MONSANTO CO /NEW/ Form DEF 14A December 01, 2008

SCHEDULE 14A

(Rule 14a-101)

INFORMATION REQUIRED IN PROXY STATEMENT

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 (Amendment No.)

Filed by the Registrant [x] Filed by a Party other than the Registrant [_]	
Check the appropriate box: [_] Preliminary Proxy Statement [_] Confidential, For Use of the	
MONSANTO COMPANY	
(Name of Registrant as Specified In Its Charter)	
(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)	
Payment of Filing Fee (Check the appropriate box): [x] No fee required. [_] Fee computed on table below per Exchange Act Rules 14a-6(i)(4) and 0-11.	
1) Title of each class of securities to which transaction applies:	
 Aggregate number of securities to which transaction applies: Per unit price or other underlying value of transaction computed pursuant to Exchange forth the amount on which the filing fee is calculated and state how it was determined): Proposed maximum aggregate value of transaction: 	——Act Rule 0-11 (set
5) Total fee paid:	
[_] Fee paid previously with preliminary materials: [_] Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identification.	entify the filing for
the offsetting fee was paid previously. Identify the previous filing by registration statements form or	ent number, or the
schedule and the date of its filing.	
1) Amount previously paid:	

2) Form, Schedule or Registration Statement No.:
3) Filing Party:
4) Date Filed:

Notice of Annual Meeting of Shareowners and 2008 Proxy Statement

December 1, 2008

MONSANTO COMPANY

800 NORTH LINDBERGH BOULEVARD ST. LOUIS, MISSOURI 63167 PHONE (314) 694-1000 http://www.monsanto.com

December 1, 2008

Dear Shareowner:

You are cordially invited to attend our annual meeting of shareowners on January 14, 2009. We will hold the meeting at 2:00 p.m. Central Standard Time in K Building at our Creve Coeur Campus, 800 North Lindbergh Boulevard, St. Louis County, Missouri. A map with directions to our Creve Coeur Campus can be found near the end of the proxy statement on page C-1 following this letter.

This year we have elected to take advantage of the SEC[s new rule that allows us to furnish proxy materials to you online. We believe electronic delivery will expedite the receipt of materials, while significantly lowering costs and reducing the environmental impact of our annual meeting by reducing printing and mailing of full sets of materials.

On December 1, 2008, we mailed to our shareowners a Notice containing instructions on how to access our proxy statement and annual report online. If you receive a Notice by mail, you will not receive a printed copy of the materials, unless you specifically request one. The Notice contains instructions on how to receive a paper copy of the materials.

In connection with the meeting, a notice of the meeting, a proxy statement, and our 2008 annual report to shareowners, which provides detailed information relating to our activities and operating performance, are available by following the instructions set forth in the Notice discussed above. If you have received paper copies of these materials, a proxy card will also be enclosed.

If you plan to attend the annual meeting in person, you must provide proof of share ownership, such as an account statement, and a form of personal identification in order to be admitted to the meeting.

Whether or not you plan to attend the annual meeting of shareowners, we encourage you to vote your shares. You may vote:

- via Internet;
- by telephone;
- ♦ by mail; or
- in person at the meeting.

We will make available an alphabetical list of shareowners entitled to vote at the meeting, for examination by any shareowner during our ordinary business hours, at our Shareowner Services Department, located in E Building at the Creve Coeur Campus, from December 23, 2008 until the meeting.

On behalf of the entire board, we look forward to seeing you at the meeting.

Sincerely,

Hugh Grant
Chairman of the Board of Directors,
President and Chief Executive Officer

i 2008 PROXY STATEMENT

MONSANTO COMPANY

Table of Contents to the Proxy Statement

	Page
Notice of Annual Meeting of Shareowners	iv
<u>Questions and Answers</u>	V
<u>General Information</u>	1
<u>Voting Information</u>	1
Proxies and Voting Procedures	2
For Participants of Our Savings and Investment Plan	2
Quorum and Required Vote	3
Election of Directors	3
Ratification of Independent Registered Public Accounting Firm	3
Corporate Governance and Ethics	4
Board Charter and Corporate Governance Guidelines/Board Committee Charters	4

Code of Business Conduct	4
	4
<u>Human Rights Policy</u>	5
Financial Governance	5
Composition of the Board of Directors	5
Nomination of Directors	5
Director Orientation and Continuing Education	6
Board Leadership Roles and our Presiding Director	6
Board Self-Assessments	6
Shareowner Communication with our Board of Directors	7
Director Independence	7
Related Person Policy and Transactions	8
Compensation Committee Interlocks and Insider Participation	8
Information Regarding Board of Directors and Committees	9
Nominees for Directors Whose Terms Would Expire at the 2012 Annual Meeting	9
Directors Whose Terms Expire at the 2010 Annual Meeting	10
Directors Whose Terms Expire at the 2011 Annual Meeting	11
Board Meetings and Committees	11
Board Committee Membership	12
Executive Committee	12
Audit and Finance Committee	12
Nominating and Corporate Governance Committee	13
People and Compensation Committee	13
Public Policy and Corporate Responsibility Committee	14
Science and Technology Committee	14
<u>Compensation of Directors</u>	14
<u>Director Compensation Table</u>	16
Election of Directors (Proxy Item No. 1)	17
	17
	17
ii 2008 PROXY STATEMENT	MONSANTO COMPANY
ii 2008 PROXY STATEMENT	
ii 2008 PROXY STATEMENT	
	MONSANTO COMPANY
Executive Compensation	MONSANTO COMPANY
Executive Compensation Compensation Discussion and Analysis	MONSANTO COMPANY 18 18
Executive Compensation Compensation Discussion and Analysis Introduction	MONSANTO COMPANY 18 18 18
Executive Compensation Compensation Discussion and Analysis Introduction Overview of Our Executive Compensation Program	MONSANTO COMPANY 18 18 18 18
Executive Compensation Compensation Discussion and Analysis Introduction Overview of Our Executive Compensation Program Components of Our Executive Compensation Program for Our Proxy Officers	MONSANTO COMPANY 18 18 18
Executive Compensation Compensation Discussion and Analysis Introduction Overview of Our Executive Compensation Program Components of Our Executive Compensation Program for Our Proxy Officers Other Arrangements, Policies and Practices Related to	MONSANTO COMPANY 18 18 18 18 23
Executive Compensation Compensation Discussion and Analysis Introduction Overview of Our Executive Compensation Program Components of Our Executive Compensation Program for Our Proxy Officers Other Arrangements, Policies and Practices Related to Our Executive Compensation Program	MONSANTO COMPANY 18 18 18 18 23
Executive Compensation Compensation Discussion and Analysis Introduction Overview of Our Executive Compensation Program Components of Our Executive Compensation Program for Our Proxy Officers Other Arrangements, Policies and Practices Related to Our Executive Compensation Program Report of the People and Compensation Committee	MONSANTO COMPANY 18 18 18 23 34 38
Executive Compensation Compensation Discussion and Analysis Introduction Overview of Our Executive Compensation Program Components of Our Executive Compensation Program for Our Proxy Officers Other Arrangements, Policies and Practices Related to Our Executive Compensation Program Report of the People and Compensation Committee Summary Compensation Table and Narrative Disclosure	MONSANTO COMPANY 18 18 18 23 34 38 38
Executive Compensation Compensation Discussion and Analysis Introduction Overview of Our Executive Compensation Program Components of Our Executive Compensation Program for Our Proxy Officers Other Arrangements, Policies and Practices Related to Our Executive Compensation Program Report of the People and Compensation Committee Summary Compensation Table and Narrative Disclosure All Other Compensation	MONSANTO COMPANY 18 18 18 18 23 34 38 38 41
Executive Compensation Compensation Discussion and Analysis Introduction Overview of Our Executive Compensation Program Components of Our Executive Compensation Program for Our Proxy Officers Other Arrangements, Policies and Practices Related to Our Executive Compensation Program Report of the People and Compensation Committee Summary Compensation Table and Narrative Disclosure All Other Compensation Grants of Plan-Based Awards	MONSANTO COMPANY 18 18 18 23 34 38 38 41 42
Executive Compensation Compensation Discussion and Analysis Introduction Overview of Our Executive Compensation Program Components of Our Executive Compensation Program for Our Proxy Officers Other Arrangements, Policies and Practices Related to Our Executive Compensation Program Report of the People and Compensation Committee Summary Compensation Table and Narrative Disclosure All Other Compensation Grants of Plan-Based Awards Outstanding Equity Awards at Fiscal Year-End Table	MONSANTO COMPANY 18 18 18 18 23 34 38 38 41 42 49
Executive Compensation Compensation Discussion and Analysis Introduction Overview of Our Executive Compensation Program Components of Our Executive Compensation Program for Our Proxy Officers Other Arrangements, Policies and Practices Related to Our Executive Compensation Program Report of the People and Compensation Committee Summary Compensation Table and Narrative Disclosure All Other Compensation Grants of Plan-Based Awards Outstanding Equity Awards at Fiscal Year-End Table Option Exercises and Stock Vested Table	MONSANTO COMPANY 18 18 18 18 23 34 38 41 42 49 51
Executive Compensation Compensation Discussion and Analysis Introduction Overview of Our Executive Compensation Program Components of Our Executive Compensation Program for Our Proxy Officers Other Arrangements, Policies and Practices Related to Our Executive Compensation Program Report of the People and Compensation Committee Summary Compensation Table and Narrative Disclosure All Other Compensation Grants of Plan-Based Awards Outstanding Equity Awards at Fiscal Year-End Table Option Exercises and Stock Vested Table Pension Benefits	MONSANTO COMPANY 18 18 18 23 34 38 41 42 49 51 51
Executive Compensation Compensation Discussion and Analysis Introduction Overview of Our Executive Compensation Program Components of Our Executive Compensation Program for Our Proxy Officers Other Arrangements, Policies and Practices Related to Our Executive Compensation Program Report of the People and Compensation Committee Summary Compensation Table and Narrative Disclosure All Other Compensation Grants of Plan-Based Awards Outstanding Equity Awards at Fiscal Year-End Table Option Exercises and Stock Vested Table Pension Benefits Non-Qualified Deferred Compensation	MONSANTO COMPANY 18 18 18 23 34 38 38 41 42 49 51 51
Executive Compensation Compensation Discussion and Analysis Introduction Overview of Our Executive Compensation Program Components of Our Executive Compensation Program for Our Proxy Officers Other Arrangements, Policies and Practices Related to Our Executive Compensation Program Report of the People and Compensation Committee Summary Compensation Table and Narrative Disclosure All Other Compensation Grants of Plan-Based Awards Outstanding Equity Awards at Fiscal Year-End Table Option Exercises and Stock Vested Table Pension Benefits	MONSANTO COMPANY 18 18 18 23 34 38 41 42 49 51 51

Stock Ownership of Management and Certain Beneficial Owners	
Report of the Audit and Finance Committee	
Ratification of Independent Registered Public Accounting Firm (Proxy Item No. 2)	70
Other Matters	71
Section 16(a) Beneficial Ownership Reporting Compliance	71
Shareowner Proposals	72
Electronic Access to Proxy Materials and Annual Report	73
Other Information	73

Appendices

Board of Directors Independence Standards	A-1
<u>Desirable Characteristics of Directors</u>	B-1
<u>Map</u>	C-1

iii 2008 PROXY STATEMENT MONSANTO COMPANY

MONSANTO COMPANY

800 NORTH LINDBERGH BOULEVARD ST. LOUIS, MISSOURI 63167 PHONE (314) 694-1000 http://www.monsanto.com

NOTICE OF ANNUAL MEETING OF SHAREOWNERS JANUARY 14, 2009

The annual meeting of shareowners of Monsanto Company will be held in K Building at our Creve Coeur Campus, 800 North Lindbergh Boulevard, St. Louis County, Missouri, on Wednesday, January 14, 2009, at 2:00 p.m. Central Standard Time for the following purposes:

1. To elect the four directors named in the proxy statement to serve

until our 2012 annual meeting;

2. To ratify the appointment of Deloitte & Touche LLP as our

independent registered public accounting firm for the 2009 fiscal year; and

3. To transact such other business as may properly come before the

meeting.

By Order of the Board of Directors, MONSANTO COMPANY

DAVID F. SNIVELY Secretary St. Louis, Missouri December 1, 2008

IMPORTANT NOTICE Please Vote Your Shares Promptly

IV 2008 PROXY STATEMENT MONSANTO COMPANY

Questions and Answers

Q. When and where is the annual meeting?

We will hold the annual meeting of shareowners on Wednesday, January 14, 2009, at 2:00 p.m. Central Standard Time in K Building at our Creve Coeur Campus, 800 North Lindbergh Boulevard, St. Louis, Missouri 63167. A map with directions to the meeting can be found near the back of the proxy statement on page C-1.

Q. Who is entitled to vote at the meeting?

You are entitled to vote at the meeting if you owned shares as of the close of business on November 17, 2008, the record date for the meeting.

Q. What am I being asked to vote on at the meeting?

We are asking our shareowners to elect the directors named in the proxy statement and to ratify the appointment of our independent registered public accounting firm.

Q. What level of shareowner vote is needed to approve the proposals?

Each share of our common stock is entitled to one vote with respect to each matter on which it is entitled to vote. The vote required for the election of directors is discussed in the next question. A majority of the shares present at the meeting in person or by proxy is required to ratify the appointment of our independent registered public accounting firm.

Q. What level of shareowner vote is needed to elect directors?

Because this director election is not a contested election, each director will be elected by the vote of the majority of the votes cast when a quorum is present. A [majority of the votes cast] means that the number of votes cast [for] a director exceeds the number of votes cast [against] that director. [Votes cast] excludes abstentions and any broker non-votes. There is no cumulative voting with respect to the election of directors.

Q. Can I vote by telephone or over the Internet?

Most shareowners have a choice of voting in one of four ways:

- via Internet;
- by telephone;
- ♦ by mail; or
- in person at the meeting.

Please read the instructions on the Notice, proxy card or the information sent by your broker or bank.

Q. What do I do if my shares are held in \street name\ at a bank or brokerage firm?

If your shares are held in street name by a bank or brokerage firm as your nominee, your bank or broker will send you a separate package describing the procedure for voting your shares. You should follow the instructions provided by your bank or brokerage firm.

Q. What happens if I vote but forget to indicate how I want my shares voted on one of the proposals?

If you sign, date and return your proxy and do not mark how you want to vote, your proxy will be counted as a vote $\|FOR\|$ all of the nominees for directors and $\|FOR\|$ the ratification of our independent registered public accounting firm.

V 2008 PROXY STATEMENT MONSANTO COMPANY

Q. What happens if I do not instruct my broker how to vote or if I vote to \(\partial\) abstain\(\partial\) on the proposals?

Under our bylaws, if you vote to abstain, your vote will have no effect on the election of directors and will have the same effect as a vote against the other proposals. If you do not instruct your broker how to vote, your broker will vote your shares for you at his or her discretion on the election of our directors and ratification of the appointment of our independent registered public accounting firm. Broker non-votes have no effect on the election of directors and have the same effect as votes cast against a particular proposal.

Q. Can I change my voting instructions before the meeting?

Except with respect to voting instructions for shares held in our Savings and Investment Plan, you can revoke your proxy at any time before it is exercised by timely delivery of a properly executed, later-dated proxy (including an Internet or telephone vote), by delivering a written revocation of your proxy to the Secretary of Monsanto, or by voting at the meeting. The method by which you vote by a proxy will in no way limit your right to vote at the meeting if you decide to attend in person. If your shares are held in the name of a bank or brokerage firm, you must obtain a proxy, executed in your favor, from the bank or broker, to be able to vote at the meeting.

Voting instructions with respect to shares held in our Savings and Investment Plan cannot be revoked or changed after 5:00 p.m. Eastern Standard Time on January 9, 2009.

