue recognition criteria for that unit of accounting has been met. License revenue, including those within multiple element arrangements, is generally recognized over the contract period as third-party seed companies sell seed containing Monsanto traits, which can be from one year up to the related patent term.

We record reductions to revenue for estimated customer sales returns and certain customer incentive programs. These reductions to revenue are made based upon reasonable and reliable estimates that are determined by historical experience, contractual terms, and current conditions. The primary factors affecting our accrual for estimated customer returns include estimated return rates as well as the number of units shipped that have a right of return. At least each quarter, we re-evaluate our estimates to assess the adequacy of our recorded accruals for customer returns and allowance for doubtful accounts, and adjust the amounts as necessary.

**Customer Incentive Programs:** Customer incentive program costs are recorded in accordance with the Revenue Recognition topic of the ASC, based upon specific performance criteria met by our customers, such as purchase volumes, promptness of payment and market share increases. The cost of certain customer incentive programs is recorded in net sales in the Statements of Consolidated Operations. Certain customer incentive programs require management to estimate the number of customers who will actually redeem the incentive. As actual customer incentive program expenses are not known at the time of the sale, an estimate based on the best available information (such as historical experience and market research) and the specific terms and conditions of particular incentive programs are used as a basis for recording customer incentive program liabilities. If a greater than estimated proportion of customers redeem such incentives, Monsanto would be required to record additional reductions to revenue, which would have a negative impact on our results of operations and cash flow. Management analyzes and reviews the customer incentive program balances on a quarterly basis, and adjustments are recorded as appropriate.

#### ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to the effect of interest rate changes, foreign currency fluctuations, changes in commodity, equity and debt securities prices. Market risk represents the risk of a change in the value of a financial instrument, derivative or nonderivative, caused by fluctuations in interest rates, currency exchange rates, and commodity, equity and debt securities prices. Monsanto handles market risk in accordance with established policies by engaging in various derivative transactions. Such transactions are not entered into for trading purposes.

See Note 2 — Significant Accounting Policies, Note 16 — Fair Value Measurements —and Note 17— Financial Instruments — the consolidated financial statements for further details regarding the accounting and disclosure of our derivative instruments and hedging activities.

The sensitivity analysis discussed below presents the hypothetical change in fair value of those financial instruments held by the company as of Aug. 31, 2013, that are sensitive to changes in interest rates, currency exchange rates and commodity and equity securities prices. Actual changes may prove to be greater or less than those hypothesized.

**Changes in Interest Rates:** Our interest-rate risk exposure pertains primarily to the debt portfolio. To the extent that we have cash available for investment to ensure liquidity, we will invest that cash only in short-term instruments. Most of our debt as of Aug. 31, 2013, consisted of fixed-rate long-term obligations.

Market risk with respect to interest rates is estimated as the potential change in fair value resulting from an immediate hypothetical 1 percentage point parallel shift in the yield curve. The fair values of our investments and debt are based on quoted market prices or discounted future cash flows. As the carrying amounts on short-term debt and investments

maturing in less than 360 days and the carrying amounts of variable-rate medium-term notes approximate their respective fair values, a one percentage point change in the interest rates would not result in a material change in the fair value of our debt and investments portfolio.

In July 2005, we issued \$400 million of 5.500% Senior Notes due 2035. As of Aug. 31, 2013, the fair value was \$441 million. A 1 percentage point change in the interest rates would change the fair value by \$64 million.

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In August 2005, we issued \$314 million of 5.500% Senior Notes due 2025. As of Aug. 31, 2013, the fair value was \$363 million. A 1 percentage point change in the interest rates would change the fair value by \$34 million.

In April 2008, we issued \$300 million of 5.125% Senior Notes due 2018. As of Aug. 31, 2013, the fair value was \$339 million. A 1 percentage point change in the interest rates would change the fair value by \$15 million.

In April 2008, we issued \$250 million of 5.875% Senior Notes due 2038. As of Aug. 31, 2013, the fair value was \$299 million. A 1 percentage point change in the interest rates would change the fair value by \$46 million.

In April 2011, we issued \$300 million of 2.750% Senior Notes due 2016. As of Aug. 31, 2013, the fair value was \$312 million. A 1 percentage point change in the interest rates would change the fair value by \$18 million.

In July 2012, we issued \$250 million of 2.200% Senior Notes due 2022. As of Aug. 31, 2013, the fair value was \$227 million. A 1 percentage point change in the interest rates would change the fair value by \$19 million.

In July 2012, we issued \$250 million of 3.600% Senior Notes due 2042. As of Aug. 31, 2013, the fair value was \$212 million. A 1 percentage point change in the interest rates would change the fair value by \$40 million.

**Foreign Currency Fluctuations:** In managing foreign currency risk, we focus on reducing the volatility in consolidated cash flows and earnings caused by fluctuations in exchange rates. We may use foreign currency forward exchange contracts, foreign currency options and economic hedges to manage the net currency exposure, in accordance with established hedging policies. We may hedge recorded commercial transaction exposures, intercompany loans, net investments in foreign subsidiaries and forecasted transactions. The company's significant hedged positions included the European euro, the Mexican peso, the Brazilian real, the Canadian dollar, the Australian dollar, and the Argentine peso. Unfavorable currency movements of 10 percent would negatively affect the fair values of the derivatives held to hedge currency exposures by \$115 million.

**Changes in Commodity Prices:** We use futures contracts to protect the company against commodity price increases and use option contracts to limit the unfavorable effect that price changes could have on these purchases. Our futures contracts are accounted for as cash flow hedges and are mainly in the Seeds and Genomics segment. Our option contracts do not qualify for hedge accounting under the provisions specified by the Derivatives and Hedging topic of the ASC. The majority of these contracts hedge the committed or future purchases of, and the carrying value of payables to growers for, soybean and corn inventories. In addition, we collect payments on certain customer accounts in grain, and enter into forward sales contracts to mitigate the commodity price exposure. A 10 percent decrease in the prices would have a negative effect on the fair value of these instruments of \$73 million. We also use natural gas, diesel and ethylene swaps to manage energy input costs and raw material costs. A 10 percent decrease in the price of these swaps would have a negative effect on the fair value of these instruments of \$10 million.

**Changes in Equity Securities Prices:** We also have investments in marketable equity securities. All such investments are classified as long-term available-for-sale investments. The fair value of these investments is \$22 million as of Aug. 31, 2013. These securities are listed on a stock exchange, quoted in an over-the-counter market or measured using an independent pricing source and adjusted for expected future credit losses. If the market price of the marketable equity securities should decrease by 10 percent, the fair value of the equities would decrease by \$2 million. See Note 12 — Investments and Equity Affiliates — for further details.

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## ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

## Management Report

Monsanto Company's management is responsible for the fair presentation and consistency, in accordance with accounting principles generally accepted in the United States of America, of all the financial information included in this Form 10-K. Where necessary, the information reflects management's best estimates and judgments.

Management is also responsible for establishing and maintaining an effective system of internal control over financial reporting. The purpose of this system is to provide reasonable assurance that Monsanto's assets are safeguarded against material loss from unauthorized acquisition, use or disposition, that authorized transactions are properly recorded to permit the preparation of accurate financial information in accordance with generally accepted accounting principles, that records are maintained which accurately and fairly reflect the transactions and dispositions of the company, and that receipts and expenditures are being made only in accordance with authorizations of management and directors of the company. This system of internal control over financial reporting is supported by formal policies and procedures, including a Business Conduct program designed to encourage and assist employees in living up to high standards of integrity, as well as a Code of Ethics for Chief Executive and Senior Financial Officers. Management seeks to maintain the effectiveness of internal control over financial reporting by careful personnel selection and training, division of responsibilities, establishment and communication of policies, and ongoing internal reviews and audits. See Management's Annual Report on Internal Control over Financial Reporting for Management's conclusion of the effectiveness of Monsanto's internal control over financial reporting as of Aug. 31, 2013.

Monsanto's consolidated financial statements have been audited by Deloitte & Touche LLP, independent registered public accounting firm. Their audits were conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States), and included a test of financial controls, tests of accounting records, and such other procedures as they considered necessary in the circumstances.

The Audit and Finance Committee, composed entirely of outside directors, meets regularly with management, with the internal auditors and with the independent registered public accounting firm to review accounting, financial reporting, auditing and internal control matters. The committee has direct and private access to the registered public accounting firm and internal auditors.

/s/ Hugh Grant

Hugh Grant

Chairman and Chief Executive Officer

/s/ Pierre Courduroux

Pierre Courduroux

Senior Vice President and Chief Financial Officer

Oct. 23, 2013

MONSANTO COMPANY

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**Management's Annual Report on Internal Control over Financial Reporting**

Management of Monsanto Company is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Under the supervision and with the participation of our management, including the Chief Executive Officer and the Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework and criteria established in Internal Control — Integrated Framework (1992), issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In conducting our evaluation of the effectiveness of our internal control over financial reporting as of Aug. 31, 2013, we have excluded the acquisitions of GrassRoots Biotechnology, Inc. and certain assets and manufacturing capabilities of Dieckmann GmbH & Co.KG, as permitted by the guidance issued by the Office of the Chief Accountant of the Securities and Exchange Commission. The acquisitions were completed in the third and fourth quarters, respectively, of 2013 and in total constituted less than one percent of total assets as of Aug. 31, 2013, and less than one percent of total revenues for the fiscal year then ended. See Note 4 – Business Combinations – for further discussion of this acquisition and its impact on Monsanto's Consolidated Financial Statements.

Based on our evaluation under the COSO framework, management concluded that the company maintained effective internal control over financial reporting as of Aug. 31, 2013.

The company's independent registered public accounting firm, Deloitte & Touche LLP, was appointed by the Audit and Finance Committee of the company's Board of Directors, and ratified by the company's shareowners. Deloitte & Touche LLP has audited and reported on the Consolidated Financial Statements of Monsanto Company and subsidiaries and the effectiveness of the company's internal control over financial reporting. The reports of the independent registered public accounting firm are contained in Item 8 of this Annual Report.

/s/ Hugh Grant

Hugh Grant

Chairman and Chief Executive Officer

/s/ Pierre Courduroux

Pierre Courduroux

Senior Vice President and Chief Financial Officer

Oct. 23, 2013



MONSANTO COMPANY

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## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareowners of Monsanto Company:

We have audited the internal control over financial reporting of Monsanto Company and subsidiaries (the "Company") as of August 31, 2013, based on criteria established in Internal Control - Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission. As described in Management's Annual Report on Internal Control over Financial Reporting, management excluded from its assessment the internal control over financial reporting of GrassRoots Biotechnology, Inc. and Dieckmann GmbH & Co. KG which were acquired in the third and fourth quarter of 2013, respectively, and whose financial statements constitute less than one percent of total assets as of August 31, 2013 and less than one percent of total revenues for the year ended August 31, 2013.

Accordingly, our audit did not include the internal control over financial reporting at GrassRoots Biotechnology, Inc. and Dieckmann GmbH & Co. KG. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of August 31, 2013, based on the criteria established in Internal Control - Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the statement of consolidated financial position as of August 31, 2013 and the related statements of consolidated operations, comprehensive income, cash flows, and shareowners' equity for the year ended August 31, 2013, of the Company and our report dated October 23, 2013 expressed an unqualified opinion on those financial statements.

/s/ DELOITTE & TOUCHE LLP

St. Louis, Missouri

Oct. 23, 2013



MONSANTO COMPANY

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareowners of Monsanto Company:

We have audited the accompanying statements of consolidated financial position of Monsanto Company and subsidiaries (the "Company") as of August 31, 2013 and 2012, and the related statements of consolidated operations, comprehensive income, cash flows and shareowners' equity for each of the three years in the period ended August 31, 2013. 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 the standards of the Public Company Accounting Oversight Board (United States). 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 Monsanto Company and subsidiaries as of August 31, 2013 and 2012, and the results of their operations and their cash flows for each of the three years in the period ended August 31, 2013, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of August 31, 2013, based on the criteria established in Internal Control-Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated October 23, 2013 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ DELOITTE & TOUCHE LLP

St. Louis, Missouri

Oct. 23, 2013

## MONSANTO COMPANY

## 2013 FORM 10-K

## Statements of Consolidated Operations

(Dollars in millions, except per share amounts)	Year Ended Aug. 31,		
	2013	2012	2011
Net Sales	\$14,861	\$13,504	\$11,822
Cost of goods sold	7,208	6,459	5,743
Gross Profit	7,653	7,045	6,079
Operating Expenses:			
Selling, general and administrative expenses	2,550	2,390	2,190
Research and development expenses	1,533	1,517	1,386
Restructuring charges, net	—	(10	) 1
Total Operating Expenses	4,083	3,897	3,577
Income from Operations	3,570	3,148	2,502
Interest expense	172	191	162
Interest income	(92	) (77	) (74
Other expense, net	61	46	40
Income from Continuing Operations Before Income Taxes	3,429	2,988	2,374
Income tax provision	915	901	717
Income from Continuing Operations Including Portion Attributable to Noncontrolling Interest	2,514	2,087	1,657
Discontinued Operations:			
Income from operations of discontinued businesses	17	10	3
Income tax provision	6	4	1
Income on Discontinued Operations	11	6	2
Net Income	2,525	2,093	1,659
Less: Net income attributable to noncontrolling interest	43	48	52
Net Income Attributable to Monsanto Company	\$2,482	\$2,045	\$1,607
Amounts Attributable to Monsanto Company:			
Income from continuing operations	\$2,471	\$2,039	\$1,605
Income on discontinued operations	11	6	2
Net Income Attributable to Monsanto Company	\$2,482	\$2,045	\$1,607
Basic Earnings per Share Attributable to Monsanto Company:			
Income from continuing operations	\$4.63	\$3.82	\$2.99
Income on discontinued operations	0.02	0.01	0.01
Net Income Attributable to Monsanto Company	\$4.65	\$3.83	\$3.00
Diluted Earnings per Share Attributable to Monsanto Company:			
Income from continuing operations	\$4.58	\$3.78	\$2.96
Income on discontinued operations	0.02	0.01	—
Net Income Attributable to Monsanto Company	\$4.60	\$3.79	\$2.96
Weighted Average Shares Outstanding:			
Basic	533.7	534.1	536.5
Diluted	539.7	540.2	542.4

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

## MONSANTO COMPANY

## 2013 FORM 10-K

## Statements of Consolidated Comprehensive Income

(Dollars in millions)	Year Ended Aug. 31,		
	2013	2012	2011
Comprehensive Income Attributable to Monsanto Company			
Net Income Attributable to Monsanto Company	\$2,482	\$2,045	\$1,607
Other Comprehensive (Loss) Income, Net of Tax:			
Foreign currency translation, net of tax of \$(24), \$0 and \$0, respectively	(229	) (872	) 510
Postretirement benefit plan activity, net of tax of \$80, \$(10) and \$98, respectively	128	(19	) 160
Unrealized net gains (losses) on investment holdings, net of tax of \$4, \$0 and \$0, respectively	9	—	—
Realized net (gains) losses on investment holdings, net of tax of \$(3), \$3 and \$0, respectively	(6	) 5	—
Unrealized net derivative (losses) gains, net of tax of \$(45), \$6 and \$77, respectively	(78	) 16	110
Realized net derivative (gains) losses, net of tax of \$(39), \$(35) and \$5, respectively	(66	) (50	) 1
Total Other Comprehensive (Loss) Income, Net of Tax	(242	) (920	) 781
Comprehensive Income Attributable to Monsanto Company	2,240	1,125	2,388
Comprehensive Income Attributable to Noncontrolling Interests			
Net Income Attributable to Noncontrolling Interests	43	48	52
Other Comprehensive Income (Loss), Net of Tax:			
Foreign currency translation	(27	) (40	) 4
Total Other Comprehensive (Loss) Income, Net of Tax	(27	) (40	) 4
Comprehensive Income Attributable to Noncontrolling Interests	16	8	56
Total Comprehensive Income	\$2,256	\$1,133	\$2,444

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

## MONSANTO COMPANY

## 2013 FORM 10-K

## Statements of Consolidated Financial Position

	As of Aug. 31,	
(Dollars in millions, except share amounts)	2013	2012
Assets		
Current Assets:		
Cash and cash equivalents (variable interest entities restricted - 2013: \$140 and 2012: \$120)	\$3,668	\$3,283
Short-term investments	254	302
Trade receivables, net (variable interest entities restricted - 2013: \$0 and 2012: \$52)	1,715	1,897
Miscellaneous receivables	748	620
Deferred tax assets	579	534
Inventory, net	2,947	2,839
Other current assets	166	183
Total Current Assets	10,077	9,658
Total property, plant and equipment	9,491	8,835
Less: Accumulated depreciation	4,837	4,470
Property, Plant and Equipment, Net	4,654	4,365
Goodwill	3,520	3,435
Other Intangible Assets, Net	1,226	1,237
Noncurrent Deferred Tax Assets	454	551
Long-Term Receivables, Net	237	376
Other Assets	496	602
Total Assets	\$20,664	\$20,224
Liabilities and Shareowners' Equity		
Current Liabilities:		
Short-term debt, including current portion of long-term debt	\$51	\$36
Accounts payable	995	794
Income taxes payable	91	75
Accrued compensation and benefits	492	546
Accrued marketing programs	1,078	1,281
Deferred revenues	517	396
Grower production accruals	60	194
Dividends payable	228	200
Customer payable	12	14
Miscellaneous short-term accruals	812	685
Total Current Liabilities	4,336	4,221
Long-Term Debt	2,061	2,038
Postretirement Liabilities	357	543
Long-Term Deferred Revenue	138	245
Noncurrent Deferred Tax Liabilities	469	313
Long-Term Portion of Environmental and Litigation Liabilities	193	213
Other Liabilities	382	615
Shareowners' Equity:		
Common stock (authorized: 1,500,000,000 shares, par value \$0.01)		
Issued 601,631,267 and 596,136,929 shares, respectively		
Outstanding 529,029,712 and 534,373,880 shares, respectively	6	6
Treasury stock 72,601,555 and 61,763,049 shares, respectively, at cost	(4,140	) (3,045
Additional contributed capital	10,783	10,371
Retained earnings	7,188	5,537

Accumulated other comprehensive loss	(1,278	) (1,036	)
Total Monsanto Company Shareowners' Equity	12,559	11,833	
Noncontrolling Interest	169	203	
Total Shareowners' Equity	12,728	12,036	
Total Liabilities and Shareowners' Equity	\$20,664	\$20,224	
The accompanying notes are an integral part of these consolidated financial statements.			

## MONSANTO COMPANY

## 2013 FORM 10-K

## Statements of Consolidated Cash Flows

	Year Ended Aug. 31,		
(Dollars in millions)	2013	2012	2011
Operating Activities:			
Net Income	\$2,525	\$2,093	\$1,659
Adjustments to reconcile cash provided by operating activities:			
Items that did not require (provide) cash:			
Depreciation and amortization	615	622	613
Bad-debt expense	27	3	3
Stock-based compensation expense	100	128	104
Excess tax benefits from stock-based compensation	(79)	) (50	) (36 )
Deferred income taxes	176	263	124
Restructuring charges, net	—	(10	) 1
Equity affiliate income, net	(17)	) (19	) (21 )
Net gain on sales of a business or other assets	(17)	) (4	) (5 )
Other items, net	(77)	) 2	18
Changes in assets and liabilities that provided (required) cash, net of acquisitions:			
Trade receivables, net	222	170	(347 )
Inventory, net	(192)	) (427	) 181
Deferred revenues	50	(39	) 85
Accounts payable and other accrued liabilities	(104)	) 439	586
Restructuring cash payments	—	(12	) (183 )
Pension contributions	(75)	) (83	) (291 )
Other items, net	(414)	) (25	) 323
Net Cash Provided by Operating Activities	2,740	3,051	2,814
Cash Flows Provided (Required) by Investing Activities:			
Purchases of short-term investments	(716)	) (746	) (732 )
Maturities of short-term investments	764	746	430
Capital expenditures	(741)	) (646	) (540 )
Acquisition of businesses, net of cash acquired	(165)	) (322	) (99 )
Technology and other investments	(88)	) (77	) (55 )
Other investments and property disposal proceeds	169	11	21
Net Cash Required by Investing Activities	(777)	) (1,034	) (975 )
Cash Flows Provided (Required) by Financing Activities:			
Net change in financing with less than 90-day maturities	104	(116	) 69
Short-term debt proceeds	22	30	84
Short-term debt reductions	(29)	) (42	) (74 )
Long-term debt proceeds	32	499	299
Long-term debt reductions	(2)	) (629	) (193 )
Payments on other financing	—	—	(1 )
Debt issuance costs	—	(5	) (5 )
Treasury stock purchases	(1,095)	) (432	) (502 )
Stock option exercises	257	117	65
Excess tax benefits from stock-based compensation	79	50	36
Tax withholding on restricted stock and restricted stock units	(10)	) (19	) (4 )
Dividend payments	(802)	) (642	) (602 )
Proceeds from noncontrolling interest	133	101	69
Dividend payments to noncontrolling interests	(174)	) (77	) (105 )



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Net Cash Required by Financing Activities	(1,485	) (1,165	) (864	)
Cash Assumed from Initial Consolidations of Variable Interest Entities	—	—	77	
Effect of Exchange Rate Changes on Cash and Cash Equivalents	(93	) (141	) 35	
Net Increase in Cash and Cash Equivalents	385	711	1,087	
Cash and Cash Equivalents at Beginning of Period	3,283	2,572	1,485	
Cash and Cash Equivalents at End of Period	\$3,668	\$3,283	\$2,572	

See Note 1 — Background and Basis of Presentation and Note 25 — Supplemental Cash Flow Information for further details.

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

## MONSANTO COMPANY

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## Statements of Consolidated Shareowners' Equity

## Monsanto Shareowners

(Dollars in millions, except per share data)	Common Stock	Treasury Stock	Additional Contributed Capital	Retained Earnings	Accumulated Other Comprehensive (Loss) <sup>(1)</sup>	Reserve for ESOP Debt	Non- Controlling Interest	Total
Balance Aug. 31, 2010	\$6	\$(2,110 )	\$ 9,896	\$3,178	\$ (897 )	\$ (4 )	\$ 44	\$10,113
Net income	—	—	—	1,607	—	—	52	1,659
Other comprehensive income for 2011	—	—	—	—	781	—	4	785
Treasury stock purchases	—	(503 )	—	—	—	—	—	(503 )
Restricted stock withholding	—	—	(4 )	—	—	—	—	(4 )
Issuance of shares under employee stock plans	—	—	65	—	—	—	—	65
Excess tax benefits from stock-based compensation	—	—	36	—	—	—	—	36
Stock-based compensation expense	—	—	103	—	—	—	—	103
Cash dividends of \$1.14 per common share	—	—	—	(611 )	—	—	—	(611 )
Dividend payments to noncontrolling interest	—	—	—	—	—	—	(105 )	(105 )
Allocation of ESOP shares, net of dividends received	—	—	—	—	—	2	—	2
Proceeds from noncontrolling interest	—	—	—	—	—	—	69	69
Consolidation of VIEs	—	—	—	—	—	—	107	107
Balance Aug. 31, 2011	\$6	\$(2,613 )	\$ 10,096	\$4,174	\$ (116 )	\$ (2 )	\$ 171	\$11,716
Net income	—	—	—	2,045	—	—	48	2,093
Other comprehensive loss for 2012	—	—	—	—	(920 )	—	(40 )	(960 )
Treasury stock purchases	—	(432 )	—	—	—	—	—	(432 )
Restricted stock withholding	—	—	(19 )	—	—	—	—	(19 )
Issuance of shares under employee stock plans	—	—	117	—	—	—	—	117
Excess tax benefits from stock-based compensation	—	—	50	—	—	—	—	50
Stock-based compensation expense	—	—	127	—	—	—	—	127
Cash dividends of \$1.28 per common share	—	—	—	(682 )	—	—	—	(682 )
Dividend payments to noncontrolling interest	—	—	—	—	—	—	(77 )	(77 )
	—	—	—	—	—	2	—	2

Allocation of ESOP  
shares, net of dividends  
received

Proceeds from noncontrolling interest	—	—	—	—	—	—	101	101
Balance Aug. 31, 2012	\$6	\$(3,045 )	\$ 10,371	\$5,537	\$(1,036 )	\$—	\$ 203	\$12,036
Net income	—	—	—	2,482	—	—	43	2,525
Other comprehensive loss for 2013	—	—	—	—	(242 )	—	(27 )	(269 )
Treasury stock purchases	—	(1,095 )	—	—	—	—	—	(1,095 )
Restricted stock withholding	—	—	(10 )	—	—	—	—	(10 )
Issuance of shares under employee stock plans	—	—	257	—	—	—	—	257
Excess tax benefits from stock-based compensation	—	—	69	—	—	—	—	69
Stock-based compensation expense	—	—	97	—	—	—	—	97
Cash dividends of \$1.56 per common share	—	—	—	(831 )	—	—	—	(831 )
Dividend payments to noncontrolling interest	—	—	—	—	—	—	(174 )	(174 )
Acquisition of noncontrolling interest	—	—	(1 )	—	—	—	(9 )	(10 )
Proceeds from noncontrolling interest	—	—	—	—	—	—	133	133
Balance Aug. 31, 2013	\$6	\$(4,140 )	\$ 10,783	\$7,188	\$(1,278 )	\$—	\$ 169	\$12,728

(1) See Note 23 — Accumulated Other Comprehensive Loss — for further details of the components of accumulated other comprehensive loss.

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

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## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## NOTE 1. BACKGROUND AND BASIS OF PRESENTATION

Monsanto Company, along with its subsidiaries, is a leading global provider of agricultural products for farmers. Monsanto's seeds, biotechnology trait products and herbicides provide farmers with solutions that improve productivity, reduce the costs of farming and produce better foods for consumers and better feed for animals. Monsanto manages its business in two segments: Seeds and Genomics and Agricultural Productivity. Through the Seeds and Genomics segment, Monsanto produces leading seed brands, including DEKALB, Asgrow, Deltapine, Seminis and De Ruiter, and Monsanto develops biotechnology traits that assist farmers in controlling insects and weeds. Monsanto also provides other seed companies with genetic material and biotechnology traits for their seed brands. Through the Agricultural Productivity segment, the company manufactures Roundup and Harness brand herbicides and other herbicides. See Note 27 — Segment and Geographic Data — for further details.

In the fourth quarter of 2008, the company announced plans to divest its animal agricultural products business, which focused on dairy cow productivity (the Dairy business) and was previously reported as part of the Agricultural Productivity segment. This transaction was consummated on Oct. 1, 2008. As a result, financial data for this business has been presented as discontinued operations.

Certain reclassifications of prior year amounts within the operating activities section of the Statements of Consolidated Cash Flows have been made to conform to current year presentation. The company has evaluated the impact and does not consider the reclassifications to be material to the consolidated financial statements.

Unless otherwise indicated, "Monsanto" and "the company" are used interchangeably to refer to Monsanto Company or to Monsanto Company and its consolidated subsidiaries, as appropriate to the context.

## NOTE 2. SIGNIFICANT ACCOUNTING POLICIES

## Basis of Consolidation

The accompanying consolidated financial statements of Monsanto and its subsidiaries were prepared in accordance with generally accepted accounting principles in the United States of America ("GAAP") and include the assets, liabilities, revenues and expenses of all majority-owned subsidiaries over which the company exercises control and, when applicable, entities for which the company has a controlling financial interest or is the primary beneficiary. Intercompany accounts and transactions have been eliminated in consolidation. The company records income attributable to noncontrolling interest in the Statements of Consolidated Operations for any non-owned portion of consolidated subsidiaries. Noncontrolling interest is recorded within the equity section but separate from Monsanto's equity in the Statements of Consolidated Financial Position.

## Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make certain estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Estimates are adjusted to reflect actual experience when necessary. Significant estimates and assumptions affect many items in the financial statements. These include allowance for doubtful trade receivables, sales returns and allowances, inventory obsolescence, income tax liabilities and assets and related valuation allowances, asset impairments, valuations of goodwill and other intangible assets, employee benefit plan assets and liabilities, value of equity-based awards, customer incentive program liabilities, grower accruals (an estimate of amounts payable to farmers who grow seed for Monsanto), restructuring reserves, self-insurance reserves, environmental reserves, deferred revenue, contingencies, litigation, incentives and the allocation of corporate costs to segments. Significant estimates and assumptions are also used to establish the fair value and useful lives of depreciable tangible and certain intangible assets. Actual results may differ from those estimates and assumptions, and such results may affect income, financial position, or cash flows.

## Revenue Recognition

The company derives most of its revenue from three main sources: sales of branded conventional seed and branded seed with biotechnology traits; royalties and license revenues from licensed biotechnology traits and genetic material; and sales of agricultural chemical products. Monsanto follows the Revenue Recognition topic of the ASC.



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## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (continued)

Revenues from all seed sales are recognized when the title to the products is transferred. The company recognizes revenue on products it sells to distributors when, according to the terms of the sales agreement, delivery has occurred, performance is complete, expected returns can be reasonably estimated and pricing is fixed or determinable at the time of sale. When the right of return exists in the company's seed business, sales revenues are reduced at the time of sale to reflect expected returns. In order to estimate the expected returns, management analyzes historical returns, economic trends, market conditions and changes in customer demand.

