

MONSANTO CO /NEW/
Form S-3ASR
June 29, 2012
Table of Contents

AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON June 29, 2012

Registration Statement No. 333-_____

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM S-3
Registration Statement
Under the
Securities Act of 1933

MONSANTO COMPANY

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation or organization)

43-1878297
(IRS Employer
Identification No.)

800 North Lindbergh Boulevard
St. Louis, Missouri 63167

(Address of principal executive offices)

Registrant's telephone number including area code:

(314) 694-1000

Edgar Filing: MONSANTO CO /NEW/ - Form S-3ASR

David F. Snively, Esq.
 Executive Vice President, Secretary
 and General Counsel
 Monsanto Company
 800 North Lindbergh Boulevard
 St. Louis, Missouri 63167
 314-694-1000
 (Name and address of agent for service)

Copies to:
R. Randall Wang, Esq.
Brian K. Feezel, Esq.
 Bryan Cave LLP
 One Metropolitan Square, Suite 3600
 St. Louis, Missouri 63102
 314-259-2149

Fax 314-259-2020

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: "

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, please check the following box: x

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. "

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. "

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, please check the following box. x

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. "

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 the definitions 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
 (Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered	Proposed Maximum Offering Price per Share	Proposed Maximum Aggregate Offering Price(2)	Amount of registration fee(3)
Common stock	1,808,084	(1)	\$150,812,286.44	\$17,283.09

(1) Highest price, excluding interest, to be payable per share in connection with the rescission offer covered by this registration statement. The price per share will range from \$60.04 to \$83.41, depending on the price originally paid by the offeree.

Edgar Filing: MONSANTO CO /NEW/ - Form S-3ASR

(2) Aggregate purchase price, excluding interest, estimated to be payable (based on highest per share price) if the rescission offer covered by this registration statement is accepted in full.

(3) Calculated pursuant to Rule 457(j) on the basis of the amount at which such securities were sold.

Table of Contents

Monsanto Company

1,808,084 Shares of Common Stock

Monsanto Savings and Investment Plan

Rescission Offer

Under the terms and conditions described in this prospectus, we are offering to rescind (the **Rescission Offer**) the previous purchase of 1,808,084 shares of our common stock, par value \$0.01 per share (**Shares**), included in units (**Units**) in the Monsanto (Employee) Stock Fund or Monsanto (Employer) Stock Fund (collectively, the **Monsanto Stock Funds**) by persons who acquired such units (the **Units**) through the Monsanto Company Savings and Investment Plan (the **Plan**) between May 1, 2011 and June 22, 2012 (the **Purchase Period**). Each Unit represents an interest in shares of our common stock, par value \$0.01 per share, plus a varying amount of short-term liquid investments.

The Rescission Offer applies to shares of our common stock included in Units purchased during the Purchase Period at prices ranging from \$79.87 per Unit to \$115.95 per Unit in the Monsanto (Employee) Stock Fund and from \$84.00 per Unit to \$116.42 per Unit in the Monsanto (Employer) Stock Fund.

If you purchased Units pursuant to the Plan during the Purchase Period and accept the Rescission Offer, you will receive:

In the event you sold such Units at a loss, an amount equal to the excess, if any, of (i) the sum of the amount you paid for such Units (less the value of dividends received) plus interest to the date of sale and interest on the amount of loss from the date of sale less (ii) the proceeds from your sale of the Units.

In the event you currently hold such Units, upon your tender of such Units to us by accepting the Rescission Offer, the amount you paid for such Units (less the value of dividends received), plus interest from the date of the purchase. However, we will not repurchase the Units if the amount you paid for the Units (less the value of dividends received), plus interest, is less than the value of the Units on the date of expiration of this Rescission Offer.

The Rescission Offer will expire at 11:59 p.m., U.S. Central time, on July 27, 2012 (the **Expiration Date**), which is 28 days from the date of this prospectus.

Our common stock is listed on The New York Stock Exchange under the trading symbol **MON**. The last reported sale price of our common stock (as reported on The NYSE) on June 22, 2012, was \$78.45 per share. The value of a Unit in the Monsanto (Employee) Stock Fund and in the Monsanto (Employer) Stock Fund on such date was \$103.85 and \$111.21, respectively. Our principal executive offices are located at 800 North Lindbergh Boulevard, St. Louis, Missouri 63167, and our telephone number is (314) 694-1000.

You may elect to accept the Rescission Offer by submitting a Rescission Offer Acceptance Form to us on or before the Expiration Date as set forth in this prospectus. You do not need to take any action to reject the Rescission Offer. If you fail to return the Rescission Offer Acceptance Form by the Expiration Date, you will be deemed by us to have rejected the

Rescission Offer. Acceptance or rejection of the Rescission Offer may prevent you from

Table of Contents

maintaining any action against us based on a claim that we failed to register shares of our common stock represented by the Units purchased pursuant to the Plan during the Purchase Period. In any event, any such claim may be barred by applicable statutes of limitations. See Risk Factors Your right of rescission, if any, under federal and state law may not survive if you affirmatively reject or fail to accept the Rescission Offer.

Investing in Units, and in the shares of our common stock represented thereby, involves risks. See Risk Factors.

The shares of our common stock represented by the Units subject to the Rescission Offer may be deemed not to have been properly registered under the Securities Act of 1933, as amended (the Securities Act), because we may have inadvertently exceeded the number of shares of our common stock registered with the Securities and Exchange Commission (the SEC) for offer and sale to participants under the Plan. This prospectus is part of a Registration Statement on Form S-3 filed with the SEC to register these shares, regardless of whether or not you accept the Rescission Offer.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is June 29, 2012

Table of Contents

TABLE OF CONTENTS

	Page
<u>Cautionary Statement Regarding Forward-Looking Statements</u>	1
<u>Questions and Answers about the Rescission Offer</u>	2
<u>Risk Factors</u>	11
<u>Our Company</u>	13
<u>The Rescission Offer</u>	13
<u>Material U.S. Federal Income Tax Consequences</u>	20
<u>Use of Proceeds</u>	20
<u>Notice of Blackout Period</u>	20
<u>Where You Can Find More Information</u>	21
<u>Legal Matters</u>	22
<u>Experts</u>	22

You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized anyone to provide you with additional or different information. If anyone provides you with additional or different information, you should not rely on it. This prospectus is not an offer to sell or purchase nor is it soliciting an offer to buy or sell these securities in any jurisdiction where such offer, solicitation or sale is not permitted. You should assume that the information contained in this prospectus is accurate only as of its date and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference. Our business, financial condition, results of operations and prospects may have changed since those dates.

Unless otherwise stated or the context otherwise requires, references in this prospectus to Monsanto, we, us, and our refer to Monsanto Company and its subsidiaries.

Table of Contents

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

In this prospectus, including the information incorporated by reference herein, 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; domestic or international economic, political and market conditions; and other factors that could affect our future results of operations or financial position. 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.

Since these statements are based on factors that involve risks and uncertainties, our company's actual performance and results may differ materially from those described or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, among others: continued competition in seeds, traits and agricultural chemicals; the company's exposure to various contingencies, including those related to intellectual property protection, regulatory compliance and the speed with which approvals are received, and public acceptance of biotechnology products; the success of the company's research and development activities; the outcomes of major lawsuits and the previously-announced SEC investigation; the previously reported material weakness in our internal controls over financial reporting; developments related to foreign currencies and economies; successful operation of recent acquisitions; fluctuations in commodity prices; compliance with regulations affecting our manufacturing; the accuracy of the company's estimates related to distribution inventory levels; the company's ability to fund its short-term financing needs and to obtain payment for the products that it sells; the effect of weather conditions, natural disasters and accidents on the agriculture business or the company's facilities; and other risks and factors detailed in Part I Item 1A of our Report on Form 10-K for the fiscal year ended Aug. 31, 2011.

Our forward-looking statements represent our estimates and expectations and are based on currently available information at the time that we make those statements. However, circumstances change constantly, often unpredictably, and many events beyond our control will determine whether the expectations encompassed in our forward-looking statements will be realized. As a result, investors should not place undue reliance on these forward-looking statements. We disclaim any intention or obligation to revise or update any forward-looking statements, or the factors that may affect their realization, whether as a result of new information, future events or otherwise, and investors should not rely on us to do so.

Table of Contents

QUESTIONS AND ANSWERS ABOUT THE RESCISSION OFFER

*The following questions and answers are intended to address briefly some commonly asked questions regarding the Rescission Offer. These questions and answers do not address all questions that may be important to you as a participant in the Plan who acquired Units between May 1, 2011 and June 22, 2012. Please refer to *The Rescission Offer* below and the more detailed information contained elsewhere in this prospectus and the documents incorporated by reference into this prospectus, which you should read carefully.*

Q: Why are you making the Rescission Offer?