Q. What do I need to do if I plan to attend the meeting in person?

If you plan to attend the annual meeting in person, you must provide proof of your ownership of our common stock and a form of personal identification for admission to the meeting. If you own your shares in street name, such as in the name of a bank or broker, and you also wish to be able to vote at the meeting, you must obtain a proxy, executed in your favor, from the bank or broker.

Q. Why haven It I received a printed copy of the proxy or annual report?

This year we have elected to take advantage of the SEC[s new rule that allows us to furnish proxy materials to you online. We believe electronic delivery will expedite shareowners[] receipt of materials, while significantly lowering costs and reducing the environmental impact of our annual meeting by reducing printing and mailing of full sets of materials. On December 1, 2008, we mailed to our shareowners a Notice containing instructions on how to access our proxy statement and annual report online. If you received a Notice by mail, you will not receive a printed copy of the proxy materials, unless you specifically request one. The Notice contains instructions on how to receive a paper copy of the materials.

Q. Is the proxy statement available on the Internet?

Yes. As described in the prior question, most shareowners will receive the proxy statement online. If you received a paper copy, you can also view these documents on the Internet by accessing our website at http://www.monsanto.com and clicking on the [Corporate Responsibility] tab, then clicking on the [Corporate Governance] tab, and then clicking on the [SEC Filings] tab. Information on our website does not constitute part of this proxy statement. You can elect to receive future proxy statements and annual reports over the Internet instead of receiving paper copies by mail by following the instructions set forth on your proxy card.

Q. Where can I get paper copies of the proxy materials?

The Notice you received describes how to receive paper copies of the proxy materials. If you received paper copies of the materials, but would like additional copies, please feel free to call (800) 638-7999.

Q. How can I get assistance in voting my shares?

To get help in voting your shares, please contact Morrow & Co., LLC at (800) 607-0088.

VI 2008 PROXY STATEMENT MONSANTO COMPANY

MONSANTO COMPANY

800 NORTH LINDBERGH BOULEVARD ST. LOUIS, MISSOURI 63167 PHONE (314) 694-1000 http://www.monsanto.com

PROXY STATEMENT

General Information

Our board of directors is soliciting proxies from our shareowners in connection with our annual meeting of shareowners to be held on Wednesday, January 14, 2009 and at any and all adjournments thereof. The meeting will be held at 2:00 p.m. Central Standard Time in K Building at our Creve Coeur Campus, 800 N. Lindbergh Boulevard, St. Louis County, Missouri.

If you plan to attend the annual meeting in person, you must present proof of your ownership of our common stock, such as a bank or brokerage account statement, and a form of personal identification to be admitted to the meeting. If you own your shares in street name, such as in the name of a bank or broker, and you also wish to be able to vote at the meeting, you must obtain a proxy, executed in your favor, from the bank or broker.

On December 1, 2008, we mailed to our shareowners of record a Notice containing instructions on how to access this proxy statement and our annual report online, and we began mailing these proxy materials to shareowners who requested paper copies.

Unless otherwise noted, the information in this proxy statement covers our last fiscal year, which ran from September 1, 2007 through August 31, 2008 and which we refer to as our as our \square 2008 fiscal year, \square and in some cases the immediately preceding fiscal year, which ran from September 1, 2006 through August 31, 2007 and which we refer to as our \square 2007 fiscal year. \square

The term [Former Monsanto] in this proxy statement refers to a corporation that was then known as Monsanto Company that operated, among other businesses, an agricultural products division. Former Monsanto is now known as Pharmacia Corporation, which is a wholly owned subsidiary of Pfizer, Inc. Former Monsanto transferred its agricultural products division to us in September 2000.

Voting Information

You are entitled to vote (in person or by proxy) at the annual meeting if you were a shareowner of record at the close of business on November 17, 2008. On November 17, 2008, 547,937,417 shares of our common stock were outstanding and entitled to vote and no shares of our preferred stock were outstanding. There is no cumulative voting with respect to the election of directors. Shareowners of record are entitled to one vote per share on all

matters.

1 2008 PROXY STATEMENT

MONSANTO COMPANY

Proxies and Voting Procedures

Most shareowners have a choice of voting their shares by:

- ◆ voting over the Internet;
- using a toll-free telephone number;
- if you received paper copies of the proxy materials, completing a proxy/voting instruction card and mailing it in the postage-paid envelope provided; or
- voting in person at the meeting.

The telephone and Internet voting facilities for the shareowners of record, other than those held in our Savings and Investment Plan, will close at 11:59 p.m. Eastern Standard Time on January 13, 2009. The Internet and telephone voting procedures are designed to authenticate shareowners by use of a control number and to allow you to confirm that your instructions have been properly recorded. If you hold your shares in street name through a bank or broker, your bank or broker will send you a separate package describing the procedures and options for voting your shares.

Except with respect to voting instructions for shares held in our Savings and Investment Plan (see below), you can revoke your proxy at any time before it is exercised by timely delivery of a properly executed, later-dated proxy (including an Internet or telephone vote), by delivering a written revocation of your proxy to our Secretary or by voting at the meeting. The method by which you vote will in no way limit your right to vote at the meeting if you decide to attend in person. If your shares are held in the name of a bank or brokerage firm, you must obtain a proxy, executed in your favor, from the bank or broker to be able to vote at the meeting.

Your properly completed proxy/voting instruction card will appoint Hugh Grant and David F. Snively as proxy holders or your representatives, or Northern Trust Company as trustee of our Savings and Investment Plan, as the case may be, to vote your shares in the manner directed therein by you. Mr. Grant is our chairman of the board, president and chief executive officer. Mr. Snively is our senior vice president, secretary and general counsel. Your proxy permits you to direct the proxy holders or to instruct Northern, as the trustee of our Savings and Investment Plan, as the case may be, to:

- ◆ vote [for,] [against,] or [abstain] from the nominees for director; and
- ♦ vote [for,] [against,] or [abstain] from the ratification of the appointment of Deloitte & Touche ΔωP as independent registered public accounting firm for the 2009 fiscal year.

All of your shares entitled to vote and represented by properly completed proxy or voting instruction received prior to the meeting and not revoked will be voted at the meeting in accordance with your instructions. If you do not indicate how your shares are to be voted on a matter, the shares represented by your properly completed proxy or voting instruction will be voted <code>|FOR||</code> the nominees for director and <code>|FOR||</code> the ratification of the appointment of Deloitte & Touche LLP.

As far as we know, the only matters to be brought before the annual meeting are those referred to in this proxy statement. As to any other matters presented at the annual meeting, the persons named as proxies may vote your shares in their discretion.

For Participants of Our Savings and Investment Plan

If you participate in a Monsanto Stock Fund under our Savings and Investment Plan and had shares of our common stock credited to your account on the record date of November 17, 2008, you will receive an electronic notice unless you opted to receive paper copies of the proxy materials, as described in the notice sent to participants in November. The electronic notice will contain voting instruction with respect to all shares registered in the same

name, whether inside or outside of the plan. If your accounts inside and outside of the plan are not registered in the same name, you will receive a separate electronic notice with respect to the shares credited to your Savings and Investment Plan account.

2 2008 PROXY STATEMENT MONSANTO COMPANY

Shares of common stock in our Savings and Investment Plan will be voted by The Northern Trust Company ([Northern[]) as trustee of the plan. Plan participants in a Monsanto Stock Fund should indicate their voting instructions to Northern for each action to be taken under proxy using the toll-free telephone number, by indicating their instructions over the Internet or by submitting an executed proxy card.

Voting instructions regarding plan shares must be received by 5:00 p.m. Eastern Standard Time on January 9, 2009, and all telephone and Internet voting facilities with respect to plan shares will close at that time. You can revoke your voting instructions with respect to shares held in our Savings and Investment Plan at any time prior to 5:00 p.m. Eastern Standard Time on January 9, 2009 by timely delivery of a properly executed, later-dated voting instruction card (or an Internet or telephone vote), or by delivering a written revocation of your voting instructions to Northern.

All voting instructions from plan participants will be kept confidential. If a participant does not timely submit voting instructions, the shares allocated to such participant, together with unallocated shares, will be voted in accordance with the pro rata vote of the participants who did provide instructions.

Quorum and Required Vote

No business can be conducted at the annual meeting unless a majority of all outstanding shares entitled to vote are either present in person or represented by proxy at the meeting.

Election of Directors

Because this director election is not a contested election, each director will be elected by the vote of the majority of the votes cast. A <code>[contested election]</code> means an election in which the number of candidates exceeds the number of directors to be elected. A <code>[majority</code> of the votes <code>cast[]</code> means that the number of votes <code>cast[]</code> director exceeds the number of votes <code>cast[]</code> against that director. <code>[Votes cast[]]</code> excludes abstentions and any broker non-votes. There is no cumulative voting with respect to the election of directors.

Under Delaware law, if a director is not elected at the annual meeting, the director will continue to serve on the Board as a [holdover director.] As required by our bylaws, each director-nominee has submitted an irrevocable contingent letter of resignation that becomes effective if he or she is not elected by a majority of the votes cast by shareowners and our board of directors accepts the resignation. If a director-nominee is not elected by a majority of the votes cast, our nominating and corporate governance committee will consider the director]s resignation and recommend to our board of directors whether to accept or reject the resignation. Our board of directors will decide whether to accept or reject the resignation and publicly disclose its decision and the rationale behind the decision within 90 days after the election results are certified.

Ratification of Independent Registered Public Accounting Firm

The affirmative vote of a majority of the shares present at the meeting in person or by proxy is required to ratify the appointment of our independent registered public accounting firm. For this purpose, abstentions and votes withheld by brokers in the absence of instructions from street-name holders (broker non-votes) have the same effect as votes cast against the proposal.

3 2008 PROXY STATEMENT MONSANTO COMPANY

Corporate Governance and Ethics

Monsanto Company is committed to the values of effective corporate governance and high ethical standards. Our board believes that these values are conducive to long-term performance and the board reevaluates our policies on an ongoing basis to ensure they sufficiently meet the company needs. Most recently, in 2007, the board amended our bylaws to adopt majority voting in uncontested elections of directors and adopted our Related Person Transactions Policy. In 2008, the board adopted a statement on Board Leadership Roles, which is posted on our website, and revised the company advance notice bylaw to clarify its applicability and widen its scope in light of recent case law and the reported use by certain shareowners at other companies of derivative instruments that affect voting rights.

Our corporate website includes key information about our corporate governance and ethics policies and includes copies of our certificate of incorporation, bylaws, board charter and corporate governance guidelines, board committee charters, code of business conduct, code of ethics for our chief executive officer and senior financial officers, statement on board leadership roles, Monsanto Pledge, and human rights policy. Each of these documents can be found at http://www.monsanto.com under the \[Corporate Responsibility\] tab. Hard copies of these documents may be obtained without charge by any shareowner upon request by contacting the Office of the General Counsel, Monsanto Company, 800 North Lindbergh Boulevard, St. Louis, Missouri 63167.

We have described below certain key corporate governance and ethics policies which we believe enable us to manage our business in accordance with the highest standards of business practices and in the best interest of our shareowners.

Board Charter and Corporate Governance Guidelines/Board Committee Charters

Our board of directors has adopted clear corporate governance policies to assist the board and its committees in the exercise of their responsibilities, several of which are described below. Each of the board committees has a written charter that sets forth the purposes, goals and responsibilities of the committee as well as qualification for committee membership, procedures for committee membership, appointment and removal, committee structure and operations and committee reporting to the full board. The board and committee charters provide our shareowners a transparent view of how our board functions. The charters are found on our website at http://www.monsanto.com by clicking on the \[Corporate Responsibility\] tab, then clicking on the \[Corporate Governance\] tab and then clicking on the \[Charter and Guidelines\] and \[Board Committees\] tabs.

Our Pledge

The Monsanto Pledge is our commitment to how we do business. It is a declaration that compels us to listen more, to consider our actions and their impact broadly, and to lead responsibly. It helps us to convert our values into actions, and to make clear who we are and what we champion. Our Pledge and our Pledge Report are available on our website at http://www.monsanto.com by clicking on the \Box Corporate Responsibility \Box tab, then clicking on the \Box Our Pledge \Box tab.

Code of Business Conduct

At Monsanto, we are committed to building relationships based on integrity. Integrity, in alignment with our Pledge, helps us earn and retain the trust of people with whom we do business. Our board has adopted a Code of Business Conduct that applies to our directors, officers and employees. In addition, the Code applies to all entities representing our company such as consultants, agents, sales representatives, distributors, and independent contractors, who agree in writing to follow all applicable portions of the Code. Our Code of Business Conduct is available on our website at http://www.monsanto.com by clicking on the \[Corporate Responsibility\] tab, then clicking on the \[Business Conduct\] tab.

4 2008 PROXY STATEMENT MONSANTO COMPANY

The Code is designed to provide guidance on and articulate our commitment to several key matters such as safety and health, protecting the environment, fair dealing, proper stewardship of our products, use of company resources, and accurate communication about our finances and products. It also addresses the many legal and ethical facets of integrity in business dealings with customers, suppliers, investors, the public, governments that regulate us and the communities where we do business. Our Code has been translated into more than 20 languages and is distributed to our employees, who affirm the Code on an annual basis.

We have established a Global Business Conduct Office with working groups and facilitators in all parts of the world. We have a guidance line and website operated by an independent service provider that is available worldwide for the receipt of complaints regarding accounting, internal controls and auditing matters, and have in place procedures for the anonymous submission of employee concerns regarding questionable accounting or auditing matters. We have in place the following methods under which an employee may submit a complaint or question: private post office box; internal toll-free telephone number; and special e-mail mailbox dedicated to business conduct matters.

Human Rights Policy

Our Human Rights Policy was adopted by the board in April 2006. The policy is an important manifestation of our values as described in the Monsanto Pledge. The policy is a mechanism by which we will hold ourselves accountable and demonstrate our commitment to human rights as we conduct our business globally. Monsanto will work to identify and do business with partners who aspire in the conduct of their businesses to ethical standards that are consistent with this policy. Our human rights policy is available on our website at http://www.monsanto.com by clicking on the \[Corporate Responsibility\] tab, then clicking on the \[Human Rights\] tab.

Financial Governance

We have adopted a code of ethics that applies to our chief executive officer and the senior leadership of our finance department, including our chief financial officer and our controller. As a public company, it is critical that our filings with the SEC be accurate and timely. Our Code of Ethics for Chief Executives and Senior Financial Officers is available on our website at http://www.monsanto.com by clicking on the [Corporate Responsibility] tab, then clicking on the [Code of Ethics] tab. Our internal audit function maintains important oversight over the key areas of our business and financial processes and controls, and reports regularly to our audit and finance committee.

Composition of the Board of Directors

Under our bylaws, the number of directors on our board shall not be less than five nor more than 20 and is fixed, and may be increased or decreased from time to time, by resolution of our board of directors. Currently, the board has fixed the number of directors at ten members. Our board of directors is divided into three classes, with terms expiring at successive annual meetings. In the case of an appointment of a director or if there is a change in the number of directors, the number of directors in each class will be apportioned as nearly equally as possible.

Nomination of Directors

The board is responsible for nominating members to the board and for filling vacancies on the board that may occur between annual meetings of shareowners, in each case based upon the recommendation of the nominating and corporate governance committee. The committee seeks input from other board members and senior management to identify and evaluate nominees for director. The committee may hire a search firm or other consultant, and has hired a search firm to assist in identifying and evaluating potential candidates for our board.

The firm assisted in the selection of Ms. Fields. The committee will consider nominees recommended by shareowners for election to the board provided the names of such nominees, accompanied by relevant

5 2008 PROXY STATEMENT MONSANTO COMPANY

biographical information, and relevant information about the shareowner submitting the nominee, are provided in writing to our secretary in accordance with the requirements of our bylaws described below under $\square Other$ *Matters* $\square Shareowner\ Proposals$ \square on page 72.