The Revenue Recognition topic of the ASC affects Monsanto's recognition of license revenues from biotechnology traits sold through third-party seed companies. The company may enter into multiple element arrangements, including those where a customer purchases technology and licenses. When elements of a multiple element arrangement do not have stand alone value, we account for such elements as a combined unit of accounting. We allocate revenue to each unit of accounting in a multiple element arrangement based upon the relative selling price of each deliverable. When applying the relative selling price method, we determine the selling price for each deliverable by using vendor-specific objective evidence ("VSOE") of selling price, if it exists, or third-party evidence ("TPE") of selling price. If neither VSOE nor TPE of selling price exist for a unit of accounting, we use our best estimate of selling price for that unit of accounting. When we use our best estimate to determine selling price, significant judgment is required. The significant assumptions used to estimate selling price for significant units of accounting may consist of cost, gross margin objectives or forecasted customer selling volumes. Changes in assumptions used to estimate selling price could result in a different allocation of arrangement consideration across the units of accounting within an arrangement. Revenue allocated to each unit of accounting is recognized when all revenue recognition criteria for that unit of accounting has been met. License revenue, including those within multiple element arrangements, is generally recognized over the contract period as third-party seed companies sell seed containing Monsanto traits, which can be from one year up to the related patent term.

Primarily in Brazil, Monsanto has a point-of-delivery collection system for certain royalties for soybeans and cotton to record revenue when the grain containing our technology is delivered and commercialized at the grain handlers and the collection cycle is complete.

Revenues for agricultural chemical products are recognized when title to the products is transferred. The company recognizes revenue on products it sells to distributors when, according to the terms of the sales agreements, delivery has occurred, performance is complete, no right of return exists and pricing is fixed or determinable at the time of sale. There are several additional conditions for recognition of revenue including that the collection of sales proceeds must be reasonably assured based on historical experience and current market conditions and that there must be no consequential remaining performance obligations under the sale or the royalty or license agreement.

To reduce credit exposure primarily in Latin America, Monsanto collects payments on certain customer accounts in grain. In those circumstances in Argentina when Monsanto participates in the negotiation of the forward sales contract, Monsanto records revenue and related cost of sale for the grain on a net basis. In those circumstances in Brazil when Monsanto does not participate in the negotiation of the forward sales contract and does not take physical custody of the grain or assume the associated inventory risk, Monsanto does not record revenue or the related cost of sales for the grain. Such payments in grain are negotiated at or near the time Monsanto's products are sold to the customers and are valued at the prevailing grain commodity prices. By entering into forward sales contracts with grain merchants, Monsanto mitigates the commodity price exposure from the time a contract is signed with a customer until the time a grain merchant collects the grain from the customer on Monsanto's behalf. The grain merchant converts the grain to cash for Monsanto. These forward sales contracts do not qualify for hedge accounting under the Derivatives and Hedging topic of the ASC. Accordingly, the gain or loss on these derivatives is recognized in current earnings.

#### Promotional, Advertising and Customer Incentive Program Costs

Promotional and advertising costs are expensed as incurred and are included in selling, general and administrative expenses in the Statements of Consolidated Operations. Advertising costs were \$95 million, \$87 million and \$100 million in 2013, 2012 and 2011, respectively. Customer incentive program costs are recorded in accordance with the Revenue Recognition topic of the ASC, based on specific performance criteria met by our customers, such as purchase

volumes, promptness of payment and market share increases. The cost of customer incentive programs is generally recorded in net sales in the Statements of Consolidated Operations. As actual customer incentive program expenses are not known at the time of the sale, an estimate based on the best available information (such as historical experience and market research) is used as a basis for recording customer incentive program liabilities. Management analyzes and reviews the customer incentive program balances on a quarterly basis and adjustments are recorded as appropriate. Under certain customer incentive programs, product performance

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## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (continued)

and variations in weather can result in free product to customers. The associated cost of this free product is recognized as cost of goods sold in the Statements of Consolidated Operations.

**Research and Development Costs**

The company accounts for research and development (R&D) costs in accordance with the Research and Development topic of the ASC. Under the Research and Development topic of the ASC, all R&D costs must be charged to expense as incurred. Accordingly, internal R&D costs are expensed as incurred. Third-party R&D costs are expensed when the contracted work has been performed or as milestone results are achieved. Acquired in process research and development (IPR&D) costs without alternative uses are recorded on the Statements of Consolidated Financial Position as indefinite-lived intangible assets. The costs of purchased IPR&D that have alternative future uses are capitalized and amortized over the estimated useful life of the asset. The costs associated with equipment or facilities acquired or constructed for R&D activities that have alternative future uses are capitalized and depreciated on a straight-line basis over the estimated useful life of the asset. The amortization and depreciation for such capitalized assets are charged to R&D expenses. In fiscal year 2007, Monsanto and BASF announced a long-term joint R&D and commercialization collaboration in plant technology that focuses on high-yielding crops and crops that are tolerant to adverse conditions. The collaboration resulted in shared R&D costs. Only Monsanto's portion has been included in research and development expenses in the Statements of Consolidated Operations.

**Income Taxes**

Deferred tax assets and liabilities are recognized for the expected tax consequences of temporary differences between the tax bases of assets and liabilities and their reported amounts. Management regularly assesses the likelihood that deferred tax assets will be recovered from future taxable income, and to the extent management believes that it is more likely than not that a deferred tax asset will not be realized, a valuation allowance is established. When a valuation allowance is established, increased or decreased, an income tax charge or benefit is included in the consolidated financial statements and net deferred tax assets are adjusted accordingly. The net deferred tax assets as of Aug. 31, 2013, represent the estimated future tax benefits to be received from taxing authorities or future reductions of taxes payable.

Under the Income Tax topic of the ASC, in order to recognize an uncertain tax benefit, the taxpayer must be more likely than not of sustaining the position, and the measurement of the benefit is calculated as the largest amount that is more than 50 percent likely to be realized upon resolution of the benefit. Tax authorities regularly examine the company's returns in the jurisdictions in which Monsanto does business. Management regularly assesses the tax risk of the company's return filing positions and believes its accruals for uncertain tax benefits are adequate as of Aug. 31, 2013, and Aug. 31, 2012.

**Cash and Cash Equivalents**

All highly liquid investments (defined as investments with a maturity of 3 months or less when purchased) are considered cash equivalents.

**Inventory Valuation and Obsolescence**

Inventories are stated at the lower of cost or market, and an inventory reserve would permanently reduce the cost basis of inventory. Inventories are valued as follows:

**Seeds and Genomics:** Actual cost is used to value raw materials such as treatment chemicals and packaging, as well as goods in process. Costs for substantially all finished goods, which include the cost of carryover crops from the previous year, are valued at weighted-average actual cost. Weighted-average actual cost includes field growing and harvesting costs, plant conditioning and packaging costs, and manufacturing overhead costs.

**Agricultural Productivity:** Actual cost is used to value raw materials and supplies. Standard cost, which approximates actual cost, is used to value finished goods and goods in process. Variances, exclusive of abnormally low volume and operating performance, are capitalized into inventory. Standard cost includes direct labor and raw materials, and manufacturing overhead based on normal capacity. The cost of the Agricultural Productivity segment inventories in the United States (approximately 9 percent of total company inventory as of Aug. 31, 2013, and 8 percent as of Aug.



31, 2012) is determined by using the last-in, first-out (LIFO) method, which generally reflects the effects of inflation or deflation on cost of goods sold sooner than other inventory cost methods. The cost of inventories outside of the United States, as well as supplies inventories in the United States, is determined by using the first-in, first-out (FIFO) method; FIFO is used outside

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## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (continued)

of the United States because the requirements in the countries where Monsanto maintains inventories generally do not allow the use of the LIFO method. Inventories at FIFO approximate current cost.

In accordance with the Inventory topic of the ASC, Monsanto records abnormal amounts of idle facility expense, freight, handling costs and wasted material (spoilage) as current period charges and allocates fixed production overhead to the costs of conversion based on the normal capacity of the production facilities.

Monsanto establishes allowances for obsolescence of inventory equal to the difference between the cost of inventory (if higher) and the estimated market value, based on assumptions about future demand and market conditions. The company regularly evaluates the adequacy of our inventory obsolescence reserves. If economic and market conditions are different from those anticipated, inventory obsolescence could be materially different from the amounts provided for in the company's consolidated financial statements. If inventory obsolescence is higher than expected, cost of goods sold will be increased, and inventory, net income, and shareowners' equity will be reduced.

#### Goodwill

Monsanto follows the guidance of the Business Combinations topic of the ASC, in recording the goodwill arising from a business combination as the excess of purchase price and related costs over the fair value of identifiable assets acquired and liabilities assumed.

Under the Intangibles – Goodwill and Other topic of the ASC, goodwill is not amortized and is subject to annual impairment tests. A fair-value-based test is applied at the reporting unit level, which is generally at or one level below the operating segment level. The test compares the fair value of the company's reporting units to the carrying value of those reporting units. This test requires various judgments and estimates. The fair value of goodwill is determined using an estimate of future cash flows of the reporting unit and a risk-adjusted discount rate to compute a net present value of future cash flows. An adjustment to goodwill will be recorded for any goodwill that is determined to be impaired. Impairment of goodwill is measured as the excess of the carrying amount of goodwill over the fair values of recognized assets and liabilities of the reporting unit. Goodwill is tested for impairment at least annually, or more frequently if events or circumstances indicate it might be impaired. Goodwill was last tested for impairment as of Mar. 1, 2013. See Note 11 — Goodwill and Other Intangible Assets — for further discussion of the annual impairment test.

#### Other Intangible Assets

Other intangible assets consist primarily of acquired seed germplasm, acquired intellectual property, trademarks and customer relationships. Seed germplasm is the genetic material used in new seed varieties. Germplasm is amortized on a straight-line basis over useful lives ranging from 5 years for completed technology germplasm to a maximum of 30 years for certain core technology germplasm. Completed technology germplasm consists of seed hybrids and varieties that are commercially available. Core technology germplasm is the collective germplasm of inbred and hybrid seeds and has a longer useful life as it is used to develop new seed hybrids and varieties. Acquired intellectual property includes intangible assets related to acquisitions and licenses through which Monsanto has acquired the rights to various research and discovery technologies. These encompass intangible assets such as enabling processes and data libraries necessary to support the integrated genomics and biotechnology platforms. These intangible assets have alternative future uses and are amortized over useful lives ranging from 3 to 18 years. The useful lives of acquired germplasm and acquired intellectual property are determined based on consideration of several factors including the nature of the asset, its expected use, length of licensing agreement or patent and the period over which benefits are expected to be received from the use of the asset.

Monsanto has a broad portfolio of trademarks and patents, including trademarks for Roundup (for herbicide products); Roundup Ready, Bollgard, Bollgard II, YieldGard, YieldGard VT, Roundup Ready 2 Yield and SmartStax (for traits); DEKALB, Asgrow, Deltapine and Vistive (for agricultural seeds); Seminis and De Ruiters (for vegetable seeds); and patents for our insect-protection traits, formulations used to make our herbicides and various manufacturing processes. The amortization period for trademarks and patents ranges from 1 to 30 years. Trademarks are amortized on a straight-line basis over their useful lives. The useful life of a trademark is determined based on the estimated market-life of the associated company, brand or product. Patents are amortized on a straight-line basis over the period

in which the patent is legally protected, the period over which benefits are expected to be received, or the estimated market-life of the product with which the patent is associated, whichever is shorter.

In conjunction with acquisitions, Monsanto obtains access to the distribution channels and customer relationships of the acquired companies. These relationships are expected to provide economic benefits to Monsanto. The amortization period for customer relationships ranges from 2 to 20 years, and amortization is recognized on a straight-line basis over these periods. The

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## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (continued)

amortization period of customer relationships represents management's best estimate of the expected usage or consumption of the economic benefits of the acquired assets, which is based on the company's historical experience of customer attrition rates.

In accordance with the Intangibles – Goodwill and Other topic of the ASC, all amortizable intangible assets are assessed for impairment whenever events indicate a possible loss. Such an assessment involves estimating undiscounted cash flows over the remaining useful life of the intangible. If the review indicates that undiscounted cash flows are less than the recorded value of the intangible asset, the carrying amount of the intangible is reduced by the estimated cash-flow shortfall on a discounted basis, and a corresponding loss is charged to the Statement of Consolidated Operations. See Note 11 — Goodwill and Other Intangible Assets — for further discussion of Monsanto's intangible assets.

**Property, Plant and Equipment**

Property, plant and equipment is recorded at cost. Additions and improvements are capitalized; these include all material, labor and engineering costs to design, install or improve the asset and interest costs on construction projects. Such costs are not depreciated until the assets are placed in service. Routine repairs and maintenance are expensed as incurred. The cost of plant and equipment is depreciated using the straight-line method over the estimated useful life of the asset — weighted-average periods of approximately 25 years for buildings, 10 years for machinery and equipment and 5 years for software. In compliance with the Property, Plant and Equipment topic of the ASC, long-lived assets are reviewed for impairment whenever in management's judgment conditions indicate a possible loss. Such impairment tests compare estimated undiscounted cash flows to the recorded value of the asset. If an impairment is indicated, the asset is written down to its fair value or, if fair value is not readily determinable, to an estimated fair value based on discounted cash flows.

**Asset Retirement Obligations and Environmental Remediation Liabilities**

Monsanto follows the Asset Retirement and Environmental Obligations topic of the ASC, which addresses financial accounting for and reporting of costs and obligations associated with the retirement of tangible long-lived assets.

Monsanto has asset retirement obligations with carrying amounts totaling \$86 million and \$79 million as of Aug. 31, 2013, and Aug. 31, 2012, respectively, primarily relating to its manufacturing facilities. The change in carrying value as of Aug. 31, 2013, consisted of \$6 million for accretion expense and \$1 million in increased costs.

Monsanto follows the Asset Retirement and Environmental Obligations topic of the ASC, which provides guidance for recognizing, measuring and disclosing environmental remediation liabilities. Monsanto accrues these costs in the period when responsibility is established and when such costs are probable and reasonably estimable based on current law and existing technology. Postclosure and remediation costs for hazardous waste sites and other waste facilities at operating locations are accrued over the estimated life of the facility, as part of its anticipated closure cost.

**Litigation and Other Contingencies**

Monsanto is involved in various intellectual property, biotechnology, tort, contract, antitrust, shareowner claims, environmental and other litigation, claims and legal proceedings; environmental remediation; and government investigations (see Note 26 — Commitments and Contingencies). Management routinely assesses the likelihood of adverse judgments or outcomes to those matters, as well as ranges of probable losses, to the extent losses are reasonably estimable. In accordance with the Contingencies topic of the ASC, accruals for such contingencies are recorded to the extent that management concludes their occurrence is probable and the financial impact, should an adverse outcome occur, is reasonably estimable. Disclosure for specific legal contingencies is provided if the likelihood of occurrence is at least reasonably possible and the exposure is considered material to the consolidated financial statements. In making determinations of likely outcomes of litigation matters, management considers many factors. These factors include, but are not limited to, past experience, scientific and other evidence, interpretation of relevant laws or regulations and the specifics and status of each matter. If the assessment of the various factors changes, the estimates may change. That may result in the recording of an accrual or a change in a previously recorded accrual. Predicting the outcome of claims and litigation and estimating related costs and exposure involves substantial uncertainties that could cause actual costs to vary materially from estimates and accruals.

#### Guarantees

Monsanto is subject to various commitments under contractual and other commercial obligations. The company recognizes liabilities for contingencies and commitments under the Guarantees topic of the ASC. For additional information on the company's commitments and other contractual and commercial obligations, see Note 26 — Commitments and Contingencies.

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## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (continued)

**Foreign Currency Translation**

The financial statements for most of Monsanto's ex-U.S. operations are translated to U.S. dollars at current exchange rates. For assets and liabilities, the fiscal year-end rate is used. For revenues, expenses, gains and losses, an approximation of the average rate for the period is used. Unrealized currency adjustments in the Statements of Consolidated Financial Position are accumulated in equity as a component of accumulated other comprehensive loss. The financial statements of ex-U.S. operations in highly inflationary economies are translated at either current or historical exchange rates at the time they are deemed highly inflationary, in accordance with the Foreign Currency Matters topic of the ASC. These currency adjustments are included in net income. Based on the Consumer Price Index (CPI), Monsanto designated Venezuela as a hyperinflationary country effective June 1, 2009.

Significant translation exposures include the Brazilian real, the European euro, the Mexican peso, the Canadian dollar, the Australian dollar, and the Romanian leu. Currency restrictions are not expected to have a significant effect on Monsanto's cash flow, liquidity or capital resources.

**Derivatives and Other Financial Instruments**

Monsanto uses financial derivative instruments and natural hedges to limit its exposure to changes in foreign currency exchange rates, commodity prices and interest rates. Monsanto does not use financial derivative instruments for the purpose of speculating in foreign currencies, commodities or interest rates. Monsanto continually monitors its underlying market risk exposures and believes that it can modify or adapt its hedging strategies as needed.

In accordance with the Derivatives and Hedging topic of the ASC, all derivatives, whether designated for hedging relationships or not, are recognized in the Statements of Consolidated Financial Position at their fair value. At the time a derivative contract is entered into, Monsanto designates each derivative as: (1) a hedge of the fair value of a recognized asset or liability (a fair-value hedge), (2) a hedge of a forecasted transaction or of the variability of cash flows that are to be received or paid in connection with a recognized asset or liability (a cash-flow hedge), (3) a foreign-currency fair-value or cash-flow hedge (a foreign-currency hedge), (4) a foreign-currency hedge of the net investment in a foreign subsidiary or (5) a derivative that does not qualify for hedge accounting treatment.

Changes in the fair value of a derivative that is considered highly effective, and that is designated as and qualifies as a fair-value hedge, along with changes in the fair value of the hedged asset or liability that are attributable to the hedged risk, are recorded in current-period net income. Changes in the fair value of a derivative that is considered highly effective, and that is designated as and qualifies as a cash-flow hedge, to the extent that the hedge is effective, are recorded in accumulated other comprehensive loss until net income is affected by the variability from cash flows of the hedged item. Any hedge ineffectiveness is included in current-period net income. Changes in the fair value of a derivative that is considered highly effective, and that is designated as and qualifies as a foreign-currency hedge, are recorded either in current-period net income or in accumulated other comprehensive loss, depending on whether the hedging relationship satisfies the criteria for a fair-value or cash-flow hedge. Changes in the fair value of a derivative that is considered highly effective, and that is designated as a foreign-currency hedge of the net investment in a foreign subsidiary, are recorded in the accumulated foreign currency translation. Changes in the fair value of derivative instruments not designated as hedges are reported in current-period net income.

Monsanto formally and contemporaneously documents all relationships between hedging instruments and hedged items, as well as its risk-management objective and its strategy for undertaking various hedge transactions. This includes linking all derivatives that are designated as fair-value, cash-flow or foreign-currency hedges either to specific assets and liabilities on the Statements of Consolidated Financial Position, or to firm commitments or forecasted transactions. Monsanto formally assesses a hedge at its inception and on an ongoing basis thereafter to determine whether the hedging relationship between the derivative and the hedged item is still highly effective, and whether it is expected to remain highly effective in future periods, in offsetting changes in fair value or cash flows. When derivatives cease to be highly effective hedges, Monsanto discontinues hedge accounting prospectively.

**NOTE 3. NEW ACCOUNTING STANDARDS**

In July 2013, the FASB issued accounting guidance requiring entities to present unrecognized tax benefits as a reduction to any related deferred tax assets for net operating losses, similar tax losses, or tax credit carryforwards if such settlement is required or expected in the event an uncertain tax position is disallowed. Currently effective U.S. GAAP does not provide explicit guidance on the topic. This new presentation guidance will become effective prospectively for fiscal years, and interim periods within those years, beginning after Dec. 15, 2013. Accordingly, Monsanto will adopt this standard in the first quarter of fiscal

## MONSANTO COMPANY

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## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (continued)

year 2015. While the company is evaluating the impact this standard will have on the presentation of unrecognized tax benefits in the company's consolidated balance sheet, it will not affect the company's results of operations, financial condition or cash flows.

In February 2013, the FASB issued "Comprehensive Income: Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income," which requires entities to provide information about the amounts reclassified out of accumulated other comprehensive income by component. In addition, entities are required to present, either on the face of the statement where net income is presented or in the notes, significant amounts reclassified out of accumulated other comprehensive income by the respective line items of net income but only if the amount is required under U.S. GAAP to be reclassified to net income in its entirety in the same reporting period. For other amounts that are not required under U.S. GAAP to be reclassified in their entirety to net income, entities are required to cross-reference to other disclosures required under U.S. GAAP that provide additional detail on these amounts. This standard is effective prospectively for reporting periods beginning after Dec. 15, 2012. Accordingly, Monsanto will adopt this standard in the first quarter of fiscal year 2014. The Company is currently evaluating the impact of adopting this guidance.

In December 2011 and February 2013, the FASB issued an amendment to the Balance Sheet topic of the ASC, which requires entities to disclose both gross and net information about both derivatives and transactions eligible for offset in the statement of financial position and instruments and transactions subject to an agreement similar to a master netting agreement. The objective of the disclosure is to facilitate comparison between those entities that prepare their financial statements on the basis of U.S. GAAP and those entities that prepare their financial statements on the basis of International Financial Reporting Standards. This standard is effective for fiscal years, and interim periods within those years, beginning on or after Jan. 1, 2013. Retrospective presentation for all comparative periods presented is required. Accordingly, Monsanto will adopt this amendment in the first quarter of fiscal year 2014. The company is currently evaluating the impact of adoption on the consolidated financial statements.

In July 2012, the FASB issued amendments to the Intangibles-Goodwill and Other topic of the ASC. Prior to this amendment the company performs a two-step test as outlined by the ASC. Step one of the two-step indefinite-lived intangible asset impairment test is performed by calculating the fair value of the indefinite-lived intangible asset and comparing the fair value with its carrying amount. If the carrying amount of an indefinite-lived intangible asset exceeds its fair value, then the company is required to perform the second step of the impairment test to measure the amount of the impairment loss, if any. Under the amendment, an entity has the option to first assess qualitative factors to determine whether it is necessary to perform the current two-step test. If an entity believes, as a result of its qualitative assessment, that it is more-likely-than-not that the fair value of a indefinite-lived intangible asset is less than its carrying amount, the quantitative impairment test is required. Otherwise, no further testing is required. An entity can choose to perform the qualitative assessment on none, some or all of its indefinite-lived intangible assets. Moreover, an entity can bypass the qualitative assessment for any indefinite-lived intangible asset in any period and proceed directly to step one of the impairment test, and then resume performing the qualitative assessment in any subsequent period. The amendment is effective for annual and interim indefinite-lived intangible asset impairment tests performed for fiscal years beginning after Sep. 15, 2012. Accordingly, Monsanto will adopt this amendment in fiscal year 2014. The company is currently evaluating the impact of adoption on the consolidated financial statements for the annual impairment test of indefinite-lived intangible assets.

In September 2011, the FASB issued an amendment to the Intangibles-Goodwill and Other topic of the ASC. Prior to the amendment the company performed a two-step test as outlined by the ASC. Step one of the two-step goodwill impairment test is performed by calculating the fair value of the reporting unit and comparing the fair value with its carrying amount. If the carrying amount of a reporting unit exceeds its fair value, then the company is required to perform the second step of the impairment test to measure the amount of the impairment loss, if any. Under the



amendment, an entity has the option to first assess qualitative factors to determine whether it is necessary to perform the current two-step test. If an entity believes, as a result of its qualitative assessment, that it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, the quantitative impairment test is required. Otherwise, no further testing is required. An entity can choose to perform the qualitative assessment on none, some or all of its reporting units. Moreover, an entity can bypass the qualitative assessment for any reporting unit in any period and proceed directly to step one of the impairment test, and then resume performing the qualitative assessment in any subsequent period. The amendment is effective for annual and interim goodwill impairment tests performed for fiscal years beginning after Dec. 15, 2011. Accordingly, Monsanto adopted this amendment when the company performed the annual impairment test during the third quarter of fiscal year 2013.

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## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (continued)

## NOTE 4. BUSINESS COMBINATIONS

2013 Acquisitions: In August 2013, Monsanto acquired certain assets and manufacturing capabilities of Dieckmann GmbH & Co. KG, a business based in Germany which specializes in the breeding of oilseed rape and rye seeds. The acquisition, which qualifies as a business under the Business Combinations topic of the ASC, is expected to complement Monsanto's existing activities in the breeding, production and marketing of oilseed rape in Europe. Acquisition costs were approximately \$1 million and were classified as selling, general and administrative expenses in the Statements of Consolidated Operations. The total fair value and cash paid for the acquisition was \$30 million. The fair value of the acquisition was primarily allocated to goodwill and intangibles. The primary item that generated goodwill was the premium paid by the company for the right to control the acquired business and technology. The goodwill is deductible for tax purposes.

In June 2013, Monsanto acquired 100 percent of the outstanding stock of GrassRoots Biotechnology, Inc., a business based in Durham, North Carolina that is focused on gene expression and other agriculture technologies. The acquisition of the company, which qualifies as a business under the Business Combinations topic of the ASC, is expected to complement Monsanto's existing research platforms. Acquisition costs were less than \$1 million and were classified as selling, general and administrative expenses in the Statements of Consolidated Operations. The total fair value and cash paid for the acquisition was \$15 million (net of cash acquired). The fair value of the acquisition was primarily allocated to goodwill and intangibles. The primary item that generated goodwill was the premium paid by the company for the right to control the acquired business and technology. The goodwill is not deductible for tax purposes.

In March 2013, Monsanto acquired substantially all of the assets of Rosetta Green Ltd., a business based in Israel which specializes in the identification and use of unique genes to guide key processes in major crops including corn, soybeans and cotton. The acquisition of the company, which qualifies as a business under the Business Combinations topic of the ASC, is expected to complement Monsanto's existing research platforms. Acquisition costs were less than \$1 million and were classified as selling, general and administrative expenses in the Statements of Consolidated Operations. The total fair value and cash paid for the acquisition was \$35 million. The fair value of the acquisition was primarily allocated to goodwill and intangibles. The primary item that generated goodwill was the premium paid by the company for the right to control the acquired business and technology. The goodwill is deductible for tax purposes.

In January 2013, Monsanto acquired select assets of Agradis, Inc., a business focused on developing sustainable agricultural solutions. The acquisition, which qualifies as a business under the Business Combinations topic of the ASC, is intended to support Monsanto's efforts to provide farmers with sustainable biological products to improve crop health and productivity. Acquisition costs incurred were less than \$1 million and were classified as selling, general and administrative expenses in the Statements of Consolidated Operations. The total cash paid and the fair value of the acquisition was \$85 million, and the purchase price was primarily allocated to goodwill and intangibles. The primary item that generated goodwill was the premium paid by the company for the right to control the acquired business and technology. The goodwill is deductible for tax purposes.

For the acquisitions described above, the business operations and employees of the acquired entities were included in the Seeds and Genomics reportable segment results upon acquisition. The estimated fair values of the assets and liabilities, summarized in the table below, of the acquired entities represent the preliminary purchase price allocations. The allocations of the acquired entities will be finalized as soon as the information becomes available, however, not to exceed one year from the acquisition dates.

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(Dollars in millions)	2013 Aggregate Acquisitions
Current Assets	\$6
Property, Plant and Equipment	4
Goodwill <sup>(1)</sup>	110
Other Intangible Assets	12
Acquired In-process Research and Development	45
Other Assets	2
Total Assets Acquired	179
Current Liabilities	7
Other Liabilities	1
Total Liabilities Assumed	8
Net Assets Acquired	\$171
Supplemental Information:	
Net assets acquired	\$171
Cash acquired	6
Cash paid, net of cash acquired	\$165

(1) The total amount of goodwill that is deductible for tax purpose is \$95 million.

Pro forma information related to the 2013 acquisitions is not presented because the impact of these acquisitions, either individually or in the aggregate, on Monsanto's consolidated results of operations is not expected to be significant.

The following table presents details of the definite life acquired identifiable intangible assets:

(Dollars in millions)	Weighted-Average Life (Years)	Useful Life (Years)	Aggregate Acquisitions
Acquired Germplasm	11	7-13	\$6
Acquired Intellectual Property	17	17-18	4
Customer Relationships	12	12	2
Other Intangible Assets			\$12

2012 Acquisitions: In June 2012, Monsanto acquired 100 percent of the outstanding stock of Precision Planting, Inc., a planting technology developer based in Tremont, Illinois. Precision Planting develops technology to improve yields through on-farm planting performance. The acquisition of the company will become part of Monsanto's Integrated Farming Systems unit, which utilizes advanced agronomic practices, seed genetics and innovative on-farm technology to deliver optimal yield to farmers while using fewer resources. Acquisition costs incurred in fiscal year 2012 were less than \$1 million and were classified as selling, general and administrative expenses in the Statements of Consolidated Operations. The acquisition of Precision Planting qualifies as a business under the Business Combinations topic of the ASC. The total fair value of the acquisition was \$255 million, including contingent consideration of \$39 million, and the total cash paid for the acquisition was \$209 million (net of cash acquired). The fair value was primarily allocated to goodwill and intangibles. The primary item that generated goodwill was the premium paid by the company for the right to control the acquired business and technology. The goodwill is deductible for tax purposes. The contingent consideration is to be paid in cash if certain operational and financial milestones are met on or before Aug. 31, 2020, up to a maximum target of \$40 million. The estimated acquisition date fair value of the long-term other liability for the contingent consideration reflects a discount at a credit adjusted risk-free interest rate for the expected timing of each payment. See Note 16 —Fair Value Measurements — for further information.