A: Plan participants can purchase Units, which include indirect interests in Monsanto common stock, through the Plan. The Trustee of the Plan, The Northern Trust Company (the Trustee), holds the Plan's shares of Monsanto common stock in the Monsanto Stock Funds, and Plan participants who invest in Units have an indirect interest in those shares through their Unit investment. Although the shares of Monsanto common stock held by the Trustee are purchased in the open market by the Trustee or are shares of Monsanto common stock released from the leveraged employee stock ownership plan (ESOP), the SEC takes the position that the participants' investments in Units are investments in the shares of Monsanto common stock and that we are required to register the deemed sale of these shares to Plan participants with the SEC. We have discovered that we may have inadvertently exceeded the number of shares of our common stock registered with the SEC for sale to participants in the Plan.

We are making the Rescission Offer with respect to 1,808,084 shares of our common stock included in Units sold pursuant to the Plan from May 1, 2011 through June 22, 2012. We are making the Rescission Offer to ensure compliance with the Securities Act and to limit any contingent liability we may have as a result of possible noncompliance with applicable federal registration requirements in connection with the purchase of Units by Plan participants. We believe that the statute of limitations period applicable to potential claims for rescission under the Securities Act is one year, but in no event later than three years after the security was bona fide offered to the public. Accordingly, in determining the Purchase Period, we selected a date after which no unregistered sales of Units were made under the Plan as the ending date of the Purchase Period, and a date that is twelve months earlier (rounded to the preceding calendar month end) as the beginning date of the Purchase Period. Non-employee members of our Board of Directors are not eligible to participate in the Plan and therefore are not eligible to participate in the Rescission Offer. Our current executive officers who purchased Units pursuant to the Plan during the Purchase Period do not intend to participate in the Rescission Offer.

Q: Who is eligible to participate in the Rescission Offer?

A: The only participants who are eligible to participate in the Rescission Offer and have their Plan accounts adjusted are:

Participants who continue to hold Units in the Monsanto Stock Funds evidencing shares that were purchased between May 1, 2011 and June 22, 2012 for more than the current market value of the common shares; and

Participants who invested in the Monsanto Stock Funds and subsequently withdrew Units at a loss at any time between May 1, 2011 and June 22, 2012.

If you deliver the accompanying Rescission Offer Acceptance Form, we will review your Plan account and determine whether you are eligible to participate in the Rescission Offer and have your Plan account adjusted.

Table of Contents

Q: What will I receive if I accept the Rescission Offer?

A: The answer to this question depends on whether you still hold the Units purchased pursuant to the Plan during the Purchase Period:

If you have sold such Units at a loss (as defined in the next sentence), including as a result of a transfer of Units to another fund, a cash distribution from the Plan or taking a loan from the Plan, we will pay you an amount equal to the amount of the loss plus interest at an annual rate of 8.0%. The amount of your loss will equal the excess, if any, of the amount you paid for such Units (less the value of dividends received) less the proceeds from your sale of the Units. Interest will be paid on the amount you originally paid for the Units during the period from the date of your purchase of the Units through the date of your sale of the Units and on the loss you realized from your sale of the Units from the date of your sale through the date that payment is made by us.

If you currently hold such Units, your Plan account will be reduced by the number of Units we repurchase and your Plan account will be credited for the amount you paid for such Units (less the value of dividends received) plus interest at an annual rate of 8.0% from the date you purchased the Units through the date that payment is made by us. However, we will not repurchase the Units if the amount you paid for the Units (less the value of dividends received), plus interest (to the Expiration Date), is less than the value of the Units as of the Expiration Date as it would not be economically beneficial to you.

The phrase `the value of dividends received` means the exact amount of dividends received, unadjusted for any gains or losses. The proceeds of the Rescission Offer will be subject to the vesting schedules applicable to you under the Plan.

Q: When and how will I receive payment for my Units if I properly accept the Rescission Offer?

A: If we receive a legible, properly completed Rescission Offer Acceptance Form from you on or before 11:59 p.m., U.S. Central time, on the Expiration Date and we determine that you are eligible to accept the Rescission Offer, we expect that within a period of up to three to five business days from the Expiration Date:

If you still have a Plan account and are an active employee of Monsanto, all proceeds to which you are entitled by accepting the Rescission Offer will be credited to your Plan account in accordance with your current investment elections for new contributions to the Plan.

If you have a Plan account but are not an active employee of Monsanto or do not have current investment elections on file, all proceeds to which you are entitled by accepting the Rescission Offer will be credited to your account and invested in the Moderately Aggressive Pre-Mixed Diversified Portfolio.

If you no longer have a Plan account, a Plan account will be established for you and all proceeds to which you are entitled by accepting the Rescission Offer will be credited to your account and invested in the Moderately Aggressive Pre-Mixed Diversified Portfolio. Distributions from your Plan account will be managed in accordance with the terms of the Plan as follows:

Plan account balance greater than \$1,000. If your Plan account balance is greater than \$1,000 and you are currently not employed by Monsanto, your assets will remain in the Plan until you choose a distribution from the following two options: (1) a direct rollover to an IRA or another qualified plan, or (2) a lump sum payment. Absent an election by you, your account balance will remain in the Plan until a distribution is required by the Plan's mandatory distribution rules. You should review the Plan Summary Plan Description for more information on mandatory distribution events.

Table of Contents

Plan account balance of \$1,000 or less. If your Plan account balance is less than \$1,000 and you do not elect a final distribution indicating that you want your distribution amount rolled over to a traditional IRA or to another employer plan or annuity contract that accepts rollovers, your account balance, less applicable taxes, will be automatically distributed directly to you. You will receive notification and information about distribution options within 30 days after the date your rescission proceeds are credited to your Plan account. If you do not make an election by the date specified in the notification, your account balance will be distributed to you in a lump sum.

To make any of the above elections, contact the Benefits Center at 800-338-3308, (say Savings or dial 1). Proceeds will be disbursed to your Plan account within a period of up to three to five business days following the Expiration Date. You may confirm that the proceeds have been disbursed to your Plan account by viewing your online account history as described under Questions and Answers about the Rescission Offer Where can I find information about my purchases and sales of Units.

We strongly encourage you to review the Plan Summary Plan Description that contains additional information on distribution of account balances. To obtain a copy of the Plan Summary Plan Description, go to the Monsanto intranet or contact the Benefits Center at 800-338-3308, (say Savings or dial 1). Payment of proceeds directly to you may result in adverse tax consequences. See Material U.S. Federal Income Tax Consequences.

Q: What interest rate will be used in calculating any amounts owed to me?

A: We will use an annual interest rate of 8.0%. We selected this interest rate because, although we believe that the sale of shares of our common stock that are the subject of the Rescission Offer were exempt from registration under state laws, it is the legal rate for rescission offers under the Missouri Securities Act of 2003.

Q: What effect do dividends paid on Monsanto common stock during the Purchase Period have on the value of my Units?

A: Any dividends attributable to your investment in the Monsanto (Employee) Stock Fund have been reinvested in that fund. With respect to cash dividends paid on shares of Monsanto stock held in the Monsanto (Employer) Stock Fund, you may elect to receive those dividends in cash in accordance with Plan procedures. If you do not have a cash election on file, any dividends attributable to your investment in the Monsanto (Employer) Stock Fund have been reinvested in that fund.

During the Purchase Period, we paid a cash dividend of \$0.28 per share to holders of record of our common stock on July 8, 2011 and \$0.30 per share to holders of record of our common stock on October 7, 2011, January 6, 2012 and April 5, 2012. In addition, the Board of Directors has declared a cash dividend of \$0.30 per share payable on July 27, 2012 to holders of record of our common stock on July 6, 2012. The amount and timing of future dividends are determined by our Board of Directors based on business considerations at the time.

Q: Are the dividends that have been reinvested from Units acquired during the Purchase Period eligible for the Rescission Offer?

A: Yes. However, the value of dividends paid on shares of common stock included in the Monsanto Stock Funds will reduce the purchase price you will be deemed to have paid for the Units for purposes of the Rescission Offer.

Table of Contents

Q: Does it matter whether I purchased Units through salary or incentive deferrals, rollover contributions, loan repayments, company contributions (including ESOP loan payments), dividends or transfers between investment funds?

A: No. All purchases of Units made pursuant to the Plan during the Purchase Period will be considered when determining whether you are eligible to accept the Rescission Offer.

Q: Am I required to accept the Rescission Offer?

A: No. You are not required to accept the Rescission Offer. Your decision to accept or reject the Rescission Offer is completely voluntary. Monsanto will neither encourage nor discourage its employees from accepting the Rescission Offer.

Q: Should I accept the Rescission Offer?

A: You must make your own decision whether to accept the Rescission Offer. In general, it may be economically beneficial to you to accept the Rescission Offer if:

you sold Units you purchased during the Purchase Period for less than you paid for them; or

you now hold Units you purchased during the Purchase Period that on the Expiration Date will be worth less than the Rescission Offer price for such Units (i.e., the price you paid for the Units, plus interest).