When evaluating potential director candidates, our nominating and corporate governance committee takes into consideration the <code>Desirable</code> Characteristics of Directors in our board charter (see Appendix B). The committee also considers whether potential director candidates will likely satisfy the independence standards for the board, the audit and finance committee, the people and compensation committee and the nominating and corporate governance committee, as set forth in the board charter (see Appendix A).

Director Orientation and Continuing Education

Upon joining the board, directors are provided with an initial orientation about the company, including its business operations, strategy and governance. New directors without previous experience as a director of a public company are expected to enroll in a director education program on the principles of corporate governance and director professionalism offered by a nationally-recognized sponsoring organization, or participate in a comparable director education program offered at another board on which the director serves. The director may satisfy this requirement if he or she participated in a comparable program within two years prior to being elected to our board.

Our directors are expected to remain abreast of developments in corporate governance and critical issues relating to the operation of public company boards. Management provides notice of and access to continuing educational programs and coordinates in-boardroom continuing education presentations led by outside experts. The board also conducts periodic visits to company facilities as part of its regularly scheduled board meetings.

Board Leadership Roles and our Presiding Director

We have posted a statement on our website that discusses board leadership roles and compares the duties of our chairman and presiding director. The statement is available at http://www.monsanto.com by clicking on the \(\pi\)Corporate Responsibility\(\pi\) tab, then clicking on the \(\pi\)Board Leadership Roles\(\pi\) tab.

Our bylaws establish the role of an independent presiding director who is elected by the independent directors. Mr. Stevens currently serves as the presiding director. As presiding director, Mr. Stevens:

- presides at all meetings of the board at which the chairman is not present;
- presides at executive sessions of the independent directors;
- has the authority to call meetings of the board or meetings of the independent directors;
- approves information sent to the board, meeting agendas for the board and meeting schedules to assure that there is sufficient time for discussion of all agenda items;
- serves as the liaison between the chairman and the independent directors;
- is a member of the board

 s executive committee;
- is available to consult with the chairman and chief executive officer about the concerns of the board; and
- is available to consult with any of our senior executives as to any concerns that executives might have.

Shareowners and other interested persons may contact Mr. Stevens directly by mail at the Office of the Presiding Director, Monsanto Company, 800 North Lindbergh Boulevard, Mail Stop A3NA, St. Louis, Missouri 63167.

Board Self-Assessments

The board conducts annual self-evaluations to determine whether it and its committees are functioning effectively. As part of the board self-evaluation process, each director also conducts a director self-evaluation. The nominating and corporate governance committee receives comments from all directors and reports annually to the board with an assessment of the board performance. The assessments are discussed with the full board each year.

6 2008 PROXY STATEMENT MONSANTO COMPANY

Each committee, other than the executive committee, reviews and reassesses the adequacy of its charter annually and recommends any proposed changes. Each committee also annually reviews its own performance and reports the results to the board. The nominating and corporate governance committee oversees and reports annually to the board its assessment of each committee performance evaluation process.

Shareowner Communication with our Board of Directors

Our board of directors has adopted a policy that provides a process for shareowners to send communications to the board. Shareowners may contact our board through our website at http://www.monsanto.com or they may send correspondence to 800 North Lindbergh Boulevard, Mail Stop A3NA, St. Louis, Missouri 63167, c/o David F. Snively, our secretary and general counsel.

Director Independence

Our board charter requires that no more than two board members may be non-independent under the independence criteria set by the NYSE. Under the NYSE listing standards, for a director to be considered independent, the board must affirmatively determine that the director has no direct or indirect material relationship with Monsanto. The board has established categorical independence standards for determining director independence which conform to the NYSE\(\precsit \) independence criteria. The categorical standards are found in Appendix A.

In determining director independence, the board considered the categorical independence standards and relevant facts and circumstances, including any direct or indirect transactions, relationships and arrangements between a director and Monsanto. Our board considered the following, each of which is within the NYSE and our categorical independence standards. Our board determined that the directors did not have a material interest in the transactions and that they would not impair each such director independent judgment.

- Ms. King is a director of Marsh and McLennan Companies, Inc.; we purchased insurance brokerage and insurance database services from the firm in ordinary course business transactions.
- Mr. Parfet owns MPI Research, Inc. ([MPI]) and serves as its chairman of the board and chief executive officer; Monsanto paid \$6,014 to MPI for research services conducted in fiscal year 2008.
- Dr. Poste is a director of Exelixis, which provides certain intellectual property licenses to Monsanto and for which we reimburse certain expenses and may make milestone payments contingent on development.
- Ms. Fields is an officer of McDonald
 □s USA, LLC. We are providing specimen tomato varieties to a supplier of McDonald
 □s.
- Mr. Bachmann is a director of the nonprofit group Center for Emerging Technologies (☐CET☐). CET is a public-private-academic partnership focused on commercializing innovations through new companies and being a leading center of technology-based economic development. In September 2008, Monsanto pledged \$200,000 per year for five years to CET toward the construction of a new building.

Based upon these considerations, the board has determined that the following directors are independent: Frank V. AtLee III, John W. Bachmann, Janice L. Fields, Arthur H. Harper, Gwendolyn S. King, C. Steven McMillan, William U. Parfet, George H. Poste, and Robert J. Stevens. Accordingly, nine of our ten directors are independent and each of the following committees is composed solely of independent directors:

- the audit and finance committee:
- the nominating and corporate governance committee;
- the people and compensation committee;
- the public policy and corporate responsibility committee; and
- the science and technology committee.

7 2008 PROXY STATEMENT MONSANTO COMPANY

Related Person Policy and Transactions

The board has adopted a written policy regarding the review, approval or ratification of transactions involving certain persons that SEC regulations require to be disclosed in proxy statements, which are commonly referred to as <code>[related person transactions.]</code> A <code>[related person]</code> is defined under the applicable SEC regulation and includes our directors, executive officers, 5% or more beneficial owners of our common stock, and each of their immediate family members. Under the written policy, our nominating and corporate governance committee is responsible for reviewing, approving or ratifying any related party transactions. It will approve a transaction only if it determines that the transaction is in, or not inconsistent with, the best interests of the company and its shareowners.

FMR Corp. is the beneficial owner of more than 5% of our common stock. An affiliate of FMR Corp., Fidelity Investments Institutional Services Company, Inc. ([Fidelity]), provides services in connection with the maintenance, operation and administration of various employee benefit plans sponsored by us and certain of our subsidiaries, including certain pension plans, 401(k) plans and health and welfare benefit plans. In exchange for its services, Fidelity received fees totaling approximately \$7 million in our 2008 fiscal year. In addition, Fidelity Management Trust Company, an affiliate of FMR Corp., is the investment manager for certain mutual funds in the 401(k) plan of certain of our subsidiaries. Fidelity Management Trust Company is compensated for its investment management services by the mutual funds through customary investment management fees paid by the plan participants investing in the funds. The expense ratios paid by plan participants for each of the mutual funds for all but one fund are at or below the average expense ratio of mutual funds pursuing similar investment strategies. It is anticipated that the subsidiary plan will merge into our Savings and Investment Plan in December 2008.

In June 2008, the board elected Kerry Preete Vice President, International Commercial, and designated him an executive officer of the company. William Sherk, Mr. Preete\(\sigma\$ brother-in-law, is an Account Manager in Western Canada and has worked in our Canadian business since 1999. His compensation has been established in accordance with our ordinary employment and compensation practices applicable to employees with equivalent qualifications, experience and responsibilities and he is eligible to participate in our employee benefit programs on the same basis as other eligible employees. Mr. Preete would ordinarily be involved in approving any special pay actions and awards for Mr. Sherk\(\sigma\$ position under our annual incentive plan; however, a procedure is in place under which Mr. Begemann, our Executive Vice President, Global Commercial, is involved in such actions and awards rather than Mr. Preete. During fiscal year 2008, Mr. Sherk received annual base pay in the amount of \$100,812 and relocation assistance in the amount of \$6,213. He also received an annual incentive award with respect to the fiscal year 2008 performance period in the amount of \$31,153. These amounts are based on an August 31, 2008 exchange rate. In October 2007, Mr. Sherk was granted 380 stock options under our 2005 Long Term Incentive Plan as the long-term incentive component of his compensation.

Compensation Committee Interlocks and Insider Participation

No member of our people and compensation committee is or has been an officer or employee of our company or any of our subsidiaries. In addition, no member of our people and compensation committee has had any relationships with us or any other entity that require disclosure under the SEC[]s proxy rules and regulations.

8 2008 PROXY STATEMENT MONSANTO COMPANY

Information Regarding Board of Directors and Committees

The ages, principal occupations, directorships held and any other information with respect to our nominees and directors, and the classes into which they have been divided, are shown below as of November 25, 2008 except as otherwise noted.

Nominees for Directors Whose Terms Would Expire at the 2012 Annual Meeting

The board has nominated four directors to be elected at the 2009 annual meeting to serve for a three-year term ending with the annual meeting to be held in 2012, until a successor is elected and has qualified, or until his or her earlier death, resignation or removal. Each nominee is currently a director of our company and has agreed to serve if elected.

JANICE L. FIELDS

Principal Occupation: Executive Vice President and Chief Operating Officer, McDonald USA, LLC

First Became Director: April 2008

Age: 53

Executive Vice President of McDonald\[\]s USA, LLC, the world\[\]s leading global foodservice retailer, since 2006; President of McDonald\[\]s Central Division, 2003-2006.

HUGH GRANT

Principal Occupation: Chairman of the Board, President and Chief Executive Officer, Monsanto Company

First Became Director: May 2003

Age: 50

Chairman of the Board of Monsanto Company since October 2003; President and Chief Executive Officer of Monsanto Company since May 2003; Executive Vice President and Chief Operating Officer, Monsanto Company, 2000-2003; Co-President, Agricultural Sector, Former Monsanto Company, 1998-2000. Director: PPG Industries, Inc.

C. STEVEN MCMILLAN

Principal Occupation: Retired Chairman and Chief Executive Officer, Sara Lee Corporation

First Became Director: June 2000

Age: 62

Chairman of the Board of Sara Lee Corporation, a global consumer packaged goods company, October 2001 October 2005; Chief Executive Officer of Sara Lee Corporation, July 2000-February 2005; President and Chief Operating Officer, Sara Lee Corporation, 2000-2004; President of Sara Lee Corporation 1997-2000.

9 2008 PROXY STATEMENT MONSANTO COMPANY

ROBERT J. STEVENS

Principal Occupation: Chairman of the Board, President and Chief Executive Officer, Lockheed Martin

Corporation

First Became Director: August 2002

Age: 57

Chairman of the Board of Lockheed Martin Corporation, a high technology aerospace and defense company, since April 2005; President and Chief Executive Officer of Lockheed Martin Corporation since August 2004; President and Chief Operating Officer of Lockheed Martin Corporation, October 2000 August 2004; Chief Financial Officer of Lockheed Martin Corporation, 1999-2001; Vice President Strategic Development of Lockheed Martin Corporation, 1998-1999; President and Chief Operating Officer of the former Lockheed Martin Energy and Environmental Sector, 1998-1999. Director: Lockheed Martin Corporation.

Directors Whose Terms Expire at the 2010 Annual Meeting

FRANK V. ATLEE III

Principal Occupation: Retired President, American Cyanamid Company

First Became Director: June 2000

Age: 68

Chairman of the Board of Monsanto Company, 2000-2003; Interim president and chief executive officer, Monsanto Company, December 2002-May 2003; Chair, Advisory Committee, Arizona Biodesign Institute, Arizona State University, 2002-2004; President of American Cyanamid Company, a major pharmaceutical company, 1993-January 1995; Chairman of Cyanamid International, 1993-January 1995.

ARTHUR H. HARPER

Principal Occupation: Managing Partner, GenNx360 Capital Partners

First Became Director: October 2006

Age: 52

Managing Partner, GenNx360 Capital Partners, a private equity firm focused on business to business companies, since 2006; President and Chief Executive Officer, Equipment Services Division, General Electric Corporation, 2002-2005; Executive Vice President, GE Capital Services, General Electric Corporation, 2001-2002. Director: Gannett Co., Inc.

GWENDOLYN S. KING

Principal Occupation: President, Podium Prose, LLC

First Became Director: February 2001

Age: 68

President, Podium Prose, a speaker so bureau and speechwriting service founded in 2000; Founding Partner, The Directors Council, a corporate board search firm, October 2003-May 2005; Senior Vice President, Corporate and Public Affairs, PECO Energy Company (formerly Philadelphia Electric Company), a diversified utility company, 1992-1998; Commissioner, Social Security Administration, 1989-1992. Director: Lockheed Martin Corporation and Marsh & McLennan Companies, Inc.

10 2008 PROXY STATEMENT MONSANTO COMPANY

JOHN W. BACHMANN

Principal Occupation: Senior Partner, Edward Jones

First Became Director: May 2004

Age: 70

Senior Partner of Edward Jones, a major financial firm, since 2004; Managing Partner, Edward Jones, 1980-2004. Director: AMR Corporation.

WILLIAM U. PARFET

Principal Occupation: Chairman and Chief Executive Officer, MPI Research, Inc.

First Became Director: June 2000

Age: 62

Chairman and Chief Executive Officer of MPI Research, Inc., a pre-clinical toxicology research laboratory, since 1999; Co-Chairman of MPI Research, LLC, 1995-1999. Director: Stryker Corporation and Taubman Centers, Inc.

GEORGE H. POSTE, Ph.D.D.V.M.

Principal Occupation: Chief Executive, Health Technology Networks and Director, Arizona Biodesign

Institute

First Became Director: February 2003

Age: 64

Chief Executive of Health Technology Networks, a consulting group specializing in the application of genomics technologies and computing in healthcare, since 1999; Director of the Arizona Biodesign Institute, a combination of research groups at Arizona State University, since May 2003; Chief Science and Technology Officer and Director, SmithKline Beecham, 1992-1999. Director: Exelixis, Inc. and Orchid Cellmark, Inc.

Board Meetings and Committees

During our 2008 fiscal year, our board of directors met six times and took one action by unanimous written consent. All incumbent directors attended 75% or more of the aggregate meetings of the board and of the board committees on which they served during the period in which they held office during our 2008 fiscal year. The following table shows the attendance of each director at committee meetings.

Our board charter formally encourages directors to attend the annual meeting of shareowners. Last year all but one of the directors then in office attended the meeting.

Our board of directors has the following six committees: (1) executive; (2) audit and finance; (3) nominating and corporate governance; (4) people and compensation; (5) public policy and corporate responsibility; and (6) science and technology. The written charter for each committee is available on our website at http://www.monsanto.com.

11 2008 PROXY STATEMENT MONSANTO COMPANY

Board Committee Membership

The following chart shows the membership and chairpersons of our board committees and committee meeting attendance.

		Audit &	Nominating & Corporate	People &	Public Policy & Corporate	Science
	Executive	Finance	Governance	Compensation	Responsibility	Technol
Number of Meetings						
Held in the 2008 Fiscal Year	3	10	5	5	5	5
Frank V. AtLee III		10				5
John W. Bachmann		8		4		
Janice L. Fields ¹			2 1		2 1	2 1
Hugh Grant	3*					
Arthur H. Harper					4	4
Gwendolyn S. King			4	4	4*	
C. Steven McMillan		10	5	5*		
William U. Parfet	3	9*		5		
George H. Poste					5	5*
Robert J. Stevens	3	10	5*			

^{*} Chairperson

1 Ms. Fields became a director in April 2008 and attended all meetings of each committee while a member.

Executive Committee

Members: Messrs. Grant (Chair), Parfet and Stevens

Our executive committee has the powers of our board of directors in directing the management of our business and affairs in the intervals between meetings of our board of directors (except for certain matters specifically retained by our board of directors or which are reserved for our entire board of directors by statute, our amended and restated certificate of incorporation or our bylaws). Actions of the executive committee are reported at the next regular meeting of our board of directors. The executive committee met three times during the 2008 fiscal year and did not take any actions by written consent.

