

MONSANTO CO /NEW/
Form 424B5
July 09, 2012
Table of Contents

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and accompanying prospectus are not an offer to sell nor do they seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion, dated July 9, 2012

PRELIMINARY PROSPECTUS SUPPLEMENT

To Prospectus dated November 14, 2011.

\$

Monsanto Company

\$ % Senior Notes due 2022

\$ % Senior Notes due 2042

The senior notes due 2022 (the 2022 notes) will bear interest at the rate of % per year. The senior notes due 2042 (the 2042 notes and, together with the 2022 notes, the notes) will bear interest at the rate of % per year. Interest on the notes is payable on January and July of each year, beginning on January , 2013. The 2022 notes will mature on July , 2022 and the 2042 notes will mature on July , 2042. We may redeem some or all the notes at any time at the applicable redemption prices described under Description of Notes Optional Redemption. If we experience a change of control triggering event, we may be required to offer to purchase the notes from holders. See Description of Notes Offer to Redeem Upon Change of Control Triggering Event.

The notes will be senior unsecured obligations of Monsanto and will rank equally with all of our other senior unsecured indebtedness from time to time outstanding. The notes of each series will be issued only in denominations of \$2,000 and integral multiples of \$1,000 in excess thereof.

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

Before investing in the notes, you should consider the risks that are described under Risk Factors in our Annual Report on Form 10-K for the year ended August 31, 2011 and in our quarterly report on Form 10-Q for the quarter ended May 31, 2012.

	Per note due 2022	Total	Per note due 2042	Total
Public Offering Price (1)	%	\$	%	\$
Underwriting Discount	%	\$	%	\$
Proceeds to Monsanto (before expenses) (1)	%	\$	%	\$

(1) Plus accrued interest, if any, from July , 2012 to the date of delivery.

We expect to deliver the notes to investors in registered book-entry form through the facilities of The Depository Trust Company for the accounts of its participants, including Clearstream Banking, *société anonyme*, Luxembourg and Euroclear Bank S.A./N.V., as operator of the Euroclear System, on or about July , 2012.

Joint Book-Running Managers

BofA Merrill Lynch

Citigroup

J.P. Morgan

RBS

Wells Fargo Securities

Prospectus Supplement dated July , 2012.

Table of Contents

TABLE OF CONTENTS

	Page
Prospectus Supplement	
<u>About This Prospectus Supplement</u>	S-ii
<u>Caution Regarding Forward-Looking Statements</u>	S-ii
<u>Prospectus Supplement Summary</u>	S-1
<u>Risk Factors</u>	S-5
<u>Use of Proceeds</u>	S-7
<u>Description of Notes</u>	S-8
<u>Material United States Federal Income Tax Considerations</u>	S-15
<u>Underwriting</u>	S-20
<u>Legal Matters</u>	S-23
<u>Experts</u>	S-23
Prospectus	
Where You Can Find More Information	1
Risk Factors	2
About This Prospectus	2
Information about Monsanto	3
Use of Proceeds	3
Description of Debt Securities	4
Description of Capital Stock	13
Description of Warrants and Warrant Units	17
Description of Purchase Contracts and Purchase Units	18
Plan of Distribution	19
Legal Matters	19
Experts	20

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which contains the terms of this offering of notes. The second part is the prospectus dated November 14, 2011, which is part of our Registration Statement on Form S-3.

This prospectus supplement may add to, update or change the information in the accompanying prospectus. If information in this prospectus supplement is inconsistent with information in the accompanying prospectus, this prospectus supplement will apply and will supersede that information in the accompanying prospectus.

It is important for you to read and consider all information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus in making your investment decision. You should also read and consider the information in the documents to which we have referred you in *Where You Can Find More Information* in the accompanying prospectus.

You should rely only on the information contained in or incorporated by reference in this prospectus supplement and the accompanying prospectus and any free writing prospectus prepared by or on behalf of us or to which we have referred you. No person is authorized to give any information or to make any representations other than those contained or incorporated by reference in this prospectus supplement, the accompanying prospectus or any free writing prospectus and, if given or made, such information or representations must not be relied upon as having been authorized. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus supplement and the accompanying prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in this prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. Neither the delivery of this prospectus supplement and the accompanying prospectus, nor any sale made hereunder, shall under any circumstances create any implication that there has been no change in our affairs since the date of this prospectus supplement, or that the information contained or incorporated by reference in this prospectus supplement or the accompanying prospectus is correct as of any time subsequent to the date of such information.

The distribution of this prospectus supplement and the accompanying prospectus and the offering of the notes in certain jurisdictions may be restricted by law. This prospectus supplement and the accompanying prospectus do not constitute an offer, or an invitation on our behalf or the underwriters or any of them, to subscribe to or purchase any of the notes, and may not be used for or in connection with an offer or solicitation by anyone, in any jurisdiction in which such an offer or solicitation is not authorized or to any person to whom it is unlawful to make such an offer or solicitation. See *Underwriting*.

As used in this prospectus supplement, unless otherwise indicated, *Monsanto*, *the company*, *we*, *our* and *us* are used interchangeably to refer to Monsanto Company or to Monsanto Company and its subsidiaries, as appropriate to the context.

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

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

In this prospectus supplement and the accompanying prospectus, including the information incorporated by reference herein and therein, we share our expectations for our company's future performance. These forward-looking statements include statements about: our business plans; the potential development, regulatory approval, and public acceptance of our products; our expected financial performance, including sales performance, and the anticipated effect of our strategic actions; the anticipated benefits of recent acquisitions; the outcome of contingencies, such as litigation and the previously announced SEC investigation; the previously reported material weakness in our internal control over financial reporting; 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.

Table of Contents

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; 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 described or referenced in (i) the accompanying prospectus, (ii) Part II Item 1A Risk Factors of our Report on Form 10-Q for the fiscal quarter ended May 31, 2012 and (iii) 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 current intention or obligation to revise or update any forward-looking statements, or the factors that may affect their realization, whether in light of new information, future events or otherwise, and investors should not rely on us to do so.

S-iii

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information about Monsanto Company and this offering. It may not contain all of the information that may be important to you in deciding whether to purchase the notes. We encourage you to read this entire prospectus supplement, the accompanying prospectus and the documents incorporated by reference in them prior to deciding whether to purchase the notes. Unless otherwise indicated,

Monsanto, the company, we, our and us are used interchangeably to refer to Monsanto Company or to Monsanto Company and its subsidiaries as appropriate to the context.

Monsanto 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* and *HARNESS* brand herbicides and other herbicides.

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

S-1

Table of Contents

The Offering

The following summary describes the principal terms of the notes. Certain of the terms and conditions described below are subject to important limitations and exceptions. See Description of Notes for a more detailed description of the terms and conditions of the notes.

Issuer	Monsanto Company.
Securities Offered	<p>\$ aggregate principal amount of % Senior Notes due 2022.</p> <p>\$ aggregate principal amount of % Senior Notes due 2042.</p>
Maturity	<p>, 2022 for the 2022 notes.</p> <p>, 2042 for the 2042 notes.</p>
Interest	Interest on the notes will accrue from July , 2012 and will be payable on January and July of each year, beginning January , 2013.
Optional Redemption	<p>At any time prior to , 2022 (three months prior to the maturity date of the 2022 notes), in the case of the 2022 notes, and , 2042 (six months prior to the maturity date of the 2042 notes), in the case of the 2042 notes, we may redeem the notes, in whole or in part from time to time, at our option, at a redemption price equal to the greater of</p> <p>100% of the principal amount of the notes being redeemed; and</p> <p>the sum of the present value of the remaining scheduled payments of principal and interest in respect of the notes being redeemed (exclusive of interest accrued to the date of redemption) discounted to the redemption date on a semi-annual basis (assuming a 360-day year of twelve 30-day months), at the Treasury Rate (as defined herein) plus basis points, in the case of the 2022 notes, and basis points, in the case of the 2042 notes,</p> <p>plus, in each case, accrued and unpaid interest on the notes being redeemed to the redemption date.</p> <p>At any time on or after , 2022 (three months prior to the maturity date of the 2022 notes), in the case of the 2022 notes, and , 2042 (six months prior to the maturity date of the 2042 notes), in the case of the 2042 notes, the notes of the applicable series will be redeemable in whole or in part at any time and from time to time, at our option, at a redemption price equal to 100% of the principal amount of the notes to be redeemed plus accrued and unpaid interest on the principal amount being redeemed to the date of redemption. See Description of Notes Optional Redemption.</p>

Edgar Filing: MONSANTO CO /NEW/ - Form 424B5

Offer to Repurchase Upon Change of Control Triggering Event

Upon the occurrence of a Change of Control Triggering Event (as defined herein), we will be required, unless we have exercised our right to redeem the notes, within a specified period, to make an offer to purchase all notes at a price equal to 101% of the principal amount, plus any accrued and unpaid interest to the date of repurchase. See Description of Notes Offer to Repurchase Upon a Change of Control Triggering Event.

S-2

Table of Contents

Ranking	<p>The notes will be unsecured and unsubordinated obligations of Monsanto and will rank on a parity with all our other unsecured and unsubordinated indebtedness from time to time outstanding. The notes will be effectively subordinated to all liabilities of our subsidiaries, including trade payables. At May 31, 2012, we had approximately \$2.2 billion of indebtedness outstanding on a consolidated basis, of which approximately \$146 million was owed by our subsidiaries to outside parties. See Description of Notes General.</p>
Certain Covenants	<p>The indenture governing the notes will, among other things, limit our ability to:</p> <p style="padding-left: 40px;">incur indebtedness secured by operating properties;</p> <p style="padding-left: 40px;">enter into certain sale and leaseback transactions with respect to operating properties; and</p> <p style="padding-left: 40px;">enter into certain mergers, consolidations and transfers of substantially all of our assets.</p> <p>The above restrictions are subject to significant exceptions. See Description of Debt Securities Certain Restrictions in the Indentures and Description of Debt Securities Consolidation, Merger and Sale of Assets in the accompanying prospectus.</p>
Form and Denomination	<p>We will issue the notes in the form of fully registered global notes registered in the name of the nominee of The Depository Trust Company (DTC). Beneficial interests in the notes will be represented through book-entry accounts of financial institutions acting on behalf of beneficial owners as direct and indirect participants in DTC. Clearstream Banking, <i>société anonyme</i>, Luxembourg and Euroclear Bank, S.A./N.V., as operator of the Euroclear System, will hold interests on behalf of their participants through their respective U.S. depositories, which in turn will hold such interests in accounts as participants of DTC. Except in the limited circumstances described in this prospectus supplement, owners of beneficial interests in the notes will not be entitled to have notes registered in their names, will not receive or be entitled to receive notes in definitive form and will not be considered holders of notes under the indenture. The notes of each series will be issued only in denominations of \$2,000 and integral multiples of \$1,000 in excess thereof.</p>
Additional Issuances	<p>We may from time to time, without giving notice to or seeking the consent of the holders of the notes of either series, issue debt securities having the same terms (except for the issue date and, in some cases, the public offering price and the first interest payment date) as, and ranking equally and ratably with, the notes of a series offered hereby. Any additional debt securities having such similar terms, together with notes of the applicable series offered hereby, will constitute a single series of securities under the indenture.</p>

Table of Contents

Use of Proceeds	We intend to use the net proceeds we receive from the sale of the notes to repay the \$486 million outstanding principal amount of our 7 ³ / ₈ % Senior Notes which mature on August 15, 2012 and to the extent there are any remaining proceeds for other general corporate purposes. See Use of Proceeds.
Material United States Federal Income Tax Considerations	See Material United States Federal Income Tax Considerations.
Risk Factors	Investing in the notes involves risks. See Risk Factors for a description of certain risks you should particularly consider before investing in the notes.
Governing Law	The indenture and the notes will be governed by and construed in accordance with the laws of the State of New York.
Trustee	The Bank of New York Mellon Trust Company, N.A.

Table of Contents

RISK FACTORS

You should carefully consider the following risk factors and the information discussed in **Risk Factors** in our Annual Report on Form 10-K for the year ended August 31, 2011 and in our quarterly report on Form 10-Q for the quarter ended May 31, 2012, which is incorporated by reference into this prospectus supplement and the accompanying prospectus, as well as the other information included or incorporated by reference into this prospectus supplement and the accompanying prospectus, before making an investment decision. The following is not intended as, and should not be construed as, an exhaustive list of relevant risk factors. There may be other risks that a prospective investor should consider that are relevant to its own particular circumstances or generally.

The notes are effectively subordinated to the indebtedness of our subsidiaries.

Since we conduct many of our operations through our subsidiaries, our right to participate in any distribution of the assets of a subsidiary when it winds up its business is subject to the prior claims of the creditors of the subsidiary. This means that your claims against the assets of our subsidiaries, as a holder of our notes, will be subject to the prior claims of these creditors if a subsidiary liquidates or reorganizes or otherwise winds up its business. Unless we are considered a creditor of the subsidiary, your claims will not be recognized ahead of these creditors. At May 31, 2012, we had approximately \$2.2 billion of indebtedness outstanding on a consolidated basis, of which approximately \$146 million was owed by our subsidiaries to outside parties.