However, in making your decision whether to accept the Rescission Offer, you should consider all relevant factors in light of your particular circumstances, including the potential tax consequences of accepting the Rescission Offer (see Material U.S. Federal Income Tax Consequences) and, if you now hold Units you purchased during the Purchase Period, the possibility that the value of such Units may increase or decrease after the Expiration Date of the Rescission Offer.

You should note, however, that under the terms of the Rescission Offer, we will not repurchase any Units unless our records indicate that (1) you sold Units you purchased during the Purchase Period for less than you paid for them and/or (2) you now hold Units you purchased during the Purchase Period that on the Expiration Date are worth less than the Rescission Offer price. The Rescission Offer price is set forth in the answer to the third question above, What will I receive if I accept the Rescission Offer? Consequently, if you are unsure whether you sold Units at a loss or you are unsure whether Units you have continued to hold are likely to have a value on the Expiration Date less than the Rescission Offer purchase price, you may accept the Rescission Offer by signing and returning the Rescission Offer Acceptance Form that accompanies this Prospectus, and we will determine whether the criteria for the repurchase of your Units described above are satisfied. Unless these criteria are satisfied, we will not repurchase your Units pursuant to the Rescission Offer.

In applying those criteria, we will use a first-in, first-out, or FIFO, principle in determining whether Units were sold at a loss and whether you now hold Units eligible for repurchase pursuant to the Rescission Offer. You should apply the same principle in determining whether or not to accept the Rescission Offer. An example calculation using the FIFO principle is included with the Rescission Offer Acceptance Form that accompanies this prospectus.

We urge you to review this prospectus carefully before deciding whether to accept or reject the Rescission Offer.

If you have questions about the Rescission Offer acceptance process, you can call the Monsanto Company Rescission Offer Call Center at 800-278-2141, Monday through Friday, except holidays,

Table of Contents

between the hours of 8:00 a.m. and 8:00 p.m., U.S. Central time. If you are outside of the United States, you may call the Rescission Offer Call Center collect by asking your local operator to connect you to an AT&T international operator, who should be able to assist you in dialing a collect call to the U.S. toll-free number above.

Q: Where can I find information about my purchases and sales of Units?

A: Detailed information about your purchases of Units during the Purchase Period and any subsequent sales of such Units is available to you through your online account.

If you are an active employee of Monsanto, you can access your online account by going through the Monsanto intranet or directly to the NetBenefits website at www.netbenefits.com/monsanto. If you have forgotten your username, password, or need other assistance on the login page, contact the Benefits Center at 800-338-3308, (say Savings or dial 1), for assistance.

If you are not currently employed by Monsanto, you can access your online account by going directly to NetBenefits at www.netbenefits.com/monsanto. Once you have accessed the NetBenefits website, enter your username and password. If you have forgotten your username, password, or need other assistance on the login page, contact the Benefits Center at 800-338-3308, (say Savings or dial 1), for assistance.

Under Monsanto SIP click on the SIP link (in blue), then on the transaction history in the view section on the left side of the page, then click on transaction history. On this page, you will find details about your transaction history, including historical contributions, loan payments, investment fund transfers and other activities. You will need to scroll down to see your detailed transaction history. Your transaction history will be arranged first by date of transaction and then by fund. Each entry on this webpage will contain the date of your transaction, the dollar amount of the transaction, Units bought or sold as part of that transaction and a brief description of the transaction type. To view a given date range of your activity, choose custom date range in the time period drop down box and enter a from and to date. The value of each Unit in a Monsanto Stock Fund is expressed in terms of the net asset value or NAV. To access the historical NAV information for the Monsanto Stock Funds for the Purchase Period, go to the NetBenefits home page, scroll down to the bottom of the page and click on SIP Investment Information. On the left side of the page you may click on Historical NAV Information for the Monsanto Stock Funds.

If your transaction history indicates that you sold Units at a loss, acceptance of the Rescission Offer may be economically beneficial to you. The historical transaction information available to you through your online account can also assist you in determining whether you should accept the Rescission Offer if you now hold Units you bought during the Purchase Period. If you believe the value of a Unit on the Expiration Date (taking into account the current market value of Monsanto common stock) will be less than the amount you paid during the Purchase Period for that Unit plus interest to the Expiration Date, acceptance of the Rescission Offer may be economically beneficial to you. The value of a Unit in the Monsanto (Employee) Stock Fund and in the Monsanto (Employer) Stock Fund on June 22, 2012 was \$103.85 and \$111.21, respectively. To obtain the current value of a Unit during the period the Rescission Offer is open and prior to the Expiration Date, you can access your online account by following the procedures listed above.

If you have any questions about accessing your Monsanto Stock Funds transaction history, you can find more information by accessing your account through the NetBenefits website at www.netbenefits.com/monsanto. If you need further assistance or if you do not have access to your online account, you should call the Benefits Center at 800-338-3308, (say Savings or dial 1), to request a detailed listing of your transactions by mail or fax. Please allow 10-13 days to receive

Table of Contents

your transactions history. If you have questions about the Rescission Offer, you may call the Monsanto Company Rescission Offer Call Center at 800-278-2141, Monday through Friday, except holidays, between the hours of 8:00 a.m. and 8:00 p.m., U.S. Central time. If you are outside of the United States, you may call the Rescission Offer Call Center collect by asking your local operator to connect you to an AT&T international operator, who should be able to assist you in dialing a collect call to the U.S. toll-free number above.

Q: Will the Rescission Offer affect my ability to direct transactions in my account?

A: Yes. In order to ensure smooth processing of the Rescission Offer, as of July 30, 2012 – the first business day following the Expiration Date all transactions out of the Monsanto Stock Funds related to your Plan account will be temporarily suspended whether or not you accept the Rescission Offer and whether or not we repurchase your Units. This temporary suspension is called a blackout period. The blackout period is anticipated to last up to three to five business days. If you want to initiate any requests for transfers or distributions out of the Monsanto Stock Funds, you will need to initiate those requests prior to 3:00 p.m., U.S. Central time, on July 27, 2012 for those requests to take effect without respect to the blackout period. Regardless of whether you accept the Rescission Offer, you will be subject to the risk that due to events in the securities markets, the value of amounts in the Monsanto Stock Funds could significantly decline during this period and you would not be able to make transfers to avoid or mitigate this result. In addition, while you may have properly accepted the Rescission Offer (because the price you paid for the Unit plus interest to the Expiration Date is less than the value of the Unit as of the Expiration Date), the value of amounts in the Monsanto Stock Funds could significantly increase during this period such that the value of the Unit as of the date of payment could be more than the price you will receive as a result of properly accepting the Rescission Offer (the price you paid for the Unit plus interest to the date of payment). Any proceeds you receive for the sale of Units in the Rescission Offer (including interest through the date payment is made) will not be deposited into your Plan account for up to three to five business days following the Expiration Date to ensure smooth processing of the Rescission Offer. For more information about the blackout period, see Notice of Blackout Period. The blackout period will commence at 12:00 a.m., U.S. Central time, on July 30, 2012; the blackout period is anticipated to last up to three to five business days.

Q: What is the effect of the Rescission Offer on my ability to assert claims?

A: The rights remaining to the recipients of a rescission offer are not clearly delineated under federal or certain state securities laws. The staff of the SEC takes the position that a person's federal right of rescission may survive a rescission offer. For a more detailed description of the effect of the Rescission Offer on any applicable federal securities law claims, see Risk Factors. The Rescission Offer may not bar claims relating to our non-compliance with securities laws, and we may continue to be contingently liable for rescission or damages in an indeterminate amount and Risk Factors. Your right of rescission, if any, under federal and state law may not survive if you affirmatively reject or fail to accept the Rescission Offer.

Q: May I accept the Rescission Offer in part?

A: No. If you accept the Rescission Offer, then you must accept it for all Units that were purchased during the Purchase Period that you still hold as well as all Units that you purchased during the Purchase Period that were sold at a loss. As described above, however, if you accept the Rescission Offer, we will only repurchase those Units that, as of the Expiration Date, have a value less than the price you paid for the Units, plus interest (to the Expiration Date).

Table of Contents

If you do not accept the Rescission Offer in full, you will retain ownership of all of your Units and will not receive any payment for the Units subject to the Rescission Offer.

Q: What happens if I accept the Rescission Offer for Units that I currently hold in my account but the amount I would receive for the Units is less than the value of the Units on the Expiration Date?

A: If you submit a Rescission Offer Acceptance Form, we will not repurchase those Units for which the price per Unit that you paid, plus interest (to the Expiration Date), is less than the value of a Unit as of the Expiration Date, as it would not be economically beneficial to you. Accordingly, those Units will remain in your Plan account.

Q: When does the Rescission Offer expire?

A: The Rescission Offer expires at 11:59 p.m., U.S. Central time, on July 27, 2012, which is 28 days from the date of this prospectus.

Q: What do I need to do now to accept the Rescission Offer?