Audit and Finance Committee

Members: Messrs. Parfet (Chair), AtLee, Bachmann, McMillan and Stevens

The audit and finance committee assists our board of directors in fulfilling its responsibility to oversee:

- the integrity of our financial statements;
- the qualifications and independence of our independent registered public accounting firm;
- the performance of our independent registered public accounting firm and internal audit staff; and
- our compliance with legal and regulatory requirements.

As noted in the <code>[Report of the Audit and Finance Committee]</code> at page 68, our board of directors believes that all members of the audit and finance committee meet the independence and experience requirements of the listing standards of the NYSE. In addition, our board of directors has determined that each of the members of the audit and finance committee is an <code>[audit committee financial expert]</code> for purposes of the rules of the SEC. The audit and finance committee met ten times during the 2008 fiscal year and did not take any actions by written consent.

For additional information regarding the audit and finance committee, please see [Ratification of Independent Registered Public Accounting Firm (Proxy Item No. 2)] at page 70 and Report of the Audit and Finance Committee at

page 68.

12 2008 PROXY STATEMENT

MONSANTO COMPANY

Nominating and Corporate Governance Committee

Members: Messrs. Stevens (Chair) and McMillan, Ms. King and, since April 2008, Ms. Fields

Our nominating and corporate governance committee provides oversight of the corporate governance affairs of our board and company. Our nominating and corporate governance committee also identifies and recommends individuals to our board of directors for nomination as members of the board and its committees, and leads our board of directors in its annual review of the board performance.

Pursuant to its charter, all members of the nominating and corporate governance committee must meet the independence requirements contained in the listing standards of the NYSE. We believe all members of the nominating and corporate governance committee meet the current listing standards of the NYSE pertaining to independence. The nominating and corporate governance committee met five times during the 2008 fiscal year and did not take any actions by written consent.

People and Compensation Committee

Members: Messrs. McMillan (Chair), Bachmann and Parfet, and Ms. King

Our people and compensation committee is responsible for:

- establishing and reviewing our compensation policy for senior management and ensuring that our senior management is compensated in a manner consistent with that compensation policy;
- establishing and reviewing our overall compensation policy for all our employees and employees of our subsidiaries, other than senior management;
- monitoring the company simplementation of our management succession strategies and plans for our chief executive officer and other executive officers;
- reviewing and monitoring our performance as it affects our employees and overall compensation policies for employees other than senior management;
- reviewing our compensation program for non-employee directors and recommending appropriate changes to our board of directors;
- performing or delegating, reviewing and monitoring all of our settlor functions with respect to each employee pension or welfare benefit plan sponsored by us or any of our subsidiaries; and
- recommending to our board of directors that the Compensation Discussion and Analysis be included in our proxy statement.

Pursuant to its charter, our people and compensation committee must be comprised of at least three members of our board of directors who, in the opinion of our board of directors, meet the independence requirements of the New York Stock Exchange (the <code>NYSE</code>), are <code>non-employee</code> directors pursuant to Rule 16b-3 of the Securities and Exchange Commission (the <code>SEC</code>) and are <code>outside</code> directors for purposes of Section 162(m) of the Internal Revenue Code of 1986, as amended (the <code>Code</code>). Our board of directors has determined that all members of the people and compensation committee meet these requirements. The people and compensation committee met five times and took one action by unanimous written consent during the 2008 fiscal year.

Our people and compensation committee has delegated certain authority, responsibilities and duties to a committee of senior officers. We refer to this committee as our <code>[internal people committee.]</code> Our internal people committee has authority and responsibility to:

• administer and interpret our long-term incentive plans, except with respect to persons subject to the reporting requirements of Section 16 of the Securities Exchange Act of 1934, as amended (the []1934 Act[])

and officers subject to Code Section 162(m) (we refer to these officers and employees collectively as [executive officers]), and grant stock options under these plans to persons other than executive officers, to the extent and on terms and conditions specifically authorized by the people and compensation committee;

13 2008 PROXY STATEMENT MONSANTO COMPANY

- review, monitor, approve and administer our annual incentive and other compensation plans, compensation strategies and management succession plans for non-officer employees, as well as our general employment policies and strategies;
- perform settlor functions and make other decisions having a net annual cost of not more than \$10,000,000 involving our employee pension and welfare benefit plans; and
- appoint the members, and monitor the performance, of the committee that serves as the fiduciary responsible for the management and administration of our employee pension and welfare benefit plans.

Public Policy and Corporate Responsibility Committee

Members: Ms. King (Chair), Dr. Poste, Mr. Harper and, since April 2008, Ms. Fields

Our public policy and corporate responsibility committee reviews and monitors our performance as it affects communities, customers, other key stakeholders and the environment. This committee also reviews issues affecting company products in the marketplace, including issues of agricultural biotechnology, and identifies and investigates significant emerging issues. It also receives periodic reports on the company business conduct program and the company charitable and political contributions. The public policy and corporate responsibility committee met five times during the 2008 fiscal year and did not take any actions by written consent.

Science and Technology Committee

Members: Dr. Poste (Chair), Messrs. AtLee and Harper and, since April 2008, Ms. Fields

Our science and technology committee reviews and monitors our science and technology initiatives in areas such as technological programs, research, agricultural biotechnology and information technology. Our science and technology committee also identifies and investigates significant emerging science and technology issues. The science and technology committee met five times during the 2008 fiscal year and did not take any actions by written consent.

Compensation of Directors

The objectives for our non-employee director compensation program are to attract highly-qualified individuals to serve on our board of directors and align our directors interests with the interests of our shareowners. Our people and compensation committee reviews the program at least annually to ensure that it continues to meet the objectives. Our non-employee directors are paid for their services to us pursuant to our Non-Employee Director Equity Incentive Compensation Plan (the <code>Directors</code> Plan).

To determine whether our director compensation program is competitive, our people and compensation committee considers general market information on program design, in addition to compensation data from the same comparator group of companies as it uses for determining compensation for members of our executive team, as described on pages 21-23. Our directors compensation is targeted to the median range of compensation for directors of companies in our comparator group, considering our revenue size relative to that of our comparator

group. At the request of the people and compensation committee, management engages Towers Perrin to provide the market trend and comparator group information. Based on this information and data, management recommends any program changes it considers appropriate to the people and compensation committee. That committee considers the recommendation, supporting data and information, in addition to information and input from its independent executive compensation consultant, Frederic W. Cook & Co., Inc. The

14 2008 PROXY STATEMENT MONSANTO COMPANY

people and compensation committee then recommends any change it considers appropriate to our full board of directors for its review and approval, and includes the relevant information and data for our board to use in its considerations.

In June 2007, the people and compensation committee reviewed the design of our director compensation program and the Directors Plan. The committee determined that the plan design was in line with market trends and determined not to recommend any changes to our board of directors. However, after reviewing data from our comparator group, the committee determined that the amount of our directors annual base retainer was below the median range of the group, considering our relative revenue. The committee considered and recommended to our board of directors that it amend the Directors Plan, effective for our 2008 fiscal year, to increase the annual base retainer from \$150,000 to \$165,000. The recommended increase would position our program slightly above our comparator group median range of director pay, at the time, adjusted for our relative revenue. No adjustment was recommended for the annual retainers for committee memberships or chairs since those retainer amounts continued to be in line with similar types of director retainers in our comparator group. The board of directors approved the recommended increase in the annual base retainer, effective September 1, 2007. It also approved the people and compensation committee recommended changes to the Directors Plan so that the plan complies with Code Section 409A.

Prior to December 1, 2007, the Directors Plan also provided that a non-employee director would receive a grant of 3,000 shares of restricted stock upon his or her commencement of service as a member of our board of directors. The board of directors subsequently amended the Directors Plan, effective December 1, 2007, to provide that the number of shares of restricted stock granted to a director upon commencement of service would be equal to the annual base retainer, divided by the closing price of a share of our common stock on the commencement date.

Our directors aggregate annual retainer for our 2008 fiscal year was based on the following:

- ◆ \$165,000 annual base retainer;
- ♦ \$25,000 annual retainer for each of the chairs of the audit and finance committee, the people and compensation committee, and the nominating and corporate governance committee;
- ♦ \$15,000 annual retainer for each of the chairs of the science and technology committee and the public policy and corporate responsibility committee;
- ♦ \$10,000 annual retainer for each member of the audit and finance committee (other than the chair of that committee).

Half of the aggregate retainer for each director is payable in deferred common stock. The remainder is payable, at the election of each director, in the form of deferred common stock, restricted common stock, current cash and/or deferred cash. The Directors Plan does not provide for meeting fees. Mr. Grant is our sole employee director and does not receive compensation for his services as a director.

- ◆ Deferred Common Stock. Deferred common stock means shares of our common stock that are delivered at a specified time in the future. Earned shares of deferred common stock are credited in the form of hypothetical shares to a stock unit account at the beginning of each plan year and vest in installments as of the last day of each calendar month during the plan year, but only if a director remains a member of our board of directors on that day. All hypothetical shares in each director account are credited with dividend equivalents, also in the form of hypothetical shares. No director has voting or investment power over any deferred shares until distributed in accordance with the terms of the Directors Plan, generally upon termination of service.
- ♦ **Restricted Stock.** Restricted stock means shares of our common stock that vest in accordance with specified terms after they are granted. Dividends and other distributions are held in escrow to be delivered

with the restricted stock as it vests. Any portions of a non-employee director aggregate annual retainer payable in the form of restricted stock vests in installments on the last day of each calendar month during a plan year, but only if the director remains a member of our board of directors on that day. Any restricted stock granted to a non-employee director entitles the director to all rights of a shareowner with respect to common stock for all such shares issued in his or her name, including the right to vote the shares and to receive dividends or other distributions paid or made with respect to any such shares.

15 2008 PROXY STATEMENT MONSANTO COMPANY

◆ Cash/Deferred Cash. Under the Directors Plan, any portion of a non-employee director aggregatemual retainer not paid in the form of deferred stock or restricted stock will be paid in cash, either monthly during the term or on a deferred basis, as elected by the director. Any deferred cash is credited to a cash account that accrues interest at the average Moody sa Baa Bond Index Rate, as in effect frontime to time.

In June 2008, the people and compensation committee again considered the design of our director compensation program and determined that it continued to be in line with market trends, so that no changes were necessary. However, after reviewing data from our comparator group, the committee determined that the amount of our directors annual base retainer was below the median range of the group, considering our relative revenue, at the time. The committee considered and recommended to our board of directors that it amend the Directors Plan, effective for our 2009 fiscal year, to increase the annual base retainer from \$165,000 to \$195,000. The recommended increase would position our program within our comparator group median range of director pay, considering our relative revenue. No adjustment was recommended for the annual retainers for committee memberships or chairs since those retainer amounts continued to be in line with similar types of director retainers in our comparator group. The board of directors approved the recommended increase in the annual base retainer, effective September 1, 2008.

In addition to the compensation described above, our non-employee directors are reimbursed for expenses incurred in connection with their attendance at board of directors, committee and shareowners meetings, including cost of travel, lodging, food and related expenses. Non-employee directors are also reimbursed for reasonable expenses associated with other business activities related to their service on our board of directors, such as participation in director education programs. Non-employee directors may use corporate aircraft, when available, for transportation to and from meetings and functions related to service as a director.

Directors may participate in a matching gift program under which we will match donations made to eligible educational, arts or cultural institutions. Gifts will be matched in any calendar year up to a maximum of \$5,000. While our directors participate on the same basis as our employees, SEC rules require that the amount of a director participation in a charitable matching program be disclosed.

Director Compensation Table

The following presents compensation to our non-employee directors for their services in our 2008 fiscal year.

	Fees Earned or	Stock	All Other	
Name	Paid in Cash (\$) ¹	Awards(\$) ²	Compensation(\$)	Total(\$)
Frank V. AtLee III	\$87,500	87,524	\$4,999 ₃	\$180,023
John W. Bachmann	87,489	87,489		174,978
Janice L. Fields ⁴	34,377	52,705 5		87,082
Arthur H. Harper	82,502	125,492 6		207,994
Gwendolyn S. King	90,000	90,034		180,034
Sharon R. Long, Ph.D. ⁷	15,000	15,064		30,064
C. Steven McMillan	100,000	100,007	5,000 8	205,007
William U. Parfet	95,000	94,986		189,986

George H. Poste, D.V.M., Ph.D.		88,750	88,763	П	177,513
Robert J. Stevens		100,007	100,007		200,014
1	annual reta half of the deferred co cash. For o deferred co shares, and stock, 1,18	ainer payable to extended in the payable ommon stock, restour 2008 fiscal year ommon stock: Mr. d Mr. Stevens, 1,4 s shares. Ms. Kingted to receive cur	olumn represent thach director under e, at the election of cricted common sto ir, the following dir. Bachmann, 1,254. 34 shares. Mr. Harg g, Dr. Long, Dr. Pos rent cash and Mr. A	the Directors Plar feach director, in tock, current cash or ectors elected to re 5 shares, Ms. Field per elected to rece te, and Messrs. Mc	n. The elective he form of deferred eceive s, 301.5 ive restricted Millan and
2	during our	2008 fiscal year u annual retainer th	olumn include the Inder FAS 123R for Iat is payable in de	the non-elective h	alf of the
16 2008 PROXY STATEMENT				MONSANT	O COMPANY

were granted on the first day of the fiscal year and were fully vested at the end of the fiscal year, the amount expensed under FAS 123R equals the grant date fair value of the deferred shares under FAS 123R. The number of deferred shares granted to each director related to the non-elective half of the aggregate annual retainer is: Mr. AtLee, 1,255; Mr. Bachmann, 1,254.5; Ms. Fields, 301.5; Mr. Harper, 1,183; Ms. King, 1,291; Dr. Long, 216; Mr. McMillan, 1,434; Mr. Parfet, 1,362; Dr. Poste, 1,246; and Mr. Stevens, 1,434. The aggregate number of shares of deferred stock credited to the account of each director as of August 31, 2008 was: Mr. AtLee, 57,809; Mr. Bachmann, 21,891; Ms. Fields, 604; Mr. Harper, 2,769; Ms. King, 28,746; Dr. Long, 20,536; Mr. McMillan, 36,956; Mr. Parfet, 35,000; Dr. Poste, 20,227; and Mr. Stevens, 31.098.

The aggregate number of shares of restricted stock held by directors as of August 31, 2008 was: Ms. Fields, 1,254; and Mr. Harper, 3,000.

The aggregate number of stock options held by directors as of August 31, 2008 was: Ms. King, 20,000; Dr. Long, 3,000; Mr. Parfet, 20,000; and Mr. Stevens, 20,000.

The amount shown in this column for Mr. AtLee represents the sum of a \$755 contribution by the company pursuant to its charitable matching program described above and interest earned on deferred cash under the Directors Plan (which is set each month at the monthly Moody Baa Bond Index Rate) to the extent that it exceeds 120% of the applicable federal long-term rate.

Ms. Fields was elected to our board of directors on April 16, 2008.

The amount shown in this column for Ms. Fields includes \$18,328 that we expensed during the 2008 fiscal year under FAS 123R related to 1,254 shares of restricted stock granted upon her joining our board of directors on April 16, 2008.

The amount shown in this column for Mr. Harper includes \$42,990 that we expensed during the 2008 fiscal year under FAS 123R related to 3,000 shares of restricted stock granted upon his joining our board of directors on October 24, 2006.

Dr. Long resigned as a director effective October 31, 2007.

3

4 5

6

7

8

Represents a contribution by the company pursuant to its charitable matching program described above.