In September 2011, Monsanto acquired 100 percent of the outstanding stock of Beeologics, a technology start-up business based in Israel, which researches and develops biological tools to provide targeted control of pests and

diseases. The acquisition of the company, which qualifies as a business under the Business Combinations topic of the ASC, will allow Monsanto to further explore the use of biologicals broadly in agriculture to provide farmers with innovative approaches to the challenges they face. Monsanto intends to use the base technology from Beeologics as a part of its continuing discovery and development pipeline. Acquisition costs were approximately \$1 million and were classified as selling, general and administrative expenses in

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the Statements of Consolidated Operations. The total cash paid and the fair value of the acquisition was \$113 million (net of cash acquired), and it was primarily allocated to goodwill and intangibles. The primary item that generated goodwill was the premium paid by the company for the right to control the acquired business and technology. The goodwill is deductible for tax purposes.

For the fiscal year 2012 acquisitions described above, the business operations and employees of the acquired entities were included in the Seeds and Genomics segment results upon acquisition. There have been no significant changes to the purchase price allocations.

Pro forma information related to the 2012 acquisitions is not presented because the impact of these acquisitions, either individually or in the aggregate, on Monsanto's consolidated results of operations is not expected to be significant.

2011 Acquisitions: In February 2011, Monsanto acquired 100 percent of the outstanding stock of Divergence, Inc., a biotechnology research and development company located in St. Louis, Missouri. Acquisition costs were less than \$1 million and were classified as selling, general and administrative expenses in the Statements of Consolidated Operations. The total cash paid and the fair value of the acquisition was \$71 million (net of cash acquired), and the purchase price was primarily allocated to intangibles and goodwill. The primary items that generated the goodwill were the premium paid by the company for the right to control the business acquired and the value of the acquired assembled workforce. The goodwill is not deductible for tax purposes.

In December 2010, Monsanto acquired 100 percent of the outstanding stock of Pannon Seeds, a seed processing plant located in Hungary, from IKR Production Development and Commercial Corporation. The acquisition of this plant, which qualifies as a business under the Business Combinations topic of the ASC, allows Monsanto to reduce third party seed production in Hungary. Acquisition costs were less than \$1 million and were classified as selling, general and administrative expenses in the Statements of Consolidated Operations. The total fair value of the acquisition was \$32 million, and the purchase price was primarily allocated to fixed assets and goodwill. This fair value includes \$28 million of cash paid (net of cash acquired) and \$4 million related to assumed liabilities. The primary items that generated the goodwill were the premium paid by the company for the right to control the business acquired and the value of the acquired assembled workforce. The goodwill is not deductible for tax purposes.

For the fiscal year 2011 acquisitions described above, the business operations and employees of the acquired entities were included in the Seeds and Genomics segment results upon acquisition. These acquisitions were accounted for as business combinations. Accordingly, the assets and liabilities of the acquired entities were recorded at their estimated fair values at the dates of the acquisitions. There have been no significant changes to the purchase price allocations.

Pro forma information related to the 2011 acquisitions is not presented because the impact of these acquisitions, either individually or in the aggregate, on Monsanto's consolidated results of operations is not expected to be significant.

#### NOTE 5. RESTRUCTURING

Restructuring charges were recorded in the Statements of Consolidated Operations as follows:

	Year Ended Aug. 31,		
(Dollars in millions)	2013	2012	2011
Costs of Goods Sold <sup>(1)</sup>	\$—	\$—	\$(2)
Restructuring Charges, Net <sup>(1)(2)</sup>	—	10	(1)
Income (Loss) from Continuing Operations Before Income Taxes	—	10	(3)
Income Tax (Expense) Benefit	—	(3)	4
Net Income	\$—	\$7	\$1

For the fiscal year ended 2011, the \$2 million of restructuring charges recorded in cost of goods sold related to the Seeds and Genomics segment. For the fiscal year ended 2012, the \$10 million of restructuring reversals recorded in <sup>(1)</sup> restructuring charges, net, related to the Seeds and Genomics segment. For the fiscal year ended 2011, the \$1 million of restructuring charges were split by segment as follows: \$(8) million in Agricultural Productivity and \$9 million in Seeds and Genomics.

(2) The restructuring charges for the fiscal years ended 2012 and 2011 included reversals of \$10 million and \$37 million, respectively, related to the 2009 Restructuring Plan. The reversals primarily related to severance. Although positions originally included in the plan were eliminated, individuals found new roles within the company due to attrition.

On June 23, 2009, the company's Board of Directors approved a restructuring plan (2009 Restructuring Plan) to take future actions to reduce costs in light of the changing market supply environment for glyphosate. These actions were designed to

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enable Monsanto to stabilize the Agricultural Productivity business and allow it to deliver optimal gross profit and a sustainable level of operating cash in the coming years, while better aligning spending and working capital needs. The company also announced that it would take steps to better align the resources of its global seeds and traits business. These actions included certain product and brand rationalization within the seed businesses. On Sept. 9, 2009, the company committed to take additional actions related to the previously announced restructuring plan. Furthermore, while implementing the plan, the company identified additional opportunities to better align the company's resources, and on Aug. 26, 2010, committed to take additional actions. The plan was substantially completed in the first quarter of fiscal year 2011, and the remaining payments were made in fiscal year 2012.

The following table displays the pretax charges incurred by segment under the 2009 Restructuring Plan for the fiscal years ended 2013, 2012 and 2011, as well as the cumulative pretax charges of \$723 million under the 2009 Restructuring Plan.

	Year Ended Aug. 31, 2013			Year Ended Aug. 31, 2012			Year Ended Aug. 31, 2011		
	Seeds and Agricultural			Seeds and Agricultural			Seeds and	Agricultural	
(Dollars in millions)	Genomics	Productivity	Total	Genomics	Productivity	Total	Genomics	Productivity	Total
Work Force Reductions	\$—	\$—	\$—	\$(10 )	\$—	\$(10 )	\$(21 )	\$(11 )	\$(32 )
Facility Closures /Exit Costs	—	—	—	—	—	—	26	3	29
Asset Impairments									
Property, plant and equipment	—	—	—	—	—	—	4	—	4
Inventory	—	—	—	—	—	—	2	—	2
Other intangible assets	—	—	—	—	—	—	—	—	—
Total Restructuring Charges, Net	\$—	\$—	\$—	\$(10 )	\$—	\$(10 )	\$11	\$(8 )	\$3

	Cumulative Amount through Aug. 31, 2013		
(Dollars in millions)	Seeds and	Agricultural	Total
Work Force Reductions	\$229	\$99	\$328
Facility Closures / Exit Costs	75	81	156
Asset Impairments			
Property, plant and equipment	43	5	48
Inventory	119	13	132
Other intangible assets	59	—	59
Total Restructuring Charges, Net	\$525	\$198	\$723

The company's written human resource policies are indicative of an ongoing benefit arrangement with respect to severance packages. Benefits paid pursuant to an ongoing benefit arrangement are specifically excluded from the Exit or Disposal Cost Obligations topic of the ASC, therefore severance charges incurred in connection with the 2009 Restructuring Plan are accounted for when probable and estimable as required under the Compensation – Nonretirement Postemployment Benefits topic of the ASC. In addition, when the decision to commit to a restructuring plan requires an asset impairment review, Monsanto evaluates such impairment issues under the Property, Plant and Equipment topic of the ASC.

In fiscal year 2012, pretax restructuring reversals of \$10 million were recorded. Although positions originally included in the plan were eliminated, individuals found new roles within the company due to attrition.

In fiscal year 2011, pretax restructuring charges of \$3 million were recorded. The facility closures/exit costs of \$29 million related primarily to the finalization of the termination of a corn toller contract in the United States. In workforce reductions, approximately \$13 million of additional charges were offset by \$37 million of reserve reversals and \$8 million of reversals of additional paid in capital for growth shares and stock options. In asset impairments, property, plant and equipment impairments of \$4 million related to certain information technology assets in the United States. Inventory impairments of \$2 million were recorded in cost of goods sold related to discontinued corn and sorghum seed products in the United States.



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The following table summarizes the activities related to the company's 2009 Restructuring Plan.

(Dollars in millions)	Work Force Reductions	Facility Closures / Exit Costs	Asset Impairments	Total
Ending Liability as of Aug. 31, 2010	\$153	\$ 44	\$—	\$197
Restructuring charges recognized in fiscal year 2011	(32	) 29	6	3
Cash payments	(110	) (73	) —	(183
Asset impairments and write-offs	—	—	(6	) (6
Reversal of acceleration of stock-based compensation expense in additional contributed capital	8	—	—	8
Foreign currency impact	5	—	—	5
Ending Liability as of Aug. 31, 2011	\$24	\$ —	\$—	\$24
Restructuring charges recognized in fiscal year 2012	(10	) —	—	(10
Cash payments	(12	) —	—	(12
Asset impairments and write-offs	—	—	—	—
Reversal of acceleration of stock-based compensation expense in additional contributed capital	—	—	—	—
Foreign currency impact	(2	) —	—	(2
Ending Liability as of Aug. 31, 2012 and Aug. 31, 2013	\$—	\$ —	\$—	\$—

#### NOTE 6. RECEIVABLES

The following table displays a roll forward of the allowance for doubtful trade receivables for fiscal years 2011, 2012 and 2013.

(Dollars in millions)	
Balance Aug. 31, 2010	\$143
Deductions — credited against expense	(8
Other <sup>(1)</sup>	(37
Balance Aug. 31, 2011	\$98
Additions — charged to expense	14
Other <sup>(1)</sup>	(48
Balance Aug. 31, 2012	\$64
Additions — charged to expense	32
Other <sup>(1)</sup>	(28
Balance Aug. 31, 2013	\$68

<sup>(1)</sup> Includes reclassifications to long-term, write-offs, recoveries and foreign currency translation adjustments.

Effective with the second quarter of 2011, the company adopted the amended guidance in the Receivables topic of the ASC which requires greater transparency about a company's allowance for credit losses and the credit quality of its financing receivables. The company has financing receivables that represent long-term customer receivable balances related to past due accounts which are not expected to be collected within the current year. The long-term customer receivables were \$112 million and \$156 million with a corresponding allowance for credit losses on these receivables of \$104 million and \$141 million, as of Aug. 31, 2013, and Aug. 31, 2012, respectively. These long-term customer receivable balances and the corresponding allowance are included in long-term receivables, net on the Statements of

Consolidated Financial Position. For these long-term customer receivables, interest is no longer accrued when the receivable is determined to be delinquent and classified as long-term based on estimated timing of collection.

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The following table displays a roll forward of the allowance for credit losses related to long-term customer receivables for fiscal years 2011, 2012 and 2013.

(Dollars in millions)

Balance Aug. 31, 2010	\$226	
Incremental Provision	20	
Recoveries	(9	)
Other <sup>(1)</sup>	(24	)
Balance Aug. 31, 2011	\$213	
Incremental Provision	3	
Recoveries	(14	)
Write-Offs	(54	)
Other <sup>(2)</sup>	(7	)
Balance Aug. 31, 2012	\$141	
Incremental Provision	7	
Recoveries	(1	)
Write-Offs	(47	)
Other <sup>(2)</sup>	4	
Balance Aug. 31, 2013	\$104	

(1) Includes reclassifications from the allowance for current receivables, write-offs and foreign currency translation adjustments.

(2) Includes reclassifications from the allowance for current receivables and foreign currency translation adjustments.

In addition, the company has long-term contractual receivables. These receivables are collected at fixed and determinable dates in accordance with the customer long-term agreement. The long-term contractual receivables were \$229 million and \$361 million, as of Aug. 31, 2013, and Aug. 31, 2012, respectively, and did not have any allowance recorded related to these balances. These receivables are included in long-term receivables, net on the Statements of Consolidated Financial Position. There are no balances related to these long-term contractual receivables that are past due. These receivables are outstanding with large, reputable companies who have been timely with scheduled payments thus far and are considered to be fully collectible. These receivables were first recorded at their then net present value of future cash flows. Interest accretion is recorded within interest income in the Statements of Consolidated Operations to bring the receivables to the full realizable payment amount.

On an ongoing basis, the company evaluates credit quality of its financing receivables utilizing aging of receivables, collection experience and write-offs, as well as evaluating existing economic conditions, to determine if an allowance is necessary.

#### NOTE 7. CUSTOMER FINANCING PROGRAMS

Monsanto participates in customer financing programs as follows:

(Dollars in millions)	As of Aug. 31, 2013	2012
Transactions that Qualify for Sales Treatment		
U.S. agreement to sell trade receivables <sup>(1)</sup>		
Outstanding balance	\$348	\$291
Maximum future payout under recourse provisions	19	17
European agreements to sell trade receivables <sup>(2)</sup>		
Outstanding balance	\$44	\$34
Maximum future payout under recourse provisions	41	21
Agreements with Lenders <sup>(3)</sup>		

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Outstanding balance	\$45	\$85
Maximum future payout under the guarantee	32	56

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The gross amount of receivables sold under transactions that qualify for sales treatment were:

	Gross Amount of Receivables Sold		
	Year Ended Aug. 31,		
(Dollars in millions)	2013	2012	2011
Transactions that Qualify for Sales Treatment			
U.S. agreement to sell trade receivables <sup>(1)</sup>	\$349	\$506	\$3
European agreements to sell trade receivables <sup>(2)</sup>	16	62	61

Monsanto has an agreement in the United States to sell trade receivables up to a maximum outstanding balance of \$500 million and to service such accounts. These receivables qualify for sales treatment under the Transfers and

- (1) Servicing topic of the ASC and, accordingly, the proceeds are included in net cash provided by operating activities in the Statements of Consolidated Cash Flows. The agreement includes recourse provisions and thus a liability is established at the time of sale that approximates fair value based upon the company's historical collection experience and a current assessment of credit exposure.

- Monsanto has various agreements in European countries to sell trade receivables, both with and without recourse. The sales within these programs qualify for sales treatment under the Transfers and Servicing topic of the ASC and, accordingly, the proceeds are included in net cash provided by operating activities in the Statements of Consolidated Cash Flows. The liability for the guarantees for sales with recourse is recorded at an amount that approximates fair value, based on the company's historical collection experience for the customers associated with the sale of the receivables and a current assessment of credit exposure.

- Monsanto has additional agreements with lenders to establish programs that provide financing for select customers in the United States, Brazil, Latin America and Europe. Monsanto provides various levels of recourse through guarantees of the accounts in the event of customer default. The term of the guarantee is equivalent to the term of the customer loans. The liability for the guarantees is recorded at an amount that approximates fair value, based on the company's historical collection experience with customers that participate in the program and a current assessment of credit exposure. If performance is required under the guarantee, Monsanto may retain amounts that are subsequently collected from customers.

In addition to the arrangements in the above table, Monsanto also participates in a financing program in Brazil that allowed Monsanto to transfer up to 1 billion Brazilian reais (approximately \$420 million) for select customers in Brazil to a revolving financing program. Under the arrangement, a recourse provision requires Monsanto to cover the first credit losses within the program up to the amount of our investment. The company evaluated its relationship with the entity under the guidance within the Consolidation topic of the ASC and, as a result, the entity has been consolidated. For further information on this topic, see Note 8 — Variable Interest Entities.

There were no significant recourse or non-recourse liabilities for all programs as of Aug. 31, 2013, and 2012. There were no significant delinquent loans for all programs as of Aug. 31, 2013, and 2012.

#### NOTE 8. VARIABLE INTEREST ENTITIES

Monsanto is involved with entities that are deemed to be variable interest entities (VIEs). Monsanto has determined that the company holds variable interests in an entity that is established as a revolving financing program. In addition, Monsanto has various variable interests in biotechnology companies that focus on plant gene and agricultural fungicide research, development and commercialization. These variable interests have also been determined to be VIEs.

##### Consolidated VIEs

Monsanto has a financing program in Brazil that is recorded as a consolidated VIE. For the most part, the VIE consists of a revolving financing program that is funded by investments from the company and other third parties, primarily investment funds, and has been established to service Monsanto's customer receivables. As of Aug. 31, 2013, a 91 percent senior interest in the entity is held by third parties, primarily investment funds, and Monsanto holds the

remaining 9 percent. As of Aug. 31, 2012, an 88 percent senior interest in the entity was held by third parties, primarily investment funds, and Monsanto held the remaining 12 percent interest. As of Aug. 31, 2013, under the agreement, Monsanto is required to maintain an investment in the VIE of at least 9 percent and could be required to provide additional contributions to the VIE. As of Aug. 31, 2012, under the agreement, Monsanto was required to maintain an investment in the VIE of at least 12 percent. Monsanto currently has no unfunded commitments to the VIE. See Note 7 — Customer Financing Programs — for additional information regarding the revolving financing arrangement.

Creditors have no recourse against Monsanto in the event of default by the VIE. The company's financial or other support provided to the VIE is limited to its investment. Even though Monsanto holds a subordinate interest in the VIE, the VIE was established to service transactions involving the company and the company determines the receivables that are included in the revolving financing program. Therefore, the determination is that Monsanto has the power to direct the activities most significant to the economic performance of the VIE. As a result, the company is the primary beneficiary of the VIE and the VIE has been consolidated in Monsanto's Consolidated Financial Statements. The assets of the VIE may only be used to settle the

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obligations of the respective entity. Third-party investors in the VIE do not have recourse to the general assets of Monsanto other than the maximum exposure to loss relating to the VIE. The following table presents the carrying value of assets and liabilities, which are identified as restricted assets and liabilities on the company's Statements of Consolidated Financial Position, and the maximum exposure to loss relating to the VIE for which Monsanto is the primary beneficiary.

(Dollars in millions)	Financing Program VIEs As of Aug. 31,	
	2013	2012
Cash and cash equivalents	\$140	\$120
Trade receivables, net	—	52
Total Assets	\$140	\$172
Total Liabilities	—	—
Maximum Exposure to Loss	\$—	\$23

In June 2013, Monsanto entered into an agreement with a biotechnology company to establish a jointly-owned subsidiary to focus on research and development specifically related to agricultural fungicides. The subsidiary is recorded as a consolidated VIE of Monsanto. As of Aug. 31, 2013, Monsanto's ownership interest in the VIE was less than 1%, with the remaining interest held by a separate third party. Under the arrangement, Monsanto will fund the operations of the VIE in return for additional equity interests up to 35%. The funding, which may total up to \$16 million, will be provided in three separate research phases if research milestones are met. Monsanto also holds a call option to acquire 100% of the equity interests in the VIE from the third party majority owner. The call option was granted by the third party majority owner to Monsanto in return for total aggregate payments of \$15 million, of which \$7 million had been paid by Monsanto as of Aug. 31, 2013. The remaining payments will be made upon achievement of research milestones by the VIE. Even though Monsanto holds a minority interest in the VIE, the VIE was established to perform agricultural-based research and development activities for the benefit of Monsanto, and Monsanto provides all funding of the VIE's activities. Further, Monsanto has the power to direct the activities most significant to the VIE. As a result, Monsanto is the primary beneficiary of the VIE and the VIE has been consolidated in Monsanto's Consolidated Financial Statements. As of Aug. 31, 2013, the VIE had no significant assets or liabilities. Monsanto's maximum exposure to loss as of Aug. 31, 2013 was \$11 million, which represents the funding required to be provided to the VIE during the current research phase and the initial consideration paid related to the call option. The third party majority owner of the VIE does not have recourse to the general assets of Monsanto beyond Monsanto's maximum exposure to loss at any given time relating to the VIE.

#### Non-Consolidated VIEs

Monsanto has variable interests through investments and arrangements with biotechnology companies that focus on plant gene research, development and commercialization. The company has not provided financial or other support with respect to these investments or arrangements other than its original investment. The company also has no implied or unfunded commitments to these VIEs. Monsanto's maximum exposure to loss on these variable interests is limited to the amount of the company's investment in the entity. As of Aug. 31, 2012, GrassRoots Biotechnology, Inc. was deemed to be a non-consolidated variable interest entity (VIE). As of Aug. 31, 2013, Monsanto had acquired 100 percent of the outstanding stock of GrassRoots Biotechnology, Inc. See Note 4 — Business Combinations — for further information. The following table presents the carrying value of assets and liabilities and the maximum exposure to loss relating to VIEs that the company does not consolidate:

(Dollars in millions)	Biotechnology VIEs As of Aug. 31,	
	2013	2012

Property, plant and equipment, net	\$4	\$5
Other intangible assets, net	3	14
Other assets	—	—
Total Non-Current Assets	\$7	\$19
Total Liabilities	—	—
Maximum Exposure to Loss	\$—	\$—

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## NOTE 9. INVENTORY

Components of inventory are:

(Dollars in millions)	As of Aug. 31,	
	2013	2012
Finished Goods	\$1,079	\$1,050
Goods In Process	1,619	1,537
Raw Materials and Supplies	418	395
Inventory at FIFO Cost	3,116	2,982
Excess of FIFO over LIFO Cost	(169	) (143
Total	\$2,947	\$2,839

The increase in the excess of FIFO over LIFO cost is primarily the result of increases in certain raw materials and production costs. During 2013, inventory quantities increased, with no liquidation of existing LIFO inventory layers. During 2012, inventory quantities declined, resulting in the liquidation of LIFO inventory layers carried at lower costs than current year purchases and production. The income statement effect of such liquidation on cost of sales was a decrease of approximately \$10 million.

Inventory obsolescence reserves are utilized as valuation accounts and effectively establish a new cost basis. The following table displays a roll forward of the inventory obsolescence reserve for fiscal years 2011, 2012 and 2013.

(Dollars in millions)	
Balance Aug. 31, 2010	\$332
Additions — charged to expense	240
Deductions and other <sup>(1)</sup>	(234
Balance Aug. 31, 2011	\$338
Additions — charged to expense	266
Deductions and other <sup>(1)</sup>	(243
Balance Aug. 31, 2012	\$361
Additions — charged to expense	336
Deductions and other <sup>(1)</sup>	(289
Balance Aug. 31, 2013	\$408

<sup>(1)</sup> Deductions and other includes disposals and foreign currency translation adjustments.

## NOTE 10. PROPERTY, PLANT AND EQUIPMENT

Components of property, plant and equipment were as follows:

(Dollars in millions)	As of Aug. 31,	
	2013	2012
Land and Improvements	\$577	\$536
Buildings and Improvements	1,979	1,919
Machinery and Equipment	5,357	5,057
Computer Software	705	643
Construction In Progress and Other	873	680
Total Property, Plant and Equipment	9,491	8,835
Less: Accumulated Depreciation	4,837	4,470
Property, Plant and Equipment, Net	\$4,654	\$4,365



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Gross assets acquired under capital leases of \$38 million are included primarily in machinery and equipment as of Aug. 31, 2013, and Aug. 31, 2012. See Note 15 — Debt and Other Credit Arrangements — and Note 26 — Commitments and Contingencies — for related capital lease obligations.

**NOTE 11. GOODWILL AND OTHER INTANGIBLE ASSETS**

The fiscal year 2013 and 2012 annual goodwill impairment tests were performed as of March 1, 2013, and 2012, respectively, and no indications of goodwill impairment existed as of either date. Goodwill is tested for impairment at least annually, or more frequently if events or circumstances indicate a potential impairment. There were no events or changes in circumstances indicating that goodwill might be impaired as of Aug. 31, 2013. As of fiscal year 2013, accumulated goodwill impairment charges since the adoption of FASB Statement No. 142, Goodwill and Other Intangible Assets (codified in ASC 350) in 2002 were \$2 billion. The charges related to Seeds and Genomics and were primarily a result of a change in the valuation method (from an undiscounted cash flow methodology to a discounted cash flow methodology) upon adoption of ASC 350 as well as unanticipated delays in biotechnology acceptance and regulatory approvals.

Changes in the net carrying amount of goodwill for fiscal years 2012 and 2013, by segment, are as follows:

(Dollars in millions)	Seeds and Genomics	Agricultural Productivity	Total	
Balance Aug. 31, 2011	\$3,308	\$57	\$3,365	
Acquisition activity (see Note 4)	227	—	227	
Effect of foreign currency translation adjustments	(157	) —	(157	)
Balance Aug. 31, 2012	\$3,378	\$57	\$3,435	
Acquisition activity (see Note 4)	110	—	110	
Effect of foreign currency translation adjustments	(27	) 2	(25	)
Balance Aug. 31, 2013	\$3,461	\$59	\$3,520	

In fiscal year 2013, goodwill increased due to the current year acquisitions of Agradis, Inc., Rosetta Green, Inc., GrassRoots Biotechnology, Inc., and Dieckmann GMBH & Co. KG partially offset by the effects of foreign currency translation adjustments. See Note 4 — Business Combinations — for further information.

Information regarding the company's other intangible assets is as follows:

(Dollars in millions)	As of Aug. 31, 2013			As of Aug. 31, 2012		
	Carrying Amount	Accumulated Amortization	Net	Carrying Amount	Accumulated Amortization	Net
Acquired Germplasm	\$1,113	\$ (717	) \$396	\$1,144	\$ (707	) \$437
Acquired Intellectual Property	1,095	(791	) 304	1,085	(771	) 314
Trademarks	341	(131	) 210	348	(124	) 224
Customer Relationships	306	(179	) 127	285	(152	) 133
Other	177	(91	) 86	168	(87	) 81
Total Other Intangible Assets, Finite Lives	\$3,032	\$ (1,909	) \$1,123	\$3,030	\$ (1,841	) \$1,189
In Process Research & Development, Indefinite Lives	103	—	103	48	—	48
Total Other Intangible Assets	\$3,135	\$ (1,909	) \$1,226	\$3,078	\$ (1,841	) \$1,237

The increase in the carrying amount of total other intangible assets during fiscal year 2013 resulted from the Agradis, Inc., Rosetta Green, Inc., GrassRoots Biotechnology, Inc., and Dieckmann GMBH & Co. KG acquisitions described in Note 4 — Business Combinations. The decrease in net book value of total other intangible assets during fiscal year 2013 primarily resulted from amortization and foreign currency translation adjustments.

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Total amortization expense of total other intangible assets was \$111 million in fiscal year 2013, \$124 million in fiscal year 2012 and \$150 million in fiscal year 2011.

The estimated intangible asset amortization expense for each of the five succeeding fiscal years is as follows:

(Dollars in millions)	Amount
2014	\$124
2015	124
2016	125
2017	114
2018	86

**NOTE 12. INVESTMENTS AND EQUITY AFFILIATES****Investments**

As of Aug. 31, 2013, and Aug. 31, 2012, Monsanto has short-term investments outstanding of \$254 million and \$302 million, respectively. The investments are comprised of commercial paper with original maturities of one year or less. See Note 16 — Fair Value Measurements.

Monsanto has investments in long-term equity securities, which are considered available-for-sale. As of Aug. 31, 2013, and Aug. 31, 2012, these long-term equity securities are recorded in other assets in the Statements of Consolidated Financial Position at a fair value of \$22 million and \$35 million, respectively. See Note 23 — Accumulated Other Comprehensive Loss.

Monsanto has cost basis investments recorded in other assets in the Statements of Consolidated Financial Position. As of Aug. 31, 2013, and Aug. 31, 2012, these investments were recorded at \$67 million and \$70 million, respectively. Due to the nature of these investments, the fair market value is not readily determinable. These investments are reviewed for impairment indicators.

No significant impairments were recorded on any investments in fiscal years 2013, 2012 and 2011.

**Equity Affiliates**

In June 2013, Monsanto sold its 19 percent interest in a seed supplier that produces, conditions and distributes corn and soybean seeds. The sale resulted in a gain of less than \$1 million in fiscal year 2013, which was recorded in other expense, net in the Statements of Consolidated Operations. Prior to the sale, Monsanto accounted for this investment as an equity method investment as Monsanto had the ability to exercise significant influence over the seed supplier. As of Aug. 31, 2012, this investment was recorded in other assets in the Statements of Consolidated Financial Position at \$70 million.

**NOTE 13. DEFERRED REVENUE**

In 2008, Monsanto entered into a corn herbicide tolerance and insect control trait technologies agreement with Pioneer Hi-Bred International, Inc. Among its provisions, the agreement modified certain existing corn license agreements between the parties. Under the agreement, which requires fixed annual payments, the company recorded a receivable and deferred revenue of \$635 million in first quarter 2008. Cumulative cash receipts will be \$725 million over an eight-year period. Revenue of \$79 million related to this agreement was recorded in each of the fiscal years 2013, 2012 and 2011. As of Aug. 31, 2013, and Aug. 31, 2012, the remaining receivable balance is \$230 million and \$313 million, respectively, in the Statements of Consolidated Financial Position. The majority of this balance is included in long-term receivables, and the current portion is included in trade receivables. As of Aug. 31, 2013, and Aug. 31, 2012, the remaining deferred revenue balance is \$159 million and \$238 million, respectively, of which \$79 million is included in short-term deferred revenue in both periods.