The notes are not secured by any of our assets and any secured creditors would have a prior claim on our assets.

The notes are not secured by any of our assets. The terms of the indenture permit us to incur a certain amount of secured indebtedness without equally and ratably securing the notes. If we become insolvent or are liquidated, or if payment under any of the agreements governing any secured debt is accelerated, the lenders under our secured debt agreements will be entitled to exercise the remedies available to a secured lender. Accordingly, the secured lenders will have a prior claim on our assets to the extent of their liens, and it is possible that there will be insufficient assets remaining from which claims of the holders of these notes can be satisfied. As of the date of this prospectus supplement, we do not have significant amounts of secured indebtedness.

Negative covenants in the indenture offer only limited protection to holders of the notes.

The indenture governing the notes will contain negative covenants that apply to us and our subsidiaries. However, the indenture does not:

require us to maintain any financial ratios or specific levels of net worth, revenues, income, cash flows or liquidity and, accordingly does not protect holders of the notes in the event that we experience significant adverse changes in our financial condition or results of operations;

limit our ability to incur indebtedness that is equal in right of payment to the notes;

restrict our ability to repurchase or redeem our securities; or

restrict our ability to make investments or to repurchase or pay dividends or make other payments in respect of our common stock or other securities ranking junior to the notes.

In addition, the limitation on secured indebtedness covenant in the indenture contains exceptions that will allow us and our subsidiaries to create, grant or incur liens or security interests to secure a certain amount of indebtedness and a variety of other obligations without equally and ratably securing the notes. See **Description of Debt Securities** **Certain Restrictions in the Indentures** in the accompanying prospectus for a description of this covenant and related definitions. In light of these exceptions, holders of the notes may be structurally subordinated to new lenders.

Table of Contents

Our credit ratings may not reflect all risks of your investment in the notes.

The credit ratings assigned to the notes are limited in scope, and do not address all material risks relating to an investment in the notes, but rather reflect only the view of each rating agency at the time the rating is issued. An explanation of the significance of its rating may be obtained from each rating agency. There can be no assurance that the credit ratings will remain in effect for any given period of time or that a rating will not be lowered, suspended or withdrawn entirely by a rating agency, if, in the rating agency's judgment, circumstances so warrant. Agency credit ratings are not a recommendation to buy, sell or hold any security. Each agency's rating should be evaluated independently of any other agency's rating. Actual or anticipated changes or downgrades in our credit ratings, including any announcement that our ratings are under further review for a downgrade, could affect the market value of the notes and increase our corporate borrowing costs.

We may not have the ability to raise the funds necessary to finance the offer to redeem the notes upon a Change of Control Triggering Event.

Upon the occurrence of a Change of Control Triggering Event (as defined herein), we will be required to offer to repurchase all of the notes which are then outstanding. We cannot assure you that we will have sufficient funds available to make any required repurchases of the notes upon such an event. Any failure to purchase tendered notes would constitute a default under the indenture governing the notes, which, in turn, would constitute a default under our senior credit facilities. A default could result in the declaration of the principal and interest on all the notes and our indebtedness outstanding under the senior credit facilities to be due and payable.

There may not be active trading markets for the notes.

There are no existing markets for the notes and we do not intend to apply for listing of the notes on any securities exchange or any automated quotation system. Accordingly, trading markets for the notes may not develop and any markets that do develop may not provide sufficient liquidity for the holders to sell their notes at attractive prices, or at all. Future trading prices of the notes will depend on many factors, including prevailing interest rates, our financial condition and results of operations, the then-current ratings assigned to the notes and the market for similar securities. Any trading markets that develop would be affected by many factors independent of and in addition to the foregoing, including:

time remaining to the maturity of the notes;

outstanding amount of the notes;

terms related to optional redemption of the notes; and

level, direction and volatility of market interest rates generally.

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds to us from the offering of the notes will be approximately \$, after deducting underwriting discounts and our expenses. We intend to use the net proceeds we receive from the sale of the notes to repay the \$486 million outstanding principal amount of our 7 ³/₈ % Senior Notes which mature on August 15, 2012 and to the extent there are any remaining proceeds for other general corporate purposes. Pending such uses, we may temporarily invest the net proceeds in interest-bearing investments.

S-7

Table of Contents

DESCRIPTION OF NOTES

The following description of the particular terms of the notes supplements and, to the extent inconsistent, replaces, the description in the accompanying prospectus of the general terms and provisions of the Debt Securities, to which description reference is hereby made. The following summary of certain provisions of the notes and the Indenture does not purport to be complete and is qualified in its entirety by reference to the actual provisions of the notes and the Indenture. Certain terms used but not defined herein shall have the meanings given to them in the accompanying prospectus, the Indenture, or the notes, as the case may be. As used in this section, Monsanto, we, our, and us refer to Monsanto Company, the issuer of the notes, and not any of its subsidiaries.

General

The 2022 notes will mature on July , 2022 and the 2042 notes will mature on July , 2042. Interest on the notes will accrue from July , 2012, at the rate of % per annum on the 2022 notes and % per annum on the 2042 notes, and will be payable semi-annually, in arrears, on January and July , beginning January , 2013, to the persons in whose names the notes are registered at the close of business on the or preceding the respective interest payment dates, except that interest payable at maturity shall be paid to the same persons to whom principal of the notes is payable. Interest will be computed on the notes on the basis of a 360-day year of twelve 30-day months.

Any payment otherwise required to be made in respect of the notes on a date that is not a business day may be made on the next succeeding business day with the same force and effect as if made on that date. No additional interest will accrue as a result of a delayed payment. A business day is defined in the Indenture as a day other than a Saturday, Sunday or other day on which banking institutions in New York City, or any other city in which the paying agent is being utilized, are authorized or required by law or executive order to close.

The notes will constitute separate series of debt securities to be issued under an Indenture dated as of August 1, 2002, between Monsanto and The Bank of New York Mellon Trust Company, N.A., as successor trustee, the terms of which are more fully described in the accompanying prospectus. The notes and any future debt securities issued under the Indenture will be unsecured obligations of Monsanto and will rank on a parity with all our other unsecured and unsubordinated indebtedness from time to time outstanding. The notes will be effectively subordinated to all liabilities of our subsidiaries, including trade payables. Since we conduct many of our operations through our subsidiaries, our right to participate in any distribution of the assets of a subsidiary when it winds up its business is subject to the prior claims of the creditors of the subsidiary. This means that your claims against the assets of our subsidiaries, as a holder of our notes, will be subject to the prior claims of these creditors if a subsidiary liquidates or reorganizes or otherwise winds up its business. Unless we are considered a creditor of the subsidiary, your claims will not be recognized ahead of these creditors. At May 31, 2012, we had approximately \$2.2 billion of indebtedness outstanding on a consolidated basis, of which approximately \$146 million was owed by our subsidiaries to outside parties.

The Indenture does not limit the aggregate principal amount of debt securities that may be issued thereunder and provides that debt securities may be issued thereunder from time to time in one or more additional series. The Indenture does not limit our ability to incur additional indebtedness. We may from time to time, without giving notice to or seeking the consent of the holders of the notes of either series, issue debt securities having the same terms (except for the issue date and, in some cases, the public offering price and the first interest payment date) as, and ranking equally and ratably with, the notes of a series offered hereby. Any additional debt securities having such similar terms, together with the notes of the applicable series offered hereby, will constitute a single series of securities under the indenture.

The notes of each series will be issued in fully registered form in denominations of \$2,000 and integral multiples of \$1,000 in excess thereof. The notes will be represented by global securities registered in the name of a nominee of DTC. Except as described in this prospectus supplement under Book-Entry System; Delivery and Form and in the accompanying prospectus under Book-Entry Debt Securities, the notes will not be issuable in certificated form.

Table of Contents

Optional Redemption

At any time prior to _____, 2022 (three months prior to the maturity date of the 2022 notes), in the case of the 2022 notes, and _____, 2042 (six months prior to the maturity date of the 2042 notes), in the case of the 2042 notes, the notes of the applicable series will be redeemable, in whole or in part, at our option at any time or from time to time at a redemption price equal to the greater of:

100% of the principal amount of the notes being redeemed, and

the sum of the present values of the remaining scheduled payments of principal and interest on the notes being redeemed (not including any portion of any payments of interest accrued to the redemption date) discounted to the redemption date on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate (as defined below) plus _____ basis points, in the case of the 2022 notes, and _____ basis points, in the case of the 2042 notes, plus, in each case, accrued and unpaid interest on the notes being redeemed to the redemption date.

At any time on or after _____, 2022 (three months prior to the maturity date of the 2022 notes), in the case of the 2022 notes, and _____, 2042 (six months prior to the maturity date of the 2042), in the case of the 2042 notes, the notes of the applicable series will be redeemable in whole or in part at any time and from time to time, at our option, at a redemption price equal to 100% of the principal amount of the notes to be redeemed plus accrued and unpaid interest on the principal amount being redeemed to the date of redemption.

Comparable Treasury Issue means, with respect to each Reference Treasury Dealer, the United States Treasury security selected by such Reference Treasury Dealer as having a maturity comparable to the remaining term of the notes to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of those notes.

Comparable Treasury Price means, with respect to any redemption date, (i) the average of the Reference Treasury Dealer Quotations for the redemption date, after excluding the highest and lowest Reference Treasury Dealer Quotations, or (ii) if the trustee obtains fewer than three Reference Treasury Dealer Quotations, the average of all Reference Treasury Dealer Quotations.

Reference Treasury Dealer means (i) Citigroup Global Markets Inc., J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated and RBS Securities Inc. (or their respective affiliates which are Primary Treasury Dealers (as defined below)) and their respective successors; provided, however, that if any of the foregoing shall cease to be a primary U.S. Government securities dealer in New York City (a **Primary Treasury Dealer**), Monsanto will substitute another Primary Treasury Dealer; and (ii) any other Primary Treasury Dealer selected by Monsanto.

Reference Treasury Dealer Quotations means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the trustee, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the trustee by that Reference Treasury Dealer at 3:30 p.m., New York City time, on the third business day preceding that redemption date.

Treasury Rate means, with respect to any redemption date, the rate per annum equal to the semi-annual equivalent yield to maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for that redemption date. Notwithstanding the foregoing, installments of interest on notes that are due and payable on interest payment dates falling on or prior to a redemption date will be payable on the interest payment date to the registered holders as of the close of business on the relevant record date according to such notes and the Indenture.

Table of Contents

Holders of notes to be redeemed will receive notice by first-class mail at least 30 days but not more than 60 days before the date of redemption.

If fewer than all of the notes are to be redeemed, DTC, in the case of the notes represented by a global security, or the trustee will select, not more than 60 days prior to the redemption date, the particular notes or portions thereof for redemption from the outstanding notes not previously called by such method as DTC or the trustee, as the case may be, deems fair and appropriate. Unless we default in payment of the redemption price, on and after the date of redemption, interest will cease to accrue on the notes or portions thereof called for redemption.

Offer to Repurchase Upon Change of Control Triggering Event

Upon the occurrence of a Change of Control Triggering Event in respect of the notes, unless we have exercised our right to redeem the notes as described under Optional Redemption, each holder of the applicable notes will have the right to require us to purchase all or a portion of such holder's notes, at a purchase price equal to 101% of the principal amount thereof plus accrued and unpaid interest, if any, to the date of purchase, subject to the rights of holders to receive interest due on the scheduled interest payment dates.

Within 30 days following the date upon which the Change of Control Triggering Event occurs or, at our option, prior thereto but after the public announcement of the pending Change of Control, we will send, by first class mail, a notice to each holder of the notes setting forth our offer to purchase the notes, specifying the purchase date, which will be no earlier than 30 days nor later than 60 days from the date the notice is mailed, unless otherwise required by law. If mailed prior to the date of the Change of Control, the notice will state that the offer is subject to completion of the change in control. Holders electing to sell their notes will be required to surrender their notes in accordance with the offer, to the paying agent at the address to be specified in the notice, or transfer their notes to the paying agent by book-entry transfer, prior to the close of business on the third business day prior to the payment date.

We will not be required to make a Change of Control offer in respect of the notes if a third party makes such an offer in the manner and at the times referred to above and otherwise in compliance with the requirements referred to above, and such third party purchases all notes properly tendered and not withdrawn under its offer.

Change of Control means any of the following:

the direct or indirect sale, lease, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the assets of Monsanto and its subsidiaries to any person (as that term is used in Section 13(d)(3) of the U.S. Securities Exchange Act of 1934, as amended (the Exchange Act));

any transaction (including any merger or consolidation) the result of which is that any person becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of more than 50% of the outstanding voting power of our outstanding shares;

we consolidate with, or merge with or into, any entity, or any entity consolidates with or merges with or into us, unless following the transaction our shareholders prior to the transaction own a majority of the voting power of the outstanding shares of the surviving entity;

the first day on which the majority of the members of our board of directors cease to be continuing directors, which are (i) persons who are directors at the date of issuance of the notes or (ii) persons nominated or elected with the approval of a majority of continuing directors; or

the adoption of a plan for our liquidation or dissolution.