Election of Directors (Proxy Item No. 1)

The shareowners are being asked to elect Ms. Fields and Messrs. Grant, McMillan and Stevens to terms ending with the annual meeting to be held in 2012, until a successor is elected and qualified or until his or her earlier death, resignation or removal. The board nominated Ms. Fields and Messrs. Grant, McMillan and Stevens for election at the 2009 meeting of shareowners upon the recommendation of the nominating and corporate governance committee. Each nominee is currently a director of our company. For more information regarding the nominees for director, see [Information Regarding Board of Directors and Committees Teginning on page 9.

The board does not contemplate that any of the nominees will be unable to stand for election, but should any nominee become unable to serve or for good cause will not serve, all proxies (except proxies marked to the contrary) will be voted for the election of a substitute nominee nominated by the board.

OUR BOARD OF DIRECTORS RECOMMENDS

A VOTE [FOR]

ALL OF THE NOMINEES FOR DIRECTOR.

17 2008 PROXY STATEMENT

MONSANTO COMPANY

Executive Compensation

Compensation Discussion and Analysis

Our Compensation Discussion and Analysis, or □CD&A,□ is organized into the following sections:

- ◆ Introduction;
- ♦ Overview of our executive compensation program;
- Components of our executive compensation program for our proxy officers; and
- Other arrangements, policies and practices related to our executive compensation program.

In our CD&A, the term

- ◆ [Committee] means the people and compensation committee of our board of directors, as described page 13.
- ♦ ∏proxy officers∏ means the executives listed in the summary Compensation Table n page 40.
- ♦ [executive team members] or [officers] means the 13 executives responsible for company positry, tegy and operations, including our proxy officers.
- ♦ □broad-based□ refers to a plan, policy or program in which most of our full-time and certain of our other
 employees participate, including our proxy officers.

Introduction

Our compensation programs are designed to focus our entire organization on growing our revenue and earnings, generating cash flow, efficiently deploying capital and increasing long-term shareowner value.

Our fiscal year 2008 was an outstanding year and our financial results clearly indicate that our compensation program objectives were met. In fiscal year 2008, our return on capital measure improved substantially over fiscal year 2007, and our revenue, net income and free cash flow each grew significantly over the prior year. Given these outstanding results, components of compensation for our proxy officers increased over that of fiscal year 2007.

These outstanding results are on top of significant growth in previous years. Further, our business is poised for future growth. Measured from 2007 to 2012, we expect to more than double the gross profit potential of our business and the company is well positioned financially to support this growth.

Overview of Our Executive Compensation Program

Our board of directors delegates to the Committee responsibility for establishing compensation policies and programs for all of our employees. The Committee sobjectives for compensation policies for all of our employees, including our proxy officers, are to:

- ♦ align management

 s interests with the long-term interests of shareowners;
- encourage employees to behave like owners and reward them when shareowner value is created;
- provide reward systems that are simple, credible and common across our organization;
- promote creativity, innovation and calculated risk-taking to achieve outstanding business results;
- encourage our employees to continually improve their capabilities to deliver business results;
- reward for results rather than on the basis of seniority, tenure or other entitlement;
- attract and retain top talent at all levels around the globe; and
- make our company a great place to work that values diversity and inclusiveness.

18 2008 PROXY STATEMENT MONSANTO COMPANY

The compensation program for our proxy officers and other executive team members includes the following components:

- ◆ Base salary;
- Annual incentive awards under our broad-based annual incentive plan; and
- ◆ Long-term incentive awards consisting of two components:
- ♦ Stock options; and
- ◆ Performance-based restricted stock units, or □performance-RSUs.□

The Committee intends that the annual and long-term incentive components of our executive compensation program will focus our executive team members on leading our entire organization toward growing our revenue and earnings, generating cash flow, efficiently deploying capital and increasing long-term shareowner value. Year-to-year increases in performance goals require our executives to continually improve their capabilities to deliver these results. The Committee regularly reviews our executive compensation strategies, policies and programs to assure that the program continues to meet its overall objectives. The Committee occasionally grants restricted stock or restricted stock units to executive team members for recruitment or retention purposes. Executive team members receive retirement, health and welfare benefits under our U.S. broad-based plans.

ROLE OF MANAGEMENT

Our board of directors established a committee of senior officers, called our <code>[internal people committee,[]</code> to consider, determine and oversee broad-based compensation and employee benefits strategies, plans and programs. Our internal people committee members are appointed by our CEO, Mr. Grant. The committee members are: Mr. Grant, our chief executive officer (<code>[CEO[]</code>); Mr. Crews, our chief financial officer (<code>[CFO[]</code>); Dr. Fraley, our chief technology officer; our executive vice president of human resources; and our senior vice president, chief of staff and

community relations. Our executive vice president of human resources is the chairperson of our internal people committee. The Committee periodically seeks input and recommendations from our internal people committee on executive compensation strategy and design that, in its members judgment, will contribute to our growth and profitability, and support company objectives. Neither the internal people committee nor any of its members determines executive compensation strategy or design, or any component of compensation for any executive officer; these responsibilities reside only with the Committee which is comprised of independent non-employee directors.

The Committee considers input from our CEO, CFO, and our executive vice president of human resources when developing and setting financial goals for our annual incentive plan and metrics for performance-RSUs. Also, the Committee considers input from our CEO, with the assistance of our executive vice president of human resources (for officers other than himself), regarding recommendations for base salary, annual incentive plan opportunities and awards and long-term incentive award values for our executive team members. The Committee gives significant weight to our CEO[]s judgment when assessing each of the other proxy officer[]s performance and determining appropriate compensation levels and incentive awards. As described below, the CEO[]s recommendations to the Committee take into account market data from our comparator group provided through management[]s outside executive compensation consultant, as well as input from the Committee[]s independent consultant. When determining our CEO[]s compensation, the Committee considers compensation data from our comparator group, input from our executive vice president of human resources and input from the Committee[]s independent consultant.

The Committee reports to our full board of directors the specifics of each component of the compensation decisions for our CEO. The Committee also makes general reports of its compensation-related decisions for our other executive team members.

19 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

ROLE OF COMPENSATION CONSULTANTS

Committee Consultant. Since 2002, the Committee has engaged an outside independent executive compensation consultant, Frederic W. Cook & Co., Inc., to advise and counsel the Committee. The consultant provides no services to our company other than those provided directly to or on behalf of the Committee.

At the Committee s direction, management provides all Committee materials to the independent consultant and discusses all materials and recommendations with the independent consultant in advance of each Committee meeting or communication. The independent consultant considers the information and reports to the Committee chairperson on the material being presented to the Committee, specifically identifying any issues or concerns. The chairperson discusses the independent consultant input with the entire Committee at its meeting and the Committee considers the input as part of its decision-making processes. The consultant attends two meetings annually, with one meeting focused on executive compensation trends and the other on the design of our executive compensation program.

Management Consultant. With support of the Committee, management engages Towers Perrin to provide various calculations and market data used by the Committee in its decision-making processes. Members of our CFO[s and executive vice president of human resources] staffs retain and work with Towers Perrin to obtain the information. The Committee periodically requests our executive vice president of human resources and his staff to seek Towers Perrin[s input or recommendation with respect to a specific practice, program or arrangement being considered by the Committee. To assist the Committee in its decision-making processes, management may also independently seek Towers Perrin[s input on various matters to provide the information to the Committee. Towers Perrin provides consulting, actuarial and other compensation and employee benefits-related services to our company.

TALLY SHEETS AND WEALTH ACCUMULATION ANALYSES

Tally Sheets. At the Committee significant of stall sheet, for each proxy officer and other executive team member for the Committee to use when considering and determining our 2008 fiscal year executive compensation program and each officer spay. The Committee used the same process when setting 2009 fiscal year compensation.

The tally sheets summarized each officer stotal compensation and provided information on the:

- value of each component of current compensation, including benefits and perquisites;
- potential value of all equity-based long-term incentive awards held by the officer, both vested and unvested, at then-current market prices;
- ◆ value realized in the prior fiscal year from stock option exercises and vesting of restricted stock and performance-RSUs; and
- ◆ value of lump sum payments and benefits that would be owed should the officer
 semployment terminate under various scenarios such as retirement, voluntary termination, involuntary termination or following a change of control. Details on potential excise tax gross-up payments on excess parachute payments related to termination following a change of control were also included. Tax gross-up information and pension plan values were calculated by Towers Perrin based on various assumptions, including stock price assumptions both higher and lower than our then-current stock price.

The tally sheets were used to demonstrate total compensation provided to each executive team member, as well as the impact of company performance on potential earnings. The Committee used the tally sheet information as a basis for considering changes to components of our executive compensation program, but made no adjustment as a result of the analysis based on its assessment that the program continues to meet the objectives described above.

20 2008 PROXY STATEMENT MONSANTO COMPANY

Wealth Accumulation Analyses. At the Committee sdirection, management prepared a swealth accumulation analysis for Mr. Grant so the Committee could consider total earnings and potential earnings under our past, present and anticipated compensation and benefit plans when determining his 2008 fiscal year compensation. Management prepared the analysis with guidance from the Committee independent consultant. The wealth accumulation analysis summarized Mr. Grant stotal earnings over the previous five fiscal years, including earnings from annual base salary, annual incentive award payments, accumulations under company-sponsored retirement and other benefit plans, size of stock option grants, gains from stock option exercises, size of performance-RSUs and proceeds from vesting of performance-RSUs. The analysis also projected anticipated earnings for the next five fiscal years, assuming that current components of our executive compensation program are maintained at current levels. Based upon the Committee sassessment that the existing program provides strong alignment with creating shareowner value, as well as retention value, no adjustments were made to the 2008 fiscal year compensation program design for Mr. Grant and our other executive team members as a result of the analysis.

At the Committee s direction, management also prepared a wealth accumulation analysis for each of Mr. Grant and our four other proxy officers which were used in determining our 2009 fiscal year compensation programs, practices, and compensation. In using the wealth accumulation analyses and tally sheets, the Committee specifically considered the following when establishing 2009 fiscal year compensation for Mr. Grant and our proxy officers, and other executive team members: (i) does the information indicate that the program or accumulation of wealth reflects performance and creation of shareowner value; (ii) does the individual stotal compensation and accumulated wealth reflect the contributions and performance of the individual; (iii) are the overall program and its individual elements really working; (iv) are there any adjustments that need to be made to the overall compensation program, any elements of the program or an individual scompensation? After considering these questions, the Committee determined that the program continues to meet the objectives described above, and made no changes to the design of the program or any individual pay element for any of our proxy officers as a result of the analyses.

COMPARATOR GROUP FOR DETERMINING EXECUTIVE COMPENSATION

Background Information. In 2006, the Committee approved a new comparator group of companies as a reference for determining compensation for our proxy officers and other executive team members, beginning with our 2007 fiscal year compensation. The Committee revised our comparator group of companies to better reflect our growth and increased focus on biotechnology. At the time our revenues were between the 25th and 50th percentile of the revenues of the new comparator group while our market capitalization was near the median.

Our comparator group consists of companies having one or more of the following characteristics:

- ♦ science-based, research-focused, organization from the biotechnology, pharmaceutical or related industry;
- specialty or diversified chemical company having a line of business requiring ongoing introduction of new products; or
- ◆ brand-focused general industry leader.

The Committee considers these characteristics essential to the success of our business.

When initially selecting members of our comparator group and during its annual review of the members, the Committee compares our performance to the comparator group sperformance with respect to key publicly available financial metrics (such as revenue growth, earnings per share growth and market capitalization) to confirm its belief that positioning our officers pay at the median range of our comparator group for target-level performance reflects appropriate pay for performance.

21 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

The Committee reviews our comparator group annually, and expects to periodically update its members to account for any mergers, acquisitions or business-related changes. The following companies constitute our comparator group:

- → 3M Co.
- Abbott Laboratories
- ◆ Allergan Inc.
- Amgen Inc.
- Ashland Inc.
- ▲ Baxter International Inc.
- Becton, Dickinson and Co.
- ◆ Biogen Idec Inc.
- ◆ Boston Scientific Corp.

- ◆ Bristol-Myers Squibb Co.
- ◆ Colgate-Palmolive Co.
- ◆ Dow Chemical Co.
- ◆ E.I. du Pont de Nemours and Co.
- ◆ Ecolab Inc.
- ♦ Eli Lilly and Co.
- ♦ Forest Laboratories Inc.
- ♦ Genentech Inc.
- ♦ General Mills Inc.

- ♦ Genzyme Corp.
- ♦ Gilead Sciences Inc.
- ♦ Kellogg Co.
- Medtronic Inc.
- ◆ PPG Industries Inc.
- ♦ Rohm and Haas Co.
- ♦ Schering-Plough
- ♦ St. Jude Medical Inc.
- Wyeth

How the Committee Uses Our Comparator Group Data. When determining compensation for our executive team members, the Committee uses data from our comparator group as a reference for determining:

- amount of total compensation;
- individual components of compensation; and
- relative proportion of each component of compensation [] base salary, annual incentive award opportunity and long-term incentive award value.

At the Committee s direction, management assembles the data collected by its compensation consultant, Towers Perrin, and provides the information to the Committee. When considering the data, the Committee generally targets each component of compensation to the median range for a comparable position. The Committee considers the median range to generally be 90%-110% of our comparator group median. The Committee sphilosophy is to target executive compensation to the median range of our comparator group, and seeks to drive company financial performance that is in the upper quartile of our comparator group. In the Committee sjudgment, annual

budgets and financial targets are set with sufficient difficulty to produce performance above the median level with the intent of shareowners receiving an above-average return on our company[]s investment in executive compensation.

The Committee may use its discretion to adjust one or more components of an executive team member some compensation within the median range of pay for a similar role in our comparator group. The Committee also may adjust a component of pay above or below the median range if, in its judgment, there are factors warranting the adjustment. Such factors may include alignment of the officer so position with the corresponding position in the Towers Perrin data, experience and value he or she brings to the role, sustained high-level performance, demonstrated success in meeting key financial and other business objectives and the amount of the officer spay relative to the pay of his or her peers within our company. The differences in compensation levels among our executive team members, including our proxy officers, are primarily attributable to the differences in the median range of compensation for similar positions in our comparator group data and the Committee sassessment of each position sinternal value for our company.

2008 Fiscal Year. When the Committee first approved our comparator group, our revenues were less than the group median revenue. Our revenue growth changed our position relative to the group median revenue; however, our revenue was still below the median range of the group. Therefore, the Committee instructed management to adjust the compensation data for our executive team members based on our overall revenue (or on the appropriate revenue scope for a particular position) as compared to the revenues of our comparator group companies. The Committee determined that when transitioning to our new comparator group, if any component of an executive team member compensation was below the median range for a comparable position, the Committee would make upward adjustments over time. The Committee also determined that if any component

22 2008 PROXY STATEMENT MONSANTO COMPANY

of compensation was above the median range, there would be no downward adjustment, but future increases would be less. For our 2008 fiscal year, data for Ashland Inc. and St. Jude Medical Inc. were not available through Towers Perrin when our analysis was done; therefore, the Committee did not consider their data in its decisions.

In collecting the comparator group data for the Committee, management benchmarked each officer sposition against like positions for our comparator group in the Towers Perrin database. The Committee was provided data at the 25th, 50th and 75th percentiles for each position and for each pay component. The data was adjusted, generally using regression analysis, to adjust for differences in revenue scope for each position relative to comparator company positions. For example, data for our CEO and CFO positions were adjusted based on total corporate revenues, and data for our business area executive vice president was adjusted based on the revenues of the associated business area. Where information for one of our positions was not available within our comparator group data, but was available from the broader Towers Perrin database, we used the general industry data and adjusted for revenue size. Information for base salary and annual incentive award opportunities were also adjusted upwards, generally by 4% per annum, to bring the data forward to the midpoint of the following year to account for the timing of the data collection. Based on market trends, no timing adjustment was made to data for long-term incentive opportunity values.