In 2008, Monsanto and Syngenta entered into a Genuity Roundup Ready 2 Yield Soybean License Agreement which grants Syngenta access to Monsanto's Genuity Roundup Ready 2 Yield Soybean technology in consideration of royalty payments from Syngenta, based on sales. The minimum obligation from Syngenta over the nine-year contract period is \$81 million. Revenue of \$23 million, \$6 million and \$4 million related to this agreement was recorded in fiscal years 2013, 2012 and 2011, respectively. As of Aug. 31, 2013, and Aug. 31, 2012, the remaining receivable balance is

\$58 million and \$67 million, respectively. The majority of this balance is included in long-term receivables, net in the Statements of Consolidated Financial Position and the current portion is included in trade receivables, net. As of Aug. 31, 2013, and Aug. 31, 2012, the remaining deferred revenue

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balance is \$34 million and \$56 million, respectively, of which \$24 million and \$12 million, respectively, is included in short-term deferred revenue.

NOTE 14. INCOME TAXES

The components of income from continuing operations before income taxes were:

(Dollars in millions)	Year Ended Aug. 31,		
	2013	2012	2011
United States	\$2,385	\$1,954	\$1,640
Outside United States	1,044	1,034	734
Total	\$3,429	\$2,988	\$2,374

The components of income tax provision from continuing operations were:

(Dollars in millions)	Year Ended Aug. 31,		
	2013	2012	2011
Current:			
U.S. federal	\$432	\$301	\$330
U.S. state	52	49	43
Outside United States	305	310	271
Total Current	\$789	\$660	\$644
Deferred:			
U.S. federal	159	252	151
U.S. state	1	15	37
Outside United States	(34)	(26)	(115)
Total Deferred	126	241	73
Total	\$915	\$901	\$717

Factors causing Monsanto's income tax provision from continuing operations to differ from the U.S. federal statutory rate were:

(Dollars in millions)	Year Ended Aug. 31,		
	2013	2012	2011
U.S. Federal Statutory Rate	\$1,200	\$1,046	\$831
U.S. R&D Tax Credit	(43)	(15)	(34)
U.S. Domestic Manufacturing Deduction	(68)	(67)	(37)
Lower Taxes on Foreign Operations	(78)	(67)	(98)
State Income Taxes	43	42	52
Valuation Allowances	—	12	(7)
Adjustment for Unrecognized Tax Benefits	(110)	(59)	(1)
Other	(29)	9	11
Income Tax Provision	\$915	\$901	\$717

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Deferred income tax balances are related to:

	As of Aug. 31,	
(Dollars in millions)	2013	2012
Net Operating Loss and Other Carryforwards	\$455	\$601
Employee Fringe Benefits	335	412
Inventories	137	132
Restructuring and Impairment Reserves	130	148
Environmental and Litigation Reserves	99	73
Royalties	95	106
Intangibles	71	122
Allowance for Doubtful Accounts	46	45
Other	239	225
Valuation Allowance	(47)	(50)
Total Deferred Tax Assets	\$1,560	\$1,814
Property, Plant and Equipment	571	546
Intangibles	403	407
Other	60	119
Total Deferred Tax Liabilities	1,034	1,072
Net Deferred Tax Assets	\$526	\$742

As of Aug. 31 2013, Monsanto had available approximately \$970 million in net operating loss carryforwards (NOLs), most of which related to Brazilian operations, which have an indefinite carryforward period. Monsanto also had available approximately \$34 million of U.S. foreign tax credit carryforwards, which expire from 2018 through 2020. Management regularly assesses the likelihood that deferred tax assets will be recovered from future taxable income. To the extent management believes that it is more likely than not that a deferred tax asset will not be realized, a valuation allowance is established. As of Aug. 31 2013, management continues to believe it is more likely than not that the company will realize the deferred tax assets in Brazil and the United States.

Income taxes and remittance taxes have not been recorded on approximately \$3.3 billion of undistributed earnings of foreign operations of Monsanto, because Monsanto intends to reinvest those earnings indefinitely. It is not practicable to estimate the income tax liability that might be incurred if such earnings were remitted to the United States.

Tax authorities regularly examine the company's returns in the jurisdictions in which Monsanto does business. Due to the nature of the examinations, it may take several years before they are completed. Management regularly assesses the tax risk of the company's return filing positions for all open years. During fiscal years 2013 and 2012, Monsanto recorded favorable adjustments to the income tax reserve as a result of the resolution of various domestic and foreign income tax matters.

As of Aug. 31, 2013, Monsanto had total unrecognized tax benefits of \$167 million, of which \$116 million would favorably impact the effective tax rate if recognized. As of Aug. 31, 2012, Monsanto had total unrecognized tax benefits of \$288 million, of which \$221 million would favorably impact the effective tax rate if recognized.

Accrued interest and penalties included in other liabilities in the Statements of Consolidated Financial Position were \$37 million and \$51 million as of Aug. 31, 2013, and Aug. 31, 2012, respectively. Monsanto recognizes accrued interest and penalties related to unrecognized tax benefits as a component of income tax provision within the Statements of Consolidated Operations. For the 12 months ended Aug. 31, 2013, the company recognized \$10 million of income tax benefit for interest and penalties. For the 12 months ended Aug. 31, 2012, the company recognized less than \$1 million of income tax expense for interest and penalties. For the 12 months ending Aug. 31, 2011, the company recognized \$8 million of income tax expense for interest and penalties.



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A reconciliation of the beginning and ending balance of unrecognized tax benefits is as follows:

(Dollars in millions)	2013	2012
Balance Sept. 1	\$288	\$348
Increases for prior year tax positions	14	24
Decreases for prior year tax positions	(118)	(71)
Increases for current year tax positions	14	11
Settlements	(4)	(3)
Lapse of statute of limitations	(23)	(13)
Foreign currency translation	(4)	(8)
Balance Aug. 31	\$167	\$288

Monsanto operates in various countries throughout the world and, as a result, files income tax returns in numerous jurisdictions. These tax returns are subject to examination by various federal, state and local tax authorities. For Monsanto's major tax jurisdictions, the tax years that remain subject to examination are shown below:

Jurisdiction	
U.S. federal income tax	2011-2013
U.S. state and local income taxes	2000-2013
Argentina	2001-2013
Brazil	2002-2013

If the company's assessment of unrecognized tax benefits is not representative of actual outcomes, the company's consolidated financial statements could be significantly impacted in the period of settlement or when the statute of limitations expires. Management estimates that it is reasonably possible that the total amount of uncertain tax benefits could decrease by as much as \$55 million within the next 12 months, primarily as a result of the resolution of audits currently in progress in several jurisdictions involving issues common to large multinational corporations, and the lapsing of the statute of limitations in multiple jurisdictions.

#### NOTE 15. DEBT AND OTHER CREDIT ARRANGEMENTS

Monsanto has a \$2 billion credit facility agreement with a group of banks that provides a senior unsecured revolving credit facility through Apr. 1, 2016. This facility was initiated to be used for general corporate purposes, which may include working capital requirements, acquisitions, capital expenditures, refinancing and support of commercial paper borrowings. The agreement also provides for European euro-denominated loans, letters of credit and swingline borrowings, and allows Monsanto to designate certain subsidiaries to borrow with a company guarantee. Covenants under this credit facility restrict maximum borrowings. There are no compensating balances, but the facility is subject to various fees, which are based on the company's credit ratings. As of Aug. 31, 2013, Monsanto was in compliance with all debt covenants, and there were no outstanding borrowings under this credit facility.

##### Short-Term Debt

(Dollars in millions)	As of Aug. 31, 2013	2012
Current Portion of Long-Term Debt	\$11	\$4
Notes Payable to Banks	40	32
Total Short-Term Debt	\$51	\$36

The fair value of total short-term debt was \$51 million and \$36 million as of Aug. 31, 2013, and Aug. 31, 2012, respectively. The weighted average interest rate on notes payable to banks was 7 percent as of Aug. 31, 2013, and Aug. 31, 2012.

As of Aug. 31, 2013, the company did not have any outstanding commercial paper, but it had short-term borrowings to support ex-U.S. operations throughout the year, which had weighted-average interest rates as indicated above.



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## Long-Term Debt

(Dollars in millions)	As of Aug. 31,	
	2013	2012
2.750% Senior Notes, Due 2016 <sup>(1)</sup>	\$300	\$300
5.125% Senior Notes, Due 2018 <sup>(1)</sup>	300	299
2.200% Senior Notes, Due 2022 <sup>(1)</sup>	250	250
5.500% Senior Notes, Due 2025 <sup>(1)</sup>	282	279
5.500% Senior Notes, Due 2035 <sup>(1)</sup>	395	395
5.875% Senior Notes, Due 2038 <sup>(1)</sup>	247	247
3.600% Senior Notes, Due 2042 <sup>(1)</sup>	250	250
Other (including Capital Leases)	37	18
Total Long-Term Debt	\$2,061	\$2,038

<sup>(1)</sup> Amounts are net of unamortized discounts. For the 5.500% Senior Notes due 2025, amount is also net of the unamortized premium of \$32 million and \$35 million as of Aug. 31, 2013, and Aug. 31, 2012, respectively. The fair value of total long-term debt was \$2,231 million and \$2,411 million as of Aug. 31, 2013, and Aug. 31, 2012, respectively.

In November 2011, Monsanto filed a new shelf registration with the SEC (2011 shelf registration) that allows the company to issue an unlimited capacity of debt, equity and hybrid offerings. The 2011 shelf registration will expire in November 2014. In March 2009, the company entered into forward-starting interest rate swaps with a total notional amount of \$250 million. The purpose of the swaps was to hedge the variability of the forecasted interest payments on the expected debt issuance that may result from changes in the benchmark interest rate before the debt was issued. In July 2012, the swaps were terminated. In July 2012, Monsanto issued \$250 million of 2.200% Senior Notes under the 2011 shelf registration, which are due on July 15, 2022 (2022 Senior Notes). In August 2010, the company entered into forward-starting interest rate swaps with a total notional amount of \$225 million. The purpose of the swaps was to hedge the variability of the forecasted interest payments on the expected debt issuance that may result from changes in the benchmark interest rate before the debt was issued. In July 2012, the swaps were terminated. In July 2012, Monsanto issued \$250 million of 3.600% Senior Notes under the 2011 shelf registration, which are due on July 15, 2042 (2042 Senior Notes).

The net proceeds from the sale of the 2022 and 2042 Senior Notes were used for general corporate purposes, including refinancing of the company's indebtedness.

The information regarding interest expense below reflects Monsanto's interest expense on debt, customer financing and the amortization of debt issuance costs:

(Dollars in millions)	Year Ended Aug. 31,		
	2013	2012	2011
Interest Cost Incurred	\$195	\$212	\$184
Less: Capitalized on Construction	23	21	22
Interest Expense	\$172	\$191	\$162

## NOTE 16. FAIR VALUE MEASUREMENTS

Monsanto determines the fair market value of its financial assets and liabilities based on quoted market prices, estimates from brokers and other appropriate valuation techniques. The company uses the fair value hierarchy established in the Fair Value Measurements and Disclosures topic of the ASC, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

Level 1 — Values based on unadjusted quoted market prices in active markets that are accessible at the measurement date for identical assets and liabilities.

Level 2 — Values based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, discounted cash flow models, or other model-based valuation techniques

adjusted, as necessary, for credit risk.

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Level 3 — Values generated from model-based techniques that use significant assumptions not observable in the market. These unobservable assumptions would reflect our own estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques could include use of option pricing models, discounted cash flow models and similar techniques.

The following tables set forth by level Monsanto's assets and liabilities disclosed at fair value on a recurring basis as of Aug. 31, 2013, and Aug. 31, 2012. As required by the Fair Value Measurements and Disclosures topic of the ASC, assets and liabilities are classified in their entirety based on the lowest level of input that is a significant component of the fair value measurement. Monsanto's assessment of the significance of a particular input to the fair value measurement requires judgment and may affect the classification of fair value assets and liabilities within the fair value hierarchy levels.

(Dollars in millions)	Fair Value Measurements at Aug. 31, 2013, Using				
	Level 1	Level 2	Level 3	Cash Collateral Offset <sup>(1)</sup>	Net Balance
Assets at Fair Value:					
Cash equivalents	\$2,865	\$—	\$—	\$—	\$2,865
Short-term investments	254	—	—	—	254
Equity securities	22	—	—	—	22
Derivative assets related to:					
Foreign currency	—	5	—	—	5
Commodity contracts	13	6	—	(8	) 11
Total Assets at Fair Value	\$3,154	\$11	\$—	\$(8	) \$3,157
Liabilities at Fair Value:					
Contingent consideration	\$—	\$—	\$40	\$—	\$40
Derivative liabilities related to:					
Foreign currency	—	8	—	—	8
Commodity contracts	73	12	—	(71	) 14
Total Liabilities at Fair Value	\$73	\$20	\$40	\$(71	) \$62
Liabilities Not Recorded at Fair Value:					
Short-term debt instruments <sup>(2)</sup>	\$—	\$51	\$—	\$—	\$51
Long-term debt instruments <sup>(2)</sup>	—	2,231	—	—	2,231
Liabilities Not Recorded at Fair Value	\$—	\$2,282	\$—	\$—	\$2,282
Total Liabilities Recorded and Not Recorded at Fair Value	\$73	\$2,302	\$40	\$(71	) \$2,344

<sup>(1)</sup> As allowed by the Derivatives and Hedging topic of the ASC, commodity derivative assets and liabilities have been offset by cash collateral due and paid under a master netting arrangement.

Short-term and long-term debt instruments are not recorded at fair value on a recurring basis however they are

<sup>(2)</sup> measured at fair value for disclosure purposes, as required by the Fair Value Measurements and Disclosures topic of the ASC.

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(Dollars in millions)	Fair Value Measurements at Aug. 31, 2012, Using				Net Balance
	Level 1	Level 2	Level 3	Cash Collateral Offset <sup>(1)</sup>	
Assets at Fair Value:					
Cash equivalents	\$2,787	\$—	\$—	\$—	\$2,787
Short-term investments	302	—	—	—	302
Equity securities	35	—	—	—	35
Derivative assets related to:					
Foreign currency	—	11	—	—	11
Commodity contracts	86	23	—	(85)	) 24
Total Assets at Fair Value	\$3,210	\$34	\$—	\$(85)	) \$3,159
Liabilities at Fair Value:					
Contingent consideration	\$—	\$—	\$39	\$—	\$39
Derivative liabilities related to:					
Foreign currency	—	7	—	—	7
Commodity contracts	7	22	—	(7)	) 22
Total Liabilities at Fair Value	\$7	\$29	\$39	\$(7)	) \$68
Liabilities Not Recorded at Fair Value:					
Short-term debt instruments <sup>(2)</sup>	\$—	\$36	\$—	\$—	\$36
Long-term debt instruments <sup>(2)</sup>	—	2,411	—	—	2,411
Liabilities Not Recorded at Fair Value	\$—	\$2,447	\$—	\$—	\$2,447
Total Liabilities Recorded and Not Recorded at Fair Value	\$7	\$2,476	\$39	\$(7)	) \$2,515

(1) As allowed by the Derivatives and Hedging topic of the ASC, commodity derivative assets and liabilities have been offset by cash collateral due and paid under a master netting arrangement.

Short-term and long-term debt instruments are not recorded at fair value on a recurring basis however they are

(2) measured at fair value for disclosure purposes, as required by the Fair Value Measurements and Disclosures topic of the ASC.

The company's derivative contracts are measured at fair value including forward commodity purchase and sale contracts, exchange-traded commodity futures and option contracts, and over the counter (OTC) instruments related primarily to agricultural commodities, energy and raw materials, interest rates, and foreign currencies.

Exchange-traded futures and option contracts are valued based on unadjusted quoted prices in active markets and are classified as Level 1. Fair value for forward commodity purchase and sale contracts is estimated based on exchange-quoted prices adjusted for differences in local markets. These differences are generally determined using inputs from broker or dealer quotations or market transactions in either the listed or OTC markets. When observable inputs are available for substantially the full term of the contract, it is classified as level 2. Based on historical experience with the company's suppliers and customers, the company's own credit risk and knowledge of current market conditions, the company does not view nonperformance risk to be a significant input to the fair value for the majority of its forward commodity purchase and sale contracts. The effective portion of changes in the fair value of derivatives designated as cash flow hedges are recognized in the Statements of Consolidated Financial Position as a component of accumulated other comprehensive loss until the hedged items are recorded in earnings or it is probable the hedged transaction will no longer occur. Changes in the fair value of derivatives are recognized in the Statements of Consolidated Operations as a component of net sales, cost of goods sold, and other expense, net.

The company's short-term investments are comprised of commercial paper. The company's equity securities are comprised of publicly traded equity investments. Commercial paper and publicly traded equity investments are valued

using quoted market prices and are classified as Level 1. The carrying value of cash represents fair value as it consists of actual currency, and is classified as Level 1.

The fair value of short-term and long-term debt was determined based on current market yields for our debt traded in the secondary market.

The company's contingent consideration relates to the Precision Planting acquisition and is measured at fair value using a combination of the probability weighted method and the income approach using market price of risk. This fair value amount is reflected as a component of miscellaneous short-term accruals in the Statements of Consolidated Financial Position. See Note 4 — Business Combinations — for further information. The fair value is principally based on unobservable inputs (a Level 3

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measurement) consisting mainly of the amount of future cash flows adjusted for probabilities associated with meeting certain operational and financial milestones and discounted at the appropriate market rate. A change in significant unobservable inputs of 10 percent would not result in a change in the fair value of the contingent consideration and the fair value recorded represents the maximum target of \$40 million. Changes in the fair value of contingent consideration during the twelve month period ended Aug. 31, 2013, were recognized in the Statements of Consolidated Operations as a component of selling, general and administrative expenses.

For the periods ended Aug. 31, 2013, and Aug. 31, 2012, the company had no transfers between Level 1, Level 2 and Level 3. Monsanto does not have any assets with fair value determined using Level 3 inputs for the years ended Aug. 31, 2012, and Aug. 31, 2013. The following table summarizes the change in fair value of the Level 3 liability for the year ended Aug. 31, 2013.

(Dollars in millions)

Balance Aug. 31, 2012	\$ 39
Loss included in earnings	1
Balance Aug. 31, 2013	\$ 40

There were no significant measurements of liabilities to their implied fair value on a nonrecurring basis during fiscal years 2013, 2012 and 2011.

There were no significant measurements of assets to their implied fair value on a nonrecurring basis during fiscal years 2013 and 2011. Significant measurements during fiscal year 2012 of assets to their implied fair value on a nonrecurring basis were as follows:

Other Intangible Assets, Net: During our annual impairment test in fiscal year 2012, other intangible assets within the Seeds and Genomics segment with a net book value of \$95 million were written down to their implied fair value of \$15 million, resulting in an impairment charge of \$80 million, with \$6 million included in cost of goods sold, \$63 million included in research and development expenses, and \$11 million included in selling, general and administrative expenses in the Statements of Consolidated Operations. The implied fair value calculations were performed using a discounted cash flow model (a Level 3 measurement).

The recorded amounts of cash, trade receivables, net, miscellaneous receivables, third-party guarantees, accounts payable, grower production accruals, accrued marketing programs and miscellaneous short-term accruals approximate their fair values as of Aug. 31, 2013, and Aug. 31, 2012.

Management is ultimately responsible for all fair values presented in the company's consolidated financial statements. The company performs analysis and review of the information and prices received from third parties to ensure that the prices represent a reasonable estimate of fair value. This process involves quantitative and qualitative analysis. As a result of the analysis, if the company determines there is a more appropriate fair value based upon the available market data, the price received from the third party is adjusted accordingly.

## NOTE 17. FINANCIAL INSTRUMENTS

Monsanto's business and activities expose it to a variety of market risks, including risks related to changes in commodity prices, foreign currency exchange rates and interest rates. These financial exposures are monitored and managed by the company as an integral part of its market risk management program. This program recognizes the unpredictability of financial markets and seeks to reduce the potentially adverse effects that market volatility could have on operating results. As part of its market risk management strategy, Monsanto uses derivative instruments to protect fair values and cash flows from fluctuations caused by volatility in currency exchange rates, commodity prices and interest rates.

## Cash Flow Hedges

The company uses foreign currency options and foreign currency forward contracts as hedges of anticipated sales or purchases denominated in foreign currencies. The company enters into these contracts to protect itself against the risk that the eventual net cash flows will be adversely affected by changes in exchange rates.



Monsanto's commodity price risk management strategy is to use derivative instruments to minimize significant unanticipated earnings fluctuations that may arise from volatility in commodity prices. Price fluctuations in commodities, mainly in corn and soybeans, can cause the actual prices paid to production growers for corn and soybean seeds to differ from anticipated cash

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outlays. Monsanto uses commodity futures and options contracts to manage these risks. Monsanto's energy and raw material risk management strategy is to use derivative instruments to minimize significant unanticipated manufacturing cost fluctuations that may arise from volatility in natural gas, diesel and ethylene prices.

Monsanto's interest rate risk management strategy is to use derivative instruments, such as forward-starting interest rate swaps, to minimize significant unanticipated earnings fluctuations that may arise from volatility in interest rates of the company's borrowings and to manage the interest rate sensitivity of its debt.

For derivative instruments that are designated and qualify as cash flow hedges, the effective portion of the gain or loss on the derivative is reported as a component of accumulated other comprehensive loss and reclassified into earnings in the period or periods during which the hedged transaction affects earnings. Gains and losses on the derivative representing either hedge ineffectiveness or hedge components excluded from the assessment of effectiveness are recognized in current earnings.

The maximum term over which the company is hedging exposures to the variability of cash flow (for all forecasted transactions) is 12 months for foreign currency hedges and 45 months for commodity hedges. During the next 12 months, a pretax net loss of approximately \$4 million is expected to be reclassified from accumulated other comprehensive loss into earnings. No cash flow hedges were discontinued during fiscal years 2013 and 2011. A pretax loss of \$2 million during fiscal year 2012 was reclassified into earnings as a result of the discontinuance of cash flow hedges because it was probable that the original forecasted transaction would not occur by the end of the originally specified time period.

#### Fair Value Hedges

The company uses commodity futures and options contracts as fair value hedges to manage the value of its soybean inventory. For derivative instruments that are designated and qualify as fair value hedges, both the gain or loss on the derivative and the offsetting loss or gain on the hedged item attributable to the hedged risk are recognized in current earnings. No fair value hedges were discontinued during fiscal years 2013, 2012 or 2011.

#### Net Investment Hedges

To protect the value of its investment from adverse changes in exchange rates, the company may, from time to time, hedge a portion of its net investment in one or more of its foreign subsidiaries. Gains or losses on derivative instruments that are designated as a net investment hedge are included in accumulated foreign currency translation adjustment and reclassified into earnings in the period during which the hedged net investment is sold or liquidated.

#### Derivatives Not Designated as Hedging Instruments

The company uses foreign currency contracts to hedge the effects of fluctuations in exchange rates on foreign currency denominated third-party and intercompany receivables and payables. Both the gain or loss on the derivative and the offsetting loss or gain on the hedged item attributable to the hedged risk are recognized in current earnings. The company uses commodity option contracts to hedge anticipated cash payments to growers in the United States, Mexico and Brazil, which can fluctuate with changes in commodity price. Because these option contracts do not meet the provisions specified by the Derivatives and Hedging topic of the ASC, they do not qualify for hedge accounting treatment. Accordingly, the gain or loss on these derivatives is recognized in current earnings.

To reduce credit exposure in Latin America, Monsanto collects payments on certain customer accounts in grain. Such payments in grain are negotiated at or near the time Monsanto's products are sold to the customers and are valued at the prevailing grain commodity prices. By entering into forward sales contracts related to grain, Monsanto mitigates the commodity price exposure from the time a contract is signed with a customer until the time a grain merchant collects the grain from the customer on Monsanto's behalf. The forward sales contracts do not qualify for hedge accounting treatment under the Derivatives and Hedging topic of the ASC. Accordingly, the gain or loss on these derivatives is recognized in current earnings.

Monsanto uses interest rate contracts to minimize the variability of forecasted cash flows arising from the company's VIE in Brazil. The interest rate contracts do not qualify for hedge accounting treatment under the Derivatives and Hedging Topic of the ASC. Accordingly, the gain or loss on these derivatives is recognized in current earnings.

Certain of Monsanto's grower contracts that include minimum guaranteed payment provisions are considered derivatives under the Derivatives and Hedging Topic of the ASC. These contracts do not qualify for hedge accounting treatment. Accordingly, the gain or loss on these derivatives is recognized in current earnings.

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Financial instruments are neither held nor issued by the company for trading purposes.  
 The notional amounts of the company's derivative instruments outstanding as of Aug. 31, 2013, and Aug. 31, 2012, were as follows:

(Dollars in millions)	As of Aug. 31,	
	2013	2012
Derivatives Designated as Hedges:		
Foreign exchange contracts	\$261	\$397
Commodity contracts	872	590
Total Derivatives Designated as Hedges	\$1,133	\$987
Derivatives Not Designated as Hedges:		
Foreign exchange contracts	\$1,188	\$949
Commodity contracts	217	357
Interest rate contracts	—	161
Total Derivatives Not Designated as Hedges	\$1,405	\$1,467

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The fair values of the company's derivative instruments outstanding as of Aug. 31, 2013, and Aug. 31, 2012, were as follows:

	Balance Sheet Location	Fair Value As of Aug. 31,	
(Dollars in millions)		2013	2012
Asset Derivatives:			
Derivatives designated as hedges:			
Foreign exchange contracts	Miscellaneous receivables	\$3	\$6
Commodity contracts	Other current assets <sup>(1)</sup>	9	70
Commodity contracts	Other assets <sup>(1)</sup>	—	16
Total derivatives designated as hedges		12	92
Derivatives not designated as hedges:			
Foreign exchange contracts	Miscellaneous receivables	2	5
Commodity contracts	Trade receivables, net	1	12
Commodity contracts	Miscellaneous receivables	4	7
Commodity contracts	Other current assets	5	4
Total derivatives not designated as hedges		12	28
Total Asset Derivatives		\$24	\$120
Liability Derivatives:			
Derivatives designated as hedges:			
Foreign exchange contracts	Miscellaneous short-term accruals	\$1	\$3
Commodity contracts	Other current assets <sup>(1)</sup>	61	—
Commodity contracts	Miscellaneous short-term accruals	4	7
Commodity contracts	Other assets <sup>(1)</sup>	9	—
Commodity contracts	Other liabilities	1	3
Total derivatives designated as hedges		76	13
Derivatives not designated as hedges:			
Foreign exchange contracts	Miscellaneous short-term accruals	7	4
Commodity contracts	Trade receivables, net	6	6
Commodity contracts	Miscellaneous short-term accruals	—	7
Commodity contracts	Other current assets	4	6
Total derivatives not designated as hedges		17	23
Total Liability Derivatives		\$93	\$36

As allowed by the Derivatives and Hedging topic of the ASC, certain corn and soybean commodity derivative assets and liabilities have been offset by cash collateral due and paid under a master netting arrangement.

- <sup>(1)</sup> Therefore, these commodity contracts that are in an asset or liability position are included in asset accounts within the Statements of Consolidated Financial Position. See Note 16 — Fair Value Measurements — for a reconciliation to amounts reported in the Statements of Consolidated Financial Position as of Aug. 31, 2013, and Aug. 31, 2012.

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The gains and losses on the company's derivative instruments were as follows:

	Amount of Gain (Loss) Recognized in AOCL <sup>(1)</sup> (Effective Portion) Year Ended Aug. 31,			Amount of Gain (Loss) Recognized in Income <sup>(2)</sup> Year Ended Aug. 31,			Income Statement Classification
(Dollars in millions)	2013	2012	2011	2013	2012	2011	
Derivatives Designated as Hedges:							
Fair value hedges:							
Commodity contracts <sup>(5)</sup>				\$—	\$(29	\$(20	) Cost of goods sold
Cash flow hedges:							
Foreign exchange contracts	\$5	\$2	\$(16	) —	(4	)(12	) Net sales
Foreign exchange contracts	(5	)13	(20	) 4	6	5	Cost of goods sold
Commodity contracts <sup>(3)</sup>	(123	)64	228	113	69	7	Cost of goods sold
Interest rate contracts <sup>(4)</sup>	—	(73	)(4	) (12	)(9	)(7	) Interest expense
Total Derivatives Designated as Hedges	(123	)6	188	105	33	(27	)
Derivatives Not Designated as Hedges:							
Foreign exchange contracts <sup>(6)</sup>				41	(21	)(9	) Other expense, net
Commodity contracts				(9	)6	2	Net sales
Commodity contracts				(2	)(19	)(1	) Cost of goods sold
Total Derivatives Not Designated as Hedges				30	(34	)(8	)
Total Derivatives	\$(123	)\$6	\$188	\$135	\$(1	\$(35	)

<sup>(1)</sup> Accumulated Other Comprehensive Loss (AOCL).

<sup>(2)</sup> For derivatives designated as cash flow hedges under the Derivatives and Hedging topic of the ASC, this represents the effective portion of the gain (loss) reclassified from AOCL into income during the period.

Gain on commodity cash flow hedges includes a loss of \$4 million, a gain of less than \$1 million and a gain of \$2 million from ineffectiveness for fiscal years 2013, 2012 and 2011, respectively. Additionally, the gain on commodity cash flow hedges includes a loss from discontinued hedges of \$2 million for fiscal year 2012. There were no hedges discontinued in fiscal years 2013 or 2011.