A: You may mail or fax to us your Rescission Offer Acceptance Form. In order to accept the Rescission Offer, you must complete, sign and date the Rescission Offer Acceptance Form and return it by mail or fax so that it is received by us on or before 11:59 p.m., U.S. Central time, on July 27, 2012. The Rescission Offer Acceptance Form must be legible. You may mail or overnight your Rescission Offer Acceptance Form to:

Monsanto Company Rescission Offer

Broadridge Corporate Issuer Solutions, Inc.

1981 Marcus Avenue

Lake Success, NY 11042

You may fax your Rescission Offer Acceptance Form to 516-472-5404.

If you choose to accept the Rescission Offer, we recommend that you mail or fax the Rescission Offer Acceptance Form sufficiently in advance of the Expiration Date of July 27, 2012 to ensure its receipt by the deadline specified above. The method for returning the Rescission Offer Acceptance Form is at your option and risk, and delivery will be deemed made only when actually received by us at the address or fax indicated above. If delivery is by mail, we recommend using registered mail with return receipt requested.

We must receive your legible and properly completed Rescission Offer Acceptance Form on or before 11:59 p.m., U.S. Central time, on the Expiration Date of July 27, 2012. Otherwise, you will be deemed to have rejected the Rescission Offer. We will, in our sole discretion, determine whether your Rescission Offer Acceptance Form has been properly completed and whether you are eligible to accept the Rescission Offer.

All determinations with respect to the Rescission Offer Acceptance Form and the Rescission Offer (including issues relating to the timeliness or effectiveness of any election) will be made by Monsanto, which determinations shall be final and binding.

Proceeds will be disbursed to your Plan account within a period of up to three to five business days following the Expiration Date. You may confirm that the proceeds have been disbursed to your Plan account by viewing your online account history as described under Questions and Answers about the Rescission Offer Where can I find information about my purchases and sales of Units.

We recommend that you write down your identification number printed on your Rescission Offer Acceptance Form. You will need to provide that identification number if you change your mind and decide to revoke your acceptance of the offer prior to the Expiration Date.

Table of Contents

Q: What do I need to do now to reject the Rescission Offer?

A: You do not need to take any action to reject the Rescission Offer.

Q: What happens if I do not return the Rescission Offer Acceptance Form?

A: If you do not return the Rescission Offer Acceptance Form on or before the Expiration Date, you will be deemed to have rejected the Rescission Offer.

If you reject the Rescission Offer, you will not receive any payment with respect to the Units subject to the Rescission Offer. In addition, the shares included in the Units that you now own and that are subject to the Rescission Offer, for purposes of applicable federal securities law, will be registered securities as of the date of this prospectus.

Q: What happens to my Plan account if I reject the Rescission Offer?

A: If you hold Units in the Monsanto Stock Funds as of the Expiration Date, you will be subject to the blackout period even if you reject the Rescission Offer. This temporary suspension is called a blackout period, which will begin at 12:00 a.m., U.S. Central time, on July 30, 2012 and will last up to three to five business days. You will be notified in the event that the blackout period is extended past such date. The Units will remain in your account and this Rescission Offer will not affect your ability to sell Units once the blackout period ends.

Q: Can I change my mind after I have mailed my signed Rescission Offer Acceptance Form?

A: Yes. You can change your decision about accepting or rejecting the Rescission Offer at any time before 11:59 p.m., U.S. Central time, on the Expiration Date.

If you change your decision and want to reject the Rescission Offer after having submitted the Rescission Offer Acceptance Form, then you may reject the Rescission Offer by completing and returning the Rescission Offer Withdrawal Form. You may mail or overnight your Rescission Offer Withdrawal Form to:

Monsanto Company Rescission Offer

Broadridge Corporate Issuer Solutions, Inc.

1981 Marcus Avenue

Lake Success, NY 11042

You may fax your Rescission Offer Acceptance Form to 516-472-5404.

The Rescission Offer Withdrawal Form must be legible and received by mail or fax at the above address on or before 11:59 p.m., U.S. Central time, on the Expiration Date of July 27, 2012. Otherwise you will be deemed to have accepted the Rescission Offer pursuant to your election on the original Rescission Offer Acceptance Form(s).

All determinations with respect to the Rescission Offer Withdrawal Form and the Rescission Offer (including issues relating to the timeliness or effectiveness of any election) will be made by Monsanto, which determinations shall be final and binding.

Q: Does the Rescission Offer affect any loan repayments I am currently making to the Plan?

Edgar Filing: MONSANTO CO /NEW/ - Form S-3ASR

A: If you have an outstanding loan from the Plan, the amount that you are required to repay will not change as a result of your acceptance or rejection of the Rescission Offer. However, new loan and distribution requests made during the blackout period will be delayed until after the blackout period ends. Any requests made during the blackout period do not need to be resubmitted after the blackout period ends.

Table of Contents

Q: Who can help answer my questions?

A: If you have any questions about accessing your Monsanto Stock Funds transaction history, you can find more information by accessing your account through NetBenefits at www.netbenefits.com/monsanto. If you need further assistance or if you do not have access to your online account, you should call the Benefits Center at 800-338-3308, (say Savings or dial 1), to request a detailed listing of your transactions by mail or fax. Please allow 10-13 days to receive your records.

If you have questions regarding the Rescission Offer, you may call the Monsanto Company Rescission Offer Call Center at 800-278-2141, Monday through Friday, except holidays, between the hours of 8:00 a.m. and 8:00 p.m., U.S. Central time. If you are outside of the United States, you may call the Rescission Offer Call Center collect by asking your local operator to connect you to an AT&T international operator, who should be able to assist you in dialing a collect call to the U.S. toll-free number above.

Table of Contents

RISK FACTORS

An investment in our common stock involves risks. You should carefully consider the following risk factors relating to the Rescission Offer in addition to the risks identified in *Cautionary Statement Regarding Forward-Looking Statements* above and the risks identified in our Annual Report on Form 10-K for the year ended August 31, 2011, as amended on Form 10-K/A, including those risks identified under the caption *Risk Factors* in our Annual Report on Form 10-K. Please see *Where You Can Find More Information*.

The Rescission Offer may not bar claims relating to our possible non-compliance with securities laws, and we may continue to be contingently liable for rescission or damages in an indeterminate amount.

If you reject or fail to accept the Rescission Offer, it is unclear whether your federal right of rescission will remain preserved. It is not certain that the Rescission Offer will have the effect of barring claims relating to our possible non-compliance with applicable federal securities laws. If a person accepts the Rescission Offer, we believe our potential liability to that person will be eliminated. Should the Rescission Offer be rejected, we may continue to be contingently liable for rescission or damages, which could result in an adverse effect on our results of operations and financial condition. In addition, the Rescission Offer will not prevent regulators from pursuing enforcement actions or imposing penalties and fines against us with respect to any violations of securities laws. In any event, we do not expect the Rescission Offer to have a material impact on our results of operations, financial condition or liquidity.

Your right of rescission, if any, under federal and state law may not survive if you affirmatively reject or fail to accept the Rescission Offer.

The rights remaining to the recipients of a rescission offer are not clearly delineated under federal or certain state securities laws. If you affirmatively reject or fail to accept the Rescission Offer, it is unclear whether your federal right of rescission, if any, will be preserved. The staff of the SEC takes the position that a person's federal right of rescission may survive a rescission offer. However, the few federal courts that have addressed this issue in the past have suggested that, at least in certain circumstances, a person who rejects or fails to accept a rescission offer may be precluded from later seeking similar relief.

The Rescission Offer may also affect your right of rescission and your right to damages, if any, under state law. We believe that the sale of shares of our common stock included in the Units that are the subject of the Rescission Offer were exempt from registration under state laws. Furthermore, we believe that the Rescission Offer is exempt from registration under the laws of such states and thus need not comply with the laws of such states regulating such offers. However, we do not make any representation as to the compliance of this Rescission Offer with applicable state law. Under most state laws, acceptance or rejection of rescission offers may preclude offerees from initiating an action against the rescission offeror in connection with the registration of securities that are the subject of the rescission offer. We may assert, among other defenses, in any litigation initiated by a person eligible to participate in the Rescission Offer who accepts or rejects the Rescission Offer, that such person is estopped from asserting such claims as a result of the Rescission Offer.

Generally, the statute of limitations for enforcement of federal statutory rescission rights by a security holder is one year commencing on the date of the sale of the security sold in violation of the federal registration requirements, but in no event later than three years after the security was bona fide offered to the public. Statutes of limitations under state laws vary by state, with the limitation time

Table of Contents

period under many state statutes not typically beginning until the facts giving rise to a violation are known. Our Rescission Offer is not an admission that we did not comply with any federal and state registration or disclosure requirements nor is it a waiver by us of any applicable statute of limitations or any potential defense we may have except as a result of the Tolling Agreement discussed below under **The Rescission Offer** **Effect of the Rescission Offer**. Determining when a statute of limitations expires under federal or state law can be a difficult issue, and you should consult with an attorney if you have any questions regarding how federal or state statutes of limitations may apply to any claims you have.

You will not be permitted to conduct any transactions out of the Monsanto Stock Funds for a period of time following the Expiration Date.