Change of Control Triggering Event means, the notes cease to be rated Investment Grade by at least two of the three Rating Agencies on any date during the period starting 60 days prior to our first public announcement of any Change of Control and ending 60 days following consummation of the Change of Control (subject to extension so long as any of the Rating Agencies has publicly announced that it is considering a possible ratings change, other than an announcement with positive implications), and the applicable Rating Agencies confirm that

Edgar Filing: MONSANTO CO /NEW/ - Form 424B5

any reduction in ratings is attributable to the change in control. However, no Change of Control Triggering Event will be deemed to have occurred unless and until the Change of Control has been consummated.

S-10

Table of Contents

Fitch means Fitch Inc., a subsidiary of Fimalac, S.A., and its successors.

Investment Grade means a rating of Baa3 or better by Moody's (or its equivalent under any successor rating category of Moody's); a rating of BBB- or better by S&P (or its equivalent under any successor rating category of S&P); and a rating of BBB- or better by Fitch (or its equivalent under any successor rating category of Fitch).

Moody's means Moody's Investors Service, Inc., a subsidiary of Moody's Corporation, and its successors.

S&P means Standard & Poor's Ratings Services, a division of The McGraw-Hill Companies, Inc., and its successors.

Rating Agency means each of Moody's, S&P and Fitch; provided, that if any of Moody's, S&P and Fitch ceases to provide rating services to issuers or investors for reasons outside of our control, the Company may appoint another nationally recognized statistical rating organization within the meaning of Section 3(a)(62) under the Exchange Act as a replacement for such Rating Agency.

Concerning the Trustee

The Bank of New York Mellon Trust Company, N.A. is the successor trustee under the Indenture. Its affiliate, The Bank of New York Mellon, is a participant in revolving credit agreements with Monsanto, and may provide other banking and financial services to Monsanto.

Book-Entry System; Delivery and Form

Global Notes

We will issue the notes in the form of global notes in definitive, fully registered, book entry form. The global notes will be deposited with or on behalf of DTC and registered in the name of Cede & Co., as nominee of DTC.

DTC, Clearstream and Euroclear

Beneficial interests in the global notes will be represented through book entry accounts of financial institutions acting on behalf of beneficial owners as direct and indirect participants in DTC. Investors may hold interests in the global notes through either DTC (in the United States), Clearstream Banking, *société anonyme*, Luxembourg, which we refer to as Clearstream, or Euroclear Bank S.A./N.V., as operator of the Euroclear System, which we refer to as Euroclear, in Europe, either directly if they are participants in such systems or indirectly through organizations that are participants in such systems. Clearstream and Euroclear will hold interests on behalf of their participants through customers' securities accounts in Clearstream's and Euroclear's names on the books of their U.S. depositaries, which in turn will hold such interests in customers' securities accounts in the U.S. depositaries' names on the books of DTC.

We have obtained the information in this section concerning DTC, Clearstream and Euroclear and the book entry system and procedures from sources that we believe to be reliable, but we take no responsibility for the accuracy of this information.

We understand that:

DTC is a limited purpose trust company organized under the New York Banking Law, a banking organization within the meaning of the New York Banking Law, a member of the Federal Reserve System, a clearing corporation within the meaning of the New York Uniform Commercial Code and a clearing agency registered under Section 17A of the Exchange Act.

DTC holds securities that its participants deposit with DTC and facilitates the settlement among participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerized book entry changes in participants accounts, thereby eliminating the need for physical movement of securities certificates.

Direct participants include securities brokers and dealers, banks, trust companies, clearing corporations and other organizations.

S-11

Table of Contents

DTC is owned by a number of its direct participants and by The New York Stock Exchange, Inc. and the Financial Industry Regulatory Authority, Inc.

Access to the DTC system is also available to others such as securities brokers and dealers, banks and trust companies that clear through or maintain a custodial relationship with a direct participant, either directly or indirectly.

The rules applicable to DTC and its direct and indirect participants are on file with the SEC.

We understand that Clearstream is incorporated under the laws of Luxembourg as a professional depository. Clearstream holds securities for its customers and facilitates the clearance and settlement of securities transactions between its customers through electronic book entry changes in accounts of its customers, thereby eliminating the need for physical movement of certificates. Clearstream provides to its customers, among other things, services for safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Clearstream interfaces with domestic markets in several countries. As a professional depository, Clearstream is subject to regulation by the Luxembourg Commission for the Supervision of the Financial Section. Clearstream customers are recognized financial institutions around the world, including underwriters, securities brokers and dealers, banks, trust companies, clearing corporations and other organizations and may include the underwriters. Indirect access to Clearstream is also available to others, such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Clearstream customer either directly or indirectly.

We understand that Euroclear was created in 1968 to hold securities for participants of Euroclear and to clear and settle transactions between Euroclear participants through simultaneous electronic book entry delivery against payment, thereby eliminating the need for physical movement of certificates and any risk from lack of simultaneous transfers of securities and cash. Euroclear provides various other services, including securities lending and borrowing and interfaces with domestic markets in several countries. Euroclear is operated by Euroclear Bank S.A./N.V., which we refer to as the Euroclear Operator, under contract with Euroclear Clearance Systems S.C., a Belgian cooperative corporation, which we refer to as the Cooperative. All operations are conducted by the Euroclear Operator, and all Euroclear securities clearance accounts and Euroclear cash accounts are accounts with the Euroclear Operator, not the Cooperative. The Cooperative establishes policy for Euroclear on behalf of Euroclear participants. Euroclear participants include banks (including central banks), securities brokers and dealers, and other professional financial intermediaries and may include the underwriters. Indirect access to Euroclear is also available to other firms that clear through or maintain a custodial relationship with a Euroclear participant, either directly or indirectly.

We understand that the Euroclear Operator is licensed by the Belgian Banking and Finance Commission to carry out banking activities on a global basis. As a Belgian bank, it is regulated and examined by the Belgian Banking and Finance Commission.

We have provided the descriptions of the operations and procedures of DTC, Clearstream and Euroclear in this prospectus supplement solely as a matter of convenience, and we make no representation or warranty of any kind with respect to these operations and procedures. These operations and procedures are solely within the control of those organizations and are subject to change by them from time to time. None of us, the underwriters or the trustee takes any responsibility for these operations or procedures, and you are urged to contact DTC, Clearstream and Euroclear or their participants directly to discuss these matters.

We expect that under procedures established by DTC:

upon deposit of the global notes with DTC or its custodian, DTC will credit on its internal system the accounts of direct participants designated by the underwriters with portions of the principal amounts of the global notes; and

ownership of the notes will be shown on, and the transfer of ownership thereof will be effected only through, records maintained by DTC or its nominee, with respect to interests of direct participants, and the records of direct and indirect participants, with respect to interests of persons other than participants.

The laws of some jurisdictions may require that purchasers of securities take physical delivery of those securities in definitive form. Accordingly, the ability to transfer interests in the notes represented by a global note to

Table of Contents

those persons may be limited. In addition, because DTC can act only on behalf of its participants, who in turn act on behalf of persons who hold interests through participants, the ability of a person having an interest in notes represented by a global note to pledge or transfer those interests to persons or entities that do not participate in DTC's system, or otherwise to take actions in respect of such interest, may be affected by the lack of a physical definitive security in respect of such interest.

So long as DTC or its nominee is the registered owner of a global note, DTC or that nominee will be considered the sole owner or holder of the notes represented by that global note for all purposes under the indenture and under the notes. Except as provided below, owners of beneficial interests in a global note will not be entitled to have notes represented by that global note registered in their names, will not receive or be entitled to receive physical delivery of certificated notes and will not be considered the owners or holders thereof under the indenture or under the notes for any purpose, including with respect to the giving of any direction, instruction or approval to the trustee. Accordingly, each holder owning a beneficial interest in a global note must rely on the procedures of DTC and, if that holder is not a direct or indirect participant, on the procedures of the participant through which that holder owns its interest, to exercise any rights of a holder of notes under the indenture or a global note.

Neither we nor the trustee will have any responsibility or liability for any aspect of the records relating to or payments made on account of notes by DTC, Clearstream or Euroclear, or for maintaining, supervising or reviewing any records of those organizations relating to the notes.

Payments on the notes represented by the global notes will be made to DTC or its nominee, as the case may be, as the registered owner thereof. We expect that DTC or its nominee, upon receipt of any payment on the notes represented by a global note, will credit participants' accounts with payments in amounts proportionate to their respective beneficial interests in the global note as shown in the records of DTC or its nominee. We also expect that payments by participants to owners of beneficial interests in the global note held through such participants will be governed by standing instructions and customary practice as is now the case with securities held for the accounts of customers registered in the names of nominees for such customers. The participants will be solely responsible for those payments.

Distributions on the notes held beneficially through Clearstream will be credited to cash accounts of its customers in accordance with its rules and procedures, to the extent received by the U.S. depositary for Clearstream.

Securities clearance accounts and cash accounts with the Euroclear Operator are governed by the Terms and Conditions Governing Use of Euroclear and the related Operating Procedures of the Euroclear System, and applicable Belgian law (collectively referred to herein as the Terms and Conditions). The Terms and Conditions govern transfers of securities and cash within Euroclear, withdrawals of securities and cash from Euroclear, and receipts of payments with respect to securities in Euroclear. All securities in Euroclear are held on a fungible basis without attribution of specific certificates to specific securities clearance accounts. The Euroclear Operator acts under the Terms and Conditions only on behalf of Euroclear participants and has no record of or relationship with persons holding through Euroclear participants.

Distributions on the notes held beneficially through Euroclear will be credited to the cash accounts of its participants in accordance with the Terms and Conditions, to the extent received by the U.S. depositary for Euroclear.

Clearance and Settlement Procedures

Initial settlement for the notes will be made in immediately available funds. Secondary market trading between DTC participants will occur in the ordinary way in accordance with DTC rules and will be settled in immediately available funds. Secondary market trading between Clearstream customers and/or Euroclear participants will occur in the ordinary way in accordance with the applicable rules and operating procedures of Clearstream and Euroclear, as applicable, and will be settled using the procedures applicable to conventional Eurobonds in immediately available funds.

Cross-market transfers between persons holding directly or indirectly through DTC, on the one hand, and directly or indirectly through Clearstream customers or Euroclear participants, on the other, will be effected through DTC in accordance with DTC rules on behalf of the relevant European international clearing system by the U.S. depositary. Such cross-market transactions, however, will require delivery of instructions to the relevant European international clearing system by the counterparty in such system in accordance with its rules and procedures and

Table of Contents

within its established deadlines (European time). The relevant European international clearing system will, if the transaction meets its settlement requirements, deliver instructions to the U.S. depositary to take action to effect final settlement on its behalf by delivering or receiving the notes in DTC, and making or receiving payment in accordance with normal procedures for same day funds settlement applicable to DTC. Clearstream customers and Euroclear participants may not deliver instructions directly to their U.S. depositaries.

Because of time zone differences, credits of the notes received in Clearstream or Euroclear as a result of a transaction with a DTC participant will be made during subsequent securities settlement processing and dated the business day following the DTC settlement date. Such credits or any transactions in the notes settled during such processing will be reported to the relevant Clearstream customers or Euroclear participants on such business day. Cash received in Clearstream or Euroclear as a result of sales of the notes by or through a Clearstream customer or a Euroclear participant to a DTC participant will be received with value on the DTC settlement date but will be available in the relevant Clearstream or Euroclear cash account only as of the business day following settlement in DTC.

Although DTC, Clearstream and Euroclear have agreed to the foregoing procedures to facilitate transfers of the notes among participants of DTC, Clearstream and Euroclear, they are under no obligation to perform or continue to perform such procedures and such procedures may be changed or discontinued at any time.

Certificated Notes

We will issue certificated notes to each person that DTC identifies as the beneficial owner of the notes represented by a global note upon surrender by DTC of the global note if:

DTC notifies us that it is no longer willing or able to act as a depositary for such global note or ceases to be a clearing agency registered under the Exchange Act, and we have not appointed a successor depositary within 90 days of that notice or becoming aware that DTC is no longer so registered;

an event of default under the indenture has occurred and is continuing, and DTC requests the issuance of certificated notes; or

we determine not to have the notes represented by a global note.

Neither we nor the trustee will be liable for any delay by DTC, its nominee or any direct or indirect participant in identifying the beneficial owners of the notes. We and the trustee may conclusively rely on, and will be protected in relying on, instructions from DTC or its nominee for all purposes, including with respect to the registration and delivery, and the respective principal amounts, of the certificated notes to be issued.

Table of Contents

MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS

The following is a summary of the material United States federal income tax consequences of the purchase, ownership, and disposition of the notes. This summary is generally limited to holders that acquire the notes pursuant to this offering and hold the notes as capital assets (generally, property held for investment) for United States federal income tax purposes. This discussion does not describe all of the United States federal income tax consequences that may be relevant to a holder in light of its particular circumstances or to holders subject to special rules, including, without limitation, tax-exempt organizations, holders subject to the United States federal alternative minimum tax, dealers in securities or currencies, financial institutions, insurance companies, regulated investment companies, real estate investment trusts, certain former citizens or residents of the United States, controlled foreign corporations, passive foreign investment companies, partnerships, S corporations or other pass-through entities, U.S. holders (as defined below) whose functional currency is not the United States dollar, and persons that hold the notes in connection with a straddle, hedging, conversion or other risk-reduction transaction.