Loss on interest rate contract cash flow hedges includes a loss of \$1 million from ineffectiveness for fiscal year 2012. There was no ineffectiveness on interest rate contract cash flow hedges during fiscal years 2013 or 2011. No amounts were excluded from the assessment of hedge effectiveness during fiscal years 2013, 2012 or 2011.

Loss on fair value hedges includes a loss of less than \$1 million, \$3 million and \$2 million from ineffectiveness for fiscal years 2013, 2012 and 2011, respectively.

Gain or loss on foreign exchange contracts not designated as hedges was offset by a foreign currency transaction loss of \$129 million, a gain of \$5 million and a loss of \$40 million during fiscal years 2013, 2012 and 2011, respectively.

Several of the company's outstanding foreign currency derivatives are covered by International Swap Dealers' Association (ISDA) Master Agreements with the counterparties. There are no requirements to post collateral under these agreements. However, should Monsanto's credit rating fall below a specified rating immediately following the merger of Monsanto with another entity, the counterparty may require all outstanding derivatives under the ISDA Master Agreement to be settled immediately at current market value, which equals carrying value. Foreign currency derivatives that are not covered by ISDA Master Agreements do not have credit-risk-related contingent provisions.

Most of Monsanto's outstanding commodity derivatives are listed commodity futures, and the company is required by the relevant commodity exchange to post collateral each day to cover the change in the fair value of these futures in the case of an unrealized loss position. The counterparty is required to post collateral each day to cover the change in fair value of these futures in the case of an unrealized gain position. Non-exchange-traded commodity derivatives are covered by the aforementioned ISDA Master Agreements and are subject to the same credit-risk-related contingent provisions, as are the company's interest rate derivatives. The aggregate fair value of all derivative instruments under ISDA Master Agreements in a liability position was \$7 million as of Aug. 31, 2013, and \$13 million as of Aug. 31, 2012, which is the amount that would be required for settlement if the credit-risk-related contingent provisions underlying these agreements were triggered.

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## Credit Risk Management

Monsanto invests its excess cash primarily in money market funds throughout the world in high-quality short-term debt instruments. Other investments are made in highly rated securities or with major banks. Such investments are made only in instruments issued or enhanced by high-quality institutions. As of Aug. 31, 2013, and Aug. 31, 2012, the company had no financial instruments that represented a significant concentration of credit risk. Limited amounts are invested in any single institution to minimize risk. The company has not incurred any credit risk losses related to those investments.

The company sells a broad range of agricultural products to a diverse group of customers throughout the world. In the United States, the company makes substantial sales to relatively few large wholesale customers. The company's business is highly seasonal, and it is subject to weather conditions that affect commodity prices and seed yields. Credit limits, ongoing credit evaluation, and account monitoring procedures are used to minimize the risk of loss. Collateral or credit insurance is obtained when it is deemed appropriate by the company.

Monsanto regularly evaluates its business practices to minimize its credit risk and periodically engages multiple banks in the United States, Brazil and Europe in the development of customer financing programs. For further information on these programs, see Note 7 — Customer Financing Programs.

## NOTE 18. POSTRETIREMENT BENEFITS — PENSIONS

Most of Monsanto's U.S. employees are covered by noncontributory pension plans sponsored by the company. Effective July 8, 2012, the U.S. pension plan was closed to new entrants; there were no changes to the U.S. pension plan for eligible employees hired prior to that date. Pension benefits are based on an employee's years of service and compensation level. Funded pension plans in the United States and outside the United States were funded in accordance with the company's long-range projections of the plans' financial condition. These projections took into account benefits earned and expected to be earned, anticipated returns on pension plan assets, and income tax and other regulations.

## Components of Net Periodic Benefit Cost

Total pension cost for Monsanto employees included in the Statements of Consolidated Operations was \$96 million, \$93 million and \$122 million in fiscal years 2013, 2012 and 2011, respectively. The information that follows relates to all of the pension plans in which Monsanto employees participated. The components of pension cost for these plans were:

	Year Ended Aug. 31, 2013			Year Ended Aug. 31, 2012			Year Ended Aug. 31, 2011		
(Dollars in millions)	U.S.	Outside the U.S.	Total	U.S.	Outside the U.S.	Total	U.S.	Outside the U.S.	Total
Service Cost for									
Benefits Earned during the Year	\$68	\$ 10	\$78	\$55	\$ 7	\$62	\$59	\$ 9	\$68
Interest Cost on Benefit Obligation	74	9	83	86	10	96	84	14	98
Assumed Return on Plan Assets	(137)	(10)	(147)	(124)	(10)	(134)	(108)	(17)	(125)
Amortization of Unrecognized Net Loss	74	5	79	62	4	66	71	6	77
Curtailment and Settlement Charge	—	7	7	—	3	3	—	4	4
Other Adjustment	—	(4)	(4)	—	—	—	—	—	—
Total Net Periodic Benefit Cost	\$79	\$ 17	\$96	\$79	\$ 14	\$93	\$106	\$ 16	\$122





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The other changes in plan assets and benefit obligations recognized in accumulated other comprehensive loss for the year ended Aug. 31, 2013, were:

(Dollars in millions)	U.S.	Outside the U.S.	Total
Current Year Actuarial (Gain)/Loss	\$(126	) \$7	\$(119 )
Recognition of Actuarial Loss	(74	) (12	) (86 )
Effect of Foreign Currency Translation Adjustment	—	3	3
Total Recognized in Accumulated Other Comprehensive Loss	\$(200	) \$(2	) \$(202 )

The following assumptions, calculated on a weighted-average basis, were used to determine pension costs for the principal plans in which Monsanto employees participated:

	Year Ended Aug. 31, 2013		Year Ended Aug. 31, 2012		Year Ended Aug. 31, 2011	
	U.S.	Outside the U.S.	U.S.	Outside the U.S.	U.S.	Outside the U.S.
Discount Rate	3.44 %	3.89 %	4.59 %	5.24 %	4.35 %	4.24 %
Assumed Long-Term Rate of Return on Assets	7.50 %	6.65 %	7.50 %	7.08 %	7.50 %	6.51 %
Annual Rates of Salary Increase (for plans that base benefits on final compensation level)	4.00 %	3.89 %	4.00 %	3.82 %	4.00 %	3.97 %

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## Obligations and Funded Status

Monsanto uses a measurement date of August 31 for its pension plans. The funded status of the pension plans as of Aug. 31, 2013, and Aug. 31, 2012, was as follows:

	U.S.		Outside the U.S.		Total	
(Dollars in millions)	Year Ended Aug. 31, 2013	2012	Year Ended Aug. 31, 2013	2012	Year Ended Aug. 31, 2013	2012
Change in Benefit Obligation:						
Benefit obligation at beginning of period	\$2,179	\$1,883	\$251	\$249	\$2,430	\$2,132
Service cost	68	55	10	7	78	62
Interest cost	74	86	9	10	83	96
Plan participants' contributions	—	—	2	2	2	2
Actuarial loss (gain)	(149	) 267	11	20	(138	) 287
Benefits paid	(123	) (113	) (5	) (3	) (128	) (116
Settlements / curtailments	—	—	(26	) (9	) (26	) (9
Currency (gain) loss	—	—	5	(23	) 5	(23
Other	—	1	(2	) (2	) (2	) (1
Benefit Obligation at End of Period	\$2,049	\$2,179	\$255	\$251	\$2,304	\$2,430
Change in Plan Assets:						
Fair value of plan assets at beginning of period	\$1,945	\$1,719	\$160	\$160	\$2,105	\$1,879
Actual return on plan assets	114	276	10	17	124	293
Employer contributions <sup>(1)</sup>	41	63	20	10	61	73
Plan participants' contributions	—	—	2	2	2	2
Settlements	—	—	(26	) (9	) (26	) (9
Benefits paid <sup>(1)</sup>	(123	) (113	) (5	) (3	) (128	) (116
Currency (loss) gain	—	—	3	(21	) 3	(21
Other	—	—	2	4	2	4
Plan Assets at End of Period	\$1,977	\$1,945	\$166	\$160	\$2,143	\$2,105
Net Amount Recognized	\$72	\$234	\$89	\$91	\$161	\$325

<sup>(1)</sup> Employer contributions and benefits paid include \$7 million and \$5 million paid from employer assets for unfunded plans in fiscal years 2013 and 2012, respectively.

Weighted-average assumptions used to determine benefit obligations as of Aug. 31, 2013, and Aug. 31, 2012, were as follows:

	U.S. Year Ended Aug. 31, 2013      2012		Outside the U.S. Year Ended Aug. 31, 2013      2012	
Discount Rate	4.44%	3.44%	3.62%	3.89%
Rate of Compensation Increase	4.00%	4.00%	3.95%	3.89%

Fiscal year 2014 pension expense, which will be determined using assumptions as of Aug. 31, 2013, is expected to remain consistent as compared with fiscal year 2013 expense.

The U.S. accumulated benefit obligation (ABO) was \$2.0 billion and \$2.1 billion as of Aug. 31, 2013, and Aug. 31, 2012, respectively. The ABO for plans outside of the United States was \$198 million and \$179 million as of Aug. 31, 2013, and Aug. 31, 2012, respectively.

The projected benefit obligation (PBO) and the fair value of the plan assets for pension plans with PBOs in excess of plan assets as of Aug. 31, 2013, and Aug. 31, 2012, were as follows:



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	U.S. As of Aug. 31,		Outside the U.S. As of Aug. 31,		Total As of Aug. 31,	
(Dollars in millions)	2013	2012	2013	2012	2013	2012
PBO	\$2,049	\$2,179	\$235	\$207	\$2,284	\$2,386
Fair Value of Plan Assets with PBOs	1,977	1,945	148	141	2,125	2,086
in Excess of Plan Assets						

The PBO, ABO, and the fair value of the plan assets for pension plans with ABOs in excess of plan assets as of Aug. 31, 2013, and Aug. 31, 2012, were as follows:

	U.S. As of Aug. 31,		Outside the U.S. As of Aug. 31,		Total As of Aug. 31,	
(Dollars in millions)	2013	2012	2013	2012	2013	2012
PBO	\$60	\$2,179	\$105	\$93	\$165	\$2,272
ABO	56	2,088	87	76	143	2,164
Fair Value of Plan Assets with ABOs	—	1,945	23	34	23	1,979
in Excess of Plan Assets						

As of Aug. 31, 2013, and Aug. 31, 2012, amounts recognized in the Statements of Consolidated Financial Position were included in the following balance sheet accounts:

## Net Amount Recognized

	U.S. As of Aug. 31,		Outside the U.S. As of Aug. 31,		Total As of Aug. 31,	
(Dollars in millions)	2013	2012	2013	2012	2013	2012
Miscellaneous Short-Term Accruals	\$5	\$5	\$8	\$7	\$13	\$12
Postretirement Liabilities	67	229	89	93	156	322
Other Assets	—	—	(8)	(9)	(8)	(9)
Net Liability Recognized	\$72	\$234	\$89	\$91	\$161	\$325

The following table provides a summary of the pretax components of the amount recognized in accumulated other comprehensive loss:

	U.S. As of Aug. 31,		Outside the U.S. As of Aug. 31,		Total As of Aug. 31,	
(Dollars in millions)	2013	2012	2013	2012	2013	2012
Net Prior Service Cost	\$—	\$—	\$1	\$—	\$1	\$—
Net Loss	538	738	59	62	597	800
Total	\$538	\$738	\$60	\$62	\$598	\$800

The estimated net loss for the defined benefit pension plans that will be amortized from accumulated other comprehensive loss into net periodic benefit cost over the next fiscal year is \$66 million.

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## Plan Assets

U.S. Plans: The asset allocations for Monsanto's U.S. pension plans as of Balance Aug. 31, 2013, and Aug. 31, 2012, and the target allocation range for fiscal year 2014, by asset category, follow. The fair value of assets for these plans was \$2.0 billion and \$1.9 billion as of Aug. 31, 2013, and Aug. 31, 2012, respectively.

Asset Category	Target Allocation	Percentage of Plan Assets			
	2014	As of Aug. 31,		2013	2012
Public Equity Securities	43-59%	52.0	%	50.2	%
Private Equity Investments	2-8%	3.9	%	3.7	%
Debt Securities	32-46%	38.9	%	41.2	%
Real Estate	2-8%	4.6	%	4.1	%
Other	0-3%	0.6	%	0.8	%
Total		100.0	%	100.0	%

The expected long-term rate of return on these plan assets was 7.5 percent in fiscal years 2013, 2012 and 2011. The expected long-term rate of return on plan assets is based on historical and projected rates of return for current and planned asset classes in the plan's investment portfolio. Assumed projected rates of return for each asset class were selected after analyzing historical experience and future expectations of the returns and volatility of the various asset classes. The overall expected rate of return for the portfolio is based on the target asset allocation for each asset class and adjusted for historical and expected experience of active portfolio management results compared to benchmark returns and the effect of expenses paid for plan assets.

The general principles guiding investment of U.S. pension plan assets are embodied in the Employee Retirement Income Security Act of 1974 (ERISA). These principles include discharging the company's investment responsibilities for the exclusive benefit of plan participants and in accordance with the "prudent expert" standards and other ERISA rules and regulations. Investment objectives for the company's U.S. pension plan assets are to optimize the long-term return on plan assets while maintaining an acceptable level of risk, to diversify assets among asset classes and investment styles, and to maintain a long-term focus.

The plan's investment fiduciaries are responsible for selecting investment managers, commissioning periodic asset/liability studies, setting asset allocation targets, and monitoring asset allocation and investment performance.

The company's pension investment professionals have discretion to manage assets within established asset allocation ranges approved by the plan fiduciaries.

Late in 2010, an asset/liability study was conducted to determine the optimal strategic asset allocation to meet the plan's projected long-term benefit obligations and desired funded status. The target asset allocation resulting from the asset/liability study is outlined in the previous table.

Plans Outside the United States: The weighted-average asset allocation for Monsanto's pension plans outside of the United States as of Aug. 31, 2013, and Aug. 31, 2012, and the weighted-average target allocation for fiscal year 2014, by asset category, follow. The fair value of plan assets for these plans was \$166 million and \$160 million as of Aug. 31, 2013, and Aug. 31, 2012, respectively.

Asset Category	Target Allocation <sup>(1)</sup>	Percentage of Plan Assets			
	2014	As of Aug. 31,		2013	2012
Equity Securities	39.5	%	34.4	%	36.7
Debt Securities	48.8	%	52.4	%	48.4
Other	11.7	%	13.2	%	14.9
Total	100.0	%	100.0	%	100.0

(1)

Monsanto's plans outside the United States have a wide range of target allocations, and therefore the 2014 target allocations shown above reflect a weighted-average calculation of the target allocations of each of the plans.

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The weighted-average expected long-term rate of return on the plans' assets was 6.7 percent in fiscal year 2013, 7.1 percent in fiscal year 2012, and 6.5 percent in fiscal year 2011. Determination of the expected long-term rate of return for plans outside the United States is consistent with the U.S. methodology.

Fair Value Measurements

U.S. Plans: The fair values of our U.S. defined benefit pension plan investments as of Aug. 31, 2013, and Aug. 31, 2012, by asset category, are as follows:

(Dollars in millions)	Fair Value Measurements at Aug. 31, 2013				Balance as of Aug. 31, 2013
	Level 1	Level 2	Level 3	Cash Collateral Offset <sup>(1)</sup>	
Investments at Fair Value:					
Cash	\$16	\$—	\$—	\$—	\$ 16
Debt Securities:					
U.S. government debt	—	260	—	—	260
U.S. agency debt	—	7	—	—	7
U.S. state and municipal debt	—	34	—	—	34
Foreign government debt	—	2	—	—	2
U.S. corporate debt	—	243	—	—	243
Mortgage-Backed securities	—	2	—	—	2
Asset-Backed securities	—	3	—	—	3
Foreign corporate debt	—	54	—	—	54
U.S. Term Bank Loans	—	1	—	—	1
Common and Preferred Stock:					
Domestic small capitalization	46	—	—	—	46
Domestic large capitalization	385	—	—	—	385
International:					
Developed markets	160	—	—	—	160
Emerging markets	30	1	—	—	31
Private Equity Investments	—	—	77	—	77
Partnership and Joint Venture Interests	—	—	32	—	32
Real Estate Investments	—	—	90	—	90
Interest in Pooled Funds:					
Interest-bearing cash and cash equivalents funds	—	56	—	—	56
Common and preferred stock funds:					
Domestic small-capitalization	—	7	—	—	7
Domestic large-capitalization	—	277	—	—	277
International	—	89	—	—	89
Corporate debt funds	—	89	—	—	89
Mortgage-Backed securities	—	—	7	—	7
Interest in Pooled Collateral Fund — Securities Lending	—	205	—	—	205
Derivatives:					
Common and preferred stock sold short	—	(41 )	—	42	1
Total Investments at Fair Value	\$637	\$1,289	\$206	\$42	\$ 2,174

(1)



Futures derivative assets and common and preferred stock sold short have been offset by cash collateral held by the counterparty.

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(Dollars in millions)	Fair Value Measurements at Aug. 31, 2012				Balance as of Aug. 31, 2012
	Level 1	Level 2	Level 3	Cash Collateral Offset <sup>(1)</sup>	
Investments at Fair Value:					
Cash	\$16	\$—	\$—	\$—	\$ 16
Debt Securities:					
U.S. government debt	—	336	—	—	336
U.S. agency debt	—	8	—	—	8
U.S. state and municipal debt	—	22	—	—	22
Foreign government debt	—	2	—	—	2
U.S. corporate debt	—	272	—	—	272
Mortgage-Backed securities	—	2	—	—	2
Asset-Backed securities	—	2	—	—	2
Foreign corporate debt	—	54	—	—	54
U.S. Term Bank Loans	—	2	—	—	2
Common and Preferred Stock:					
Domestic small capitalization	39	—	—	—	39
Domestic large capitalization	327	—	—	—	327
International:					
Developed markets	129	—	—	—	129
Emerging markets	31	1	—	—	32
Private Equity Investments	—	—	73	—	73
Partnership and Joint Venture Interests	—	—	32	—	32
Real Estate Investments	—	—	80	—	80
Interest in Pooled Funds:					
Interest-bearing cash and cash equivalents funds	—	92	—	—	92
Common and preferred stock funds:					
Domestic small-capitalization	—	5	—	—	5
Domestic large-capitalization	—	250	—	—	250
International	—	63	—	—	63
Corporate debt funds	—	92	—	—	92
Mortgage-Backed securities	—	—	8	—	8
Interest in Pooled Collateral Fund — Securities Lending	—	222	—	—	222
Derivatives:					
Equity index futures	(13	) —	—	13	—
Common and preferred stock sold short	—	(34	) —	35	1
Total Investments at Fair Value	\$529	\$1,391	\$193	\$48	\$ 2,161

(1) Futures derivative assets and common and preferred stock sold short have been offset by cash collateral held by the counterparty.



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The following table summarizes the changes in fair value of the Level 3 investments as of Aug. 31, 2013:

(Dollars in millions)	Private Equity Investments	Partnership/Joint Venture Interests	Real Estate Investments	Mortgage-Backed Securities Fund Investments	Total	
Balance Sep. 1, 2011	\$68	\$ 38	\$44	\$ —	\$150	
Purchases	11	—	33	—	44	
Sales	(13	) (8	) —	—	(21	)
Realized/Unrealized Gains	7	2	3	—	12	
Net transfers into Level 3 <sup>(1)</sup>	—	—	—	8	8	
Balance Aug. 31, 2012	\$73	\$ 32	\$80	\$ 8	\$193	
Net Unrealized Gains (Losses) Still Held Included in Earnings <sup>(2)</sup>	\$7	\$ (6	) \$3	\$ —	\$4	

  

(Dollars in millions)	Private Equity Investments	Partnership/Joint Venture Interests	Real Estate Investments	Mortgage-Backed Securities Fund Investments	Total	
Balance Sep. 1, 2012	\$73	\$ 32	\$80	\$ 8	\$193	
Purchases	13	—	7	—	20	
Sales	(17	) —	(1	) —	(18	)
Realized/Unrealized Gains	8	—	4	—	12	
Balance Aug. 31, 2013	\$77	\$ 32	\$90	\$ 8	\$207	
Net Unrealized Gains Still Held Included in Earnings <sup>(2)</sup>	\$11	\$ 1	\$4	\$ —	\$16	

<sup>(1)</sup> The Mortgage-Backed securities were reclassified from Level 2 to Level 3 investments as of Aug. 31, 2012.

<sup>(2)</sup> Represents the amount of total gains or losses for the period attributable to change in unrealized gains (losses) relating to assets and liabilities classified as Level 3 that are still held at Aug. 31, 2012 and 2013.

The following table reconciles the investments at fair value to the plan assets as of Aug. 31, 2013.

(Dollars in millions)		
Total Investments at Fair Value	\$2,174	
Liability to return collateral held under securities lending agreement	(205	)
Non-Interest Bearing Cash	4	
Accrued income / expense	7	
Other receivables and payables	(3	)
Plan Assets at the End of the Period	\$1,977	

In managing the plan assets, Monsanto reviews and manages risk associated with funded status risk, market risk, liquidity risk and operational risk. Asset allocation determined in light of the plans' liability characteristics and asset class diversification are central to the company's risk management approach and are integral to the overall investment strategy. Further mitigation of asset class risk is achieved by investment style, investment strategy and investment management firm diversification. Investment guidelines are included in all investment management agreements with investment management firms managing publicly traded equities and fixed income accounts for the plan.



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Plans Outside the United States: The fair values of our defined benefit pension plan investments outside of the United States as of Aug. 31, 2013, and Aug. 31, 2012, by asset category, are as follows:

(Dollars in millions)	Fair Value Measurements at Aug. 31, 2013			Balance as of Aug. 31, 2013
	Level 1	Level 2	Level 3	
Cash and Cash Equivalents	\$2	\$—	\$—	\$ 2
Debt Securities — Foreign Government Debt	—	15	—	15
Common and Preferred stock	45	—	—	45
Insurance-Backed Securities	—	—	19	19
Interest in Pooled Funds:				
Common and preferred stock funds	—	12	—	12
Government debt funds	—	5	—	5
Mortgage Backed Securities	—	3	—	3
Corporate debt funds	—	65	—	65
Total Investments at Fair Value	\$47	\$100	\$19	\$ 166

(Dollars in millions)	Fair Value Measurements at Aug. 31, 2012			Balance as of Aug. 31, 2012
	Level 1	Level 2	Level 3	
Cash and Cash Equivalents	\$3	\$—	\$—	\$ 3
Debt Securities — Foreign Government Debt	—	19	—	19
Common and Preferred stock	43	—	—	43
Insurance-Backed Securities	1	—	17	18
Interest in Pooled Funds:				
Common and preferred stock funds	—	13	—	13
Government debt funds	—	6	—	6
Corporate debt funds	—	58	—	58
Total Investments at Fair Value	\$47	\$96	\$17	\$ 160

The following table summarizes the changes in fair value of the Level 3 investments as of Aug. 31, 2013.

(Dollars in millions)	Insurance-Backed Securities
Balance Aug. 31, 2011	\$ 15
Purchases	3
Net unrealized losses	(1 )
Balance Aug. 31, 2012	\$ 17
Purchases	4
Sales	(3 )
Net unrealized gains	1
Balance Aug. 31, 2013	\$ 19

In managing the plan assets, risk associated with funded status risk, market risk, liquidity risk and operational risk is considered. The design of a plan's overall investment strategy will take into consideration one or more of the following elements: a plan's liability characteristics, diversification across asset classes, diversification within asset classes and investment management firm diversification. Investment policies consistent with the plan's overall investment strategy

are established.

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## Valuation Methodology for Plan Assets

For assets that are measured using quoted prices in active markets, the total fair value is the published market price per unit multiplied by the number of units held without consideration of transaction costs, which have been determined to be immaterial. Assets that are measured using significant other observable inputs are primarily valued by reference to quoted prices of markets that are not active. The following methods and assumptions were used to estimate the fair value of each class of financial instrument:

**Cash:** The carrying value of cash represents fair value as it consists of actual currency (all in U.S. dollars), and is classified as Level 1. The majority of the Plan's cash equivalents are short-term collective investment funds which are included in the interest in pooled funds category.

**Debt securities:** Debt securities consist of U.S. and foreign corporate credit, U.S. and foreign government issues (including related agency debentures and mortgages), U.S. state and municipal securities, and U.S. term bank loans. U.S. treasury and U.S. government agency bonds, as well as foreign government issues, are generally priced by institutional bids, which reflect estimated values based on underlying model frameworks at various dealers and vendors. While some corporate issues are formally listed on exchanges, dealers exchange bid and ask offers to arrive at most executed transaction prices. Term bank loans are priced in a similar fashion to corporate debt securities. All foreign government and foreign corporate debt securities are denominated in U.S. dollars. All individual debt securities included in the Plan are classified as Level 2.

**Mortgage and asset-backed securities:** Collateralized securities (both mortgage-backed and asset-backed) are valued using models with readily observable market data as inputs. Other than the mortgage-backed securities included in the commingled fund which are classified as Level 3, all mortgage and asset-backed securities included in the Plan are classified as Level 2.

**Common and preferred stock:** The Plans' common and preferred stock consists of investments in listed U.S. and international company stock. U.S. stock is further sub-divided into small-capitalization (defined as companies with market capitalization less than \$2 billion), and large capitalization (defined as companies with market capitalization greater than or equal to \$2 billion). International stock is further divided into developed markets and emerging markets. All international market type classifications are consistent with the Plan's chosen international stock performance benchmark index, the MSCI All-Country World Index ex-U.S. (MSCI ACWI ex- U.S.<sup>®</sup>). Most stock investments are valued using quoted prices from the various public markets. Most equity securities trade on formal exchanges, both domestic and foreign (e.g., NYSE, NASDAQ, LSE), and can be accurately described as active markets. The observable valuation inputs are unadjusted quoted prices that represent active market trades, and are classified as Level 1. Some common and preferred stock holdings are not listed on established exchanges or actively traded inputs to determine their values are obtainable from public sources, and are thus classified as Level 2.

**Private equity investments:** The Plan invests in private equity, which as an asset class is generally characterized as requiring long-term commitments where liquidity is typically limited. Therefore, private equity does not have an actively traded market with readily observable prices. Most of the Plan's private equity investments are limited partnerships structured as fund-of-funds, which also meet the criteria of commingled funds. These fund-of-funds investments are diversified globally and across typical private equity strategies including: buyouts, co-investments, secondary offerings, venture capital, and special situations (e.g. distressed assets). Funds-of-funds represent a collection of underlying limited partnership funds each managed by a different general partner. Each general partner of the underlying limited partnership fund in turn selects and manages a basket of portfolio companies. As a result, each of the Plan's fund-of-funds is essentially a fund of dozens of underlying limited partnership funds and hundreds of underlying company investments. Valuations are developed using a variety of proprietary model methodologies, some of which may be derived from publicly available sources, information obtained from each fund's general partner and public market conditions and returns. Additionally, audited financial statements are received from each fund's general partner on an annual basis. Private equity holdings represent illiquid investments structured as limited partnerships, and redemption requests are not explicitly permitted. Disposition of partnership interests can only be affected through the sale of the pension trust's pro-rata ownership stake in the secondary markets, which may require



approval of the funds' general partners. All private equity investments are classified as Level 3.

Partnership/joint venture interests: These investments include interests in two limited partnership funds which are considered absolute return funds in which the manager takes long and short positions to generate returns. One fund involves high-yield corporate bonds, the other convertible corporate bonds and the underlying stock into which such bonds may be converted.

Terms of the partnership agreement allow for monthly redemptions. While most individual securities in these strategies would fall under Level 1 or Level 2 if held individually, the lack of available quotes and the unique structure of the funds cause these to be classified as Level 3. Audited financial statements for both limited partnership funds are produced on an annual basis.

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## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (continued)

**Real estate investments:** The Plan invests in U.S. real estate through indirect ownership entities, which are structured as limited partnerships or private real estate investment trusts (REITs). Real estate investments are generally illiquid long-term assets valued in large part using inputs not readily observable in the public markets. Each fund in which the Plan invests typically manages a geographically diversified portfolio of U.S. commercial properties within the office, residential, industrial and retail property sectors. There are no formal listed markets for either the funds' underlying commercial properties, or for shares in any given fund (if applicable). Real estate fund holdings are appraised and valued on an on-going basis. In the case of the investments structured as partnerships, while a NAV is not explicitly calculated, audited financial statements and valuations are produced on an annual basis. The underlying real estate holdings not only represent illiquid investments, but explicit redemptions are not permitted. Disposition of partnership interest can only be affected through the sale of the pension trust's pro-rata ownership staked in the secondary markets, which may require approval of the funds' general partners. For investments structured as private REITs, redemption requests for units held are at the discretion of fund managers. All real estate investments are classified as Level 3.