Our executive team members actual annual incentive award payments and value realized from long-term incentive awards are based on company performance, individual performance, and our stock price. In our 2008 fiscal year, the amount of executive team members annual incentive award payments and value realized from long-term incentive awards (equity grants) exceeded our estimates of target median levels for these types of pay within our comparator group. This was due to our exceptional operating performance and stock price performance during our 2006, 2007 and 2008 fiscal years and was in line with our pay for performance philosophy and compensation program objectives.

2009 Fiscal Year. For 2009 fiscal year compensation, our executive team members base salary, target annual incentive award opportunities and long-term incentive opportunity values will continue to be targeted to the

median range of compensation for comparable positions in our comparator group as described above. However, due to the growth in our revenue and earnings since our new comparator group was established in 2006, the total compensation and certain pay components for a number of our officers had been in the lower end of the median range of our comparator group (as discussed below). Therefore, the Committee has been increasing the specific pay components to better align with the targeted competitive level and to reflect the expanded scope of responsibilities associated with our company\(\perp\) s growth.

Components of Our Executive Compensation Program for Our Proxy Officers

Each year, the Committee considers the design of our executive compensation program and its individual components over the course of several meetings. In October, the Committee determines executive team members overall compensation for the then-current fiscal year and the individual components and amounts of pay, each targeted to the median range of our comparator group. When making these compensation decisions, the Committee considers our comparator group data, tally sheets and wealth accumulation analyses (described above).

BASE SALARY Overview

Base salary is used to provide each proxy officer a set amount of money during the year with the expectation that he will perform his responsibilities to the best of his ability and in the best interests of our company. Base salary is evaluated in reference to the median base salary range of comparable positions in our comparator group, adjusted to reflect our size or such other factors as determined by the Committee in its discretion as discussed above. While compensation decisions for each component of pay are made by the Committee in

23 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

October of each year, base salary increases are generally made effective for the subsequent calendar year to align with the timing of base salary increases for the rest of our company semployees.

Annualized Base Salary for Our Proxy Officers

The [Summary Compensation Table] at page 40 sets forth the base salary earned by each proxy officer for our 2008 fiscal year. The following information summarizes each proxy officer annualized base salary for the calendar years falling within our 2008 and 2009 fiscal years. The rationale for each is described below.

	Annualized Base Pay Calendar	Annualized Base Pay		Annualized Base Pay	
Name	Year 2007	Calendar Year 2008	Percentage Increase	Calendar Year 2009	Percentage Increase
Hugh Grant	\$1,144,000	\$1,355,000	18.4%	\$1,403,780	3.6%
Terrell K. Crews	540,000	565,000	4.6%	590,000	4.4%
Brett D. Begemann	470,000	515,000	9.6%	540,000	4.9%
Carl M. Casale	510,000	530,000	3.9%	550,000	3.8%
Robert T. Fraley, Ph.D.	550,000	575,000	4.5%	600,000	4.3%

Setting Base Salary for Our CEO

2008 Fiscal Year. In October 2007, the Committee reviewed Mr. Grant[]s base salary to consider any changes effective for the 2008 calendar year. The Committee reviewed relevant data for the chief executive officer position relative to our comparator group. The Committee found that given our rapid rate of growth, in addition to our current revenue and market capitalization, Mr. Grant[]s annual base salary remained well below the median range of base salary for chief executive officers in our comparator group. The Committee considered Mr. Grant[]s sustained high level of performance since assuming the role of CEO, his developed skills and abilities critical to the success of our company and the Committee[]s philosophy of paying our officers at the median range of our comparator group for similar positions. The Committee also considered the retention value of bringing Mr. Grant[]s salary to the median of the comparator group given his and our company[]s extraordinary performance during our 2007 fiscal year. Based on these factors, the Committee determined to increase Mr. Grant[]s annual base salary to the median range of annual base salary for chief executive officers in our comparator group, effective for the 2008 calendar year, so that his salary would better align with the market.

2009 Fiscal Year. In October 2008, the Committee again reviewed Mr. Grant so base salary to consider any changes effective for the 2009 calendar year. The Committee reviewed relevant data for the chief executive officer position relative to our comparator group, and determined that Mr. Grant salary was within the median range for his role within our comparator group. Given Mr. Grant scontinued very high level of performance, and the Committee philosophy of paying our officers within the median range of our comparator group for similar positions, the Committee determined to provide Mr. Grant a salary increase in line with the general market trend percentage increase in order to keep his salary in the median range of our comparator group.

Setting Base Salary for Our Other Proxy Officers

The Committee targets each executive team member s base salary to the median range of base salary for a similar role in our comparator group. The specific considerations for each pay decision are as follows:

◆ Mr. Crews: For calendar year 2008, the Committee reviewed relevant data for chief financial officer positions in our comparator group; however, our comparator data was adjusted upward to reflect Mr. Crews
☐ additional business operating responsibility during our 2008 fiscal year as chief executive office of our Seminis vegetable seeds business, in addition to his CFO responsibilities. For calendar year 2009, the Committee used the same market comparison to evaluate Mr. Crews
☐ base salary. Given that his

24 2008 PROXY STATEMENT MONSANTO COMPANY

salary was somewhat below the median range of our comparator group, the Committee determined to provide him a percentage increase slightly larger than the general market trend to bring his salary more in line with the median range for similar roles within our comparator group.

- ♦ Mr. Begemann: For the 2008 calendar year, our comparator group data was adjusted upward to reflect Mr. Begemann: S 2008 fiscal year new assignment managing our global row crops commercial operation. The Committee determined to provide him a larger than market trend percentage increase to reflect his increased responsibilities and to bring his base salary more in line with the targeted median range for his new role. For calendar year 2009 base salary, the Committee again used the same market comparison to evaluate Mr. Begemann: S salary. Given the growth of our global row crop commercial business undehis responsibility, the Committee determined to provide him a percentage increase slightly larger than the general market trend to bring his salary more in line with the median range for his position within our comparator group.
- ◆ Mr. Casale: For calendar year 2008, our comparator group data was adjusted given Mr. Casale so 2008 fiscal year new assignment managing global strategy, manufacturing and information technology. His base salary increase was in line with the market trend percentage increase since his base salary was already

appropriately positioned within the median range. For calendar year 2009 base salary, the Committee again used the same market comparison to evaluate Mr. Casale\[\] salary. Given that his salarywas appropriately positioned in comparison to the median range for his position within our comparator group, the Committee determined to provide him a salary increase in line with the market trend percentage increase.

◆ *Dr. Fraley:* The compensation data used to determine Dr. Fraley□s compensation is based on a subgroupof technology-based companies from our comparator group. Those companies are: Abbott Laboratories, Allergan Inc., Amgen Inc., Baxter International Inc., Boston Scientific Corp., Bristol-Myers Squibb Co., Eli Lilly and Co., Forest Laboratories Inc., Genentech Inc., Genzyme Corp., Gilead Sciences Inc., Medtronic Inc., Schering-Plough, and Wyeth. These companies better represent Dr. Fraley□s role withirour organization, technology□s impact on our business and the market in which the company compete∮or scientific talent. When setting Dr. Fraley□s 2008 calendar year base salary, the Committee determined oprovide him a percentage increase larger than the general market trend to bring his salary more in line with the median range of his comparator group. When setting his calendar year 2009 base salary, the Committee again used the same market comparison to evaluate Dr. Fraley□s salary. Given that his salarywas somewhat below the median range for his comparator group, the Committee determined to provide him a percentage increase slightly larger than the general market trend to bring his salary more in line with the median range for his position within the comparator group.

ANNUAL INCENTIVE PLAN Overview

Our broad-based annual incentive plan is intended to focus our organization on meeting or exceeding key business targets by working both individually and as teams to achieve stated goals, and reward employees for financial and operational performance that drives shareowner value. The plan provides employees, including our proxy officers, the opportunity to earn cash awards for company and individual performance achieved during the fiscal year performance period. Our proxy officers and other regular employees, except those who participate in a sales or manufacturing annual incentive plan or specific business annual incentive plan, participate in the plan.

25 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

As more fully described in the narrative, the actual amount of money available for awards [] the award pool [] is based on overall plan funding. Each year, the Committee determines funding of the award pool based on its assessment of overall company performance during the fiscal year, measured against pre-established financial goals for:

- $_{\blacklozenge}$ Net sales \square 10% of the funding opportunity;
- ♦ Earnings per share (EPS) ☐ 50% of the funding opportunity; and
- ◆ Cash flow ☐ 40% of the funding opportunity.

The award pool is then allocated to each participant based on:

- ♦ the participant

 s annual incentive award opportunity for the fiscal year;
- the performance of the participant susiness or function measured against business or function goals; and
- ♦ the participant

 is individual performance during the year, measured against individual goals.

Although actual performance measured against pre-established goals is the key component in determining both company and individual performance, the Committee may exercise discretion when determining whether company and/or a proxy officer\sigma individual goals have been attained.

Additionally, under our shareowner-approved Code Section 162(m) Annual Incentive Program for Covered Executives, which we refer to as our <code>Code 162(m)</code> Program, our proxy officers other than our CFO are eligible for an annual incentive plan award only if the Committee certifies that the net income performance goal it established under our Code Section 162(m) Program has been attained. Each year, the Committee establishes our company net income performance goal either before or within the first 90 days of the beginning of each fiscal year performance period, and considers and certifies our company performance against the net income goal at its October meeting following the close of the fiscal year performance period. Also under the terms of the Code Section 162(m) Program, the maximum award amount a proxy officer covered by the Program may receive is three quarters of one percent (.75%) of corporate net income for the applicable performance year. For purposes of determining attainment of the corporate performance goals and the proxy officer smaximum award amount, the Committee considers company net income for the fiscal year performance period as defined in the Code Section 162(m) Program. As permitted by our Code Section 162(m) Program, the Committee uses its discretion to reduce this maximum award amount to the amount of the award the Committee determines for the proxy officer under the terms of our annual incentive plan for the fiscal year.

2008 Fiscal Year Annual Incentive Plan Design, Financial Goals and Funding

Plan Design and Goals. The design of our 2008 fiscal year annual incentive plan, including its metrics, was the same as for our previous year plans. The Committee discussed the plan design at its June and August 2007 meetings. At the request of the Committee, our internal people committee provided input that in its judgment, the design continued to meet the plan intended purpose. The Committee determined that the plan net sales, EPS and cash flow metrics and relative weightings, continued to focus the organization on desired performance for the following reasons:

- Net sales measures the growth of the business, both organically and through acquisitions, and provides an indication of future success. Because margin growth tends to be more important to our business as a technology-based company than net sales, net sales is a smaller part (10%) of the total annual incentive value.
- ♦ EPS sets the expectation for our shareowners of our company success. We believe shareowners use EPS as the key accounting measure and evaluation of how our company is performing; therefore, EPS encompasses half (50%) of the plan soverall funding opportunity.
- ♦ Cash flow, which is a significant part (40%) of the plan s funding opportunity, measures the true value of our business. Our ability to translate earnings to cash indicates the health of our business and allows our company to invest for the future of the business as well as return value to shareowners.

26 2008 PROXY STATEMENT MONSANTO COMPANY

The metrics for determining performance against goals follow generally accepted accounting principles; however, the Committee may consider certain items or events as extraordinary when determining the company performance against EPS and cash flow goals, as discussed on page 46, and make what it deems to be appropriate adjustments.

Plan Financial Goals. At its August and October 2007 meetings, the Committee considered target-level performance goals for each of the plan metrics, and the anticipated cost of the plan at target-level funding. The target-level goals were equal to our company ≥ 2008 fiscal year budget approved by our board of directors. The Committee felt that the target goals represent above median level of difficulty and considerable growth over our actual 2007 fiscal year results. Each of the target-level goals is set out in the table below. The Committee also considered and established threshold and outstanding level performance goals for each metric focusing attention on demonstrated growth and an increased level of difficulty compared to the performance goals for our 2007 fiscal year annual incentive plan. The Committee set outstanding levels of performance for each metric at proportionately higher levels relative to target-level performance than for our 2007 fiscal year annual incentive plan, thus believing achievement of the outstanding level for funding of the plan incentive pool would be relatively more difficult to attain. The Committee set the threshold EPS performance goal at the actual 2007 fiscal year

result, requiring us to achieve double-digit growth to achieve target-level performance and further significant growth for us to achieve the outstanding level of performance. The Committee set net sales and cash flow goals in line with the EPS goal, taking into account use of cash for business investment purposes.

Plan Funding. At its October 2008 meeting, the Committee reviewed our actual 2008 fiscal year financial results, and considered our company performance against the plan performance goals and other performance factors to determine funding of the plan saward pool. Our CEO and executive vice president of human resources, based upon financial information provided by our CFO, provided the Committee an assessment of our financial results measured against the plan sgoals. They recommended a 200% funding factor for the Committee to consider in determining the funding of the annual award pool for all participating employees, including our proxy officers, with an additional \$5 million to recognize especially high performers. The Committee determined to fund the incentive pool as recommended, resulting in approximately a 205% total funding factor when considering the additional amount allocated for high performers.

The Committee also reviewed our company sactual 2008 fiscal year financial results against the net income performance goal it had established for our 2008 fiscal year performance period for purposes of our Code Section 162(m) Program and compliance with Code Section 162(m). The Committee determined that the goal had been met, that each of our proxy officers would be eligible for the awards as determined under our 2008 fiscal year annual incentive plan, and that the awards are fully deductible by our company. In considering each proxy officer sactual annual incentive award as discussed in the next section of this CD&A, the Committee also determined that the award to each proxy officer was substantially lower than the maximum award amount that may be received by a proxy officer covered by our Code Section 162(m) Program.

Summary of 2008 Fiscal Year Annual Incentive Plan Goals and Actual Results

The following chart shows our 2007 fiscal year actual financial results, the net sales, EPS and cash flow goals at target-level performance for our 2008 fiscal year, and the actual, outstanding-level performance our company achieved for our 2008 fiscal year.

	2007 Fiscal Year Financial	2008 F Target-Level	iscal Year Financial
Financial Metrics	Results (Using Plan Definitions)	Goals (100% Funding)	Results (Using Plan Definitions)
Net sales (Millions)	\$8,563	\$9,273	\$11,365
EPS	\$2.00	\$2.20	\$3.64
Cash flow (Millions)	\$1,257	\$875	\$1,700

27 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

- ♦ The Committee had established threshold and outstanding performance goals as a percent of the target-level performance for each metric, as follows: net sales, 95% and 107%; EPS, 91% and 114%; and cash flow, 85% and 120%.
- ♦ The Committee also had determined that for purposes of determining company performance against the financial goals, financial metrics follow generally accepted accounting principles, with adjustments for certain items the Committee considers extraordinary as set forth in the description of our annual incentive plan at page 46.
- Our actual financial results using plan definitions for the 2007 fiscal year have been recast to conform with the 2008 fiscal year presentation for comparability purposes.

Annual Incentive Opportunity and Award for Our CEO

Target Opportunity. At its October 2007 meeting, the Committee met in executive session and set Mr. Grant sindividual performance goals for our 2008 fiscal year. His goals were derived from our annual and long-term plan and included financial, strategic and operational items. Mr. Grant so goals also served as the organizational goals for the other proxy officers and executive team members. Under the terms of the plan, meeting, exceeding or falling short of an identified individual performance goal is considered one factor among many in evaluating the year sperformance. The Committee has discretion to consider actual performance and other factors it considers relevant when evaluating our CEO sperformance against goals.

For our 2008 fiscal year, the Committee increased Mr. Grant starget annual incentive award opportunity from 100% of base salary to 120% of base salary to be in line with the median range for chief executive officers in our comparator group. Mr. Grant starget opportunity as a percentage of his base salary is higher than that of our other proxy officers to reflect his larger job scope and responsibilities, as well as the median range of pay of chief executive officers in our comparator group of companies.