The United States federal income tax consequences set forth below are based upon the Internal Revenue Code of 1986, as amended (the "Code") and applicable Treasury regulations, court decisions, and rulings and pronouncements of the Internal Revenue Service ("IRS"), all as in effect on the date hereof, and all of which are subject to change, or differing interpretations at any time with possible retroactive effect. There can be no assurance that the IRS will not challenge one or more of the tax consequences described herein, and we have not sought any ruling from the IRS with respect to statements made and conclusions reached in this discussion, and there can be no assurance that the IRS will agree with such statements and conclusions.

As used herein, the term "U.S. holder" means a beneficial owner of a note that is for U.S. federal income tax purposes:

an individual citizen or resident of the United States;

a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) that is created or organized in or under the laws of the United States, any state thereof or the District of Columbia;

an estate the income of which is subject to U.S. federal income taxation regardless of its source; or

a trust, if a court within the United States is able to exercise primary jurisdiction over its administration and one or more U.S. persons have authority to control all of its substantial decisions, or if the trust has a valid election in effect under applicable Treasury regulations to be treated as a U.S. person.

As used herein, the term "non-U.S. holder" means a beneficial owner of a note that is neither a U.S. holder nor a partnership or an entity or arrangement treated as a partnership for U.S. federal income tax purposes.

If a partnership (including any entity or arrangement treated as a partnership for U.S. federal income tax purposes) is a beneficial owner of a note, the tax treatment of a partner in the partnership will generally depend upon the status of the partner and the activities of the partnership. A beneficial owner that is a partnership and partners in such a partnership should consult their tax advisors about the U.S. federal income tax consequences of the purchase, ownership and disposition of the notes.

This summary does not address the tax consequences arising under any state, local, or foreign law. Furthermore, this summary does not consider the effect of the U.S. federal estate or gift tax laws.

Investors considering the purchase of the notes should consult their own tax advisors with respect to the application of the U.S. federal income tax laws to their particular situation, as well as any tax consequences arising under the U.S. federal estate or gift tax rules or under the laws of any state, local, or foreign taxing jurisdiction or under any applicable tax treaty.

Possible Treatment as Contingent Payment Debt Instruments

We may be obligated to pay amounts in excess of the stated interest or principal on the notes, including as described under "Description of Notes" Optional Redemption, and "Description of Notes" Offer to Repurchase Upon Change of Control Triggering Event. These potential payments may

Edgar Filing: MONSANTO CO /NEW/ - Form 424B5

implicate the provisions of Treasury regulations relating to contingent payment debt instruments. According to the applicable Treasury regulations,

S-15

Table of Contents

certain contingencies will not cause a debt instrument to be treated as a contingent payment debt instrument if such contingencies, as of the date of issuance, are remote or incidental. We intend to take the position that the foregoing contingencies are remote or incidental, and we do not intend to treat the notes as contingent payment debt instruments. Our determination regarding the remoteness of such contingency is binding on each U.S. holder unless a U.S. holder explicitly discloses to the IRS, in the proper manner, that its determination is different than ours.

Our determination is not binding on the IRS and it is possible that the IRS may take a different position regarding the likelihood of such additional payments, in which case, if that position were sustained, the timing, amount and character of income recognized with respect to a note may be substantially different than described herein and a holder may be required to recognize income significantly in excess of payments received and may be required to treat as interest income all or a portion of any gain recognized on the disposition of a note. This summary assumes that the IRS will not take a different position, or, if it takes a different position, that such position will not be sustained. Prospective purchasers should consult their own tax advisors as to the tax considerations that relate to the possibility of additional payments.

United States Holders

Payments of Interest

Payments of interest on a note generally will be taxable to a U.S. holder as ordinary interest income at the time such payments are accrued or are received (in accordance with the U.S. holder's regular method of tax accounting).

Original Issue Discount

It is expected that the notes will not be issued with an issue price that is less than their stated redemption price at maturity by more than the statutory de minimis amount. As a result, the notes will not be subject to the original issue discount (OID) rules. If, however, the stated redemption price at maturity (generally equal to the sum of all payments required under the notes other than payments of qualified stated interest) of the notes exceeds the issue price by more than a de minimis amount, U.S. holders will be required to include OID in income for U.S. federal income tax purposes as it accrues under a constant yield method, regardless of such U.S. holders' method of accounting. As a result, U.S. holders may be required to include OID in taxable income prior to the receipt of cash by such U.S. holders.

Acquisition Premium

If you purchase a note at a cost greater than the note's redemption amount, you will be considered to have purchased the note at a premium (referred to as bond premium), and you may elect to amortize the bond premium as an offset to interest income, using a constant yield method, over the remaining term of the note. Amortizable bond premium is treated as a reduction of interest on the note instead of as a deduction. If you elect to amortize the bond premium, you will be required to reduce your tax basis in the note by the amount of the bond premium amortized during your holding period. If you do not elect to amortize bond premium, the amount of bond premium will be included in your tax basis in the note. Therefore, if you do not elect to amortize bond premium and you hold the note to maturity, you generally will be required to treat the bond premium as capital loss when the note matures. If you elect to amortize the bond premium, the election generally will apply to all debt instruments that you hold at the time of the election, as well as any debt instruments that you subsequently acquire. In addition, you may not revoke the election without the consent of the IRS.

Sale, Redemption, Exchange or Other Taxable Disposition of Notes

Except as discussed above, a U.S. holder will generally recognize gain or loss on the sale, redemption, exchange, or other taxable disposition of a note, in an amount equal to the difference between (i) the proceeds received by the holder in exchange for such note (less an amount attributable to any accrued but unpaid interest not previously included in income, which will be treated as a payment of interest for U.S. federal income tax purposes) and (ii) the U.S. holder's adjusted tax basis in the note. The proceeds received by a U.S. holder will include the amount of any cash and the fair market value of any other property received for the note. In general, a U.S. holder's adjusted tax basis in a note will equal the amount paid for the note increased by any original issue discount included in income and decreased by the amount of any payments other than qualified stated interest payments received and amortizable bond premium taken with respect to the note. Such gain or loss recognized by a U.S. holder on a

Table of Contents

disposition of a note will be capital gain or loss and will be long-term capital gain or loss if the holder held the note for more than one year. Under current U.S. federal income tax law, net long-term capital gains of non-corporate U.S. holders (including individuals) are eligible for taxation at preferential rates. The deductibility of capital losses is subject to certain limitations. Prospective investors should consult with their own tax advisors concerning these tax law provisions.

Medicare Tax

For taxable years beginning after December 31, 2012, recently enacted legislation generally will impose a 3.8% Medicare tax on a portion or all of the net investment income of certain individuals with a modified adjusted gross income of over \$200,000 (\$250,000 in the case of joint filers) and on the undistributed net investment income of certain estates and trusts. For these purposes, net investment income generally will include interest (including interest paid with respect to a note), dividends, annuities, royalties, rents, net gain attributable to the disposition of property not held in a trade or business (including net gain from the sale, exchange, redemption or other taxable disposition of a note) and certain other income, but will be reduced by any deductions properly allocable to such income or net gain. If you are a U.S. holder that is an individual, estate or trust, you are urged to consult your tax advisors regarding the applicability of the Medicare tax to your income and gains in respect of your investment in the notes.

Information Reporting and Backup Withholding

Unless a U.S. holder is an exempt recipient, such as a corporation, payments made with respect to the notes may be subject to information reporting and may also be subject to U.S. federal backup withholding at the applicable rate if a U.S. holder fails to comply with applicable United States information reporting and certification requirements.

Backup withholding is not an additional tax. Any amount withheld from you under the backup withholding rules generally will be allowed as a refund or a credit against your United States federal income tax liability, provided the required information is furnished timely to the IRS.

Non-United States Holders

The following discussion only applies to you if you are a non-U.S. holder.

Special rules may apply to you if you are a controlled foreign corporation, passive foreign investment company, foreign personal holding company, or, in certain circumstances, a company that accumulates earnings for the purpose of avoiding tax or, in certain circumstances, a United States individual that is an expatriate, and are subject to special treatment under the Code. In such case, you should consult your tax advisor to determine the United States federal, state, local and other tax consequences that may be relevant to you.

Payments of Interest

Interest paid on a note by us or our agent to a non-U.S. holder will qualify for the portfolio interest exemption and will not be subject to U.S. federal income tax or withholding of such tax; provided that such interest income is not effectively connected with a U.S. trade or business of the non-U.S. holder (or, if a tax treaty applies, is not attributable to a U.S. permanent establishment or fixed base maintained by the non-U.S. holder within the United States); and provided that the non-U.S. holder:

does not actually or by attribution own 10% or more of the combined voting power of all classes of our stock entitled to vote;

is not a controlled foreign corporation for U.S. federal income tax purposes that is related to us actually or by attribution through stock ownership;

is not a bank that acquired the note in consideration for an extension of credit made pursuant to a loan agreement entered into in the ordinary course of business; and

Edgar Filing: MONSANTO CO /NEW/ - Form 424B5

either (a) provides an appropriate Form W-8 (or a suitable substitute form) signed under penalties of perjury that includes the non-U.S. holder's name and address, and certifies as to non-United States status in compliance with applicable law and regulations; or (b) is a securities clearing organization, bank or

S-17

Table of Contents

other financial institution that holds customers' securities in the ordinary course of its trade or business and provides a statement to us or our agent under penalties of perjury in which it certifies that such a Form W-8 (or a suitable substitute form) has been received by it from the non-U.S. holder or qualifying intermediary and furnishes us or our agent with a copy. The Treasury regulations provide special certification rules for notes held by a foreign partnership and other intermediaries.

If such non-U.S. holder cannot satisfy the requirements described above, payments of interest made to the non-U.S. holder will be subject to withholding of 30% United States federal income tax unless such holder provides us with a properly executed IRS Form W-8 claiming an exemption from (or reduction of) withholding under the benefit of a treaty.

If interest on a note is effectively connected with a United States trade or business by a non-U.S. holder and, if a tax treaty applies, is attributable to a United States permanent establishment or fixed base maintained by the non-U.S. holder within the United States, then such interest shall be treated as described below under *Effectively Connected Income*.

Sale, Redemption, Exchange or Other Taxable Disposition of Notes

Generally, any gain recognized by a non-U.S. holder on the disposition of a note (other than amounts attributable to accrued and unpaid interest, which are described under *Payments of Interest* above) will not be subject to United States federal income tax and withholding, unless:

the gain is effectively connected with the conduct of a United States trade or business by the non-U.S. holder (and, if required by an applicable tax treaty, the gain is attributable to a permanent establishment maintained in the United States by the non-U.S. holder); or

the non-U.S. holder is an individual who is present in the United States for 183 days or more during the taxable year of that disposition, and certain other conditions are met or the non-U.S. holder is subject to Code provisions applicable to certain United States expatriates.

A non-U.S. holder should consult his or her tax advisor regarding the tax consequences of the purchase, ownership and disposition of the notes.

Effectively Connected Income

If interest, gain or other income recognized by a non-U.S. holder on a note is effectively connected with the non-U.S. holder's conduct of a trade or business within the United States (and, if a treaty applies, is attributable to a permanent establishment maintained by the non-U.S. holder in the United States), the non-U.S. holder will not be subject to the withholding of tax discussed above if the non-U.S. holder provides a properly completed and executed Internal Revenue Service Form W-8ECI (Certificate of Foreign Person's Claim That Income Is Effectively Connected With the Conduct of a Trade or Business in the United States), but the non-U.S. holder generally will be subject to United States federal income tax on such interest, gain or other income on a net-income basis at regular graduated rates as if it were a United States person (as defined in the Code). In addition to such United States federal income tax, if the non-U.S. holder is a corporation, it may be subject to an additional 30% branch profits tax (or such lower rate as may be prescribed by an applicable tax treaty), which is generally imposed on the deemed repatriation from the United States of effectively connected earnings and profits.

Foreign Account Taxpayer Compliance Act (FATCA)

Legislation enacted in 2010 (FATCA legislation) generally imposes a withholding tax of 30% on interest income paid on a debt obligation and on the gross proceeds from the sale or other disposition of a debt obligation paid after December 31, 2012 to (i) a foreign financial institution (as the beneficial owner or as an intermediary for the beneficial owner), unless such institution enters into an agreement with the United States government to collect and provide to the United States tax authorities substantial information regarding United States account holders of such institution (which would include certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with United States owners) or (ii) a foreign entity that is not a financial institution (as the beneficial owner or as an intermediary for the beneficial owner), unless such entity provides the withholding agent with a certification identifying the substantial United States owners of the entity, which generally includes any United States person who directly or indirectly owns more than 10% of the entity. Under proposed Treasury

Table of Contents

regulations, this new withholding tax will not apply (i) to interest income on a debt obligation that is paid on or before December 31, 2013 or (ii) to gross proceeds from the sale or other disposition of a debt obligation paid on or before December 31, 2014. Under proposed Treasury regulations, this legislation generally will not apply to a debt obligation outstanding on January 1, 2013, unless such debt obligation undergoes a significant modification " (within the meaning of Section 1.1001-3 of the Treasury regulations promulgated under the Code) after such date. Investors are encouraged to consult with their own tax advisors regarding the implications of this legislation on their investment in a note.