Because you will not be permitted to conduct any transactions out of the Monsanto Stock Funds during the blackout period commencing at 12:00 a.m. U.S. Central time, on July 30, 2012 and lasting up to three to five business days, if you want to initiate any requests for transfers or distributions out of the Monsanto Stock Funds, you will need to initiate those requests prior to 3:00 p.m., U.S. Central time, on July 27, 2012 for those requests to take effect without respect to the blackout period. Regardless of whether you accept the Rescission Offer, you will be subject to the risk that due to events in the securities markets, the value of amounts in the Monsanto Stock Funds could significantly decline during this period and you would not be able to make transfers to avoid or mitigate this result. In addition, while you may have properly accepted the Rescission Offer (because the price you paid for the Unit plus interest to the Expiration Date is less than the value of the Unit as of the Expiration Date), the value of amounts in the Monsanto Stock Funds could significantly increase during this period such that the value of the Unit as of the date of payment could be more than the price you will receive as a result of properly accepting the Rescission Offer (the price you paid for the Unit plus interest to the date of payment). Any proceeds you receive for the sale of Units in the Rescission Offer (including interest through the date payment is made) will not be deposited into your Plan account for up to three to five business days following the Expiration Date to ensure smooth processing of the Rescission Offer. If you still have a Plan account and are an active employee of Monsanto, these proceeds will be allocated to your Plan account in accordance with your current investment elections for new contributions to the Plan. If you are not an active employee of Monsanto or do not have current elections on file, these funds will be credited to your Plan account and invested in the Moderately Aggressive Pre-Mixed Diversified Portfolio. In all cases, you will be subject to the risk that the purchase price of the applicable investment could increase in value prior to the reinvestment of proceeds in your account, resulting in a higher unit cost for such investment. See **Notice of Blackout Period** for additional information. We express no view as to whether the value of Units will increase or decrease during such period or otherwise.

You will lose the ability to take Net Unrealized Appreciation Treatment with respect to any Units which are redeemed as part of the Rescission Offer.

You may exclude from income the portion of any lump sum distribution from the Plan which represents the net unrealized appreciation (the appreciation in value of Monsanto stock over what the Plan paid for such stock, referred to as NUA) associated with any Monsanto stock which you receive in kind. Any such NUA will not be taxed until you sell the Monsanto stock, and then will be taxed at long-term capital gain rates. In deciding whether or not to accept the Rescission Offer, you should take into account the fact that you will lose the ability to take advantage of NUA treatment with respect to any Units which are redeemed in connection with the Rescission Offer. You may determine the amount of NUA associated with your Units by contacting the Benefits Center at 800-338-3308, (say Savings or dial 1).

Table of Contents

OUR COMPANY

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 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 provide other seed companies with genetic material and biotechnology traits for their seed brands. We also manufacture *Roundup* brand herbicides and other herbicides and provide lawn-and-garden herbicide products for the residential market.

Our principal executive offices are located at 800 North Lindbergh Boulevard, St. Louis, Missouri 63167, and our telephone number is (314) 694-1000.

THE RESCISSION OFFER

Background and Reasons for the Rescission Offer

The Plan is a qualified defined contribution plan under Section 401(a) of the Internal Revenue Code of 1986, as amended. The purpose of the Plan is to provide a voluntary, systematic method for participants to save a specified percentage of the participant's compensation for retirement and to defer federal income tax and, where allowed, state, city and county income tax, on such compensation. Monsanto matches employee contributions to the Plan with shares of Monsanto common stock released from a leveraged ESOP. The ESOP is leveraged by debt due to Monsanto. The Northern Trust Company is the Trustee of the Plan.

Amounts in participants' accounts are held in a trust fund maintained for the benefit of participants in the Plan. In addition to the Monsanto Stock Funds, there are currently eleven core investment funds plus four pre-mixed portfolios available to participants under the Plan. All contributions to a participant's Plan account are invested in accordance with his or her investment elections.

One of the investment choices in the Plan is the Monsanto (Employee) Stock Fund, which gives participants the opportunity to invest some or all of the amounts deposited in their Plan account in Units principally comprised of Monsanto common stock. Moreover, matching contributions allocated to the Monsanto (Employer) Stock Fund from previously unallocated shares of Monsanto common stock held by a leveraged ESOP are invested in Units principally comprised of Monsanto common stock. A participant's investment in the Monsanto Stock Funds is measured in Units. Each Unit represents an interest in shares of our common stock plus a targeted amount of cash and short-term marketable securities to facilitate participant-directed activities. To effectuate purchases and sales of Units by participants, the Trustee will from time to time purchase and sell our common stock in the open market at market prices.

The SEC takes the position that the participants' investments in Units in the Monsanto Stock Funds are investments in the shares of Monsanto common stock and that we are required to register the deemed sale of these shares to Plan participants with the SEC. In the spring of 2012, we discovered that investments in the Monsanto Stock Funds under the Plan may have exceeded the number of shares we had registered on Form S-8. Our inadvertent failure to register with the SEC the sale of certain shares of our common stock under the Plan may have constituted a violation of Section 5 of the Securities Act (which generally requires registration of offers and sales of securities) and may give rise to liability under Section 12 of the Securities Act (which generally provides a rescission remedy for offers and sales of securities in violation of Section 5).

Table of Contents

We are making the Rescission Offer with respect to 1,808,084 shares of common stock represented by Units sold pursuant to the Plan during the Purchase Period. We are making the Rescission Offer to ensure compliance with the Securities Act and to limit any contingent liability we may have as a result of possible noncompliance with applicable federal registration requirements in connection with the purchase of the shares of common stock represented by the Units by Plan participants.

Non-employee members of our Board of Directors are not eligible to participate in the Plan and therefore are not eligible to participate in the Rescission Offer. Our current executive officers who purchased Units pursuant to the Plan during the Purchase Period do not intend to participate in the Rescission Offer.

Effect of the Rescission Offer

If you reject, fail to timely accept, or fail to accept in full, the Rescission Offer by 11:59 p.m., U.S. Central time, on the Expiration Date, or if you accept the Rescission Offer but we determine that you are not eligible to accept the Rescission Offer under the terms set forth in this prospectus, you will retain ownership of the Units and will not receive any payment for the Units subject to the Rescission Offer. In addition, the shares of common stock included in the Units that you now own that are subject to the Rescission Offer, for purposes of applicable federal securities law, will be registered securities as of the date of this prospectus.

We believe that the applicable statute of limitations under the Securities Act for enforcement of your rights in connection with our failure to register the Monsanto common stock during the Purchase Period is one year after the date that the common stock was allocated to your account, but in no event later than three years after the security was bona fide offered to the public. Determining when a statute of limitations expires under federal or state law can be a difficult issue, and you should consult with an attorney if you have any questions regarding how federal or state statutes of limitations may apply to any claims you have or regarding any of your legal rights and remedies before deciding whether or not to accept the Rescission Offer.

Your acceptance of the Rescission Offer may preclude you from later seeking similar relief, if any is available. We intend to assert, among other defenses, in any litigation initiated by a person eligible to participate in this Rescission Offer who accepts or rejects (or is deemed to reject) the Rescission Offer, that such person is legally barred from asserting such claims. For federal securities law purposes, rejection or the failure to accept a rescission offer may not terminate an offeree's right to bring a civil action against the offeror for failure to register securities under the Securities Act before expiration of the applicable statute of limitations. The staff of the SEC takes the position that a person's federal right of rescission may survive a rescission offer. However, the few federal courts that have addressed this issue in the past have suggested that, at least in certain circumstances, a person who rejects or fails to accept a rescission offer may be precluded from later seeking similar relief. Each person is urged to consider this possibility with respect to our Rescission Offer. Our Rescission Offer is not an admission that we did not comply with applicable federal requirements nor is it a waiver by us of any applicable statute of limitations, except as a result of the Tolling Agreement discussed below.

The above discussion relates primarily to your potential rescission rights and does not address the antifraud provisions of federal securities laws or rights under state securities laws, common law or equity. We believe that the sale and issuance of shares of our common stock included in the Units that are the subject of the Rescission Offer were exempt from registration under state laws. Furthermore, we believe that this Rescission Offer is exempt from registration under state laws and thus need not comply with state laws regulating such offers. However, we do not make any representation as to the compliance of this Rescission Offer with any applicable state law. Under most state laws, acceptance or rejection of rescission offers may preclude offerees from initiating an action against the rescission offeror in connection with the registration of securities that are the subject of the rescission offer.

Table of Contents

The above discussion relates primarily to your potential rescission rights and does not address in detail the antifraud provisions of applicable federal and state securities laws or rights under common law or equity.

The shares of Monsanto common stock that are the subject of this Rescission Offer have now been registered under the Securities Act by virtue of the registration statement of which this prospectus is a part. We believe that these shares (as well as other shares acquired by participants of the Plan and shares subject to the Rescission Offer that are not tendered by participants) are transferable by Plan participants in the ordinary course. These shares also entitle the holders to all of the rights and privileges available to Monsanto shareowners.