Actual Incentive Award. At its October 2008 meeting, the Committee met in executive session to discuss Mr. Grant[]s performance. The Committee evaluated Mr. Grant[]s performance against our 2008 fiscal year corporate goals and objectives and determined that Mr. Grant[]s performance was exemplary as demonstrated by the company[]s outstanding fiscal year 2008 financial performance and strategic positioning for future growth. Mr. Grant[]s award was reflective of funding for our executive team members.

Annual Incentive Opportunities and Awards for Our Other Proxy Officers

Target Opportunities. In October 2007, the Committee, with input from our CEO and the executive vice president of human resources, determined the 2008 fiscal year annual incentive opportunity for each proxy officer. Each proxy officer annual incentive opportunity was set at 70% of base salary based on the median range of target annual incentive opportunity values for comparable positions in the comparator group.

Actual Incentive Awards. During its October 2008 meeting, the Committee discussed and determined our other proxy officers awards under our 2008 fiscal year annual incentive plan. Our CEO discussed with the Committee the individual performance considerations impacting his award recommendations as highlighted below:

- ♦ Mr. Crews: The company signal financial position has been extremely well managed allowing the company to fund growth and return cash to shareowners while maintaining a low debt to equity ratio. The vegetable business, for which Mr. Crews is also responsible, improved its financial performance year-over-year and well exceeded its target level goals.
- ♦ *Mr. Begemann:* The global commercial row crops organization delivered results in excess of outstanding levels for fiscal year 2008 and positioned the organization for future growth.
- ◆ **Mr. Casale:** During fiscal year 2008, Mr. Casale made significant progress in positioning the company for future growth through acquisitions as well as growth of our current businesses.

28 2008 PROXY STATEMENT MONSANTO COMPANY

◆ Dr. Fraley: Successful new biotechnology trait launches, new technology agreements and significant pipeline advancements have positioned Monsanto for future growth.

Summary of 2008 Fiscal Year Annual Incentive Awards for Our Proxy Officers

The actual annual incentive awards to our proxy officers based on company, business or function, and individual performance were as follows:

		Award Opport	unity	
		Target	At Outstanding	
		formance	Performance	A -4 I A
	(100% of Base	% Funding)	(200% Funding)	_Actual Award
Name	Pay	Dollar Amount	Dollar Amount	Amount
Hugh Grant	120%	\$1,626,000	\$3,252,000	\$3,326,796
Terrell K. Crews	70%	395,500	791,000	800,000
Brett D. Begemann	70%	360,500	721,000	750,000
Carl M. Casale	70%	371,000	742,000	780,000
Robert T. Fraley, Ph.D.	70%	402,500	805,000	840,000

2009 Fiscal Year Annual Incentive Plan

Plan Design and Goals. The design of our 2009 fiscal year annual incentive plan for the September 1, 2008 through August 31, 2009 performance period is the same as the design of our 2008 fiscal year annual incentive plan. The funding of the plan will again be determined by the Committee. The financial goals were set in the same manner as described for our 2008 fiscal year. The Committee set outstanding levels of performance for each metric at proportionately higher levels relative to target-level performance than for our 2008 fiscal year annual incentive plan, thus making achievement of the outstanding level for funding of the plan incentive pool relatively more difficult to attain. The Committee set the threshold EPS and Cash Flow performance goals at the actual 2008 fiscal year result, requiring us to achieve double-digit growth to achieve target-level performance and further significant growth for us to achieve the outstanding level of performance. The Committee set net sales in line with the EPS goal.

Target Opportunity for Fiscal Year 2009. In consideration of the Committee sphilosophy to position target incentive opportunity at the median of the market in comparison to the comparator group, the Committee determined to increase Mr. Grant sannual incentive opportunity for fiscal year 2009 to 125% of his base salary to be in line with the median of the market. The Committee increased each other proxy officer starget annual incentive opportunity from 70% of base salary to 80% of base salary to be in line with the median range for similar roles in the comparator group, given our company growth. Each proxy officer has individual performance goals intended to drive both total company results and the portion of the organization for which he is directly responsible, all aligned towards meeting our company financial goals and strategic objectives. For our 2009 fiscal year, the Committee believes each proxy officer individual goals are again aligned with the company financial results as well as the more specific initiatives for which each is responsible.

LONG-TERM INCENTIVE COMPENSATION

Overview

Our long-term incentive program covers all of our management employees. The program uses equity-based awards to provide a link between management employees compensation and our stock price. It also rewards management for achieving financial goals that improve company performance and thereby increase shareowner value.

29 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

Types of Equity Grants For Our Executive Team Members, Including Our Proxy Officers

Management employees other than our executive team members receive their long-term incentive opportunity awards all in the form of stock options. Our executive team members, including our proxy officers, receive the long-term incentive opportunity component of their compensation in the form of stock options and performance-RSUs.

For 2008 fiscal year compensation, the Committee determined to again provide executive team members long-term incentive opportunity values in the form of equity-based awards, weighted as follows: 75% in the form of stock options and 25% in the form of performance-RSUs. The Committee stock determination was based on the following:

- ♦ stock options provide compensation based solely upon increases in our stock price, while performance-RSUs provide compensation based both upon the achievement of specific financial goals and stock price; and
- comparisons with respect to the proportion of stock options and restricted stock or restricted stock units within our comparator group market.

Stock options reward our officers for increases in our stock price. Because stock options have no value unless our stock price increases, they encourage what the Committee believes is an appropriate amount of risk-taking; and because they are generally exercisable only after a period of service, they help us retain executives. Performance-RSUs, on the other hand, bring into play a number of other incentives for our proxy officers and other executive team members. Their vesting and value is dependent not only on continued service and increases in our stock price, but also on company performance over successive two-year periods measured by EPS, cash flow and return on capital. The Committee believes that by making a grant of performance-RSUs to our executive team members every year, with vesting tied to financial performance over a two-year period and continued service over a three-year period, and with the ultimate value delivered also dependent upon the value of our stock, our officers are given a powerful incentive to focus on long-term, sustained improvement in company performance and shareholder value.

The terms and conditions of our 2008 fiscal year stock option grant to management employees, including our proxy officers, are described on page 47. The terms and conditions of our 2007 and 2008 fiscal years performance-RSUs to our proxy officers and other executive team members are described on pages 47-48.

How the Committee Determines Equity Grant Sizes

To determine the size of equity-based awards, the Committee first determines the total number of shares that will be made available for equity-based award grants for all management employees for the fiscal year. The Committee makes this determination by evaluating the potential dilution to shareholders and cost to our company, and by:

- ◆ reviewing data from both general industry and biotechnology companies to determine median proportions of companies total shares outstanding typically used for annual employee long-term compensation programs;
- ◆ comparing the value of anticipated grants for the fiscal year to those of our comparator group, using our then-current stock price; and
- ◆ reviewing the projected expense impact on our company

 s earnings for the anticipated fiscal year grants and outstanding grants from prior years.

The Committee then determines the value of each executive team member solong-term incentive awards for the fiscal year. In determining the values, the Committee considers our comparator group data for similar positions, with consideration then given to the strategic value of the officer sole to our company, as described below.

The Committee does not consider an officer outstanding equity awards or stock ownership levels when determining the value of the long-term incentive award component of his compensation since it considers outstanding equity awards represent compensation for past services.

The Committee targets executive team members long-term incentive award values to the median range for comparable roles within the group. These target values were used in establishing our officers 2008 fiscal year and 2009 fiscal year long-term incentive award values.

Each officer s long-term incentive award value is converted into specific equity grants as follows:

- ♦ **Stock Options:** 75% of his long-term incentive award value is converted to a number of stock options by dividing the value by the estimated Black-Scholes value of our stock on the grant date (equal to 40% of the fair market value of a share of our stock).
- ◆ **Performance-RSUs:** The remaining 25% of his long-term incentive award value is converted to a number of performance-RSUs by dividing the value by the fair market value of a share of our stock on the grant date. This number represents the number of performance-RSUs that will vest if all performance goals are met at the target performance level; the actual number that will vest may be as high as 200% if outstanding performance on all performance goals is achieved, or as low as zero, if the minimum performance is not achieved.

Proxy Officer 2008 and 2009 Fiscal Year Long-Term Incentive Award Values

The long-term incentive award values for each proxy officer at the time of grant for our 2008 and 2009 fiscal years are as follows:

	Long-Term (Val	• •
Name	2008	2009
Hugh Grant	\$6,935,000	\$7,500,000
Terrell K. Crews	1,700,000	1,900,000
Brett D. Begemann	1,300,000	1,500,000
Carl M. Casale	1,500,000	1,500,000
Robert T. Fraley, Ph.D.	2,500,000	2,500,000

Fiscal Year 2008 Long-Term Award Values: The Committee increased Mr. Grant 2008 fiscal year long-term incentive award value in order to set his long-term value at the median of the comparator group and to reflect the impact of our company growth. The Committee increased Mr. Begemann long-term incentive award value to keep the value within the median range of our comparator group, given his increased role. Mr. Grant long-term incentive award value is greater than that of our other proxy officers to reflect his greater job scope and responsibilities, as well as the median range of long-term opportunity values for chief executive officers in our comparator group of companies.

Fiscal Year 2009 Long-Term Award Values: The Committee increased Mr. Grant □s 2009 fiscal year long-term incentive award value in order to position his long-term award value within the median range of our comparator group and to again reflect the impact of our company □s growth. The Committee also increased Messrs. Crews □ and Begemann □s target long-term incentive award value to position their target long-term values within the median range of our comparator group, given our company □s growth. Mr. Grant □s long-term incentive award value is greater than that of our other proxy officers to reflect his greater job scope and responsibilities, as well as the Committee □s philosophy of paying our officers in the median range of our comparator group for similar positions.

31 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

Equity Grants to Our Proxy Officers

Options and performance-RSUs granted to our proxy officers on October 22, 2007 are included in the \[\] 2008 Grants of Plan-Based Awards \[\] table. The terms and conditions of the grants are more fully described in the narrative to that table. Options and performance-RSUs granted to our proxy officers on October 20, 2008 are included in the narrative following the table.

Performance-RSU Design, Financial Goals and Vesting

Plan Design and Metrics. The Committee regularly reviews the design of the performance-RSUs, including their metrics, to assure that the grants continue to meet the Committee objectives. The design of the performance-RSUs is described on pages 47-48 in the narrative following our □*Grants of Plan-Based Award* ble. When considering the design of performance-RSUs for the fiscal years 2007, 2008 and 2009 grants to our proxy officers and other executive team members, the Committee determined that EPS, cash flow and return on capital metrics, equally weighted, are the most appropriate metrics for the performance-RSUs for the following reasons:

- ♦ We believe EPS is used by our shareowners as the key accounting measure to evaluate our performance, and it sets our shareowners expectations for our success.
- Cash flow measures the true value of our business. Our ability to translate earnings to cash indicates the health of our business and allows our company to invest for the future of the business as well as returning value to shareowners.
- ♠ Return on capital (ROC) is another key measure of our ability to return value to our shareowners. It replaces the net sales goal that is one of the metrics for our broad-based annual incentive plan. The ROC metric is used only in performance-RSU grants to our proxy officers and other members of our executive team and not in cash and equity incentive awards to others, because this small group of executives makes the key decisions regarding our capital investments and acquisitions.

The metrics for determining performance against goals follow generally accepted accounting principles; however, the Committee may consider certain items or events as extraordinary when determining the company performance against EPS and cash flow goals, as discussed on page 46, and make what it deems to be appropriate adjustments.

Although performance-RSUs have been granted each year since our fiscal year ending August 31, 2004, each grant incorporates performance goals to be achieved over a two-year period and requires continued service for a period of up to three years. Thus, the performance-RSUs focus on long-term, sustained achievement. Each year, in establishing the goals for each performance metric, the Committee determines the levels of performance that will represent target performance based upon our long-range business plan at the time the performance-RSUs are granted. The Committee also considers and establishes threshold and outstanding performance levels for each goal. Each successive year soals build on the previous year sperformance which, in the Committee sjudgment, provides an increased level of difficulty as compared to the previous year soals.

The cash flow goal has varied depending on the anticipated amount of cash necessary to meet our current investment and capital requirements.

Vesting of Performance-RSUs for the Fiscal Year 2007 Grant. Performance-RSUs granted in October 2006 for our 2007 fiscal year grant incorporated cumulative performance goals for our 2007 and 2008 fiscal years. In October 2007, the Committee determined that actual performance as compared to the goals was at the outstanding level (200%).

The following chart shows the three goals at threshold, target-level and outstanding performance, and the actual, outstanding-level performance our company achieved. The goals for threshold-level performance and outstanding-level performance respectively were 90% and 110% of the goal for target-level performance. These awards will vest August 31, 2009, based on each officer sontinued service through that date.

			Performance	Metrics
		Financial Go	als	Financial
	Threshold Performance	Target Performance	Outstanding Performance	Results (Using Plan
2007 Fiscal Year Grant	(50% of Units)	(100% of Units)	(200% of Units)	Definitions)
Cumulative EPS	\$2.91	\$3.23	\$3.55	\$5.64
for fiscal years 2007 and 2008 (1/3 of Units)				
Cumulative cash flow (Millions)	\$1,508	\$1,675	\$1,843	\$2,957
for fiscal years 2007 and 2008 (1/3 of Units)				
Average ROC for fiscal years 2007 and 2008 (1/3 of Units)	11.8%	13.1%	14.4%	18.5%

→ The Committee also had determined that for purposes of determining company performance against the EPS and cash flow goals, financial metrics follow generally accepted accounting principles, with adjustments for certain items the Committee considers extraordinary as set forth in the description of our annual incentive plan at page 46. The ROC performance goal metric is determined as follows: earnings before interest and after taxes divided by average monthly total assets, less non-interest bearing liabilities, less excess cash (over \$125,000,000).

Performance-RSUs for the Fiscal Year 2008 Grant. Our fiscal year 2008 performance-RSUs granted in October 2007 incorporate cumulative goals for the fiscal year 2008 and 2009 performance period and have the same design, types of metrics and weighting of goals as for the fiscal year 2007 grant detailed above. In October 2007, the Committee established target-level goals for each performance metric based upon our long-range business plan at the time. The Committee again established threshold and outstanding performance level goals at 90% and 110%, respectively, of the target-level performance goals. At the time the goals were established, the Committee anticipated that given the growth required for our company to achieve target-level performance with respect to each metric, the goals would be difficult to attain. Achievement of the cumulative EPS and average return on capital goals require significant, double-digit growth from the corresponding cumulative goals for our fiscal year 2007 grant at each performance level. As noted in footnote 3 to the _Outstanding Equity Awards at Fiscal Year-End Table_at the top of page 50, based on our fiscal year 2008 performance and evaluation of likely performance against the fiscal years 2008 and 2009 cumulative goals, the company is incurring expense for financial reporting purposes on the assumption that it will achieve outstanding performance for the 2008 fiscal year grant of performance-RSUs. However, sustained performance at these levels is not guaranteed and these amounts could be reversed in future periods.

Performance-RSUs for the Fiscal Year 2009 Grant. Our fiscal year 2009 performance-RSUs granted in October 2008 incorporate cumulative goals for the fiscal year 2009 and 2010 performance period and have the same design, types of metrics and weighting of goals as the fiscal year 2007 and fiscal year 2008 grants detailed above. However, the definition of the ROC performance goal metric changed from the definition used in previous years so that the definition more closely aligns with the company saccounting practices and allows for the increase in excess cash on hand to sustain company operations. In October 2008, the Committee established target-level goals for each performance metric, which were in line with our budget for our 2009 fiscal year and the 2010 long-range business plan. Further, goals for fiscal year 2010 reflect significant growth over our fiscal year 2009 goals. The Committee again established threshold and outstanding funding levels at 90% and 110%, respectively, of the target-level performance goals. At the time the goals were established, the Committee

Executive Compensation continued

anticipated that given the growth required to achieve target-level performance, attainment of the goals would be difficult to achieve. Attainment of each of the goals at each performance level requires significant, double-digit growth from the corresponding cumulative goals for the fiscal year 2008 grant.