Information Reporting and Backup Withholding

Non-U.S. holders may be required to comply with certain certification procedures to establish that the holder is not a United States person in order to avoid information reporting and backup withholding.

Backup withholding is not an additional tax. Any amount withheld from you under the backup withholding rules generally will be allowed as a refund or a credit against your United States federal income tax liability, provided the required information is furnished timely to the IRS.

Non-U.S. holders should consult their tax advisors regarding the application of information reporting and backup withholding in their particular situations, the availability of an exemption therefrom, and the procedures for obtaining such an exemption, if available.

The United States federal income tax summary set forth above is included for general information only and may not be applicable depending upon your particular situation. You should consult your own tax advisors with respect to the tax consequences to you of the exchange of the notes, and the ownership and disposition of the notes, including the tax consequences under state, local, foreign and other tax laws and the possible effects of changes in federal or other tax laws.

Table of Contents**UNDERWRITING**

The company and the underwriters for the offering named below have entered into an underwriting agreement and a pricing agreement with respect to the notes. Subject to certain conditions, each underwriter has severally agreed to purchase the principal amount of notes indicated in the following table.

Underwriter	Principal Amount of 2022 Notes	Principal Amount of 2042 Notes
Citigroup Global Markets Inc.	\$	\$
J.P. Morgan Securities LLC		
Merrill Lynch, Pierce, Fenner & Smith Incorporated		
RBS Securities Inc.		
Wells Fargo Securities, LLC		
 Total	 \$	 \$

The underwriters are committed to take and pay for all of the notes being offered, if any are taken.

Notes sold by the underwriters to the public will initially be offered at the initial public offering prices set forth on the cover of this prospectus supplement. Any notes sold by the underwriters to securities dealers may be sold at a discount from the initial public offering price of up to % of the principal amount for 2022 notes and up to % of the principal amount for 2042 notes. Any such securities dealers may resell any notes purchased from the underwriters to certain other brokers or dealers at a discount from the initial public offering price of up to % of the principal amount for 2022 notes and up to % of the principal amount for 2042 notes. If all the notes are not sold at the initial offering prices, the underwriters may change the offering prices and the other selling terms. The offering of the notes by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

The notes are new issues of securities with no established trading market. The company has been advised by the underwriters that the underwriters intend to make a market in the notes of each series but are not obligated to do so and may discontinue market making at any time without notice. No assurance can be given as to the liquidity of the trading markets for the notes.

In connection with the offering, the underwriters may purchase and sell notes in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of notes than they are required to purchase in the offering. Stabilizing transactions consist of certain bids or purchases made for the purpose of preventing or retarding a decline in the market prices of the notes while the offering is in progress.

The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased notes sold by or for the account of such underwriter in stabilizing or short covering transactions.

These activities by the underwriters, as well as other purchases by the underwriters for their own accounts, may stabilize, maintain or otherwise affect the market prices of the notes. As a result, the prices of the notes may be higher than the prices that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. These transactions may be effected in the over-the-counter market or otherwise.

The company estimates that its share of the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately \$.

The company has agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act of 1933.

Table of Contents

Some of the underwriters and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They have received, or may in the future receive, customary fees and commissions for these transactions.

In addition, in the ordinary course of their business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. If any of the underwriters or their affiliates have a lending relationship with us, certain of those underwriters or their affiliates routinely hedge, and certain other of those underwriters or their affiliates may hedge, their credit exposure to us consistent with their customary risk management policies. Typically, these underwriters and their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities, including potentially the notes offered hereby. Any such credit default swaps or short positions could adversely affect future trading prices of the notes offered hereby. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Selling Restrictions

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State it has not made and will not make an offer of notes which are the subject of the offering contemplated by this prospectus supplement and the accompanying prospectus to the public in that Relevant Member State other than:

to any legal entity which is a qualified investor as defined in the Prospectus Directive;

to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the Representatives for any such offer; or

in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of notes shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive. For the purposes of this provision, the expression an offer of notes to the public in relation to any notes in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe the notes, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State.

This prospectus supplement and the accompanying prospectus have been prepared on the basis that any offer of notes in any Relevant Member State will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of notes. Accordingly any person making or intending to make an offer in that Relevant Member State of notes which are the subject of the placement contemplated in this prospectus supplement and the accompanying prospectus may only do so in circumstances in which no obligation arises for us or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive, in each case, in relation to such offer. Neither we nor the underwriters have authorized, nor do they authorize, the making of any offer of notes in circumstances in which an obligation arises for us or the underwriters to publish a prospectus for such offer.

The expression Prospectus Directive means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

Table of Contents

United Kingdom

This prospectus supplement and the accompanying prospectus are only being distributed to, and are only directed at, (1) persons who are outside the United Kingdom or (2) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order") or (3) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (each such person being referred to as a "relevant person"). The notes are only available to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire the notes will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this prospectus supplement or the accompanying prospectus or any of their contents.

Each underwriter has represented and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Service and Markets Act 2000 ("FSMA")) received by it in connection with the issue or sale of the notes in circumstances in which Section 21(1) of the FSMA does not apply to us; and

(b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the notes in, from or otherwise involving the United Kingdom.

Hong Kong

The notes may not be offered or sold by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), or (ii) to professional investors within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a prospectus within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), and no advertisement, invitation or document relating to the notes may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to notes which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder.

Japan

The securities have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (the Financial Instruments and Exchange Law) and each underwriter has agreed that it will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the notes may not be circulated or distributed, nor may the notes be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (1) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (2) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; or (3) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the notes are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee

Table of Contents

is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for 6 months after that corporation or that trust has acquired the notes under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

LEGAL MATTERS

Bryan Cave LLP, St. Louis, Missouri, as our counsel, has issued an opinion as to the legality of the notes. Mayer Brown LLP, Chicago, Illinois, will pass upon certain legal matters for the underwriters in connection with this offering.

EXPERTS

The consolidated financial statements, incorporated in this prospectus supplement and the accompanying prospectus by reference from the Company's Annual Report on Form 10-K/A, 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 reports (which report on the consolidated financial statements 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 which report on the effectiveness of the Company's internal control over financial reporting expresses an adverse opinion because of a material weakness), which are 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

Debt Securities

Preferred Stock

Common Stock

Warrants

Purchase Contracts

Units

This prospectus describes securities which we may offer and sell at various times. A more detailed description of the securities is contained in this prospectus under **Description of Debt Securities**, **Description of Capital Stock**, **Description of Warrants and Warrant Units** and **Description of Purchase Contracts and Purchase Units**. The securities may be our senior or subordinated debt securities, shares of our preferred or common stock, warrants or warrant units, purchase contracts or purchase units, and may include securities convertible into or exchangeable for our preferred or common stock.

We will determine the terms of each series of securities (including, as applicable, the specific designation, aggregate principal amount, interest rates, dividend rates, maturity, redemption provisions, ranking and other terms) at the time of sale, and we will describe those terms in a prospectus supplement which we will deliver together with this prospectus at the time of the sale.

We may sell securities directly to investors or to or through underwriters, dealers or agents. More information about the way we will distribute the securities is under the heading **Plan of Distribution**. Information about the underwriters or agents who will participate in any particular sale of securities will be in the prospectus supplement relating to those securities.

Unless we state otherwise in a prospectus supplement, we will not list any of the securities on any securities exchange.

Our common stock is traded on the New York Stock Exchange under the symbol **MON**. Our principal executive offices are located at 800 North Lindbergh Boulevard, St. Louis, Missouri 63167, and our telephone number is (314) 694-1000.

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.

Investing in our securities involves risk. See Risk Factors on page 2 of this prospectus.

The date of this prospectus is November 14, 2011.

Table of Contents

We have not authorized anyone to give any information or to make any representations concerning the offering of the securities except those which are in this prospectus or in the prospectus supplement which is delivered with this prospectus, or which is referred to under **Where You Can Find More Information**. If anyone gives any other information or representation, you should not rely on it. This prospectus is not an offer to sell or a solicitation of an offer to buy any securities other than the securities which are referred to in the prospectus supplement. This prospectus is not an offer to sell or a solicitation of an offer to buy securities in any circumstances in which the offer or solicitation is unlawful. You should not interpret the delivery of this prospectus, or any sale of securities, as an indication that there has been no change in our affairs since the date of this prospectus. You should also be aware that information in this prospectus may change after this date and information contained herein should only be assumed to be accurate as of the date hereof.

TABLE OF CONTENTS

<u>Where You Can Find More Information</u>	1
<u>Risk Factors</u>	2
<u>About This Prospectus</u>	2
<u>Information about Monsanto</u>	3
<u>Use of Proceeds</u>	3
<u>Description of Debt Securities</u>	4
<u>General</u>	4
<u>Subordination</u>	5
<u>Payments on Debt Securities</u>	6
<u>Form, Denominations and Transfers</u>	6
<u>Original Issue Discount Securities</u>	6
<u>Indexed Debt Securities</u>	6
<u>Certain Restrictions in the Indentures</u>	7
<u>Redemption</u>	8
<u>Events of Default</u>	8
<u>Defeasance</u>	10
<u>Modification of the Indentures and Waiver of Covenants</u>	10
<u>Consolidation, Merger and Sale of Assets</u>	11
<u>Concerning The Trustee</u>	11
<u>Governing Law</u>	11
<u>Book-Entry Debt Securities</u>	12
<u>Description of Capital Stock</u>	13
<u>General</u>	13
<u>Common Stock</u>	13
<u>Preferred Stock</u>	13
<u>Certain Effects of Authorized but Unissued Stock</u>	14
<u>Certain Provisions of Our Certificate of Incorporation and Bylaws</u>	14
<u>Anti-Takeover Effects of Provisions</u>	16
<u>Delaware Statutory Provisions</u>	16
<u>Description of Warrants and Warrant Units</u>	17
<u>Description of Purchase Contracts and Purchase Units</u>	18
<u>Plan of Distribution</u>	19
<u>Legal Matters</u>	19
<u>Experts</u>	20

As used in this prospectus, unless otherwise indicated, **Monsanto**, the company, we, our and us are used interchangeably to refer to Monsanto Company or to Monsanto Company and its subsidiaries, as appropriate to the context.

Trademarks owned or licensed by Monsanto or its subsidiaries are shown in *italics*. Unless otherwise indicated, references to *Roundup* herbicides mean *Roundup* branded herbicides, excluding all lawn-and-garden herbicides, and references to *Roundup* and other glyphosate-based

herbicides exclude all lawn-and-garden herbicides.

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.

Table of Contents

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;

our Current Reports on Form 8-K filed October 5 and October 11, 2011;

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 we sell all of the securities, 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 <http://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 <http://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.

RISK FACTORS

Our business is subject to uncertainties and risks. You should carefully consider and evaluate all of the information included and incorporated by reference in this prospectus, including the risk factors incorporated by reference from our most recent annual report on Form 10-K, as updated by our quarterly reports on Form 10-Q and other SEC filings filed after such annual report. It is possible that our business, financial condition, liquidity or results of operation could be materially adversely affected by any of these risks.

ABOUT THIS PROSPECTUS

This prospectus is part of an "automatic shelf" registration statement that we filed with the SEC, as a "well-known seasoned issuer" as defined in Rule 405 under the Securities Act of 1933, as amended, using a "shelf" registration process. Under this process, we may sell debt securities, preferred stock, common stock, warrants, purchase contracts and units. This prospectus only provides you with a general

Table of Contents

description of the securities that we may offer. Each time we sell securities, we will provide a supplement to this prospectus that contains specific information about the terms of the securities. The prospectus supplement may also add, update or change information contained in this prospectus. Before purchasing any securities, you should carefully read both this prospectus and the accompanying prospectus supplement and any free writing prospectus prepared by or on behalf of us, together with the additional information described under the heading **Where You Can Find More Information**.

INFORMATION ABOUT MONSANTO

We, along with our subsidiaries, are 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* and *Harness* 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.

USE OF PROCEEDS

Unless we otherwise indicate in an accompanying prospectus supplement, we intend to use the net proceeds we receive from the sale of the securities for general corporate purposes, which may include reducing or refinancing borrowings, meeting working capital needs, capital expenditures, and acquisitions.

Table of Contents

DESCRIPTION OF DEBT SECURITIES

This section describes some of the general terms of the debt securities we may issue under this prospectus. The prospectus supplement will describe the particular terms of any debt securities we may offer. The prospectus supplement will also indicate the extent, if any, to which these general provisions may not apply to the debt securities being offered. If you would like more information on these provisions, you may review the indentures which are filed or incorporated by reference as exhibits to the registration statement which is filed with the SEC. See **Where You Can Find More Information**.

Our debt securities may be senior unsecured or subordinated securities. Our senior debt securities will be issued under the Indenture, dated as of August 1, 2002, between us and The Bank of New York Mellon Trust Company, N.A., as successor trustee, and any subordinated securities will be issued under a Subordinated Indenture to be entered into between us and The Bank of New York Mellon Trust Company, N.A., as trustee. We refer to the indentures under which our debt securities will be issued as the Senior Indenture and the Subordinated Indenture, and together as the Indentures.