Prior to the commencement of the Rescission Offer, Monsanto entered into a Tolling and Standstill Agreement (the Tolling Agreement) with the Employee Benefits Plans Committee and Pension Savings Funds Investment Committee (the Committees), acting on behalf of the Plan. Effectively, the Tolling Agreement stops the running of the one-year federal statute of limitations (or any other time related defense) as of May 1, 2012, for claims related to the Plan's acquisition of unregistered Monsanto securities. As a result, claims of Plan participants for rescission of purchases of Units on and after May 1, 2011 will be deemed to be preserved until the earlier of completion of this Rescission Offer or termination of the Tolling Agreement. The Tolling Agreement may be terminated by Monsanto or by the Committees at any time upon 30 days prior written notice. It may also be terminated by Monsanto upon ten business days prior written notice if any claim related to the Plan's acquisition of unregistered securities is brought against Monsanto by any person.

Terms of the Rescission Offer

If you purchased Units through the Plan during the Purchase Period and have already sold such Units at a loss, you may accept the Rescission Offer, in which case you will receive an amount equal to the amount you paid for the Units less the proceeds of the sale of the Units, plus interest at a rate of 8.0% per year. Interest will be paid on the amount originally paid for the Units from the date you purchased the Units through the date you sold the Units. Interest will also be paid on the loss realized from your sale of the Units from the date of such sale through the date that payment is made by us.

If you currently hold Units purchased through the Plan during the Purchase Period, you may accept the Rescission Offer, in which case the Trustee will sell the shares included in the Units and credit your Plan account with the amount you paid for the Units, plus interest at a rate of 8.0% per year. Interest to be paid on the amounts described above will be calculated, in the case of Units repurchased by us, for the period from the date of purchase by you through the Plan to the date that proceeds of the Rescission Offer are credited to the Plan. However, we will not repurchase any Unit if the price you paid for the Unit plus interest (to the Expiration Date) is less than the value of the Unit as of the Expiration Date, as it would not be economically beneficial to you.

Units are deemed sold in the order in which you purchased them. In order to determine which Units acquired during the Purchase Period are eligible for repurchase and which, if any, Units so acquired were sold at a loss, all Units acquired on your behalf pursuant to the Plan will be matched against all sales of Units during or after the Purchase Period by matching the first Unit acquired with the first Unit sold. This principle, commonly called first-in, first-out, or FIFO, will be used by Monsanto in determining which Units you sold at a loss and which Units you now hold are eligible for repurchase and should be used by you to help determine whether or not you wish to accept the Rescission Offer. An example of the application of the FIFO principle is included with the Rescission Offer Acceptance Form that accompanies this Prospectus.

Table of Contents

During the Purchase Period, we paid a cash dividend of \$0.28 per share to holders of record of our common stock on July 8, 2011 and \$0.30 per share to holders of record of our common stock on October 7, 2011, January 6, 2012 and April 5, 2012. In addition, the Board of Directors has declared a cash dividend of \$0.30 per share payable on July 27, 2012 to holders of record of our common stock on July 6, 2012. The amount and timing of future dividends are determined by our Board of Directors based on business considerations at the time. Any cash dividends attributable to your investment in the Monsanto (Employee) Stock Fund will be reinvested in that fund. With respect to cash dividends paid on shares of Monsanto stock held in the Monsanto (Employer) Stock Fund, you may elect to receive those dividends in cash. If you do not have an election on file, any dividends attributable to your investment in the Monsanto (Employer) Stock Fund will be reinvested in that fund. However, the value of dividends paid on shares of common stock included in the Monsanto Stock Funds will reduce the purchase price you will be deemed to have paid for the Units for purposes of the Rescission Offer.

We will apply an annual rate of interest of 8.0% to all interest rate calculations used in this Rescission Offer. We selected this interest rate because it is the legal rate for rescission offers under the Missouri Securities Act of 2003. Although we believe that the sale of shares of our common stock included in the Units that are the subject of the Rescission Offer were exempt from registration under state laws, many of the participants in the Plan reside in Missouri, and we feel that the rate applied to rescission offers required by Missouri law is a relevant guide.

The Rescission Offer will expire at 11:59 p.m., U.S. Central time, on July 27, 2012, which is 28 days from the date of this prospectus. If we receive a legible and properly completed Rescission Offer Acceptance Form from you on or before the deadline specified in the preceding sentence, and we determine that you are eligible to accept the Rescission Offer, we expect any proceeds to which you are entitled will be credited to your Plan account, or a Plan account established for you within a period of up to three to five business days following the Expiration Date.

Neither we nor any of our officers and directors may make any recommendations to any person with respect to our Rescission Offer. We urge you to read this prospectus carefully and to make an independent evaluation with respect to our Rescission Offer. We also urge you to consult with your advisers before accepting or rejecting our Rescission Offer.

If you still have a Plan account and are an active employee of Monsanto, we will credit all proceeds resulting from acceptance of the Rescission Offer to your Plan account in accordance with your current investment elections for new contributions to the Plan. If you still have a Plan account, but you are not an active employee of Monsanto or do not have current investment elections on file, all proceeds resulting from acceptance of the Rescission Offer will be credited to your Plan account and invested in the Moderately Aggressive Pre-Mixed Diversified Portfolio. If you no longer have a Plan account, a Plan account will be established for you and all proceeds payable to you under this Rescission Offer will be invested in the Moderately Aggressive Pre-Mixed Diversified Portfolio. The Plan's distribution rules vary based on your personal circumstances such as your account balance, age, and employment status. As a result, you should review the Plan Summary Plan Description and the Questions and Answers about the Rescission Offer located in this Prospectus for more information on your distribution options. Payment of proceeds directly to you may result in adverse tax consequences (see Material U.S. Federal Income Tax Consequences).

As of June 22, 2012, the closing sale price of our common stock (as reported on The NYSE) was \$78.45 per share. The value of a Unit in the Monsanto (Employee) Stock Fund and in the Monsanto (Employer) Stock Fund on such date was \$103.85 and \$111.21, respectively.

Table of Contents

The tables below set forth (1) the highest and lowest net asset values of the Units for each quarter during fiscal year 2012, fiscal year 2011 and fiscal year 2010 and (2) the high and low sale prices of our common stock each quarter during fiscal year 2012, fiscal year 2011 and fiscal year 2010.

Unit Value	Monsanto	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
(Employee) Stock Fund					
2012	High	\$103.35	\$110.33	\$108.16	\$106.48 (through June 22, 2012)
	Low	\$79.87	\$89.46	\$92.63	\$100.69 (through June 22, 2012)
2011	High	\$84.72	\$100.97	\$98.34	\$101.43
	Low	\$63.88	\$80.58	\$84.00	\$84.39
2010	High	\$111.32	\$115.50	\$98.95	\$81.72
	Low	\$89.77	\$94.33	\$67.29	\$60.45

Unit Value	Monsanto	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
(Employer) Stock Fund					
2012	High	\$110.62	\$118.22	\$115.95	\$114.02 (through June 22, 2012)
	Low	\$85.39	\$95.79	\$99.17	\$107.84 (through June 22, 2012)
2011	High	\$90.65	\$108.05	\$105.13	\$108.47
	Low	\$68.22	\$86.18	\$89.77	\$90.15
2010	High	\$118.90	\$123.40	\$105.75	\$87.34
	Low	\$95.85	\$100.79	\$71.86	\$64.52

Common Stock Price		1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
2012	High	\$78.71	\$83.95	\$83.27	\$81.19 (through June 22, 2012)
	Low	\$58.89	\$67.09	\$71.36	\$74.77 (through June 22, 2012)
2011	High	\$64.00	\$76.69	\$74.46	\$77.09
	Low	\$47.07	\$59.93	\$62.30	\$63.03
2010	High	\$84.36	\$87.06	\$74.80	\$62.29
	Low	\$66.57	\$70.53	\$48.16	\$44.61

Table of Contents

How to Accept or Reject the Rescission Offer

YOU ARE NOT LEGALLY REQUIRED TO ACCEPT THE RESCISSION OFFER.

How to accept the Rescission Offer

Acceptance of the Rescission Offer is optional. Generally, acceptance of the Rescission Offer is economically beneficial only if you have sold Units purchased during the Purchase Period at a loss, or if you currently hold Units purchased during the Purchase Period and the value of a Unit on the Expiration Date is less than the price you paid for the Unit, plus interest (to the Expiration Date).

You may accept your Rescission Offer by mail or fax. In order to accept the Rescission Offer, you must complete the Rescission Offer Acceptance Form and return it by mail or fax so that it is received by us on or before 11:59 p.m., U.S. Central time, on July 27, 2012. The Rescission Offer Acceptance Form must be legible. You may mail or overnight your Rescission Offer Acceptance Form to:

Monsanto Company Rescission Offer

Broadridge Corporate Issuer Solutions, Inc.

1981 Marcus Avenue

Lake Success, NY 11042

You may fax your Rescission Offer Acceptance Form to 516-472-5404.