**Interest in pooled funds:** In certain instances the Plan invests in pooled or commingled funds in order to gain diversification and efficiency. Each of the commingled funds with the exception of the Domestic Small Capitalization Common Stock Fund has daily NAV and daily liquidity. The Domestic Small Capitalization Common Stock Fund has monthly NAV and monthly liquidity. Each fund has its own notification requirements for purchases and redemptions into and out of the fund. The notification requirements range from same day to 10 days. Although rare, there could be instances in which liquidity is suspended or in which purchases or sales occur at a price different from the NAV. The Cash and Cash Equivalents funds used are short-term collective investment funds that are comprised of short-term assets with fixed or variable interest rates that trade on a regular basis in active markets. Because there are no publicly listed price quotes available for the underlying investments or the commingled fund itself, the short-term collective investment funds are classified as Level 2. The Common and Preferred Stock Funds used are predominantly commingled index funds replicating well-known stock market indexes. Each of the common and preferred stock funds are comprised of common and preferred stock that trade on a regular basis in active markets. While the underlying investments of the commingled fund do have publicly listed price quotes available, the commingled fund does not so it is classified as Level 2. The Corporate Debt Fund is comprised of fixed income assets that have significant observable inputs that are classified as Level 2 and therefore the commingled fund is classified as Level 2 as well. Mortgage-Backed securities are classified as Level 3 at Aug. 31, 2013, because the underlying holdings are primarily privately placed securities without readily observable prices. In the absence of readily observable prices, in order to value the assets in the fund, the Mortgage-Backed securities investment management firm employs alternative pricing techniques that may be based upon current market prices of securities that are comparable in coupon, rating, maturity and industry.

**Derivatives:** The U.S. plan is permitted to use financial derivative instruments to hedge certain risks and for investment purposes. The plan enters into futures contracts in the normal course of its investing activities to manage market risk associated with the plan's equity and fixed income investments and to achieve overall investment portfolio objectives. The credit risk associated with these contracts is minimal as they are traded on organized exchanges and settled daily. Exchange-traded equity index and interest rate futures are measured at fair value using quoted market prices making them qualify as Level 1 investments. The notional value of futures derivatives classified as Level 1 was \$152 million as of Aug. 31, 2013.

The U.S. plan also holds listed common and preferred stock short sale positions, which involves a counterparty arrangement with a prime broker. The existence of the prime broker counter-party relationship introduces the possibility that short sale market values may need to be adjusted to reflect any counter-party risk, however no such adjustment was required as of Aug. 31, 2013. Therefore, the short positions have been classified as Level 2, and their notional value was \$39 million as of Aug. 31, 2013.

**Insurance-backed securities:** Insurance-backed securities are contracts held with an insurance company. Level 1 securities are

quoted prices in active markets for identical assets. The Level 3 fair value of the investments is determined based upon the value of the underlying investments as determined by the insurance company.

Collateral held under securities lending agreement: The U.S. Plan participates in a securities lending program through Northern Trust. Securities loaned are fully collateralized by cash and U.S. government securities. Northern Trust pools all collateral received and invests any cash in an actively managed commingled fund, the underlying assets of which include short-term fixed income securities such as commercial paper, U.S. Treasury Bills, and various forms of asset-backed securities, all of which would be classified individually as Level 2. The NAV is calculated daily, and under normal circumstances, redemptions can also occur daily with no required notice. Assets would be sold at the calculated NAV. Because the collateral pool itself lacks a formal public market and price quotes, it is classified as Level 2.

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### Expected Cash Flows

The expected employer contributions and benefit payments are shown in the following table for the pension plans:

(Dollars in millions)	U.S.	Outside the U.S.
Employer Contributions 2014	\$60	\$10
Benefit Payments		
2014	174	20
2015	165	15
2016	166	17
2017	166	17
2018	167	18
2019-2023	817	87

The company may contribute additional amounts to the plans depending on the level of future contributions required.

### Multiemployer Plan

Monsanto participates in an industry-wide multiemployer plan in the Netherlands called Stichting Bedrijfspensioenfonds voor de Landbouw (BPL) that provides indexed career-average pension benefits and life insurance benefits. Monsanto is one of more than 27,500 employers participating in the BPL, which covers nearly 90,000 participants. At Dec. 31, 2012, the BPL had assets of approximately \$13.5 billion, which covered approximately 106% of the plan's benefit obligation. Participating employers and their employees are required to contribute a percent of salary to the plan each plan year. The plan year is based on a calendar year ending December 31. The percentage, which is determined annually by the BPL actuary, is 21.7% of salary for plan year 2013, with employers contributing 17.09% of salary and the balance contributed by the plan participants. In plan year 2012, an additional surcharge equal to 1.25% of salary up to a specified salary threshold is also required as part of the employer contribution. Monsanto's contributions totaled \$6 million, \$6 million and \$5 million in fiscal years 2013, 2012, and 2011, respectively. The increase in contributions is primarily a result of increased contribution percentages. The contribution percentages, including both employer and plan participant contributions, were 19.5%, 18.15% and 14.6% in plan years 2012, 2011 and 2010, respectively.

Contributions are used to pay benefits under the plan, including insurance premiums for the life insurance benefits, and fund the plan. If an employer does not meet its contribution requirement, benefits cease to accrue for their employees.

If the assets of the BPL are not sufficient to meet the plan's benefit obligation, the BPL may increase the contribution rates, reduce pension indexation, or reduce benefit accruals. However in 2013 the benefit accrual rate was increased from 1.85% of pensionable salary to 1.95% in response to the increase in the plan's funded status (106% in 2013 vs. 101% in 2012).

### NOTE 19. POSTRETIREMENT BENEFITS — HEALTH CARE AND OTHER POSTEMPLOYMENT BENEFITS

#### Monsanto-Sponsored Plans

Substantially all regular full-time U.S. employees hired prior to May 1, 2002, and certain employees in other countries become eligible for company-subsidized postretirement health care benefits if they reach retirement age while employed by Monsanto and have the requisite service history. Employees who retired from Monsanto prior to Jan. 1, 2003, were eligible for retiree life insurance benefits. These postretirement benefits are unfunded and are generally based on the employees' years of service or compensation levels, or both. The costs of postretirement benefits are accrued by the date the employees become eligible for the benefits. Total postretirement benefit costs for Monsanto employees and the former employees included in Monsanto's Statements of Consolidated Operations in fiscal years 2013, 2012 and 2011, were \$9 million, \$13 million and \$19 million, respectively.

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The following information pertains to the postretirement benefit plans in which Monsanto employees and certain former employees of Pharmacia allocated to Monsanto participated, principally health care plans and life insurance plans. The cost components of these plans were:

(Dollars in millions)	Year Ended Aug. 31,		
	2013	2012	2011
Service Cost for Benefits Earned During the Period	\$9	\$10	\$10
Interest Cost on Benefit Obligation	6	10	10
Amortization of Prior Service Credit	(1	) (1	) (1
Amortization of Actuarial Gain	(5	) (6	) —
Total Net Periodic Benefit Cost	\$9	\$13	\$19

The other changes in plan assets and benefit obligations recognized in accumulated other comprehensive loss for the year ended Aug. 31, 2013, and Aug. 31, 2012, were:

(Dollars in millions)	Year Ended Aug. 31,	
	2013	2012
Actuarial Gain	\$(13	) \$(31
Amortization of Prior Service Credit	1	1
Amortization of Actuarial Gain	5	6
Total Recognized in Accumulated Other Comprehensive Loss	\$(7	) \$(24

The following assumptions, calculated on a weighted-average basis, were used to determine the postretirement costs for the principal plans in which Monsanto employees participated:

	Year Ended Aug. 31,		
	2013	2012	2011
Discount Rate Postretirement	2.95%	4.30%	4.10%
Discount Rate Postemployment	1.55%	2.20%	2.30%
Initial Trend Rate for Health Care Costs	7.00%	7.00%	7.00%
Ultimate Trend Rate for Health Care Costs	5.00%	5.00%	5.00%

A 7.0 percent annual rate of increase in the per capita cost of covered health care benefits was assumed for 2013. This assumption is consistent with the plans' recent experience and expectations of future growth. It is assumed that the rate will decrease gradually to 5 percent for 2017 and remain at that level thereafter. Assumed health care cost trend rates have an effect on the amounts reported for the health care plans. A 1 percentage-point change in assumed health care cost trend rates would have the following effects:

(Dollars in millions)	1 Percentage-Point	1 Percentage-Point
	Increase	Decrease
Effect on Total of Service and Interest Cost	\$1	\$(1)
Effect on Postretirement Benefit Obligation	\$4	\$(4)

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Monsanto uses a measurement date of August 31 for its other postretirement benefit plans. The status of the postretirement health care, life insurance and employee disability benefit plans in which Monsanto employees participated was as follows for the periods indicated:

(Dollars in millions)	Year Ended Aug. 31,	
	2013	2012
Change in Benefit Obligation:		
Benefit obligation at beginning of period	\$215	\$250
Service cost	9	10
Interest cost	6	10
Actuarial gain <sup>(1)</sup>	(13	) (31
Plan participant contributions	4	4
Medicare Part D subsidy receipts	1	2
Benefits paid	(29	) (30
Currency Impact	(1	) —
Benefit Obligation at End of Period	\$192	\$215

(1) The net actuarial gain in fiscal year 2012 includes gain from the adoption of an Employer Group Waiver Plan design for prescription drug costs of approximately \$47 million.

Weighted-average assumptions used to determine benefit obligations as of Aug. 31, 2013, and Aug. 31, 2012, were as follows:

	Year Ended Aug. 31,	
	2013	2012
Discount Rate Postretirement	3.95%	2.95%
Discount Rate Postemployment	2.55%	1.55%
Initial Trend Rate for Health Care Costs <sup>(1)</sup>	6.50%	7.00%
Ultimate Trend Rate for Health Care Costs	5.00%	5.00%

(1) As of Aug. 31, 2013, this rate is assumed to decrease gradually to 5 percent for 2017 and remain at that level thereafter.

As of Aug. 31, 2013, and Aug. 31, 2012, amounts recognized in the Statements of Consolidated Financial Position were as follows:

(Dollars in millions)	As of Aug. 31,	
	2013	2012
Miscellaneous Short-Term Accruals	\$22	\$23
Postretirement Liabilities	170	192
Total Liability Recognized	\$192	\$215

Asset allocation is not applicable to the company's other postretirement benefit plans because these plans are unfunded.

The following table provides a summary of the pretax components of the amount recognized in accumulated other comprehensive loss:

(Dollars in millions)	Year Ended Aug. 31,	
	2013	2012
Actuarial Gain	\$(42	) \$(33
Prior Service Credit	(2	) (3
Total	\$(44	) \$(36

The estimated net gain and prior service credit for the defined benefit postretirement plans that will be amortized from accumulated other comprehensive gain into net periodic benefit cost over the next fiscal year are \$13 million and \$1 million, respectively.



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### Expected Cash Flows

Information about the expected cash flows for the other postretirement benefit plans follows:

(Dollars in millions)	Total
Employer Contributions 2014	\$22
Benefit Payments <sup>(1)</sup>	
2014	22
2015	23
2016	23
2017	22
2018	20
2019-2023	83

Benefit payments are net of expected federal subsidy receipts related to prescription drug benefits granted under <sup>(1)</sup> the Medicare Prescription Drug, Improvement and Modernization Act of 2003, which are estimated to be \$1 million through 2014.

Expected contributions include other postretirement benefits of \$22 million to be paid from employer assets in fiscal year 2014. Total benefits expected to be paid include both the company's share of the benefit cost and the participants' share of the cost, which is funded by participant contributions to the plan.

### Other Sponsored Plans

Other plans are offered to certain eligible employees. There is an accrual of \$31 million and \$30 million as of Aug. 31, 2013, and Aug. 31, 2012, respectively, in the Statements of Consolidated Financial Position for anticipated payments to employees who have retired or terminated their employment.

### NOTE 20. EMPLOYEE SAVINGS PLANS

#### Monsanto-Sponsored Plans

The U.S. tax-qualified Monsanto Savings and Investment Plan (Monsanto SIP) was established in June 2001 as a successor to a portion of the Pharmacia Corporation Savings and Investment Plan. The Monsanto SIP is a defined contribution profit-sharing plan with an individual account for each participant. Employees who are 18 years of age or older are generally eligible to participate in the plan. The Monsanto SIP provides for voluntary contributions, generally ranging from 1 percent to 25 percent of an employee's eligible pay. Prior to July 8, 2012, Monsanto satisfied its matching contribution obligations under the Monsanto SIP with shares released from the leveraged employee stock ownership plan (Monsanto ESOP). Effective July 8, 2012, Monsanto satisfies its matching contribution obligations, and its new non-elective contribution for employees hired on or after July 8, 2012, with cash. The Monsanto ESOP was leveraged by debt due to Monsanto. The debt, which was repaid in full in December 2012 and has a zero balance as of Aug. 31, 2013, was repaid primarily through company contributions and dividends paid on Monsanto common stock held in the ESOP. The Monsanto ESOP debt was restructured in December 2004 to level out the future allocation of stock in an impartial manner intended to ensure equitable treatment for and generally to be in the best interests of current and future plan participants consistent with the level of benefits that Monsanto intended for the plan to provide to participants. To that end, the terms of the restructuring were determined pursuant to an arm's length negotiation between Monsanto and an independent trust company as fiduciary for the plan. In this role, the independent fiduciary determined that the restructuring, including certain financial commitments and enhancements that were or will be made in the future by Monsanto to benefit participants and beneficiaries of the plan, including the increased diversification rights that were provided to certain participants, was completed in accordance with the best interests of plan participants. As a result of these enhancements related to the 2004 restructuring, a liability of \$55 million was recorded as of Aug. 31, 2012, to reflect the 2004 ESOP enhancements. The entire balance of the liability was considered short term and is included in accrued compensation and benefits on the Statements of Consolidated Financial Position at Aug. 31, 2012. The liability related to the 2004 ESOP refinancing was required to be paid no



later than Dec. 31, 2017. Monsanto matching contributions made in cash have been applied towards satisfaction of the 2004 ESOP enhancements, resulting in no liability at Aug. 31, 2013.

The Monsanto ESOP debt was again restructured in November 2008. The terms of the restructuring were determined pursuant to an arm's length negotiation between Monsanto and an independent trust company as fiduciary for the plan. In this role, the independent fiduciary determined that the restructuring, including certain financial commitments and enhancements that were or will be made in the future by Monsanto to benefit participants and beneficiaries of the plan, was in the best interests of

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participants in the plan's ESOP component. As a result of these enhancements related to the 2008 ESOP restructuring, Monsanto committed to funding an additional \$8 million to the plan, above the number of shares currently scheduled for release under the restructured debt schedule. Pursuant to the agreement, a \$4 million Special Allocation was allocated proportionately to eligible participants in May 2009 and funded using plan forfeitures and dividends on Monsanto common stock held in the ESOP suspense account. A \$5.7 million Special Allocation was allocated proportionately to eligible participants in August 2013 and funded with cash. This Monsanto cash contribution to the SIP was applied towards satisfying the 2008 ESOP enhancements, resulting in no liability at Aug. 31, 2013. As of Aug. 31, 2012, a liability of \$5 million was recorded to reflect the 2008 ESOP enhancements, of which \$1 million was considered short term and is included in accrued compensation and benefits, while the long term balance is included in other liabilities on the Statements of Consolidated Financial Position. The liability related to the 2008 ESOP refinancing was required to be paid no later than December 31 of the fifth year following the loan repayment date and in no case later than Dec. 31, 2032.

As of Aug. 31, 2013, the Monsanto ESOP held 5.1 million shares of Monsanto common stock (allocated). The unallocated shares of Monsanto common stock held by the ESOP were allocated each year to employee savings accounts as matching contributions in accordance with the terms of the Monsanto SIP. During fiscal year 2013, the remaining less than 0.1 million Monsanto shares were allocated specifically to Monsanto participants, leaving zero shares of Monsanto common stock remaining in the Monsanto ESOP and unallocated as of Aug. 31, 2013.

Contributions to the plan are required annually in amounts sufficient to fund ESOP debt repayment. Dividends paid on the shares held by the Monsanto ESOP were less than \$0.1 million in 2013, \$8 million in 2012, and \$8 million in 2011. These dividends were greater than the cost of the shares allocated to the participants resulting in total ESOP expense of less than \$1 million in 2013, 2012 and 2011. In 2013, the Monsanto SIP recognized expense of \$18.4 million for matching contributions made in cash over and above the amount required to reduce the ESOP enhancements liabilities to zero, and \$0.2 million for new non-elective contributions made in cash for employees hired on or after July 8, 2012, was recognized in 2013.

**NOTE 21. STOCK-BASED COMPENSATION PLANS**

Stock-based compensation expense of \$100 million, \$130 million and \$105 million was recognized under Compensation – Stock Compensation topic of the ASC in fiscal years 2013, 2012 and 2011, respectively. Stock-based compensation expense recognized during the period is based on the value of the portion of share-based payment awards that are ultimately expected to vest. Compensation cost capitalized as part of inventory was \$3 million, \$6 million and \$7 million as of Aug. 31, 2013, Aug. 31, 2012, and Aug. 31, 2011, respectively. The Compensation – Stock Compensation topic of the ASC requires that excess tax benefits be reported as a financing cash inflow rather than as a reduction of taxes paid, which is included within operating cash flows. Monsanto's income taxes currently payable have been reduced by the tax benefits from employee stock option exercises and restricted stock award vestings. The excess tax benefits were recorded as an increase to additional paid-in capital. The following table shows the components of stock-based compensation in the Statements of Consolidated Operations and Statements of Consolidated Cash Flows.

(Dollars in millions)	Year Ended Aug. 31,		
	2013	2012	2011
Cost of Goods Sold	\$(11)	) \$(19)	) \$(18)
Selling, General and Administrative Expenses	(69)	) (82)	) (68)
Research and Development Expenses	(20)	) (29)	) (27)
Restructuring Charges	—	—	8
Total Stock-Based Compensation Expense Included in Operating Expenses	(100)	) (130)	) (105)
Loss from Continuing Operations Before Income Taxes	(100)	) (130)	) (105)
Income Tax Benefit	34	43	36
Net Loss	\$(66)	) \$(87)	) \$(69)

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Basic Loss per Share	\$(0.12	) \$(0.16	) \$(0.13	)
Diluted Loss per Share	\$(0.12	) \$(0.16	) \$(0.13	)
Net Cash Required by Operating Activities	\$(79	) \$(50	) \$(36	)
Net Cash Provided by Financing Activities	\$79	\$50	\$36	

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Plan Descriptions: Share-based awards are designed to reward employees for their long-term contributions to the company and to provide incentives for them to remain with the company. Monsanto issues stock option awards, restricted stock, restricted stock units and deferred stock. During fiscal years 2012 and 2011, Monsanto had three compensation plans, which the company refers to as “prior equity plans,” under which the company granted awards to key officers, non-employee directors and employees of Monsanto: (1) the Monsanto Company Long-Term Incentive Plan, as amended (2000 LTIP), (2) the Monsanto Company 2005 Long-Term Incentive Plan, as previously amended and restated (2005 LTIP), and (3) the Monsanto Broad-Based Stock Option Plan, as amended (Broad-Based Plan). On Jan. 24, 2012, Monsanto shareowners approved a total of 33.6 million shares to be available for grants of awards under the Monsanto Company 2005 Long-Term Incentive Plan as Amended and Restated as of Jan. 24, 2012 (Amended 2005 LTIP) after Aug. 31, 2011 (including for this purpose awards made after Aug. 31, 2011 under our prior equity plans). This includes 25.0 million new shares in addition to the 8.6 million shares remaining available for future grant as of Aug. 31, 2011. The delivery of shares pursuant to restricted stock, restricted stock unit and deferred stock awards will reduce the remaining available shares by 2.7. Upon shareowner approval of the Amended 2005 LTIP, no further awards may be granted under our prior equity plans, although awards granted under such plans prior to the commencement of the Amended 2005 LTIP will continue to remain outstanding under their terms. As of Aug. 31, 2013, 28.0 million shares were available for grant.

The plans provide that the term of any option granted may not exceed 10 years and that each option may be exercised for such period as may be specified in the terms and conditions of the grant, as approved by the People and Compensation Committee of the board of directors. Generally, the options vest over three years, with one-third of the total award vesting each year. Grants of restricted stock or restricted stock units generally vest at the end of a three- to five-year service period as specified in the terms and conditions of the grant, as approved by the People and Compensation Committee of the board of directors. Restricted stock and restricted stock units represent the right to receive a number of shares of stock dependent upon vesting requirements. Vesting is subject to the terms and conditions of the grant, which generally require the employees’ continued employment during the designated service period and may also be subject to Monsanto’s attainment of specified performance criteria during the designated performance period. Shares related to restricted stock and restricted stock units are released to employees upon satisfaction of all vesting requirements. During fiscal year 2011, Monsanto issued 33,030 restricted stock units to certain Monsanto employees under a one-time, broad-based program, as approved by the People and Compensation Committee of the board of directors. Compensation expense for stock options, restricted stock and restricted stock units is measured at fair value on the date of grant, net of estimated forfeitures, and recognized over the vesting period of the award.

Certain Monsanto employees outside the United States may receive stock appreciation rights or cash settled restricted stock units as part of Monsanto’s stock compensation plans. In addition, certain employees on international assignment may receive phantom stock awards that are based on the value of the company’s stock, but paid in cash upon the occurrence of certain events. Stock appreciation rights entitle employees to receive a cash amount determined by the appreciation in the fair value of the company’s common stock between the grant date of the award and the date of exercise. Cash settled restricted stock units and phantom stock awards entitle employees to receive a cash amount determined by the fair value of the company’s common stock on the vesting date. As of Aug. 31, 2013, the fair value of stock appreciation rights, cash settled restricted stock units and phantom stock accounted for as liability awards was less than \$1 million, \$1 million and \$1 million, respectively. The fair value is remeasured at the end of each reporting period until exercised or vested, and compensation expense is recognized over the requisite service period in accordance with Compensation — Stock Compensation topic of the ASC. Share-based liabilities paid related to stock appreciation rights were less than \$1 million in each of the fiscal years 2013, 2012 and 2011. Additionally, \$1 million, \$1 million, and less than \$1 million was paid related to phantom stock in fiscal years 2013, 2012 and 2011, respectively.

Monsanto also issues share-based awards under the Monsanto Non-Employee Director Equity Incentive Compensation Plan (Director Plan) for directors who are not employees of Monsanto or its affiliates. Under the

Director Plan, half of the annual retainer for each non-employee director is paid in the form of deferred stock — shares of common stock to be delivered at a specified future time. The remainder is payable, at the election of each director, in the form of restricted stock, deferred stock, current cash and/or deferred cash. The Director Plan also provides that a non-employee director will receive a one-time restricted stock grant upon becoming a member of Monsanto's board of directors which is equivalent to the annual retainer divided by the closing stock price on the service commencement date. The restricted stock grant will vest on the third anniversary of the grant date. Awards of deferred stock and restricted stock under the Director Plan are granted under the Amended 2005 LTIP as provided for in the Director Plan. The grant date fair value of awards outstanding under the Director Plan was \$13 million as of Aug. 31, 2013. Compensation expense for most awards under the Director Plan is measured at fair value at the date of grant and recognized over the vesting period of the award. There was less than \$1 million, \$1 million and \$4 million of share-based liabilities paid under the Director Plan in 2013, 2012 and 2011, respectively. Additionally, 257,943 shares of directors' deferred stock related to grants and dividend equivalents were vested and outstanding at Aug. 31, 2013.

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A summary of the status of Monsanto's stock options for the periods from Sept. 1, 2010, through August 31, 2013, follows:

	Options	Outstanding Weighted-Average Exercise Price
Balance Outstanding Aug. 31, 2010	20,998,207	\$ 47.22
Granted	4,001,100	58.95
Exercised	(2,825,500 )	22.96
Forfeited	(664,772 )	73.08
Balance Outstanding Aug. 31, 2011	21,509,035	51.78
Granted	2,300,980	74.76
Exercised	(3,967,203 )	29.51
Forfeited	(387,878 )	76.12
Balance Outstanding Aug. 31, 2012	19,454,934	58.56
Granted	1,912,030	90.70
Exercised	(5,306,225 )	48.33
Forfeited	(196,852 )	79.95
Balance Outstanding Aug. 31, 2013	15,863,887	\$ 65.59

At Aug. 31, 2013, 11,527,208 nonqualified stock options were exercisable. The weighted-average remaining contractual life of these stock options was 4 years and the weighted-average exercise price was \$61.16 per share. The aggregate intrinsic value of these stock options was \$424 million at Aug. 31, 2013.

At Aug. 31, 2013, 15,442,671 nonqualified stock options were vested or expected to vest. The weighted-average remaining contractual life of these stock options was 5 years and the weighted-average exercise price was \$65.26 per share. The aggregate intrinsic value of these stock options was \$505 million at Aug. 31, 2013.

The weighted-average grant-date fair value of nonqualified stock options granted during fiscal years 2013, 2012 and 2011 was \$21.46, \$21.87 and \$19.62, respectively, per share. The total pretax intrinsic value of options exercised during the fiscal years ended 2013, 2012 and 2011 was \$272 million, \$201 million and \$123 million, respectively. Pretax unrecognized compensation expense for stock options, net of estimated forfeitures, was \$36 million as of Aug. 31, 2013, and will be recognized as expense over a weighted-average remaining vesting period of 2 years.

A summary of the status of Monsanto's restricted stock, restricted stock units and directors' deferred stock compensation plans for fiscal year 2013 follows in the tables below:

	Restricted Stock	Weighted-Average Grant Date Fair Values	Restricted Stock Units	Weighted-Average Grant Date Fair Values	Directors' Deferred Stock	Weighted-Average Grant Date Fair Value
Nonvested as of Aug. 31, 2012	5,865	\$ 66.50	1,385,353	\$ 68.20	—	\$ —
Granted	4,651	96.06	619,152	88.80	17,408	87.58
Vested	(2,565 )	90.33	(285,303 )	56.33	(17,408 )	87.58
Forfeitures	—	—	(63,015 )	75.55	—	—
Nonvested as of Aug. 31, 2013	7,951	\$ 76.10	1,656,187	\$ 77.15	—	\$ —
(Dollars in millions)						
Pre-tax unrecognized compensation expense, net of estimated forfeitures as applicable	\$1		\$51		\$—	
Remaining weighted-average period of expense recognition/requisite service	2		2		0	

periods in years

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(Dollars in millions, except per share amounts)	Weighted-average grant-date fair value during fiscal year			Total fair value of equity vested during fiscal year		
	2013	2012	2011	2013	2012	2011
Restricted stock	\$96.06	\$68.93	\$60.86	\$—	\$1	\$1
Restricted stock units	\$88.80	\$71.65	\$61.96	\$16	\$102	\$20
Directors' deferred stock	\$87.58	\$68.93	\$54.75	\$2	\$1	\$1

Valuation and Expense Information under Compensation — Stock Compensation topic of the ASC: Monsanto estimates the value of employee stock options on the date of grant using a lattice-binomial model. A lattice-binomial model requires the use of extensive actual employee exercise behavior data and a number of complex assumptions including volatility, risk-free interest rate and expected dividends. Expected volatilities used in the model are based on implied volatilities from traded options on Monsanto's stock and historical volatility of Monsanto's stock price. The expected life represents the weighted-average period the stock options are expected to remain outstanding and is a derived output of the model. The lattice-binomial model incorporates exercise and post-vesting forfeiture assumptions based on an analysis of historical data. The following assumptions were used to calculate the estimated value of employee stock options:

Assumptions	Lattice-binomial		
	2013	2012	2011
Expected Dividend Yield	1.9 %	1.8 %	1.7 %
Expected Volatility	23%-37%	28%-39%	31%-43%
Weighted-Average Volatility	30.4 %	37.0 %	41.8 %
Risk-Free Interest Rates	0.85%-2.00%	0.98%-1.62%	1.82%-3.04%
Weighted-Average Risk-Free Interest Rate	1.14 %	1.57 %	1.85 %
Expected Option Life (in years)	7	6	7

Monsanto estimates the value of restricted stock units using the fair value on the date of grant. When dividends are not paid on outstanding restricted stock units, the award is valued by reducing the grant-date price by the present value of the dividends expected to be paid, discounted at the appropriate risk-free interest rate. The fair value of restricted stock units granted is calculated using the same expected dividend yield and weighted-average risk-free interest rate assumptions as those used for stock options.

#### NOTE 22. CAPITAL STOCK

Monsanto is authorized to issue 1.5 billion shares of common stock, \$0.01 par value, and 20 million shares of undesignated preferred stock, \$0.01 par value. The board of directors has the authority, without action by the shareowners, to designate and issue preferred stock in one or more series and to designate the rights, preferences and privileges of each series, which may be greater than the rights of the company's common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of holders of common stock until the board of directors determines the specific rights of the holders of preferred stock.

The authorization of undesignated preferred stock makes it possible for Monsanto's board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of the company. These and other provisions may deter hostile takeovers or delay attempts to change management control.

There were no shares of preferred stock outstanding as of Aug. 31, 2013, or Aug. 31, 2012. As of Aug. 31, 2013, and Aug. 31, 2012, 529.0 million and 534.4 million shares of common stock were outstanding, respectively.

In June 2013, the board of directors authorized a new share repurchase program, effective July 1, 2013, for up to \$2 billion of the company's common stock over a three-year period. This repurchase program commenced on Aug. 20, 2013. For the year ended Aug. 31, 2013, 0.3 million shares have been repurchased for \$30 million under the June 2013 program.