We are summarizing certain important provisions of the debt securities and the Indentures. This is not a complete description of all of the important terms. You should refer to the specific terms of the Indentures for a complete statement of the terms of the Indentures and the debt securities. When we use capitalized terms which we do not define here, those terms have the meanings given in the applicable Indenture. When we use references to Sections, we mean Sections in the applicable Indenture(s).

General

The senior debt securities will be our senior unsecured obligations and will rank on a parity with all of our other unsecured and unsubordinated indebtedness. Our subordinated debt securities may be subordinated to other classes of our indebtedness as described below under **Subordination** and as described further in the applicable prospectus supplement.

The Indentures do not limit the amount of debt securities that we may issue thereunder, nor do they limit other debt that we may issue. The debt securities may be issued at various times in different series and issues, each of which may have different terms. Unless we indicate otherwise in the prospectus supplement for any series or issue, we may treat a subsequent offering of debt securities as a part of the same issue as that series or issue.

The prospectus supplement relating to a particular series of debt securities will include the following information concerning those debt securities:

The title of the debt securities of the series or issue.

The total principal amount of the series or issue of debt securities.

The date or dates on which the principal and premium, if any, will be paid, and the rights we or the holders may have to extend the maturity of the debt securities.

The interest rate on the debt securities. We may specify a fixed rate or a variable rate, or a rate to be determined under procedures we will describe in the prospectus supplement, and the interest rate may be subject to adjustment.

The dates on which we will pay interest on the debt securities and the regular record dates for determining the holders who are entitled to receive the interest payments.

The terms of subordination of the debt securities.

Our right, if any, to defer payments of interest on the debt securities by extending the interest payment period, and the duration of such extensions.

Table of Contents

Where payments on the debt securities will be made, if it is other than the office mentioned under **Payments on Debt Securities** below.

If applicable, the prices at which we may redeem all or a part of the debt securities and the time periods during which we may make the redemptions. The redemptions may be made under a sinking fund or otherwise.

Any obligation we may have to redeem, purchase or repay any of the debt securities under a sinking fund or otherwise or at the option of the holder, and the prices, time periods and other terms which would apply.

If applicable, the terms on which the securities may be converted into shares of our common stock or other securities.

Any additional events of default or covenants that will apply to the debt securities.

The amounts we would be required to pay if the maturity of the debt securities is accelerated, if it is less than the principal amount.

If payments on the debt securities will be made in any currency other than U.S. dollars, the currencies of the payments.

If applicable, the terms under which we, or a holder, may elect that payments on the debt securities be made in a currency other than U.S. dollars.

If amounts payable on the debt securities may be determined by a currency or other index, information on how the payments will be determined.

Any applicable material Federal income tax consequences.

Any other special terms that may apply to the debt securities. (Section 301)

Subordination

Our subordinated debt securities will be subordinate and junior in right of payment to all of our senior indebtedness, as defined below.

No payment of principal of (including redemption and sinking fund payments), premium, if any, or interest on, any subordinated debt securities may be made if any senior indebtedness is not paid when due, any applicable grace period with respect to such default has ended and such default has not been cured or waived, or the maturity of any senior indebtedness has been accelerated because of a default and such acceleration has not been rescinded or annulled.

Upon any distribution of our assets to creditors upon any dissolution, winding-up, liquidation or reorganization, whether voluntary or involuntary, or in bankruptcy, insolvency, receivership or other proceedings, all principal of, and premium, if any, and interest due or to become due on, all senior indebtedness must be paid in full before the holders of the subordinated debt securities will be entitled to receive or retain any payment. The rights of the holders of the subordinated debt securities will be subrogated to the rights of the holders of senior indebtedness to receive payments or distributions applicable to senior indebtedness until all amounts owing on the subordinated debt securities are paid in full.

Senior indebtedness means all of our present and future (i) indebtedness for borrowed money, (ii) obligations evidenced by bonds, debentures, notes or similar instruments, (iii) indebtedness incurred, assumed or guaranteed in connection with the acquisition by us or a subsidiary of any

Edgar Filing: MONSANTO CO /NEW/ - Form 424B5

business, properties or assets (except purchase-money indebtedness classified as accounts payable under generally accepted accounting principles), (iv) obligations as lessee under leases required to be capitalized on the

Table of Contents

balance sheet of the lessee under generally accepted accounting principles, (v) reimbursement obligations in respect of letters of credit, and (vi) obligations under direct or indirect guarantees in respect of, and obligations (contingent or otherwise) to purchase or otherwise acquire, or otherwise to assure a creditor against loss in respect of, indebtedness or obligations of others of the kinds referred to in clauses (i) through (v) above, in each case unless in the instrument creating or evidencing the indebtedness or obligation or pursuant to which the same is outstanding it is provided that such indebtedness or obligation is not superior in right of payment to the senior indebtedness.

The Subordinated Indenture will not limit the aggregate amount of senior indebtedness that we may issue. As of August 31, 2011, we had approximately \$2.2 billion in outstanding debt, all of which was senior indebtedness.

Payments on Debt Securities

We will make payments on the debt securities at the office or agency we will maintain for that purpose, which will be the Corporate Trust Office of the Trustee in New York, New York unless we indicate otherwise in the prospectus supplement, or at such other places at the respective times and in the manner as we designate in the prospectus supplement. (Sections 307 and 1002) As explained under Book-Entry Debt Securities below, The Depository Trust Company, which we refer to as DTC, or its nominee will be the initial registered holder unless the prospectus supplement provides otherwise, and we will make payments to DTC or its nominee. Payments to you, as beneficial owner, will be the responsibility of your broker or other DTC participant.

Form, Denominations and Transfers

Unless otherwise indicated in the prospectus supplement:

The debt securities will be in fully registered form, without coupons, in denominations of \$1,000 or any multiple thereof. (Section 302)

We will not charge any fee to register any transfer or exchange of the debt securities, except for taxes or other governmental charges, if any. (Sections 306)

Original Issue Discount Securities

If debt securities are original issue discount securities, we will offer and sell them at a substantial discount from their stated principal amount. We will describe Federal income tax consequences and other special considerations applicable to any original issue discount securities in the prospectus supplement. Original issue discount security means any security which provides that less than the full principal amount will be due if the maturity is accelerated or if the security is redeemed before its maturity. (Section 101)

Indexed Debt Securities

Debt securities may provide that the principal amount payable at maturity or the amount of interest payable will be determined by reference to currency exchange rates, commodity prices, equity indices or other factors. In that case, the amount we will pay to the holders will depend on the value of the applicable currency, commodity, equity index or other factor at the time the payment obligation is calculated. We will include information in the prospectus supplement for those debt securities about how we will calculate the principal or interest payable, and will specify the currencies, commodities, equity indices or other factors to which the principal amount payable at maturity or interest is linked. We will also provide information about certain additional Federal income tax considerations which would apply to the holders of those debt securities. (Section 101)

Table of Contents

Certain Restrictions in the Indentures

Unless we otherwise specify in the prospectus supplement, there will not be any covenants in the Indentures or the debt securities that would protect you against a highly leveraged or other transaction involving us that may adversely affect you as a holder of debt securities. If there are provisions that offer such protection, they will be described in the prospectus supplement.

Restriction on Liens. Under the Senior Indenture, neither we nor any of our restricted subsidiaries (defined below) may issue any notes, bonds, debentures or other indebtedness for money borrowed secured by a pledge of, or mortgage or lien on, any operating property (defined below) owned or leased by us or any restricted subsidiary, or on any shares of stock or indebtedness of any restricted subsidiary, unless we also provide equal and ratable security on the debt securities. A restricted subsidiary is any of our direct or indirect subsidiaries that own any operating property. (Section 101) Operating property is any real property or equipment located within the U.S. and used primarily for manufacturing or research and development by us or any of our direct or indirect subsidiaries that has a net book value, after deduction of accumulated depreciation, in excess of 2.0% of our consolidated net assets (defined below), other than any property or equipment:

which is financed by obligations issued by a state, commonwealth, territory or possession of the U.S., or any political subdivision or governmental authority of any of the foregoing; or

which, in the opinion of our Board of Directors, is not of material importance to the total business conducted by us and our restricted subsidiaries taken as a whole. (Section 101)

Given the nature of our business, and the large number of our facilities in the U.S., at any time there may be few, or no, facilities which would meet the definition of operating property referred to above.

This restriction will not apply to the following permitted liens, which will also be excluded in computing secured indebtedness for purposes of this restriction:

liens existing as of the date of the Indenture;

liens on property, shares or debt of a corporation existing at the time it becomes a restricted subsidiary;

liens on property existing at the time of acquisition and certain purchase money or similar liens;

liens to secure certain development, operation, construction, alteration, repair or improvement costs;

liens securing indebtedness owing to us or another restricted subsidiary by a restricted subsidiary;

liens in connection with certain government contracts, including the assignment of moneys due or to become due thereon or in connection with obligations issued by a state or a commonwealth or certain other governmental entities;

liens arising because of the nonpayment of taxes, assessments or governmental charges or of claims for labor, materials or supplies if such amounts are being contested in good faith or are not of material importance to the business;

Edgar Filing: MONSANTO CO /NEW/ - Form 424B5

liens arising from a judgment, decree or court order, provided that proceedings for review have not been finally terminated, or that the period for initiating review has not expired;

Table of Contents

certain liens relating to security for the performance of a bid or contract, in connection with legal proceedings or arising in the ordinary course of business and not in connection with the borrowing of money; and

extensions, substitutions, replacements or renewals of the liens described above. (Section 1005)

There is an additional exception as described below under 10% Basket Amount.

Consolidated net assets means the aggregate amount of assets, less applicable reserves and other properly deductible items, after deducting from such amount all current liabilities, excluding certain renewable or extendible indebtedness, as shown on our latest statement of consolidated financial position and computed in accordance with generally accepted accounting principles. (Section 101)

Restriction on Sale and Leaseback Transactions. Under the Senior Indenture, neither we nor our restricted subsidiaries may enter into any sale and leaseback transactions involving any operating property, except for leases not exceeding three years by the end of which we intend to discontinue use of the property, unless an amount equal to the fair value of the operating property leased is applied within 120 days to:

the purchase of any asset or any interest in an asset which would qualify, after purchase, as an operating property; or

the retirement of indebtedness maturing more than one year after the date of determination, which may include debt securities to the extent they mature more than one year after such date. (Section 1006)

There is an additional exception as described below under 10% Basket Amount.

10% Basket Amount. In addition to the exceptions described above under **Restriction on Liens** and **Restriction on Sale and Leaseback Transactions**, the Senior Indenture allows additional secured indebtedness and additional sale and leaseback transactions as long as the total of the secured indebtedness plus the attributable debt (defined below) in respect of sale and leaseback transactions, other than sale and leaseback transactions the proceeds of which are applied as described under **Restriction on Sale and Leaseback Transactions** above, does not exceed 10% of our consolidated net assets. **Attributable debt** means, as of the time of determination, the total obligation, discounted to present value at the rate per annum equal to the discount rate which would be applicable to a capital lease obligation with a similar term in accordance with generally accepted accounting principles, of the lessee for rental payments (other than amounts required to be paid on account of property taxes, maintenance, repairs, insurance, water rates and other items which do not constitute payments for property rights) during the remaining portion of the initial term of the lease included in such sale and leaseback transactions. (Sections 101, 1005 and 1006)

Redemption

If and to the extent set forth in the applicable prospectus supplement, we will have the right to redeem the debt securities, in whole or from time to time in part, after the date and at the redemption prices set forth in the applicable prospectus supplement. (Section 1101)

Events of Default

An event of default in respect of any series of debt securities means:

default in payment of principal of or premium, if any, on any debt security of that series;

default for 30 days in payment of interest on any debt security of that series;

Table of Contents

default for 30 days in the deposit of any sinking fund payment when due in respect of that series;

our failure in the performance of any other of the covenants or warranties in the applicable Indenture which continues for 90 days after notice to us by the Trustee or by holders of 25% in principal amount of the outstanding debt securities of that series;

certain events of bankruptcy, insolvency or reorganization; and

any other event of default described in the applicable prospectus supplement as being applicable to debt securities of that series. (Section 501)

If an event of default (other than with respect to certain events of bankruptcy, insolvency or reorganization) with respect to any series of debt securities occurs and is continuing, either the Trustee or the holders of 25% in principal amount of the outstanding debt securities of that series may declare the principal amount (or, if the debt securities of that series are original issue discount securities or indexed securities, such portion of the principal amount of such debt securities as may be specified in the terms of those securities) of all debt securities of that series to be due and payable immediately, but upon certain conditions such declaration may be annulled and past defaults may be waived by the holders of a majority in principal amount of the outstanding debt securities of that series on behalf of the holders of all debt securities of that series. An event of default relating to a bankruptcy, insolvency or reorganization will cause the outstanding securities to become immediately due and payable without any declaration or other act by the Trustee or the holders. The annulment and waiver may not be made with respect to a default in payment of principal of or premium, if any, or interest, if any, on the debt securities of that series and certain other specified defaults, unless those defaults have been cured. (Section 502 and 513)

The prospectus supplement relating to each series of debt securities which are original issue discount securities will describe the particular provisions relating to acceleration of the maturity of a portion of the principal amount of such original issue discount securities upon the occurrence and continuation of an event of default.