If you choose to accept the Rescission Offer, we recommend that you mail or fax the Rescission Offer Acceptance Form sufficiently in advance of the Expiration Date to ensure its receipt by the deadline specified above. The method for returning the Rescission Offer Acceptance Form is at your option and risk, and delivery will be deemed made only when actually received by us at the address or fax indicated above. If delivery is by mail, we recommend using registered mail with return receipt requested.

We must receive your legible and properly completed Rescission Offer Acceptance Form on or before 11:59 p.m., U.S. Central time, on the Expiration Date, July 27, 2012. Otherwise, you will be deemed to have rejected the Rescission Offer. We will, in our sole discretion, determine whether your Rescission Offer Acceptance Form has been properly completed and whether you are eligible to accept the Rescission Offer.

All determinations with respect to the Rescission Offer Acceptance Form and the Rescission Offer (including issues relating to the timeliness or effectiveness of any election) will be made by Monsanto, which determinations shall be final and binding.

Proceeds will be disbursed to your Plan account within a period of up to three to five business days following the Expiration Date. You may confirm that the proceeds have been disbursed to your Plan account by viewing your online account history as described under Questions and Answers about the Rescission Offer Where can I find information about my purchases and sales of Units.

How to reject the Rescission Offer

You do not need to take any action to reject the Rescission Offer. If you change your decision and want to reject the Rescission Offer after having submitted the Rescission Offer Acceptance Form, you may reject the Rescission Offer by completing the Rescission Offer Withdrawal Form (or other notice duly signed by you that includes your identification number located on your Rescission Offer Acceptance Form and a clear indication that you are rejecting the Rescission Offer) and returning it at the address or to the fax number above.

Table of Contents

If you have previously accepted the Rescission Offer and you change your mind, we must receive your legible and properly completed Rescission Offer Withdrawal Form on or before 11:59 p.m., U.S. Central time, on July 27, 2012. Otherwise, you will be deemed to have accepted the Rescission Offer pursuant to your original Rescission Offer Acceptance Form.

If you fail to notify us in writing of your acceptance of the Rescission Offer on or prior to 11:59 p.m., U.S. Central time, on the Expiration Date, July 27, 2012, or attempt to only accept the Rescission Offer in part, you will be deemed to have rejected the Rescission Offer. Acceptance or rejection of the Rescission Offer may not terminate your right to bring a civil action against us for failure to register the Shares included in the Units under federal securities laws. However, federal law does provide that you may lose any rescission rights under federal securities laws one year from the date of purchase of such Shares and three years from the date such Shares were bona fide offered to the public.

All determinations with respect to a withdrawal of a Rescission Offer Acceptance Form and the Rescission Offer (including issues relating to the timeliness or effectiveness of any withdrawal) will be made by Monsanto, which determinations shall be final and binding.

If you have questions regarding how to reject the Rescission Offer, you can also call the Monsanto Company Rescission Offer Call Center at 800-278-2141, Monday through Friday, except holidays, between the hours of 8:00 a.m. and 8:00 p.m., U.S. Central time. If you are outside of the United States, you may call the Rescission Offer Call Center collect by asking your local operator to connect you to an AT&T international operator, who should be able to assist you in dialing a collect call to the U.S. toll-free number above.

Funding the Rescission Offer

We have sufficient funds available to pay for the purchase of any Units that may be tendered to us as a result of the Rescission Offer.

Questions about the Rescission Offer

If you have questions about the Rescission Offer, you may call the Monsanto Company Rescission Offer Call Center at 800-278-2141, Monday through Friday, except holidays, between the hours of 8:00 a.m. and 8:00 p.m., U.S. Central time. If you are outside of the United States, you may call the Rescission Offer Call Center collect by asking your local operator to connect you to an AT&T international operator, who should be able to assist you in dialing a collect call to the U.S. toll-free number above. If you have any questions about accessing your Monsanto Stock Funds transaction history, you can find more information through the NetBenefits website at www.netbenefits.com/monsanto. If you need further assistance or if you do not have access to your online account, you should call the Benefits Center at 800-338-3308, (say Savings or dial 1), to request a detailed listing of your transactions by mail or fax. Please allow 10-13 days to receive your Monsanto Stock Funds transaction history.

Accounting for the Rescission Offer

We intend to account for the Rescission Offer by recording the fair market value of the Shares included in the Units purchased by us as a charge to treasury stock based on the quoted market price at the close of business on the day the Rescission Offer expires. Any amounts paid pursuant to the Rescission Offer in excess of the fair market value of the shares purchased will be recorded as compensation expense included in non-interest expense in our consolidated statement of operations.

Table of Contents

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES

The following discussion summarizes the material U.S. federal income tax considerations for participants relating to the Rescission Offer. This discussion is based on current law. The following discussion is not exhaustive of all possible tax consequences. It does not give a detailed discussion of any state, local or foreign tax consequences, nor does it discuss all of the aspects of U.S. federal income taxation that may be relevant to you in light of your particular circumstances and only applies if you are an individual citizen or resident of the United States.

You are urged to consult with your own tax advisor regarding the specific consequences to you of the Rescission Offer, including the U.S. federal, state, local, foreign and other tax consequences and the potential changes in applicable tax laws.

Your acceptance or rejection of the Rescission Offer, or the sale of the Units representing our common stock and short-term liquid investments to us pursuant to the Rescission Offer or the receipt of the specified payment if you had previously sold your Units at a loss, is not considered to be a taxable event before withdrawal or distribution of funds from your Plan account. Upon any later withdrawal or distribution, except as provided in the next paragraph, any proceeds attributable to the Rescission Offer will generally be taxable as ordinary income unless you roll over the distribution to an individual retirement account or other retirement vehicle eligible to receive rollovers. An additional ten percent income tax may be imposed on the portion of your distribution which is subject to ordinary income tax in cases of an early withdrawal that is not rolled over.

You may exclude from income the portion of any lump sum distribution which represents the net unrealized appreciation (the appreciation in value of Monsanto stock over what the Plan paid for such stock, referred to as NUA) associated with any Monsanto stock which you receive in kind. Any such NUA will not be taxed until you sell such Monsanto stock, and then will be taxed at long-term capital gain rates. You will lose the ability to take advantage of NUA treatment with respect to any Units which are redeemed in connection with the Rescission Offer.

You should review the Plan's Summary Plan Description and the Questions and Answers about the Rescission Offer in this Prospectus for more information on how the proceeds of the Rescission Offer will be credited to the Plan or on your distribution options.

USE OF PROCEEDS

We will receive no net proceeds from the Rescission Offer.

NOTICE OF BLACKOUT PERIOD

If you are being offered the opportunity to participate in this Rescission Offer and you hold Units in the Monsanto Stock Funds in your Plan account on the Expiration Date, all transactions out of the Monsanto Stock Funds related to your Plan account will be temporarily suspended on the Expiration Date. The temporary suspension is called a blackout period and applies whether or not you accept the Rescission Offer. The blackout period will begin at 12:00 a.m., U.S. Central time, on July 30, 2012, and is expected to last up to three to five business days. Information regarding the exact ending date of the blackout period, once known, will be readily available, without charge, by contacting the Benefits Center at 800-338-3308, (say Savings or dial 1).

Table of Contents

The blackout period is required to ensure smooth processing of the Rescission Offer. The Trustee will not permit any transactions related to your Plan account out of the Monsanto Stock Funds during the blackout period. This means:

you will be unable to direct or diversify your investments in your Plan account out of the Monsanto Stock Funds during the blackout period; and

all requests for loans and distributions (including hardship distributions) which will be derived in whole or in part out of the Monsanto Stock Funds will be delayed until after the blackout period ends (any requests made during the blackout period do not need to be remade once the blackout period ends).

You will need to initiate any requests for transfers or distributions out of the Monsanto Stock Funds prior to 3:00 p.m., U.S. Central time, on July 27, 2012 for those requests to take effect without respect to the blackout period. It is important that you review and consider the appropriateness of your current investments in light of your inability to direct or diversify investments in your Plan account during the blackout period. For your long-term retirement security, you should give careful consideration to the importance of a well-balanced and diversified investment portfolio, taking into account all your assets, income and investments. You should be aware that there is a risk to holding substantial portions of your assets in the securities of any one company, such as the Monsanto Stock Funds, as individual securities tend to have wider price swings, up and down, in short periods of time, than investments in diversified funds. Our common stock may have a wide price swing during the blackout period resulting in a large loss, and you will not be able to direct the sale of Units from your Plan account during the blackout period.

If you have any questions concerning this notice or the blackout period, including whether the blackout period has ended, you should contact the Benefits Center at 800-338-3308, (say Savings or dial 1). Whether or not you are planning retirement in the near future, we encourage you to consider how this blackout period may affect your retirement planning, as well as your overall financial plan.