In June 2012, the board of directors authorized a share repurchase program, effective July 1, 2012, for up to \$1 billion of the company's common stock over a three year period. This repurchase program commenced on Jan. 14, 2013, and was completed on Aug. 20, 2013. For the year ended Aug. 31, 2013, 9.9 million shares have been repurchased for \$1 billion under the June 2012 program.

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In June 2010, the board of directors authorized a new repurchase program of up to an additional \$1 billion of the company's common stock over a three year period beginning July 1, 2010. This repurchase program commenced on Aug. 24, 2010, and was completed on Jan. 14, 2013. For the years ended Aug. 31, 2013, Aug. 31, 2012, and Aug. 31, 2011, 0.7 million, 5.5 million and 8.1 million shares have been repurchased for \$65 million, \$432 million and \$502 million, respectively, under the June 2010 program.

## NOTE 23. ACCUMULATED OTHER COMPREHENSIVE LOSS

The components of accumulated other comprehensive loss is as follows:

(Dollars in millions)	Year Ended Aug. 31,		
	2013	2012	2011
Accumulated Foreign Currency Translation Adjustments, Net of Tax	\$(831)	) \$(602	) \$270
Net Unrealized Gain on Investments, Net of Tax	8	5	—
Net Accumulated Derivative Income (Loss), Net of Tax	(115	) 29	63
Postretirement Benefit Plan Activity, Net of Tax	(340	) (468	) (449)
Accumulated Other Comprehensive Loss	\$(1,278	) \$(1,036	) \$(116)

## NOTE 24. EARNINGS PER SHARE

Basic earnings per share (EPS) was computed using the weighted-average number of common shares outstanding during the periods shown in the table below. The diluted EPS computation takes into account the effect of dilutive potential common shares, as shown in the table below. Potential common shares consist of stock options, restricted stock, restricted stock units and directors' deferred shares calculated using the treasury stock method and are excluded if their effect is antidilutive. Of those antidilutive options, certain stock options were excluded from the computations of dilutive potential common shares as their exercise prices were greater than the average market price of common shares for the period.

	Year Ended Aug. 31,		
	2013	2012	2011
Weighted-Average Number of Common Shares	533.7	534.1	536.5
Dilutive Potential Common Shares	6.0	6.1	5.9
Antidilutive Potential Common Shares	1.8	6.7	11.2
Shares Excluded From Computation of Dilutive Potential Shares with Exercise Prices Greater than the Average Market Price of Common Shares for the Period	0.1	4.5	7.5

## NOTE 25. SUPPLEMENTAL CASH FLOW INFORMATION

Cash payments for interest and taxes during fiscal years 2013, 2012, and 2011, were as follows:

(Dollars in millions)	Year Ended Aug. 31,		
	2013	2012	2011
Interest	\$141	\$159	\$151
Taxes	907	688	385

During fiscal years 2013, 2012 and 2011, the company recorded the following noncash investing and financing transactions:

In fourth quarter 2013, 2012 and 2011, the board of directors declared a dividend payable in first quarter 2014, 2013 and 2012, respectively. As of Aug. 31, 2013, 2012 and 2011, a dividend payable of \$228 million, \$200 million and \$161 million, respectively, was recorded.

During fiscal years 2013, 2012 and 2011, the company recognized noncash transactions related to stock-based compensation and acquisitions. See Note 21 — Stock-Based Compensation Plans — for further discussion of stock-based

compensation and Note 4 — Business Combinations — for acquisition activity.

During fiscal year 2011, the company recognized noncash transactions related to a paid-up license agreement for weed control and herbicide combination use. An intangible asset of \$81 million was recorded on the Statement of Consolidated Financial Position. A deferred payment of \$40 million was made in December 2011.

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## NOTE 26. COMMITMENTS AND CONTINGENCIES

Contractual obligations: The following table sets forth the company's estimates of future payments under contracts as of Aug. 31, 2013.

(Dollars in millions)	Payments Due by Fiscal Year Ending Aug. 31,						
	Total	2014	2015	2016	2017	2018	2019 beyond
Total Debt, including Capital Lease Obligations	\$2,112	\$51	\$15	\$309	\$1	\$301	\$1,435
Interest Payments Relating to Long-Term Debt and Capital Lease Obligations <sup>(1)</sup>	1,471	92	92	92	84	84	1,027
Operating Lease Obligations	508	113	85	71	59	53	127
Purchase Obligations:							
Uncompleted additions to property	112	84	3	25	—	—	—
Commitments to purchase inventories	2,474	1,441	271	251	225	227	59
Commitments to purchase breeding research	660	55	55	55	55	55	385
R&D alliances and joint venture obligations	133	41	23	20	17	14	18
Other purchase obligations	8	6	1	1	—	—	—
Other Liabilities:							
Postretirement liabilities <sup>(2)</sup>	92	92	—	—	—	—	—
Unrecognized tax benefits <sup>(3)</sup>	110	—	—	—	—	—	—
Other liabilities	181	23	20	10	6	6	116
Total Contractual Obligations	\$7,861	\$1,998	\$565	\$834	\$447	\$740	\$3,167

<sup>(1)</sup> For variable rate debt, interest is calculated using the applicable rates as of Aug. 31, 2013.

Includes the company's planned pension and other postretirement benefit contributions for 2014. The actual amounts funded in 2014 may differ from the amounts listed above. Contributions in 2015 through 2019 are excluded as those amounts are unknown. Refer to Note 18 — Postretirement Benefits — Pensions and Note 19 — Postretirement Benefits — Health Care and Other Postemployment Benefits — for more information.

<sup>(2)</sup> Unrecognized tax benefits relate to uncertain tax positions recorded under the Income Taxes topic of the ASC. The company is unable to reasonably predict the timing of tax settlements, as tax audits can involve complex issues and the resolution of those issues may span multiple years, particularly if subject to negotiation or litigation. See Note 14 — Income Taxes — for more information.

<sup>(3)</sup> Leases: The company routinely leases buildings for use as administrative offices or warehousing, land for research facilities, company aircraft, railcars, motor vehicles and equipment. Assets held under capital leases are included in property, plant and equipment. Certain operating leases contain renewal options that may be exercised at Monsanto's discretion. The expected lease term is considered in the decision about whether a lease should be recorded as capital or operating.

Certain operating leases contain escalation provisions for an annual inflation adjustment factor and some are based on the CPI published by the Bureau of Labor Statistics. Additionally, certain leases require Monsanto to pay for property

taxes, insurance, maintenance, and other operating expenses called rent adjustments, which are subject to change over the life of the lease. These adjustments were not determinable at the time the lease agreements were executed.

Therefore, Monsanto recognizes the expenses for rent and rent adjustments when they become known and payable, which is more representative of the time pattern in which the company derives the related benefit in accordance with the Leases topic of the ASC.

Other lease agreements provide for base rent adjustments contingent upon future changes in Monsanto's use of the leased space. At the inception of these leases, Monsanto does not have the right to control more than the percentage defined in the lease agreement of the leased property. Therefore, as the company's use of the leased space increases, the company recognizes rent expense for the additional leased property during the period during which the company has the right to control the use of additional property in accordance with the Leases topic of the ASC.

Rent expense was \$259 million for fiscal year 2013, \$248 million for fiscal year 2012 and \$222 million for fiscal year 2011.

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Guarantees: Monsanto may provide and has provided guarantees on behalf of its consolidated subsidiaries for obligations incurred in the normal course of business. Because these are guarantees of obligations of consolidated subsidiaries, Monsanto's consolidated financial position is not affected by the issuance of these guarantees.

Monsanto warrants the performance of certain products through standard product warranties. In addition, Monsanto provides extensive marketing programs to increase sales and enhance customer satisfaction. These programs may include performance warranty features and indemnification for risks not related to performance, both of which are provided to qualifying customers on a contractual basis. The cost of payments for claims based on performance warranties has been, and is expected to continue to be, insignificant. It is not possible to predict the maximum potential amount of future payments for indemnification for losses not related to the performance of our products (for example, replanting due to extreme weather conditions), because it is not possible to predict whether the specified contingencies will occur and if so, to what extent.

In various circumstances, Monsanto has agreed to indemnify or reimburse other parties for various losses or expenses. For example, like many other companies, Monsanto has agreed to indemnify its officers and directors for liabilities incurred by reason of their position with Monsanto. Contracts for the sale or purchase of a business or line of business may require indemnification for various events, including certain events that arose before the sale, or tax liabilities that arise before, after or in connection with the sale. Certain seed licensee arrangements indemnify the licensee against liability and damages, including legal defense costs, arising from any claims of patent, copyright, trademark, or trade secret infringement related to Monsanto's trait technology. Germplasm licenses generally indemnify the licensee against claims related to the source or ownership of the licensed germplasm. Litigation settlement agreements may contain indemnification provisions covering future issues associated with the settled matter. Credit agreements and other financial agreements frequently require reimbursement for certain unanticipated costs resulting from changes in legal or regulatory requirements or guidelines. These agreements may also require reimbursement of withheld taxes, and additional payments that provide recipients amounts equal to the sums they would have received had no such withholding been made. Indemnities like those in this paragraph may be found in many types of agreements, including, for example, operating agreements, leases, purchase or sale agreements and other licenses. Leases may require indemnification for liabilities Monsanto's operations may potentially create for the lessor or lessee. It is not possible to predict the maximum future payments possible under these or similar provisions because it is not possible to predict whether any of these contingencies will come to pass and if so, to what extent. Historically, these types of provisions did not have a material effect on Monsanto's financial position, profitability or liquidity. Monsanto believes that if it were to incur a loss in any of these matters, it would not have a material effect on its financial position, profitability or liquidity. Based on the company's current assessment of exposure, Monsanto has recorded a liability of less than \$1 million and \$10 million as of Aug. 31, 2013 and Aug. 31, 2012, respectively, related to these indemnifications.

Monsanto provides guarantees for certain customer loans in the United States, Brazil, Europe and Argentina. See Note 7 — Customer Financing Programs — for additional information.

Information regarding Monsanto's indemnification obligations to Pharmacia under the Separation Agreement can be found below in the "Litigation" section of this note.

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Customer Concentrations in Gross Trade Receivables: The following table sets forth Monsanto's gross trade receivables as of Aug. 31, 2013, and Aug. 31, 2012, by significant customer concentrations:

(Dollars in millions)	As of Aug. 31,	
	2013	2012
Europe-Africa <sup>(1)</sup>	\$504	\$416
U.S. Agricultural Product Distributors	455	674
Argentina <sup>(1)</sup>	298	257
Asia-Pacific <sup>(1)</sup>	151	195
Mexico <sup>(1)</sup>	132	128
Brazil <sup>(1)</sup>	101	120
Canada <sup>(1)</sup>	23	59
Other	119	112
Gross Trade Receivables	1,783	1,961
Less: Allowance for Doubtful Accounts	(68)	(64)
Net Trade Receivables	\$1,715	\$1,897

<sup>(1)</sup> Represents customer receivables within the specified geography.

Environmental and Litigation Liabilities: Monsanto is involved in environmental remediation and legal proceedings related to its current business and also, pursuant to indemnification obligations, related to Pharmacia's former chemical and agricultural businesses. In addition, Monsanto has liabilities established for various product claims. With respect to certain of these proceedings, Monsanto has established a reserve for the estimated liabilities. For more information on Monsanto's policies regarding "Litigation and Other Contingencies", see Note 2 — Significant Accounting Policies. Portions of the liability included in a reserve for which the amount and timing of cash payments are fixed or readily determinable were discounted, using a risk-free discount rate adjusted for inflation ranging from 2.5 to 3.5 percent. The remaining portions of the liability were not subject to discounting because of uncertainties in the timing of cash outlay. The following table provides a detailed summary of the discounted and undiscounted amounts included in the reserve for environmental and litigation liabilities:

(Dollars in millions)	
Aggregate Undiscounted Amount	\$131
Discounted Portion:	
Expected payment (undiscounted) for:	
2014	23
2015	20
2016	10
2017	6
2018	6
Undiscounted aggregate expected payments after 2018	116
Aggregate Amount to be Discounted as of Aug. 31, 2013	181
Discount, as of Aug. 31, 2013	(41)
Aggregate Discounted Amount Accrued as of Aug. 31, 2013	\$140
Total Environmental and Litigation Reserve as of Aug. 31, 2013	\$271

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Changes in the environmental and litigation liabilities for fiscal years 2011, 2012 and 2013 are as follows:

Balance at Aug. 31, 2010	\$255	
Payments	(53	)
Accretion	11	
Adjustments to liabilities recognized in fiscal year 2011	52	
Balance at Aug. 31, 2011	\$265	
Payments	(53	)
Accretion	6	
Adjustments to liabilities recognized in fiscal year 2012	52	
Balance at Aug. 31, 2012	\$270	
Payments	(35	)
Accretion	5	
Adjustments to liabilities recognized in fiscal year 2013	31	
Total Environmental and Litigation Reserve as of Aug. 31, 2013	\$271	

Environmental: Included in the liability are amounts related to environmental remediation of sites associated with Pharmacia's former chemicals and agricultural businesses, with no single site representing the majority of the environmental liability. These sites are in various stages of environmental management: at some sites, work is in the early stages of assessment and investigation, while at others the cleanup remedies have been implemented and the remaining work consists of monitoring the integrity of that remedy. The extent of Monsanto's involvement at the various sites ranges from less than 1 percent to 100 percent of the costs currently anticipated. At some sites, Monsanto is acting under court or agency order, while at others it is acting with very minimal government involvement. Monsanto does not currently anticipate any material loss in excess of the amount recorded for the environmental sites reflected in the liability. However, it is possible that new information about these sites for which the accrual has been established, such as results of investigations by regulatory agencies, Monsanto or other parties, could require Monsanto to reassess its potential exposure related to environmental matters. Monsanto's future remediation expenses at these sites may be affected by a number of uncertainties. These uncertainties include, but are not limited to, the method and extent of remediation, the percentage of material attributable to Monsanto at the sites relative to that attributable to other parties, and the financial capabilities of the other potentially responsible parties. Monsanto cannot reasonably estimate any additional loss and does not expect the resolution of such uncertainties, or environmental matters not reflected in the liability, to have a material adverse effect on its consolidated results of operations, financial position, cash flows or liquidity.

Litigation: The above liability includes amounts related to certain third-party litigation with respect to Monsanto's business, as well as tort litigation related to Pharmacia's former chemical business, including lawsuits involving polychlorinated biphenyls (PCBs), dioxins, and other chemical and premises liability litigation. Following is a description of one of the more significant litigation matters reflected in the liability.

On Dec. 17, 2004, 15 plaintiffs filed a purported class action lawsuit, styled *Virdie Allen, et al. v. Monsanto, et al.*, in the Putnam County, West Virginia, state court against Monsanto, Pharmacia and seven other defendants. Monsanto is named as the successor in interest to the liabilities of Pharmacia. The alleged class consists of all current and former residents, workers, and students who, between 1949 and the present, were allegedly exposed to dioxins/furans contamination in counties surrounding Nitro, West Virginia. The complaint alleges that the source of the contamination is a chemical plant in Nitro, formerly owned and operated by Pharmacia and later by Flexsys, a joint venture between Solutia and Akzo Nobel Chemicals, Inc. (Akzo Nobel). Akzo Nobel and Flexsys were named defendants in the case but Solutia was not, due to its then pending bankruptcy proceeding. The suit seeks damages for property cleanup costs, loss of real estate value, funds to test property for contamination levels, funds to test for human exposure, and future medical monitoring costs. The complaint also seeks an injunction against further



contamination and punitive damages. Monsanto has agreed to indemnify and defend Akzo Nobel and the Flexsys defendant group, but on May 27, 2011, the judge dismissed both Akzo Nobel and Flexsys from the case. The class action certification hearing was held on Oct. 29, 2007. On Jan. 8, 2008, the trial court issued an order certifying the Allen (now Zina G. Bibb et al. v. Monsanto et al., because Bibb replaced Allen as class representative) case as a class action for property damage and for medical monitoring. On Nov. 2, 2011, the court, in response to defense motions, entered an order decertifying the property class. After the trial for the Bibb medical monitoring class action began on Jan. 3, 2012, the parties reached a settlement in principle as to both the

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medical monitoring and the property class claims. The proposed settlement provides for a 30 year medical monitoring program consisting of a primary fund of up to \$21 million and an additional fund of up to \$63 million over the life of the program, and a three year property remediation plan with funding up to \$9 million. On Feb. 24, 2012, the court preliminarily approved the parties' proposed settlement. A fairness hearing was held June 18, 2012, resulting in the trial court's final approval of the settlement, however, that final approval has been appealed by two objectors and is pending before the West Virginia Supreme Court of Appeals.

In October 2007 and November 2009, a total of approximately 200 separate, single plaintiff civil actions were filed in Putnam County, West Virginia, against Monsanto, Pharmacia, Akzo Nobel (and several of its affiliates), Flexsys America Co. (and several of its affiliates), Solutia, and Apogee Coal Company, LLC. These cases allege personal injury occasioned by exposure to dioxin generated by the Nitro Plant during production of 2,4,5T (1949-1969) and thereafter. Monsanto has agreed to accept the tenders of defense in the matters by Pharmacia, Solutia, Akzo Nobel, Flexsys America, and Apogee Coal under a reservation of rights. During the discovery phase of these several claims, the parties reached an agreement in principle to resolve all pending personal injury claims which is reflected in the above liability.

Including litigation reflected in the liability, Monsanto is involved in various legal proceedings that arise in the ordinary course of its business or pursuant to Monsanto's indemnification obligations to Pharmacia, as well as proceedings that management has considered to be material under SEC regulations. Some of the lawsuits seek damages in very large amounts, or seek to restrict the company's business activities. Monsanto believes that it has meritorious legal positions and will continue to represent its interests vigorously in all of the proceedings that it is defending or prosecuting. Management does not anticipate the ultimate liabilities resulting from such proceedings, or the proceedings reflected in the above liability, will have a material adverse effect on Monsanto's consolidated results of operations, financial position, cash flows or liquidity.

Legal actions have been filed in Brazil that raise issues challenging the right to collect certain royalties for Roundup Ready soybeans. Although Brazilian law clearly states that the pipeline patents protecting these products have the duration of the corresponding U.S. patent (2014 for Roundup Ready soybeans), the duration (and application) of these pipeline patents is currently under judicial review in Brazil. Monsanto believes it has meritorious legal arguments and will continue to represent its interests vigorously in these proceedings. The current estimate of the Company's reasonably possible loss contingency is not material to consolidated results of operations, financial position, cash flows or liquidity.

**Other Contingencies:** The staff of the SEC is conducting an investigation of financial reporting associated with our customer incentive programs for glyphosate products for the fiscal years 2009 and 2010, and we have received subpoenas in connection therewith. It is not reasonably possible to assess the outcome of the investigation at this time, but potential outcomes could include the filing of an enforcement proceeding and the imposition of civil penalties as well as non-monetary remedies, which may require the Company to incur future costs. We continue cooperating with the investigation.

#### NOTE 27. SEGMENT AND GEOGRAPHIC DATA

Monsanto conducts its worldwide operations through global businesses, which are aggregated into reportable segments based on similarity of products, production processes, customers, distribution methods and economic characteristics. The operating segments are aggregated into two reportable segments: Seeds and Genomics and Agricultural Productivity. The Seeds and Genomics segment consists of the global seeds and related traits businesses and biotechnology platforms. Within the Seeds and Genomics segment, Monsanto's significant operating segments are corn seed and traits, soybean seed and traits, cotton seed and traits, vegetable seeds and all other crops seeds and traits. In February 2011, the company reorganized certain operating segments within our Agricultural Productivity reportable segment as a result of a change in the way the Chief Executive Officer, who is the chief operating decision maker, evaluates the performance of operations, develops strategy and allocates capital resources. The Roundup and

other glyphosate-based herbicides operating segment and the other operating segments within Agricultural Productivity were combined into one operating segment titled “Agricultural Productivity” representing our weed management platform and to support our Seeds and Genomics business. The change in operating segments had no impact on the company’s reportable segments. The historical segment disclosures have been recast to be consistent with the current presentation. EBIT is defined as earnings (loss) before interest and taxes and is an operating performance measure for the two reportable segments. EBIT is useful to management in demonstrating the operational profitability of the segments by excluding interest and taxes, which are generally accounted for across the entire company on a consolidated basis. Sales between segments were not significant. Certain SG&A expenses are allocated between segments based on activity.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (continued)

Data for the Seeds and Genomics and Agricultural Productivity reportable segments, as well as for Monsanto's significant operating segments, are presented in the table that follows:

(Dollars in millions)	Year Ended Aug. 31,		
	2013	2012	2011
Net Sales <sup>(1)</sup>			
Corn seed and traits	\$6,596	\$5,814	\$4,805
Soybean seed and traits	1,653	1,771	1,542
Cotton seed and traits	695	779	847
Vegetable seeds	821	851	895
All other crops seeds and traits	575	574	493
Total Seeds and Genomics	\$10,340	\$9,789	\$8,582
Agricultural productivity	4,521	3,715	3,240
Total Agricultural Productivity	\$4,521	\$3,715	\$3,240
Total	\$14,861	\$13,504	\$11,822
Gross Profit			
Corn seed and traits	\$3,929	\$3,589	\$2,864
Soybean seed and traits	948	1,160	1,045
Cotton seed and traits	519	585	642
Vegetable seeds	337	419	534
All other crops seeds and traits	350	306	221
Total Seeds and Genomics	\$6,083	\$6,059	\$5,306
Agricultural productivity	1,570	986	773
Total Agricultural Productivity	\$1,570	\$986	\$773
Total	\$7,653	\$7,045	\$6,079
EBIT <sup>(2)(3)(5)</sup>			
Seeds and genomics	\$2,412	\$2,570	\$2,106
Agricultural productivity	1,048	477	281
Total	\$3,460	\$3,047	\$2,387
Depreciation and Amortization Expense			
Seeds and genomics	\$495	\$510	\$496
Agricultural productivity	120	112	117
Total	\$615	\$622	\$613
Equity Affiliate Income <sup>(6)</sup>			
Seeds and genomics	\$(15)	\$(10)	\$(21)
Agricultural productivity	—	—	—
Total	\$(15)	\$(10)	\$(21)
Total Assets <sup>(4)</sup>			
Seeds and genomics	\$16,246	\$15,944	\$15,351
Agricultural productivity	4,418	4,280	4,493
Total	\$20,664	\$20,224	\$19,844
Property, Plant and Equipment Purchases			
Seeds and genomics	\$619	\$493	\$434
Agricultural productivity	122	153	106
Total	\$741	\$646	\$540
Investment in Equity Affiliates			
Seeds and genomics	\$91	\$142	\$141
Agricultural productivity	—	—	—

Total	\$91	\$142	\$141
<sup>(1)</sup> Represents net sales from continuing operations.			

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## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (continued)

- EBIT is defined as earnings (loss) before interest and taxes; see the following table for reconciliation. Earnings (loss) is intended to mean net income (loss) attributable to Monsanto Company as presented in the Statements of Consolidated Operations under generally accepted accounting principles. EBIT is an operating performance measure for the two reportable segments.
- (2) Agricultural Productivity EBIT includes income of \$17 million, \$10 million and \$3 million from discontinued operations for fiscal years 2013, 2012 and 2011, respectively.
- (4) Includes assets recorded in continuing operations and discontinued operations.
- (5) EBIT includes restructuring charges for fiscal years 2012 and 2011. See Note 5 — Restructuring — for additional information.
- (6) Equity affiliate income is included in Other expense, net in the Statements of Consolidated Operations.

A reconciliation of EBIT to net income for each period follows:

(Dollars in millions)	Year Ended Aug. 31,		
	2013	2012	2011
EBIT <sup>(1)</sup>	\$3,460	\$3,047	\$2,387
Interest Expense — Net	80	114	88
Income Tax Provision <sup>(2)</sup>	898	888	692
Net Income Attributable to Monsanto Company	\$2,482	\$2,045	\$1,607

(1) Includes the income from operations of discontinued businesses and pre-tax noncontrolling interest.

(2) Includes the income tax provision from continuing operations, the income tax benefit on noncontrolling interest and the income tax provision on discontinued operations.

Net sales and long-lived assets are attributed to the geographic areas of the relevant Monsanto legal entities. For example, a sale from the United States to a customer in Brazil is reported as a U.S. export sale.

(Dollars in millions)	Net Sales to Unaffiliated Customers			Long-Lived Assets	
	Year Ended Aug. 31,			As of Aug. 31,	
	2013	2012	2011	2013	2012
United States	\$8,044	\$7,367	\$6,372	\$6,881	\$6,950
Europe-Africa	2,042	1,716	1,515	1,345	1,155
Brazil	1,547	1,588	1,276	696	760
Asia-Pacific	806	837	841	270	308
Argentina	1,121	873	773	347	272
Canada	615	541	458	100	98
Mexico	466	385	362	118	104
Other	220	197	225	376	369
Total	\$14,861	\$13,504	\$11,822	\$10,133	\$10,016

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## NOTE 28. QUARTERLY DATA (UNAUDITED)

The following tables also include financial data for the fiscal year quarters in 2013 and 2012 which have been adjusted for discontinued operations.

(Dollars in millions, except per share amounts)

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
2013					
Net Sales	\$2,939	\$5,472	\$4,248	\$2,202	\$14,861
Gross Profit	1,397	3,070	2,262	924	7,653
Income (Loss) from Continuing Operations Attributable to Monsanto Company	332	1,479	909	(249)	) 2,471
Income on Discontinued Operations	7	4	—	—	11
Net Income (Loss)	349	1,483	932	(239)	) 2,525
Net Income (Loss) Attributable to Monsanto Company	\$339	\$1,483	\$909	\$(249)	) \$2,482
Basic Earnings (Loss) per Share Attributable to Monsanto Company: <sup>(1)</sup>					
Income (Loss) from continuing operations	\$0.62	\$2.77	\$1.70	\$(0.47)	) \$4.63
Income on discontinued operations	0.01	0.01	—	—	0.02
Net Income (Loss) Attributable to Monsanto Company	\$0.63	\$2.78	\$1.70	\$(0.47)	) \$4.65
Diluted Earnings (Loss) per Share Attributable to Monsanto Company: <sup>(1)</sup>					
Income (Loss) from continuing operations	\$0.62	\$2.73	\$1.68	\$(0.47)	) \$4.58
Income on discontinued operations	0.01	0.01	—	—	0.02
Net Income (Loss) Attributable to Monsanto Company	\$0.63	\$2.74	\$1.68	\$(0.47)	) \$4.60
2012					
Net Sales	\$2,439	\$4,748	\$4,219	\$2,098	\$13,504
Gross Profit	1,096	2,705	2,363	881	7,045
Income (Loss) from Continuing Operations Attributable to Monsanto Company	126	1,204	939	(230)	) 2,039
Income (Loss) on Discontinued Operations	—	7	(2)	) 1	6
Net Income (Loss)	134	1,212	966	(219)	) 2,093
Net Income (Loss) Attributable to Monsanto Company	\$126	\$1,211	\$937	\$(229)	) \$2,045
Basic Earnings (Loss) per Share Attributable to Monsanto Company: <sup>(1)</sup>					
Income (Loss) from continuing operations	\$0.24	\$2.25	\$1.76	\$(0.43)	) \$3.82
Income (Loss) on discontinued operations	—	0.02	—	(0.01)	) 0.01
Net Income (Loss) Attributable to Monsanto Company	\$0.24	\$2.27	\$1.76	\$(0.44)	) \$3.83
Diluted Earnings (Loss) per Share Attributable to Monsanto Company: <sup>(1)</sup>					
Income (Loss) from continuing operations	\$0.23	\$2.23	\$1.74	\$(0.42)	) \$3.78
Income on discontinued operations	—	0.01	—	—	0.01

Net Income (Loss) Attributable to Monsanto Company	\$0.23	\$2.24	\$1.74	\$(0.42)	\$3.79
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(1) Because Monsanto reported a loss from continuing operations in the fourth quarter 2013 and 2012, generally accepted accounting principles require diluted loss per share to be calculated using weighted-average common shares outstanding, excluding common stock equivalents. As a result, the quarterly earnings (loss) per share may not total to the full-year amount.

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

None.

**ITEM 9A. CONTROLS AND PROCEDURES**

**Evaluation of Disclosure Controls and Procedures**

Our management, including our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of Aug. 31, 2013. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

Based upon the evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of Aug. 31, 2013.

**Changes in Internal Control over Financial Reporting**

There was no change in our internal control over financial reporting during the period covered by this report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

**ITEM 9B. OTHER INFORMATION**

On October 22, 2013, Monsanto Company’s Board of Directors elected Brett D. Begemann as President and Chief Operating Officer. Mr. Begemann, age 52, has served as President and Chief Commercial Officer for the company since August 2012. Prior to that time, Mr. Begemann served as Executive Vice President and Chief Commercial Officer for the company from January 2011 to August 2012; Executive Vice President, Seeds & Traits from October 2009 to January 2011; and Executive Vice President, Global Commercial from October 2007 to October 2009.

Mr. Begemann will receive the following changes to his compensation: (i) effective January 6, 2014, his annualized base pay will be increased to \$800,000; (ii) his Annual Incentive Plan target opportunity level will be increased to 100% of base pay for fiscal year 2014; and (iii) his long-term incentive award value will be increased to \$3,000,000.