Within 90 days after the occurrence of a default with respect to any series of debt securities then outstanding, the Trustee must give to the holders of the outstanding debt securities of that series notice of such default to the extent provided by the Trust Indenture Act. However, except in the case of default in the payment of principal of or premium, if any, or interest on any debt security of that series, or in the deposit of any sinking fund payment which is provided for, the Trustee may withhold the notice if the board of directors, the executive committee or a trust committee of directors and/or responsible officers of the Trustee in good faith determine that it is in the best interest of the holders, and provided further that in the event of a breach of certain covenants, representations or warranties, such notice will not be given before 30 days after the occurrence of such default. (Section 602)

Before the Trustee is required to exercise rights under the Indentures at the request of holders, it is entitled to be indemnified by such holders, subject to its duty, during an event of default, to act with the required standard of care. (Section 603(e))

We must file annual certificates with the Trustee certifying that we are in compliance with conditions and covenants under the Indentures. (Section 1008 of the Senior Indenture; Section 1006 of the Subordinated Indenture)

The Indentures provide that the holders of a majority in principal amount of outstanding debt securities of any series may direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or other power conferred on the Trustee, in respect of such series, provided that the Trustee may decline to act if such direction is contrary to law or

Table of Contents

the Indenture or that a responsible officer (or officers) of the Trustee determines in good faith would expose it to personal liability. (Section 512)

Defeasance

The Indentures include provisions allowing defeasance of the debt securities of any series issued thereunder. In order to defease debt securities, we would deposit with the Trustee or another trustee money or U.S. government obligations sufficient to make all payments on those debt securities. If we make a defeasance deposit with respect to your debt securities, we may elect either:

to be discharged from all of our obligations on your debt securities, except for our obligations to register transfers and exchanges, to replace temporary or mutilated, destroyed, lost or stolen debt securities, to maintain an office or agency in respect of the debt securities and to hold moneys for payment in trust; or

to be released from the restrictions described herein relating to consolidations, mergers and sales of assets, and, in the case of the Senior Indenture, to liens and sale and leaseback transactions. (Sections 1302 and 1303 of the Senior Indenture; Sections 1502 and 1503 of the Subordinated Indenture).

As a condition to any such defeasance, we must deliver to the Trustee an opinion of our counsel that the holders of the debt securities will not recognize income, gain or loss for Federal income tax purposes as a result of the defeasance and will be subject to Federal income tax on the same amount, in the same manner and at the same times as would have been the case if the defeasance had not occurred. (Section 1304 of the Senior Indenture; Section 1504 of the Subordinated Indenture)

The prospectus supplement will state if any defeasance provision will apply to debt securities offered in connection with that prospectus supplement.

Modification of the Indentures and Waiver of Covenants

With authorization from our Board of Directors, we may enter into supplemental indentures without the consent of any holders for certain limited purposes as provided by the Indentures. (Section 901)

We may execute supplemental indentures adding any provisions to or changing or eliminating any of the provisions of an Indenture or modifying the rights of the holders of a series of debt securities outstanding thereunder if we obtain the consent of the holders of a majority in principal amount of the outstanding debt securities adversely affected by the addition, change or elimination, except that no supplemental indenture may, without the consent of the holder of each outstanding debt security affected by the supplemental indenture:

change the stated maturity, or reduce the principal amount, the premium, if any, thereon or the rate of payment of interest thereon, of any debt security of any series;

in respect of debt securities issued under the Subordinated Indenture, change the conversion rights or subordination provisions in a manner adverse to the holders;

reduce the aforesaid percentage of outstanding debt securities of any series, the consent of the holders of which is required for any supplemental indenture or for waiver of compliance with certain provisions of the Indentures or certain defaults thereunder; or

effect certain other specified changes. (Section 902)

We may also omit compliance with specified covenants in the Indentures upon waiver by holders of a majority in principal amount of outstanding debt securities affected by such covenants. (Section 1007 of the Senior Indenture; Section 1005 of the Subordinated Indenture)

Table of Contents

Consolidation, Merger and Sale of Assets

Under the Indentures we may, without the consent of the holders of any of the outstanding debt securities, consolidate with or merge into any other corporation or transfer or lease our assets substantially as an entirety to any person provided that:

the successor is a corporation, partnership or trust organized under the laws of any domestic jurisdiction;

the successor corporation assumes our obligations on the debt securities and under the applicable Indenture;

after giving effect to the transaction no event of default, and no event which, after notice or lapse of time, would become an event of default, shall have happened and be continuing; and

other specified conditions are met. (Section 801)

Concerning the Trustee

The Bank of New York Mellon Trust Company, N.A. is the successor Trustee under the Senior Indenture, and will be the Trustee under the Subordinated Indenture. We have previously issued the following securities under the Senior Indenture, which remain outstanding in whole or in part: \$800,000,000 principal amount of our 7³/₈% Senior Notes due 2012, \$250,000,000 principal amount of our 5¹/₂% Senior Notes due 2035, \$314,490,900 principal amount of our 5¹/₂% Senior Notes due 2025, \$300,000,000 principal amount of our 5¹/₈% Senior Notes due 2018, \$250,000,000 principal amount of our 5⁷/₈% Senior Notes due 2038 and \$300,000,000 principal amount of our 2³/₄% Senior Notes due 2016. Additionally, our subsidiary, Monsanto Finance Canada Co., issued \$150,000,000 principal amount of its 5¹/₂% Senior Notes due 2035 under an indenture pursuant to which the Trustee served as trustee. We subsequently assumed our subsidiary's obligations in respect of those securities pursuant to a supplemental indenture with the Trustee. Affiliates of the Trustee have been participants in our revolving credit agreements, and provide other commercial banking services to us. An affiliate of the Trustee was an underwriter in connection with certain of the offerings referred to above.

We may remove the Trustee in respect of any series as long as there is no event of default and no event that, upon notice or lapse of time or both, would become an event of default in respect of that series. The holders of a majority of the principal amount of the series may also remove the Trustee under the applicable Indenture at any time. The Indentures prescribe procedures by which the Trustee will be replaced, in the event of its removal. (Section 610)

Governing Law

Unless otherwise specified in the applicable prospectus supplement, the Indentures and the debt securities will be governed by New York law, without regard to conflicts of laws principles thereof. (Section 112)

Table of Contents

Book-Entry Debt Securities

Unless otherwise indicated in the prospectus supplement, the related debt securities will be issued as book-entry securities. Book-entry securities of a series will be issued in the form of one or more global notes that will be deposited with DTC, and will evidence all of the debt securities of that series. This means that certificates will not be issued to each holder. One or more global securities will be issued to DTC, which will keep a computerized record of its participants (for example, your broker) whose clients have purchased the debt securities. The broker or other participant will then keep a record of its clients who own the debt securities. Unless it is exchanged in whole or in part for a security evidenced by individual certificates, a global security may not be transferred, except that DTC, its nominees and their successors may transfer a global security as a whole to one another. Beneficial interests in global securities will be shown on, and transfers of beneficial interests in global notes will be accomplished by, entries made on the books maintained by DTC and its participants. Each person owning a beneficial interest in a global security must rely on the procedures of DTC and, if the person is not a participant, on the procedures of the participant through which the person owns its interest to exercise any rights of a holder of debt securities under the Indenture.

The laws of some jurisdictions require that certain purchasers of securities such as the debt securities take physical delivery of the securities in definitive form. These limits and laws may impair your ability to acquire or transfer beneficial interests in the global security.

The issuer will make payments on each series of book-entry debt securities to DTC or its nominee, as the sole registered owner and holder of the global security. Neither Monsanto, the Trustee nor any of their agents will be responsible or liable for any aspect of DTC's records relating to, or payments made on account of, beneficial ownership interests in a global security, or for maintaining, supervising or reviewing any of DTC's records relating to the beneficial ownership interests.

We have been advised that DTC's practice is to credit the accounts of participants upon receipt of funds and corresponding information on payable dates to their beneficial interests in the global security as shown on DTC's records. Payments by participants to you, as an owner of a beneficial interest in the global security, will be governed by standing instructions and customary practices (as is now the case with securities held for customer accounts registered in street name) and will be the sole responsibility of the participants, subject to statutory and regulatory requirements.

A global security representing a series of debt securities will be exchanged for certificated debt securities of that series if:

DTC notifies the issuer that it will discontinue as depository or if DTC ceases to be a clearing agency registered under the Securities Exchange Act of 1934 and the issuer does not appoint a successor within 90 days; or

the issuer decides to discontinue use of the system of book-entry transfers through DTC.

If that occurs, the issuer will issue debt securities of that series in certificated form in exchange for the global security. An owner of a beneficial interest in the global security then will be entitled to physical delivery of a certificate for debt securities of the series equal in principal amount to that beneficial interest and to have those debt securities registered in its name. The certificates for the debt securities would be issued in denominations of \$1,000 or any larger amount that is an integral multiple thereof, and would be issued in registered form only, without coupons.

DTC has informed us that it is a limited-purpose trust company organized under the New York Banking Law, a banking organization within the meaning of the New York Banking Law, a member of the Federal Reserve System, a clearing corporation within the meaning of the New York Uniform Commercial Code, and a clearing agency registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC was created to hold the securities of its participants and to

Table of Contents

facilitate the post-trade settlement of securities transactions among its participants through electronic book-entry transfers and pledges between accounts of the participants, thereby eliminating the need for physical movement of securities certificates. DTC's participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust and Clearing Corporation which, in turn, is owned by a number of participants in DTC. Access to DTC's book-entry system is also available to others, such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies and clearing corporations that clear through or maintain a custodial relationship with a participant, either directly or indirectly. The rules applicable to DTC and its participants are on file with the SEC. No fees or costs of DTC will be charged to you.

DESCRIPTION OF CAPITAL STOCK

The following is a description of the material terms of our capital stock and the provisions of our certificate of incorporation and bylaws. The following also summarizes some relevant provisions of the General Corporation Law of the State of Delaware, which we refer to as Delaware law. Since the terms of our certificate of incorporation and bylaws and Delaware law are more detailed than the general information provided below, you should only rely on the actual provisions of those documents and Delaware law. If you would like to read those documents, they are on file as exhibits to documents we have filed with the SEC, which are available as described under [Where You Can Find More Information](#).

General

We are authorized to issue 1,500,000,000 shares of our common stock, \$0.01 par value, and 20,000,000 shares of undesignated preferred stock, \$0.01 par value.

Common Stock

All of our outstanding shares of common stock are fully paid and nonassessable. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of our common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by our board of directors out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, the holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of our preferred stock, if any, then outstanding. The holders of our common stock are entitled to one vote per share on all matters to be voted upon by our shareowners, including the election of directors. The holders of our common stock have no cumulative voting rights or preemptive rights to purchase or subscribe for any stock or other securities, and there are no conversion rights or redemption or sinking fund provisions applicable to our common stock.

BNY Mellon Shareowner Services is the registrar and transfer agent for our common stock. Our common stock is listed on the New York Stock Exchange under the symbol **MON**.

Preferred Stock

Our board of directors has the authority, without action by the shareowners, to designate and issue our preferred stock from time to time in one or more series, with such voting powers, designations, powers, preferences and relative, participating, optional or other special rights, and qualifications, limitations or restrictions thereof, as may be stated in the resolution or resolutions providing for the designation and issuance of such stock adopted from time to time by the board of directors. It is not possible to state the actual effect of the issuance of any shares of our preferred stock upon the rights of holders of our common stock until the board of directors determines the specific rights of the holders of our preferred stock. However, the effects might include, among other things:

Table of Contents

restricting dividends on our common stock;

diluting the voting power of our common stock;

impairing the liquidation rights of our common stock; or

delaying or preventing a change of control of us without further action by our shareowners.

The shares of different series may differ, including as to rank, as may be provided in our certificate of incorporation or as may be fixed by our board of directors as described above. Subject to shareowner approval, we may from time to time amend our certificate of incorporation to increase or decrease the number of authorized shares of preferred stock.

The material terms of any series of preferred stock being offered by us will be described in the prospectus supplement relating to that series of preferred stock. That prospectus supplement may not restate the amendment to our certificate of incorporation or the board resolution that establishes a particular series of preferred stock in its entirety. We urge you to read that amendment or board resolution because it, and not the description in the prospectus supplement, will define your rights as a holder of preferred stock. The certificate of amendment to our certificate of incorporation or board resolution will be filed with the Secretary of State of the State of Delaware and with the SEC.

No shares of our preferred stock are currently outstanding, and we have no present plans to issue any shares of our preferred stock.

Certain Effects of Authorized but Unissued Stock

We may issue additional shares of common stock or preferred stock without shareholder approval, subject to applicable rules of the New York Stock Exchange, for a variety of corporate purposes, including raising additional capital, corporate acquisitions, corporate recapitalization transactions such as stock splits and employee benefit plans. The existence of unissued and unreserved common and preferred stock may enable us to issue shares to persons who are friendly to current management, which could discourage an attempt to obtain control of us through a merger, tender offer, proxy contest, or otherwise, and protect the continuity of management and possibly deprive you of opportunities to sell your shares at prices higher than the prevailing market prices.