For additional information and limitations on Plan investments and how to direct investment of your Plan account, see the Plan Summary Plan Description. To obtain a copy of the Plan Summary Plan Description, you may view and print a copy from the Monsanto intranet or you may contact the Benefits Center at 800-338-3308, (say Savings or dial 1).

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission, which we refer to as the SEC. The SEC allows us to incorporate by reference the information that we file with them, which means that we can disclose important information to you by referring you to those documents.

The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information.

We incorporate by reference:

our Annual Report on Form 10-K for the fiscal year ended August 31, 2011, filed November 14, 2011, as amended on December 01, 2011 (File No. 001-16167);

our Quarterly Reports on Form 10-Q for the periods ended November 30, 2011, February 29, 2012 and May 31, 2012 (File No. 001-16167);

our Current Reports on Form 8-K filed October 11, November 14, 2011 and November 14, 2011, and January 24 2012, March 26, 2012 and June 29, 2012 (File No. 001-16167);

Table of Contents

the description of our common stock set forth in our registration statement on Form 8-A filed October 10, 2002 under the heading Description of Registrant's Securities to be Registered and on Form S-1/A (File No. 333-36956) filed August 30, 2000, under the heading Description of Capital Stock.

Any filings made with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 (except for information furnished on Form 8-K) after the date on which we filed the registration statement of which this prospectus is a part, until the date that the offering of the securities is terminated, shall be deemed to be incorporated by reference into the prospectus.

We have filed a registration statement with the SEC to register the securities under the Securities Act of 1933. As permitted by SEC rules, this prospectus omits certain information that is contained in the registration statement.

You may read and copy any of the documents mentioned above at the SEC's public reference room in Washington, D.C. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our SEC filings are also available to the public at the SEC's Internet website at www.sec.gov and through the New York Stock Exchange, on which our common stock (symbol: MON) is listed, and which is located at 20 Broad Street, New York, New York 10005. Copies of these documents may also be available on our website at www.monsanto.com, but you should note that other information available on our website is not incorporated by reference into this prospectus. You may also receive a copy of any of these filings, at no cost, by writing or telephoning our Corporate Secretary, at Monsanto Company, 800 North Lindbergh Boulevard, St. Louis, Missouri 63167, telephone (314) 694-1000.

LEGAL MATTERS

Certain legal matters relating to the securities to be offered hereby will be passed upon for us by David F. Snively, Esq., Executive Vice President, Secretary and General Counsel of the Company, who beneficially owns shares of common stock and who is a participant in various employment benefit plans offered by the Company, including the Plan, and has options to purchase shares of common stock and restricted stock units pursuant to such plans.

EXPERTS

The consolidated financial statements, incorporated in this prospectus by reference from the Company's Annual Report on Form 10-K, as amended, and the effectiveness of the Company's internal control over financial reporting, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report (which report expresses an unqualified opinion and includes explanatory paragraphs regarding the Company's prospective adoption of new accounting guidance related to variable interest entities effective September 1, 2010, and the Company's retrospective adoption of new accounting guidance related to noncontrolling interests and the computation of earnings per share), and their report relating to the effectiveness of Monsanto Company's internal control over financial reporting (which report expresses an adverse opinion on the effectiveness of the Company's internal control over financial reporting because of a material weakness), each of which is dated November 14, 2011 and is incorporated herein by reference. Such financial statements have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

Table of Contents**PART II****INFORMATION NOT REQUIRED IN PROSPECTUS****ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION**

The following table sets forth the costs and expenses payable by Monsanto, except any underwriters' fees and expenses, in connection with the sale of the securities being registered hereby. All of the amounts shown are estimated, except the SEC registration fee.

SEC registration fee	\$ 17,283.09
Printing expenses	13,935.00
Legal fees and expenses	200,000.00
Accounting fees and expenses	40,000.00
Miscellaneous expenses	495,096.50
Total	\$ 766,314.59

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 145 of the General Corporation Law of the State of Delaware permits indemnification of directors, officers, employees and agents of corporations under certain conditions and subject to certain limitations. Section 59 of Monsanto's Bylaws requires indemnification of any person made a party to any proceeding by reason of the fact that the person is or was a director or officer of Monsanto, or serving at the request of Monsanto as a director, officer or fiduciary of another enterprise, including employee benefit plans; and permits indemnification of any person made a party to any proceeding by reason of the fact that the person is or was an employee or agent of Monsanto, or was serving at the request of Monsanto as an employee or agent of another enterprise, including employee benefit plans. The Bylaws provide for certain conditions to such indemnification. Article IX of Monsanto's Amended and Restated Certificate of Incorporation eliminates directors' liability to Monsanto and its shareowners for breaches of fiduciary duty, except to the extent that such exemption from liability is not permitted by Delaware law.

Monsanto maintains directors' and officers' liability insurance coverage.

Table of Contents

ITEM 16. EXHIBITS

Exhibit

Number	Description of Exhibit
4.1	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of Amendment No. 1 to Registration Statement on Form S-1, filed Aug. 30, 2000, File No. 333-36956).
4.2	Monsanto Company Bylaws, as amended effective June 8, 2011 (incorporated by reference to Exhibit 3.2(i) of Form 8-K, filed June 14, 2011, File No. 001-16167).
4.3	Tolling and Standstill Agreement, effective as of May 1, 2012, between Monsanto and Employee Benefits Plans Committee and Pension Savings Funds Investment Committee, on behalf of the Monsanto Savings and Investment Plan.
5.1	Opinion of David F. Snively.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2	Consent of David F. Snively (included in Exhibit 5.1).
24.1	Powers of Attorney executed by certain of the officers and directors of Monsanto, dated June 29, 2012.
99.1	Form of cover letter to rescission offer participants.
99.2	Form acceptance letter to rescission offer participants.
99.3	Form of rescission offer withdrawal form.

Table of Contents

ITEM 17. UNDERTAKINGS

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made of the securities registered hereby, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933 (the "Securities Act");

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in the volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission (the "Commission") pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that the undertakings set forth in paragraphs (i), (ii) and (iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act") that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall

Table of Contents

be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) That, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(7) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer, or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

Table of Contents**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, Monsanto Company certifies that it has reasonable grounds to believe that it meets all of the requirements for filing this Registration Statement on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the County of St. Louis, State of Missouri, on June 29, 2012.

MONSANTO COMPANY

By: /s/ Pierre Courduroux
 Name: Pierre Courduroux
 Title: Senior Vice President and Chief
 Financial Officer (Principal
 Financial Officer)

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities indicated on the dates indicated:

Signature	Title	Date
/s/ Hugh Grant Hugh Grant	Chairman of the Board, President and Chief Executive Officer, Director (Principal Executive Officer)	June 29, 2012
/s/ Pierre Courduroux Pierre Courduroux	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	June 29, 2012
/s/ Nicole M. Ringenberg Nicole M. Ringenberg	Vice President and Controller (Principal Accounting Officer)	June 29, 2012
/s/ David L. Chicoine* David L. Chicoine	Director	June 29, 2012
/s/ Arthur H. Harper* Arthur H. Harper	Director	June 29, 2012
/s/ Janice L. Fields* Janice L. Fields	Director	June 29, 2012
/s/ Laura K. Ipsen* Laura K. Ipsen	Director	June 29, 2012
/s/ Gwendolyn S. King* Gwendolyn S. King	Director	June 29, 2012

Table of Contents

Signature	Title	Date
/s/ C. Steven McMillan*	Director	June 29, 2012
C. Steven McMillan		
/s/ Jon R. Moeller*	Director	June 29, 2012
Jon R. Moeller		
/s/ William U. Parfet*	Director	June 29, 2012
William U. Parfet		
/s/ George H. Poste*	Director	June 29, 2012
George H. Poste		
/s/ Robert J. Stevens*	Director	June 29, 2012

Robert J. Stevens

* DAVID F. SNIVELY, by signing his name hereto, does sign this document on behalf of the above noted individuals, pursuant to powers of attorney duly executed by such individuals which have been filed as Exhibits to this Registration Statement.

* By: /s/ David F. Snively
David F. Snively

Attorney-in-fact

Table of Contents

EXHIBIT INDEX

Exhibit

Number	Description of Exhibit
4.1	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of Amendment No. 1 to Registration Statement on Form S-1, filed Aug. 30, 2000, File No. 333-36956).
4.2	Monsanto Company Bylaws, as amended effective June 8, 2011 (incorporated by reference to Exhibit 3.2(i) of Form 8-K, filed June 14, 2011, File No. 001-16167).
4.3	Tolling and Standstill Agreement, effective as of May 1, 2012, between Monsanto and Employee Benefits Plans Committee and Pension Savings Funds Investment Committee, on behalf of the Monsanto Savings and Investment Plan.
5.1	Opinion of David F. Snively.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2	Consent of David F. Snively (included in Exhibit 5.1).
24.1	Powers of Attorney executed by certain of the officers and directors of Monsanto, dated June 29, 2012.
99.1	Form of cover letter to rescission offer participants.
99.2	Form acceptance letter to rescission offer participants.
99.3	Form of rescission offer withdrawal form.