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## PART III

## ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The following information appearing in Monsanto Company's definitive proxy statement, which is expected to be filed with the SEC pursuant to Regulation 14A in December 2013 (Proxy Statement), is incorporated herein by reference:

Information appearing under the heading "Information Regarding Board of Directors" including biographical information regarding nominees for election to, and members of, the Board of Directors;  
 Information appearing under the heading "Section 16(a) Beneficial Ownership Reporting Compliance"; and  
 Information appearing under the heading "Board Meetings and Committees — Audit and Finance Committee," regarding the membership and function of the Audit and Finance Committee, and the financial expertise of its members.

Monsanto has adopted a Code of Ethics for Chief Executive and Senior Financial Officers (Code), which applies to its Chief Executive Officer and the senior leadership of its finance department, including its Chief Financial Officer and Controller. This Code is available on our Web site at [www.monsanto.com](http://www.monsanto.com), at the tab "Corporate Governance" under "Who We Are." Any amendments to, or waivers from, the provisions of the Code will be posted to that same location within four business days and will remain on the Web site for at least a 12-month period.

The following information with respect to the executive officers of the Company on Oct. 23, 2013, 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 Sept. 1, 2008*
Brett D. Begemann, 52	President and Chief Operating Officer	2003	Executive Vice President, Global Commercial — Monsanto Company, 10/07-10/09; Executive Vice President, Seeds and Traits — Monsanto Company, 10/09-1/11; Executive Vice President and Chief Commercial Officer — Monsanto Company, 1/11-8/12; President and Chief Commercial Officer — Monsanto Company, 8/12-10/13; present position, 10/13
Pierre Courdouroux, 48	Senior Vice President and Chief Financial Officer	2011	Global Finance Lead, Vegetables Business — Monsanto Company, 10/07-12/09; Global Seeds and Traits Finance Lead — Monsanto Company, 12/09-1/11, present position, 1/11
Robert T. Fraley, 60	Executive Vice President and Chief Technology Officer	2000	Present position, 8/00
Michael J. Frank, 49	Vice President, International Row Crops and Vegetables	2013	President, Monsanto China-Monsanto Company, 2008-2009; Vice President Crop Protection & Operations — Monsanto Company, 2010; Vice President-Crop Protection & Global Product Strategy-Monsanto Company, 11/10-4/11; Vice President-Global Manufacturing Operations & Global

Product Strategy-Monsanto Company, 5/11-12/12; Lead, EMEA, China, Asia-Pacific and India Row Crops and Global Vegetables-Monsanto Company, 1/13-7/13; present Position, 8/13

Hugh Grant, 55

Chairman of the Board and  
Chief Executive Officer

2000

Chairman of the Board, President and Chief Executive Officer — Monsanto Company, 10/03-8/12; present position, 8/12

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Tom D. Hartley, 54	Vice President and Treasurer	2008	Director, International Finance — Monsanto Company, 5/07-12/08; present position, 12/08
Janet M. Holloway, 59	Senior Vice President, Chief of Staff and Community Relations	2000	Present position, 10/07
Steven C. Mizell, 53	Executive Vice President, Human Resources	2004	Present position, 8/07
Kerry J. Preete, 53	Executive Vice President, Global Strategy	2008	Vice President, International Commercial - Monsanto Company, 6/08-8/09; Vice President, Commercial and President, Crop Protection - Monsanto Company, 8/09-10/09; Vice President, Crop Protection - Monsanto Company, 10/09-10/10; Senior Vice President, Global Strategy - Monsanto Company, 10/10-8/12; present position, 8/12
Nicole M. Ringenberg, 52	Vice President and Controller	2007	Vice President, Finance and Operations, Global Commercial — Monsanto Company, 10/07-10/09; Vice President, Finance, Seeds & Traits — Monsanto Company, 10/09-12/09; present position, 12/09
David F. Snively, 59	Executive Vice President, Secretary and General Counsel	2006	Senior Vice President, Secretary and General Counsel — Monsanto Company, 9/06-9/10; present position, 9/10
Gerald A. Steiner, 53	Executive Vice President, Sustainability & Corporate Affairs	2001	Executive Vice President, Commercial Acceptance — Monsanto Company, 6/03-12/08; present position, 12/08
Michael K. Stern, 52	Vice President, Americas Row Crops	2013	President - American Seeds, Inc., 9/08-7/09; Lead, U.S. Row Crops - Monsanto Company, 8/09-12/12; Lead, Americas Row Crops - Monsanto Company, 1/13-7/13; present position, 8/13

\* Prior to Sept. 1, 2000, the businesses of the current Monsanto Company were the agricultural division of Pharmacia LLC.

## ITEM 11. EXECUTIVE COMPENSATION

Information appearing under the following headings of the Proxy Statement is incorporated herein by reference: “Compensation Committee Interlocks and Insider Participation”; “Board Role in Risk Oversight and Assessment”; “Compensation-Related Risk”; “Compensation of Directors”; “Report of the People and Compensation Committee”; “Compensation Discussion and Analysis”; “Summary Compensation Table”; “Grants of Plan-Based Awards Table”; “Additional Information Explaining Summary Compensation and Grants of Plan-Based Awards Tables”; “Outstanding Equity Awards at Fiscal Year-End Table”; “Option Exercises and Stock Vested Table”; “Pension Benefits”; “Non-Qualified Deferred Compensation”; and “Potential Payments Upon Termination or Change of Control.”

The information contained in “Report of the People and Compensation Committee” shall not be deemed to be “filed” with the Securities and Exchange Commission or subject to the liabilities of the Exchange Act, except to the extent that the company specifically incorporates such information into a document filed under the Securities Act or the Exchange Act.

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**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

Information appearing in the Proxy Statement under the headings “Stock Ownership of Management and Certain Beneficial Owners” and “Equity Compensation Plan Table” is incorporated herein by reference.

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**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE**  
Information appearing in the Proxy Statement under the headings “Related Person Transactions Policy” and “Director Independence” are incorporated herein by reference.

**ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES**

Information regarding fees paid to our independent registered public accounting firm and approval of services by our audit and finance committee that appears in the Proxy Statement under the heading “Proxy Item No. 2: Ratification of Independent Registered Public Accounting Firm” is incorporated herein by reference.

**PART IV**

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ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) Documents filed as part of this Report:

The following financial statements appearing in Item 8: “Statements of Consolidated Operations”; “Statements of

- (1) Consolidated Comprehensive Income”, “Statements of Consolidated Financial Position”; “Statements of Consolidated Cash Flows”; “Statements of Consolidated Shareowners’ Equity.”

- (2) Exhibits: The list of exhibits in the Exhibit Index to this Report is incorporated herein by reference. The exhibits will be filed with the SEC but will not be included in the printed version of the Annual Report to Shareowners.



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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/ NICOLE M. RINGENBERG

Nicole M. Ringenberg

Vice President and Controller

(Principal Accounting Officer)

Date: Oct. 23, 2013

## MONSANTO COMPANY

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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.

Signature	Title	Date
/s/ GREGORY H. BOYCE (Gregory H. Boyce)	Director	Oct. 23, 2013
/s/ DAVID L. CHICOINE (David L. Chicoine)	Director	Oct. 23, 2013
/s/ JANICE L. FIELDS (Janice L. Fields)	Director	Oct. 23, 2013
/s/ HUGH GRANT (Hugh Grant)	Chairman of the Board and Chief Executive Officer, Director (Principal Executive Officer)	Oct. 23, 2013
(Arthur H. Harper)	Director	
/s/ LAURA K. IPSEN (Laura K. Ipsen)	Director	Oct. 23, 2013
/s/ GWENDOLYN S. KING (Gwendolyn S. King)	Director	Oct. 23, 2013
/s/ C. STEVEN MCMILLAN (C. Steven McMillan)	Director	Oct. 23, 2013
/s/ JON R. MOELLER (Jon R. Moeller)	Director	Oct. 23, 2013
/s/ WILLIAM U. PARFET (William U. Parfet)	Director	Oct. 23, 2013
/s/ GEORGE H. POSTE (George H. Poste)	Director	Oct. 23, 2013
/s/ ROBERT J. STEVENS (Robert J. Stevens)	Director	Oct. 23, 2013
/s/ PIERRE COURDURoux (Pierre Courdouroux)	Senior Vice President, Chief Financial Officer (Principal Financial Officer)	Oct. 23, 2013
/s/ NICOLE M. RINGENBERG (Nicole M. Ringenberg)	Vice President and Controller (Principal Accounting Officer)	Oct. 23, 2013



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## EXHIBIT INDEX

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

Exhibit No.	Description
2	1. Separation Agreement, dated as of Sept. 1, 2000, between the company and Pharmacia (incorporated by reference to Exhibit 2.1 of Amendment No. 2 to Registration Statement on Form S-1, filed Sept. 22, 2000, File No. 333-36956).*
	2. First Amendment to Separation Agreement, dated July 1, 2002, between Pharmacia and the company (incorporated by reference to Exhibit 99.2 of Form 8-K, filed July 30, 2002, File No. 1-16167).*
3	1. Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of Form 10-Q, Filed June 27, 2013, File No. 1-16167).
	2. Monsanto Company Bylaws, as amended and restated effective April 16, 2013 (incorporated by reference to Exhibit 3.2(i) of Form 8-K, filed April 22, 2013, File No. 1-16167).
4	1. Indenture, dated as of Aug. 1, 2002, between the company and The Bank of New York Trust Company, N.A., as Trustee (incorporated by reference to Exhibit 4.2 of Form 8-K, filed Aug. 31, 2005, File No. 1-16167).
	2. Form of Registration Rights Agreement, dated Aug. 25, 2005, relating to 5 1/2 % Senior Notes due 2025 of the company (incorporated by reference to Exhibit 4.3 of Form 8-K, filed Aug. 31, 2005, File No. 1-16167).
9	Omitted
10	1. Tax Sharing Agreement, dated July 19, 2002, between the company and Pharmacia (incorporated by reference to Exhibit 10.4 of Form 10-Q for the period ended June 30, 2002, File No. 1-16167).
	2. Employee Benefits and Compensation Allocation Agreement between Pharmacia and the company, dated as of Sept. 1, 2000 (incorporated by reference to Exhibit 10.7 of Amendment No. 2 to Registration Statement on Form S-1, filed Sept. 22, 2000, File No. 333-36956).
	2.1. Amendment to Employee Benefits and Compensation Allocation Agreement between Pharmacia and the company, dated Sept. 1, 2000 (incorporated by reference to Exhibit 2.1 of Form 10-K for the period ended Dec. 31, 2001, File No. 1-16167).
	3. Intellectual Property Transfer Agreement, dated Sept. 1, 2000, between the company and Pharmacia (incorporated by reference to Exhibit 10.8 of Amendment No. 2 to Registration Statement on Form S-1, filed Sept. 22, 2000, File No. 333-36956).
	4. Services Agreement, dated Sept. 1, 2000, between the company and Pharmacia (incorporated by reference to Exhibit 10.9 of Amendment No. 2 to Registration Statement on Form S-1, filed Sept. 22, 2000, File No. 333-36956).
	5. Corporate Agreement, dated Sept. 1, 2000, between the company and Pharmacia (incorporated by reference to Exhibit 10.10 of Amendment No. 2 to Registration Statement on Form S-1, filed Sept. 22, 2000, File No. 333-36956).
	6. Agreement among Solutia, Pharmacia and the company, relating to settlement of certain litigation (incorporated by reference to Exhibit 10.25 of Form 10-K for the transition period ended Aug. 31, 2003, File No. 1-16167).
	7. Global Settlement Agreement, executed Sept. 9, 2003, in the U.S. District Court for the Northern District of Alabama, and in the Circuit Court of Etowah County, Alabama (incorporated by reference to Exhibit 10.25 of Form 10-K for the transition period ended Aug. 31, 2003, File No. 1-16167).
	8. Solutia's Fifth Amended Joint Plan of Reorganization Pursuant to Chapter 11 of the Bankruptcy Code (As Modified) (incorporated by reference to Exhibit 2.1 of Solutia's Form 8-K filed December 5, 2007, SEC File No. 001-13255).

9. Amended and Restated Settlement Agreement dated February 28, 2008, by and among Solutia Inc., Monsanto Company and SFC LLC (incorporated by reference to Exhibit 10.1 of Solutia's Form 8-K filed March 5, 2008, SEC File No. 001-13255).
10. First Amended and Restated Retiree Settlement Agreement dated as of July 10, 2007, among Solutia Inc., the company and the claimants set forth therein (incorporated by reference to Exhibit 10.3 of Solutia's Form 8-K filed March 5, 2008, SEC File No. 001-13255).
11. Letter Agreement between the company and Pharmacia, effective Aug. 13, 2002 (incorporated by reference to Exhibit 10.6 of Form 10-Q for the period ended June 30, 2002, File No. 1-16167).

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12. Credit Agreement, dated April 1, 2011, as amended and extended as of May 31, 2012 (composite conformed copy). The original Credit Agreement was filed as Exhibit 10.1 to the registrant's Form 8-K, filed April 7, 2011 (incorporated by reference to Exhibit 10.5 of the Form 10-Q for the period ended May 31, 2012, File No. 1-16167).
13. The Monsanto Company Non-Employee Director Equity Incentive Compensation Plan, as amended and restated, effective September 1, 2013.<sup>†</sup>
14. Monsanto Company Long-Term Incentive Plan, as amended and restated, effective April 24, 2003 (formerly known as Monsanto 2000 Management Incentive Plan) (incorporated by reference to Appendix C to Notice of Annual Meeting and Proxy Statement dated March 13, 2003, File No. 1-16167).<sup>†</sup>
- 14.1. First Amendment, effective Jan. 29, 2004, to the Monsanto Company Long-Term Incentive Plan, as amended and restated (incorporated by reference to Exhibit 10.16.1 of the Form 10-Q for the period ended Feb. 29, 2004, File No. 1-16167).<sup>†</sup>
- 14.2. Second Amendment, effective Oct. 23, 2006, to the Monsanto Company Long-Term Incentive Plan, as amended and restated (incorporated by reference to Exhibit 10.18.2 of the Form 10-K for the period ended Aug. 31, 2006, File No. 1-16167).<sup>†</sup>
- 14.3. Third Amendment, effective June 14, 2007, to the Monsanto Company Long-Term Incentive Plan, as amended and restated (incorporated by reference to Exhibit 10.19.3 of Form 10-K for the period ended Aug. 31, 2007, File No. 1-16167).<sup>†</sup>
- 14.4. Fourth Amendment, effective June 14, 2007, to the Monsanto Company Long-Term Incentive Plan, as amended and restated (incorporated by reference to Exhibit 10.19.4 of Form 10-K for the period ended Aug. 31, 2007, File No. 1-16167).<sup>†</sup>
- 14.5. Fifth Amendment, effective Sept. 1, 2010, to the Monsanto Company Long-Term Incentive Plan, as amended and restated (incorporated by reference to Exhibit 10.1 to Form 8-K, filed Sept. 1, 2010, File No. 1-16167).<sup>†</sup>
- 14.6. Form of Terms and Conditions of Option Grant Under the Monsanto Company Long-Term Incentive Plan, as amended and restated, as of Oct. 2004 (incorporated by reference to Exhibit 10.16.2 of Form 10-K for the period ended Aug. 31, 2004, File No. 1-16167).<sup>†</sup>
- 14.7. Form of Terms and Conditions of Option Grant Under the Monsanto Company Long-Term Incentive Plan and the Monsanto Company 2005 Long-Term Incentive Plan, as approved by the People and Compensation Committee of the Board of Directors on Aug. 6, 2007 (incorporated by reference to Exhibit 10.3 to Form 8-K, filed Aug. 10, 2007, File No. 1-16167)<sup>†</sup>
- 14.8. Form of Terms and Conditions of Option Grant Under the Monsanto Company Long-Term Incentive Plan and the Monsanto Company 2005 Long-Term Incentive Plan, as of Oct. 2008 (incorporated by reference to Exhibit 10.19.7 to Form 10-K, filed Oct. 27, 2009, File No. 1-16167).<sup>†</sup>
- 14.9. Form of Terms and Conditions of Option Grant Under the Monsanto Company Long-Term Incentive Plan and the Monsanto Company 2005 Long-Term Incentive Plan, as approved on Oct. 25, 2010 (incorporated by reference to Exhibit 10.14.9 to Form 10-K, filed Oct. 27, 2010, File No. 1-16167).<sup>†</sup>
- 14.10. Form of Terms and Conditions of Option Grant Under the Monsanto Company Long-Term Incentive Plan and the Monsanto Company 2005 Long-Term Incentive Plan, as approved on Aug. 24, 2011 (incorporated by reference to Exhibit 10.14.10. to Form 10-K, filed Nov. 14, 2011, File No. 1-16167).<sup>†</sup>

- 14.11. Form of Terms and Conditions of Restricted Stock Grant Under the Monsanto Company Long-Term Incentive Plan (incorporated by reference to Exhibit 10.17.3 of Form 10-K for the period ended Aug. 31, 2005, File No. 1-16167).<sup>†</sup>
- 14.12. Form of Terms and Conditions of Restricted Stock Unit Grant Under the Monsanto Company Long-Term Incentive Plan, as of Oct. 2006 (incorporated by reference to Exhibit 10.18.5 of the Form 10-K for the period ended Aug. 31, 2006, File No. 1-16167).<sup>†</sup>
- 14.13. Form of Terms and Conditions of Restricted Stock Unit Grant Under the Monsanto Company Long-Term Incentive Plan, as of Oct. 2005 (incorporated by reference to Exhibit 10.17.4 of Form 10-K for the period ended Aug. 31, 2005, File No. 1-16167).<sup>†</sup>
- 14.14. Form of Terms and Conditions of Restricted Stock Unit Grant Under the Monsanto Company Long-Term Incentive Plan and the Monsanto Company 2005 Long-Term Incentive Plan, as approved by the People and Compensation Committee of the Board of Directors on Aug. 6, 2007 (incorporated by reference to Exhibit 10.4 to Form 8-K, filed Aug. 10, 2007, File No. 1-16167).<sup>†</sup>

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- 14.15. Form of Non-Employee Director Restricted Share Grant Terms and Conditions Under the Monsanto Company Long-Term Incentive Plan and the Monsanto 2005 Long-Term Incentive Plan, as amended and restated (incorporated by reference to Exhibit 10.16.2 of the Form 10-Q for the period ended May 31, 2004, File No. 1-16167).<sup>†</sup>
- 14.16. Form of Non-Employee Director Restricted Share Grant Terms and Conditions Under the Monsanto Company Long-Term Incentive Plan and the Monsanto 2005 Long-Term Incentive Plan, as approved on Aug. 3, 2011 (incorporated by reference to Exhibit 10.14.16 to Form 10-K, filed Nov. 14, 2011, File No. 1-16167).<sup>†</sup>
- 15. Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of January 24, 2012) (incorporated by reference to Appendix D to the Monsanto Company Proxy Statement, filed Dec. 9, 2011, File No. 1-16167).<sup>†</sup>
- 15.1. Form of Terms and Conditions of Option Grant Under the Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of Jan. 24, 2012), as approved on Aug. 29, 2012 (incorporated by reference to Exhibit 10.2 to Form 8-K, filed Aug. 31, 2012, File No. 1-16167).<sup>†</sup>
- 15.2. Form of Terms and Conditions of Restricted Stock Units Grant Under the Monsanto Company 2005 Long-Term Incentive Plan, as approved by the People and Compensation Committee of the Board of Directors by executed unanimous written consent on Oct. 11, 2007 (incorporated by reference to Exhibit 10.1 of Form 8-K, filed Oct. 17, 2007, File No. 1-16167).<sup>†</sup>
- 15.3. Form of Terms and Conditions of Restricted Stock Units Grant Under the Monsanto Company 2005 Long-Term Incentive Plan, as approved by the People and Compensation Committee of the Board of Directors on Oct. 20, 2008 (incorporated by reference to Exhibit 20.5 of Form 10-K for the period ended Aug. 31, 2009, File No. 1-16167).<sup>†</sup>
- 15.4. Form of Terms and Conditions of Restricted Stock Units Grant Under the Monsanto Company 2005 Long-Term Incentive Plan, as approved by the People and Compensation Committee of the Board of Directors on Oct. 26, 2009 (incorporated by reference to Exhibit 10.20.6 to Form 10-K, filed Oct. 27, 2009, File No. 16167).<sup>†</sup>
- 15.5. Form of Terms and Conditions of Fiscal Year 2011 Restricted Stock Unit Grant Under the Monsanto Company 2005 Long-Term Incentive Plan, as approved on Aug. 26, 2010 (incorporated by reference to Exhibit 10.4 to Form 8-K, filed Sept. 1, 2010, File No. 1-16167).<sup>†</sup>
- 15.6. Form of Terms and Conditions of Restricted Stock Unit Grant Under the Monsanto Company Long-Term Incentive Plan and the 2005 Long-Term Incentive Plan, as approved on Aug. 24, 2011 (incorporated by reference to Exhibit 10.15.9. to Form 10-K, filed Nov. 14, 2011, File No. 1-16167).<sup>†</sup>
- 15.7. Form of Terms and Conditions of Restricted Stock Units Grant Under the Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of Jan. 24, 2012), as approved on Aug. 29, 2012 (incorporated by reference to Exhibit 10.4 to Form 8-K, filed Aug. 31, 2012, File No. 1-16167).<sup>†</sup>
- 15.8. Form of Terms and Conditions of Financial Goal Restricted Stock Units Under the Monsanto Company 2005 Long-Term Incentive Plan, as approved Oct. 24, 2011 (incorporated by reference



to Exhibit 10.15.10. to Form 10-K, filed Nov. 14, 2011, File No. 1-16167).<sup>†</sup>

- 15.9. Form of Terms and Conditions of Financial Goal Restricted Stock Units Under the Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of Jan. 24, 2012), as approved on Aug. 29, 2012 (incorporated by reference to Exhibit 10.3 to Form 8-K, filed Aug. 31, 2012, File No. 1-16167).<sup>†</sup>
- 15.10. Form of Terms and Conditions of Strategic Performance Goal Restricted Stock Units Grant Under the Monsanto Company 2005 Long-Term Incentive Plan, as approved by the People and Compensation Committee of the Board of Directors on Oct. 26, 2009 (incorporated by reference to Exhibit 10.20.7 to Form 10-K, filed Oct. 27, 2009, File No. 1-16167).<sup>†</sup>
- 15.10.1. Summary of Potential Number of Shares that may Vest Under, and Terms and Conditions of, the Strategic Performance Goal Restricted Stock Unit Grants (incorporated by reference to Exhibit 10.20.7.1 to Form 10-K, filed Oct. 27, 2009, File No. 1-16167).<sup>†</sup>
- 15.11. Form of Terms and Conditions of Retention and Performance Restricted Stock Unit Grant under the Monsanto Company 2005 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.15.12. to Form 10-K, filed Nov. 14, 2011, File No. 1-16167).<sup>†</sup>

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- 15.12. Forms of Terms and Conditions of Restricted Share Grant to Non-Employee Director [Elective Retainer Amount] under the Monsanto Company 2005 Long-Term Incentive Plan, as amended and restated as of January 24, 2012 (incorporated by reference to Exhibit 10.3 of the Form 10-Q for the period ended May 31, 2012, File No. 1-16167).<sup>†</sup>
- 15.13. Forms of Terms and Conditions of Restricted Shares Grant to Non-Employee Director [Inaugural Grant] under the Monsanto Company 2005 Long-Term Incentive Plan, as amended and restated as of January 24, 2012 (incorporated by reference to Exhibit 10.4 of the Form 10-Q for the period ended May 31, 2012, File No. 1-16167).<sup>†</sup>
- 16. Amended and Restated Deferred Payment Plan, effective Dec. 8, 2008 (incorporated by reference to Exhibit 10.16 to Form 10-K, filed Oct. 27, 2010, File No. 1-16167).<sup>†</sup>
- 16.1. Amendment No. 1, effective Aug. 27, 2009, to the Amended and Restated Deferred Payment Plan, effective Dec. 8, 2008 (incorporated by reference to Exhibit 10.16.1 to Form 10-K, filed Oct. 27, 2010, File No. 1-16167).<sup>†</sup>
- 16.2. Amendment No. 2, effective Aug. 1, 2010, to the Amended and Restated Deferred Payment Plan, effective Dec. 8, 2008 (incorporated by reference to Exhibit 10.16.2 to Form 10-K, filed Oct. 27, 2010, File No. 1-16167).<sup>†</sup>
- 17. Monsanto Company ERISA Parity Savings and Investment Plan, as amended and restated as of December 21, 2008, and subsequently amended through June 11, 2012 (incorporated by reference to Exhibit 4.4 of Registration Statement on Form S-8, filed June 22, 2012, File No. 333-182292).<sup>†</sup>
- 18. Monsanto Company Phantom Share Unit Retention Plan for Long-Term International Assignees, amended and restated on Dec. 15, 2008 (incorporated by reference to Exhibit 10.17 to Form 10-K, filed Oct. 27, 2010, File No. 1-16167).<sup>†</sup>
- 18.1. Form of Terms and Conditions of Units Under the Monsanto Company Phantom Share Unit Retention Plan for Long-Term International Assignees, amended and restated on Dec. 15, 2008 (incorporated by reference to Exhibit 10.17.1 to Form 10-K, filed Oct. 27, 2010, File No. 1-16167).<sup>†</sup>
- 19. Annual Incentive Program for Certain Executive Officers (incorporated by reference to the description appearing under the sub-heading “Proxy Item No. 5: Approval of Performance Goals Under the Monsanto Company Code Section §162(m) Annual Incentive Plan for Covered Executives” on pages 81-82 of the Proxy Statement filed Dec. 10, 2010, File No. 1-16167).<sup>†</sup>
- 20. Fiscal Year 2013 Annual Incentive Plan, as approved by the People and Compensation Committee of the Board of Directors on Aug. 29, 2012 (incorporated by reference to Exhibit 10.1 to Form 8-K, filed Aug. 31, 2012, File No. 1-16167).<sup>†</sup>
- 21. Fiscal Year 2014 Annual Incentive Plan, as approved by the People and Compensation Committee of the Board of Directors on Aug. 26, 2013 (incorporated by reference to Exhibit 10.1 to Form 8-K, filed Aug. 30, 2013, File No. 1-16167).<sup>†</sup>
- 22.1. Form of Change of Control Employment Security Agreement for Messrs. Begemann, Grant and Snively, and Dr. Fraley, effective Sept. 1, 2010 (incorporated by reference to Exhibit 10 to Form 8-K, filed on Sept. 7, 2010, File No. 1-16167).<sup>†</sup>
- 22.2. Form of Change of Control Employment Security Agreement for Mr. Courdouroux, effective Feb. 4, 2011 (incorporated by reference to Exhibit 10 to Form 8-K, filed on Feb. 10, 2011, File No. 1-16167).<sup>†</sup>
- 23. Monsanto Company Executive Health Management Program, as amended and restated as of Oct. 25, 2010 (incorporated by reference to Exhibit 10.22 to Form 10-K, filed Oct. 27, 2010, File No. 1-16167).<sup>†</sup>
- 24. Amended and Restated Monsanto Company Recoupment Policy, as approved by the Board of Directors on Oct. 27, 2009 (incorporated by reference to Exhibit 10.20.7 to Form 10-K, filed Oct. 27, 2009, File No. 1-16167).<sup>†</sup>

25. Monsanto Benefits Plan for Third Country Nationals (incorporated by reference to Exhibit 10.2 to Form 8-K, filed Aug. 11, 2008, File No. 1-16167).<sup>†</sup>

25.1. Amendment to Monsanto Benefits Plan for Third Country Nationals, effective Aug. 5, 2008 (incorporated by reference to Exhibit 10.3 to Form 8-K, filed Aug. 11, 2008, File No. 1-16167).<sup>†</sup>

26. Consulting Agreement between Monsanto Company and Mr. Steiner dated Oct. 14, 2013.<sup>†</sup>

11 Omitted — see Item 8 — Note 24 — Earnings per Share.

12 Statements Re Computation of Ratios.

13 Omitted

14 Omitted — Monsanto's Code of Ethics for Chief Executive and Senior Financial Officers is available on our Web site at [www.monsanto.com](http://www.monsanto.com).

16 Omitted

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- 18 Omitted
- 21 Subsidiaries of the Registrant.
- 22 Omitted
- 23 Consent of Independent Registered Public Accounting Firm.
- 31
  - 1. Rule 13a-14(a)/15d-14(a) Certifications (pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, executed by Chief Executive Officer).
  - 2. Rule 13a-14(a)/15d-14(a) Certifications (pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, executed by Chief Financial Officer).
- 32 Rule 13a-14(b) Certifications (pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, executed by the Chief Executive Officer and the Chief Financial Officer).
- 101.INS XBRL Instance Document.
- 101.SCH XBRL Taxonomy Extension Schema Document.
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document.
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document.
- 101.LAB XBRL Taxonomy Extension Label Linkbase Document.
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document.

\* Schedules and similar attachments to this Agreement have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The registrant will furnish supplementally a copy of any omitted schedule or similar attachment to the SEC upon request.

† Represents management contract or compensatory plan or arrangement.

Monsanto Company agrees to furnish to the Securities and Exchange Commission, upon request, copies of any long-term debt instruments that authorize an amount of securities constituting 10 percent or less of the total assets of the company and its subsidiaries on a consolidated basis.