Certain Provisions of our Certificate of Incorporation and Bylaws

Our certificate of incorporation and bylaws:

provide for a classified board of directors;

limit the right of shareowners to remove directors;

do not allow shareowners to change the size of the board of directors;

do not allow shareowners to fill vacancies on the board of directors; and

require a higher percentage of shareowners than would otherwise be required under Delaware law to amend, alter or repeal certain provisions of our certificate of incorporation and bylaws.

These provisions may discourage certain types of transactions that involve an actual or threatened change of control of us. Since the terms of our certificate of incorporation and bylaws may differ from the general information we are providing, you should only rely on the actual provisions

Edgar Filing: MONSANTO CO /NEW/ - Form 424B5

of our certificate of incorporation and bylaws. If you would like to read our certificate of incorporation or bylaws, they are on file as exhibits to documents we have filed with the SEC, which are available as described under [Where You Can Find More Information](#).

Table of Contents

Size of Board

Our certificate of incorporation provides that the number of directors to constitute the board of directors will be fixed from time to time by resolution of our board of directors, subject to any rights of holders of any outstanding series of preferred stock or any other series or class of stock to elect additional directors under specified circumstances. Our bylaws provide for a board of directors of at least five but not more than twenty directors. In accordance with our bylaws, our board of directors has fixed the number of directors at ten.

Election of Directors

A director is generally elected by the vote of a majority of the votes cast at a the meeting at which the election is held, except that, in case of a contested election, directors are elected by the vote of a plurality of the votes present in person or represented by proxy at the meeting. In order for one of our shareowners to nominate a candidate for director, our bylaws require that such shareowner give timely notice to us in advance of the meeting. Ordinarily, the shareowner must give notice not less than 90 days nor more than 120 days before the first anniversary of the preceding year's annual meeting. The notice must describe various matters regarding the nominee, the shareowner giving the notice, and the beneficial owner on whose behalf the nomination is made. Our certificate of incorporation does not permit cumulative voting in the election of directors. Accordingly, the holders of a majority of the then outstanding shares of common stock can elect all the directors of the class then being elected at that meeting of shareowners.

Classified Board

Our certificate of incorporation and bylaws provide that our board of directors will be divided into three classes, with the classes to be as nearly equal in number as possible, and that one class shall be elected each year and serve for a three-year term.

Removal of Directors

Delaware law provides that, if a corporation has a classified board, the holders of a majority of the corporation's voting stock may remove a director or the entire board from office only for cause, unless the certificate of incorporation provides otherwise. Our certificate of incorporation provides that shareowners may remove a director only for cause and with the approval of the holders of 70% of our voting stock, subject to any rights of holders of any outstanding series of preferred stock or any other series or class of stock to elect additional directors under specified circumstances.

Filling Vacancies

Our certificate of incorporation provides that, subject to the rights, if any, of the holders of any class of preferred stock then outstanding, only the vote of a majority of the remaining directors may fill vacancies (although less than a quorum).

Limitations on Shareowner Action by Written Consent

Our certificate of incorporation eliminates the right of shareowners to act by written consent without a meeting.

Limitations on Calling Shareowner Meetings

Under our bylaws, shareowners may not call special meetings of shareowners or require our board of directors to call special meetings of shareowners, and only our board of directors or a committee of the board may call special meetings of our shareowners, unless otherwise provided by Delaware law.

Table of Contents

Limitations on Proposals of Other Business

In order for a shareowner to bring a proposal before an annual meeting, our bylaws require that the shareowner give timely notice to us in advance of the meeting. Ordinarily, the shareowner must give notice at least 90 days but not more than 120 days before the first anniversary of the preceding year's annual meeting. The notice must include a description of the proposal, the reasons for the proposal and other specified matters, including information regarding the shareowner giving the notice and the beneficial owner, if any, on whose behalf the proposal is made.

Our board of directors may reject any proposals that have not followed these procedures or that are not a proper subject for shareowner action in accordance with the provisions of applicable law.

Anti-Takeover Effects of Provisions

The classification of directors, the inability to vote shares cumulatively, the advance notice requirements for nominations and provisions of our certificate of incorporation and bylaws that limit the ability of shareowners to increase the size of our board or to remove directors and that permit the remaining directors to fill any vacancies on our board of directors make it more difficult for shareowners to change the composition of our board of directors. As a result, at least two annual shareowner meetings may be required for the shareowners to change a majority of the directors, whether or not a change in our board of directors would benefit us and our shareowners and whether or not a majority of our shareowners believes that the change would be desirable.

The provisions of our bylaws that require advance notice of other provisions may make it more difficult for shareowners to take action opposed by the board of directors. Moreover, a shareowner cannot force a shareowner consideration of a proposal over the opposition of our board of directors by calling a special meeting of shareowners.

These provisions make it more difficult and time-consuming to obtain majority control of our board of directors or otherwise bring a matter before shareowners without our board's consent, and thus reduce our vulnerability to an unsolicited takeover proposal. These provisions enable us to develop our business in a manner which will foster long-term growth by reducing to the extent practicable the threat of a takeover not in the best interests of us or our shareowners and the potential disruption entailed by that threat. On the other hand, these provisions may adversely affect the ability of shareowners to influence our governance and the possibility that shareowners would receive a premium above market price for their securities from a potential acquirer who is unfriendly to management.

Delaware Statutory Provisions

Delaware law also contains certain provisions which may have an anti-takeover effect and otherwise discourage third parties from effecting transactions with us.

In general, Delaware law prohibits a publicly-held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years following the date the person became an interested stockholder, unless the "business combination" or the transaction in which the person became an interested stockholder is approved in a prescribed manner. Generally, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. Generally, an "interested stockholder" is a person who, together with affiliates and associates, owns or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's voting stock. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors, including discouraging attempts that might result in a premium over the market price for the shares of common stock held by shareowners.

Table of Contents

DESCRIPTION OF WARRANTS AND WARRANT UNITS

We may issue warrants, including warrants to purchase debt securities, common stock or preferred stock or any combination of the foregoing. Warrants may be issued independently or as part of a unit with any other securities and may be attached to or separate from the underlying securities. The warrants will be issued under warrant agreements to be entered into between us and a bank or trust company, as warrant agent, as detailed in the prospectus supplement relating to the warrants being offered.

A prospectus supplement relating to any warrants being offered will include specific terms relating to the offering, including a description of any other securities sold together with the warrants. Such terms will include:

the title of the warrants;

the aggregate number of the warrants;

the price or prices at which the warrants will be issued;

the currencies in which the price or prices of the warrants may be payable;

the designation, amount and terms of the debt securities, common stock or preferred stock purchasable upon exercise of the warrants and procedures by which those numbers may be adjusted;

the designation and terms of the other offered securities, if any, with which the warrants are issued and the number of the warrants issued with each security;

if applicable, the date on and after which the warrants and the offered securities purchasable upon exercise of the warrants will be separately transferable;

the price or prices at which the offered securities purchasable upon exercise of the warrants may be purchased;

the date on which the right to exercise the warrants shall commence and the date on which the right shall expire;

the minimum or maximum amount of the warrants that may be exercised at any one time;

any terms relating to the modification of the warrants, including adjustments in the exercise price;

information with respect to book-entry procedures, if any;

a discussion of any material Federal income tax considerations; and

any other material terms of the warrants, including terms, procedures, and limitations relating to the transferability, exchange, exercise or redemption of the warrants.

The descriptions of the warrant agreements in this prospectus are summaries of the material provisions that will appear in the applicable agreements. These descriptions do not include all terms of those agreements and do not contain all of the information that you may find useful. The applicable prospectus supplement will describe the terms of any warrants or warrant units in more detail; and we urge you to read the applicable documents because they, and not our summaries and descriptions, will define your rights as holders of the warrants or any warrant units. The forms of the relevant documents will be filed with the SEC and will be available as described under the heading **Where You Can Find More Information** above.

Table of Contents

DESCRIPTION OF PURCHASE CONTRACTS AND PURCHASE UNITS

We may issue purchase contracts obligating holders to purchase from us, and us to sell to the holders, our securities at a future date or dates. The purchase contracts may require us to make periodic payments to the holders of purchase contracts. These payments may be unsecured or prefunded on a basis to be specified in the prospectus supplement relating to the purchase contracts. The purchase contracts may be issued separately or as part of purchase units consisting of a purchase contract and an underlying security that is pledged by the holder of a purchase contract to secure its obligations under the purchase contract.

The prospectus supplement relating to any purchase contracts or purchase units we are offering will specify the material terms of the purchase contracts, the purchase units and any applicable pledge or depository arrangements, including one or more of the following:

the amount that a holder will be obligated to pay under the purchase contract, or the formula by which such amount shall be determined;

the settlement date or dates on which the holder will be obligated to purchase the securities, and the conditions, if any, under which the settlement date may occur on an earlier date;

the events, if any, that will cause our obligations and the obligations of the holder under the purchase contract to terminate;

the settlement rate, which will determine the number of shares or other securities to be purchased, which may be determined by a formula, which may be based on the market price of our common stock or preferred stock over a specified period or determined by reference to other factors;

whether the purchase contracts will be issued separately or as part of units consisting of a purchase contract and an underlying security, which would be pledged by the holder to secure its obligations under a purchase contract;

the type of underlying security, if any, that is pledged by the holder to secure its obligations under a purchase contract;

the terms of any pledge arrangement relating to any underlying securities, including the terms on which distributions or payments of interest and principal on any underlying securities will be retained by a collateral agent, delivered to us or distributed to the holder; and

the amount of the contract fee, if any, that may be payable by us to the holder or by the holder to us, the terms of payment and any provisions for deferral of payment; the contract fee may be a percentage of the stated amount of the purchase contract or determined by other factors.

The descriptions of the purchase contracts, purchase units and any applicable underlying security or pledge or depository arrangements in this prospectus are summaries of the material provisions that will appear in the applicable documents. These descriptions do not include all terms of those documents and do not contain all of the information that you may find useful. The applicable prospectus supplement will describe the terms of any purchase contracts or purchase units in more detail; and we urge you to read the applicable documents because they, and not our summaries and descriptions, will define your rights as holders of the purchase contracts or purchase units. The forms of the relevant documents will be filed with the SEC and will be available as described under the heading **Where You Can Find More Information** above.

Table of Contents

PLAN OF DISTRIBUTION

We may sell securities to or through one or more underwriters or dealers, and also may sell securities directly to other purchasers or through agents. These firms may also act as our agents in the sale of securities. Only underwriters named in the prospectus supplement will be considered as underwriters of the securities offered by the prospectus supplement.

We may distribute securities at different times in one or more transactions. We may sell securities at fixed prices, which may change, at market prices prevailing at the time of sale, at prices related to the prevailing market prices or at negotiated prices.

In connection with the sale of securities, underwriters may receive compensation from us or from purchasers of securities in the form of discounts, concessions or commissions. Underwriters, dealers and agents that participate in the distribution of securities may be deemed to be underwriters for purposes of the Securities Act of 1933. Discounts or commissions they receive and any profit on their resale of securities may be considered underwriting discounts and commissions under the Securities Act of 1933. We will identify any underwriter or agent, and we will describe any compensation, in the prospectus supplement.

We may agree to indemnify underwriters, dealers and agents who participate in the distribution of securities against certain liabilities, including liabilities under the Securities Act of 1933.

We may authorize dealers or other persons who act as our agents to solicit offers by certain institutions to purchase securities from us under contracts which provide for payment and delivery on a future date. We may enter into these contracts with commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and others. If we enter into these agreements concerning any offering of securities hereunder, we will indicate that in the prospectus supplement.

In connection with an offering of securities, underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. Specifically, underwriters may over-allot in connection with the offering, creating a syndicate short position in the securities for their own account. In addition, underwriters may bid for, and purchase, securities in the open market to cover short positions or to stabilize the price of the securities. Finally, underwriters may reclaim selling concessions allowed for distributing the securities in the offering if the underwriters repurchase previously distributed securities in transactions to cover short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Underwriters are not required to engage in any of these activities and may end any of these activities at any time.

Unless otherwise indicated in the prospectus supplement, each series of securities offered will be a new issue of securities and will have no established trading market, and will not be listed on a national securities exchange. We cannot give you any assurance as to the liquidity of or the existence of trading markets for any securities.

LEGAL MATTERS

Bryan Cave LLP, St. Louis, Missouri, as our counsel, has issued an opinion as to the legality of the securities.

Table of Contents

EXPERTS

The consolidated financial statements, incorporated in this prospectus by reference from the Company's Annual Report on Form 10-K, 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 interest and the computation of earnings per share), and their report relating to the effectiveness of Monsanto Company's internal control over financial reporting dated November 14, 2011 (which report expresses an adverse opinion on the effectiveness of the Company's internal control over financial reporting because of a material weakness), which are 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

\$

Monsanto Company

\$ % Senior Notes due 2022

\$ % Senior Notes due 2042

PROSPECTUS SUPPLEMENT

July , 2012

BofA Merrill Lynch

Citigroup

J.P. Morgan

RBS

Wells Fargo Securities