Other Arrangements, Policies and Practices Related to Our Executive Compensation Program

Grants of Restricted Stock or Restricted Stock Units as a Retention Tool

Occasionally, the Committee grants restricted stock or restricted stock units for the purpose of encouraging certain executives to remain with our company. In situations where our CEO determines that this type of award is necessary or appropriate for the continued success of one or more of our company[]s initiatives, long-range plan or overall retention, he discusses the rationale for the grant with our executive vice president of human resources to determine an appropriate value for the grant. (In the event our executive vice president of human resources is a grant recipient, our CEO works with another member of management to determine his grant values.) The recommendation is discussed with the Committee of management who provides input in preparation for making the recommendation to the Committee as well as input directly to the Committee chairperson. The terms and conditions of a grant of restricted stock to Mr. Crews, in January 2007, and a grant of restricted stock units to each of Mr. Begemann, Mr. Casale and Dr. Fraley, in October 2007, are described under []Grants of Plan-Based Awards[]beginning on page 42. Each grant was for retention purposes and associated with various changes made within our company for succession planning purposes.

Change-of-Control Employment Agreements

Our company has entered into employment agreements with our executive officers and certain other management employees that become effective upon a change of control of our company. The terms and conditions of the agreements are described beginning on page 56. The Committee believes that the agreements serve the interests of our company and its shareowners by ensuring that if a hostile or friendly change of control is ever under consideration, our executives will be able to advise our board of directors about the potential transaction in the best interests of shareowners, without being unduly influenced by personal considerations, such as fear of the economic consequences of losing their jobs as a result of a change of control. The Committee reviews the continued suitability of the agreements, the terms and provisions of the agreements and eligibility for the agreements at least annually. In October 2008, at the recommendation of the Committee, the board adopted technical amendments to the Agreements to comply with Code Section 409A.

Retirement and Welfare Benefits

The company provides our proxy officers and other executive team members with the same employee benefits as all our U.S. regular employees under our company broad-based plans. These benefits include tax-qualified and non-qualified pension and savings plans, health benefits, life insurance, and other welfare benefits. Base salary and regular annual incentive awards, but not long-term compensation or the value of perquisites, are treated as eligible pay under the terms of our U.S. pension and savings plans. In the U.S., the company sponsors tax-qualified pension and savings plans, as well as non-qualified parity pension and savings plans providing benefits to all employees whose benefits under the tax-qualified plans are limited by the Code. The company does not provide executive officers with any special retirement benefits that are not provided to other employees, other than the Executive Medical Plan described on page 41. The Committee adopted the plan to encourage our executive team members to maintain or improve their health and productivity. Mr. Grant participates in our Third Country National (CTCN) Retirement Plan, which from January 1, 1983, to October 31, 2002 was our regular, non-qualified pension plan designed to protect retirement benefits for employees who were transferred to another country at the organization request. The provisions of the plan are described in footnote 4 to out pension Benefits Tablet Tablet 100 page 54. In August 2008, the Committee amended the TCN Retirement Plan so that it would comply with Code Section 409A with respect to Mr. Grant. Effective August 5,

2008, Mr. Grant no longer is entitled to a pension or death benefit under the plan, and any disability benefit for which he could become eliqible has been restructured to comply with Code Section 409A.

Perquisites

The company provides our proxy officers and other executive team members with a limited number of perquisites. Perquisites provided to our proxy officers are described in the narrative introducing our []All Other Compensation Table[]on page 41. Perquisite values are not considered for purposes of determining any annual incentive award, retirement benefit or any other benefit payment.

Equity Grant Practices

The company makes equity grants under our shareowner-approved Monsanto Company 2000 Long-Term Incentive Plan or Monsanto Company 2005 Long-Term Incentive Plan. The grant date for equity grants is always on or after the date the Committee or its delegate approves the grants. The Committee spractice when approving annual grants had been to set a future effective date for the grants. During our 2007 fiscal year, the Committee amended our long-term incentive plans so that equity grants in our 2008 fiscal year and after, the grant date will be the day the Committee approves the grants. The grant price is set on the effective date of the grant. The Committee and its consultant review its grant date practices for stock options, restricted stock unit and other equity awards to assure that our grant practices are aligned with what they believe constitute best practice guidelines.

Determination of Option Exercise Prices

Stock options are granted with an exercise price equal to the <code>[fair market value]</code> of a share of our common stock on the grant date. Under our long-term incentive plans, as amended in October 2006, the <code>[fair market value]</code> is the closing price on the grant date for grants since that date.

Timing of Regular Equity Grants

Since the change in our fiscal year effective September 1, 2004, the Committee has approved the individual components of our annual executive compensation program, including stock option and restricted stock unit grants at its regularly-scheduled October meeting. Our annual earnings announcements are typically in early October; accordingly, the Committee schedules its meeting later that month so that earnings information will have been broadly disseminated. Prior to the 2008 fiscal year, the Committee approved the grants for a grant date occurring on the last Thursday or Friday in October. Beginning in the 2008 fiscal year, again to simplify required executive compensation disclosure based on the new SEC reporting rules, the Committee approved the grants with a grant date the same as the approval date. In addition to annual equity grants, stock option grants are made to management employees who are hired or promoted during the period between annual grants, representing a pro-rata portion of the number of shares (or increased number of shares) warranted by their new positions. Under the rules the Committee has established for these grants, grants are made on the 15th day of each month at the fair market value on that date. Any equity grant to one of our new or existing executive officers is approved by the full Committee with a grant date on the approval date.

Deductibility of Compensation

Our company intends to comply with the requirements of Code Section 162(m), to the extent practical, with respect to options and annual and long-term incentive programs in order to avoid losing the deduction for compensation in excess of \$1 million paid to our CEO and three other highest-paid executive officers other than the CFO. Compensation plans have generally been performance-based so that payments under those plans and arrangements are tax deductible. The plans or performance measures have been approved by our company[]s shareowners. However, the Committee may elect to provide compensation outside those requirements when

necessary to achieve its compensation objectives. No exceptions were made to this policy in our 2008 fiscal year.

35 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

Recoupment Policy

In order to further align management∏s interests with the interests of shareowners and support good governance practices, our board of directors has adopted a recoupment policy applicable to annual incentive awards, performance-RSUs and other performance-based compensation to those executive team members who most directly influence our financial performance (including our proxy officers, Messrs. Grant, Crews, Begemann and Casale and Dr. Fraley), effective for our 2007 fiscal year and later performance period awards. Our board of directors adopted the recoupment policy based upon the Committee∏s recommendation, which was developed over the course of several meetings. The policy generally provides that in the event our company is required to prepare an accounting restatement due to our company material noncompliance with any financial reporting requirement under the securities laws as a result of misconduct (as determined by the members of our board of directors who are considered \sqcap independent \sqcap for purposes of the listing standards of the NYSE) certain award repayment would be required. Specifically, each of our officers covered by the policy must reimburse the company for any incentive award made to him or her on the basis of having met or exceeded specific targets for performance periods occurring in whole or in part during the 12-month period following the first public issuance or filing with the SEC (whichever first occurs) of the financial document. At its October 2008 meeting, at the recommendation of the Committee, our board of directors amended the recoupment policy to reflect one additional executive team member and Mr. Crews

change in title. A copy of our current policy is filed as Exhibit 10.27 to our annual report on Form 10-K for the fiscal year ended August 31, 2008.

Executive and Director Stock Ownership Requirements

The Committee believes that an important aspect of our total rewards program is significant stock ownership by senior executives, which aligns their interests with those of shareowners. Accordingly, the company has stock ownership requirements for each of our executives who are a party to a change of control agreement with us and for our non-employee directors. The stock ownership requirements for our executives are calculated as a set number of shares using the ownership requirement multiple as shown below and the executive calendar year annual base salary as of a set date, and the stock price as of a set date. The ownership requirement remains at that share level until the Committee determines that a re-calibration is appropriate for all executives subject to the policy, based on each executive sthen-current base salary and stock price.

The stock ownership requirements for all of our executives subject to the policy, including our proxy officers, were last re-calibrated as of June 27, 2006, based on each executive sthen-current calendar year base salary and stock price. The stock ownership requirements for our proxy officers are as follows:

	Multiple of Base		
	Salary Used to		Number of Shares
	Determine Ownership	Number of Shares	Owned as of
		Required to	Owned as or
Name	Requirement	Own	8/31/08
Hugh Grant	5	143,509	391,510
Terrell K. Crews	3	39,922	94,407
Brett D. Begemann	3	35,616	60,695
Carl M. Casale	3	38,356	43,270
Robert T. Fraley, Ph.D.	3	41,096	117,889

The stock ownership requirements for the eight other of our executive team members is three times their base pay as of June 27, 2006, or the date they became subject to the requirements, and for the 26 other covered executives, one times annual base pay as of June 27, 2006, or the date they became subject to the requirements.

The stock ownership requirement for each of our non-employee directors is 10,000 shares.

36 2008 PROXY STATEMENT MONSANTO COMPANY

The following shares count towards meeting the policy sownership requirements:

- ♦ Shares held by the individual or his or her spouse (including jointly), including all vested deferred shares held by directors as payment of annual fees and shares held in revocable trusts funded by the individual (or his or her spouse) and for which the individual or spouse serves as a trustee;
- ♦ Shares held pursuant to our Savings and Investment Plan or share equivalents under our ERISA Parity Savings and Investment Plan and Deferred Payment Plan;
- ♦ Shares held in an individual retirement account (including accounts of spouses);
- Grants of restricted stock, or restricted stock units, to newly hired executives prior to September 1, 2008;
 and
- ♦ Performance-RSUs granted to executives prior to September 1, 2008, once the performance criteria have been met.

The following shares do not count towards meeting the policy sownership requirements:

- ◆ Stock options, whether vested or unvested;
- ♦ Restricted stock or restricted stock units (except as described above); and
- ♦ Performance-RSUs before the performance determination against goals has been made by the Committee (except as described above).

During our 2008 fiscal year, until an executive or director has met his or her stock ownership requirement, he or she must retain 50% or 75% (depending on existing ownership) of the net-after tax number of shares received upon exercise of a stock option, vesting of restricted stock or settlement of performance-RSUs or other equity-based award granted under our long-term incentive plans. For this calculation, it is assumed that taxes are paid at the highest marginal rate. The stock ownership requirements were amended effective as of September 1, 2008 to require executives who have not met the requirements to retain 25% of the pre-tax number of shares received upon an exercise of a stock option, vesting of restricted stock or settlement of performance-RSUs or other equity-based award granted under our long-term incentive plans. The revised method for calculating the retention requirements is intended to simplify the holding calculation while maintaining comparable ownership requirements for executives.

The Committee reviews progress towards meeting the ownership requirements at least annually. As of the date of this proxy statement, each of our proxy officers and all but two of our directors has met his or her stock ownership requirements.

Derivative Trading Policy

Our company prohibits derivative transactions in our company stock. Specifically, executive officers and their families may not, at any time:

- ♦ trade in any puts, calls, covered calls or other derivative products involving company securities;
- engage in any hedging or monetization transactions with respect to company securities; and

hold company securities in a margin account or pledge company securities as collateral for a loan, provided, however, that our executive officers may pledge company securities as collateral for a loan obtained in connection with the exercise of stock options granted by our company. Any such loans must be made independent of any arrangements facilitated by us.

37 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

Report of the People and Compensation Committee

The people and compensation committee of our board of directors has reviewed and discussed with management the preceding Compensation Discussion and Analysis. Based on that review and discussion, the people and compensation committee recommended to our board of directors that the Compensation Discussion and Analysis be included in this proxy statement.

PEOPLE AND COMPENSATION COMMITTEE
C. Steven McMillan, Chair
John W. Bachmann
Gwendolyn S. King
William U. Parfet
November 20, 2008

Summary Compensation Table and Narrative Disclosure

The narrative, table and footnotes below describe the total compensation paid to each of our proxy officers for our 2007 and 2008 fiscal years. The components of the total compensation reported in the Summary Compensation Table are described below. For information on the role of each component within the total compensation package, see the description under [Compensation Discussion and Analysis] beginning on page 18.

Salary

This column represents the base salary earned during the 2007 and 2008 fiscal years by each of our proxy officers.

Stock Awards

This column represents the aggregate amount of compensation cost recognized in the respective fiscal year under FAS 123R for restricted stock, restricted stock units and performance-RSUs granted to each of the proxy officers in the current and prior fiscal years.

- ♦ For restricted stock, restricted stock units and performance-RSUs granted in fiscal years 2007 and 2008, fair value is calculated using the closing price of our stock on the date of grant.
- ♦ For performance-RSUs granted during our 2006 fiscal year, fair value is calculated using the average high and low price of our stock on the first business day immediately preceding the grant date.
- ◆ For performance-RSUs granted during our 2005 fiscal year, the fair value is calculated using the closing price of our stock on August 31, 2005 in accordance with implementation guidelines set forth under FAS 123R.

With respect to performance-RSUs, FAS 123R requires the company to evaluate the likelihood of the achievement of the different possible levels of performance in terms of the goals specified in the awards each quarter and incur expense based on the most probable outcome. Based on our evaluation at the end of our 2007 and 2008 fiscal years, we incurred expense at 200% of the number of performance-RSUs initially awarded for our 2005, 2006,

2007 and 2008 fiscal years. Performance will be evaluated at each reporting period, and changes in expected performance could cause this expense to be reversed in future periods. Amounts reported in this column do not factor in an estimate of forfeitures related to service-based vesting conditions. Additional information regarding the awards is set forth in the [Grants of Plan-Based Awards Table] on page 44 and the Outstanding Equity Awards at Fiscal Year-End Table] on page 49. Pursuant to the requirements of FAS 123R, restricted stock, restricted stock units and performance-RSUs are generally expensed pro rata over the vesting

38 2008 PROXY STATEMENT MONSANTO COMPANY

period of the grant. However, performance-RSUs are expensed pro rata over the two-year performance period with respect to individuals who will reach age 50 during the two-year performance period, including Mr. Grant, Mr. Crews and Dr. Fraley, rather than ratably over the three-year service period.

Option Awards

This column represents the aggregate amount of compensation cost recognized in the respective fiscal year under FAS 123R for option awards granted to each of our proxy officers in the current and prior fiscal years. However, amounts reported in this column do not factor in an estimate of forfeitures related to service-based vesting conditions. Additional information regarding the awards is set forth in the <code>Grants</code> of Plan-Based Awards Table on page 44 and the <code>Gutstanding Equity Awards</code> at Fiscal Year-End Table on page 49. The assumptions used in determining the fair value of the awards are set forth in Note 16 to our financial statements contained in our Annual Report on Form 10-K for the fiscal year ended August 31, 2007 and Note 18 to our financial statements contained in our Annual Report on Form 10-K for the fiscal year ended August 31, 2008. Options are expensed at an accelerated rate with respect to individuals age 48 or older, including Mr. Grant, Mr. Crews and Dr. Fraley, rather than ratably over the vesting period.

Non-Equity Incentive Plan Compensation

This column represents cash awards earned by our proxy officers during the respective fiscal year under the applicable annual incentive plan, which were paid in November of the subsequent fiscal year. Our annual incentive plans are discussed in further detail on page 46 and under [Compensation Discussion and Analysis Peginning on page 18.

Change In Pension Value and Nonqualified Deferred Compensation Earnings

This column represents the aggregate actuarial increase in the present value of benefits under all of our pension plans during the respective fiscal years for each of our proxy officers. The amounts were determined by using interest rate and mortality rate assumptions consistent with those used in our financial statements, as is set forth in the <code>|Pension Benefits Table|</code> beginning on page 54. This column also includes interest earned under our Deferred Payment Plan to the extent that it exceeds 120% of the applicable federal long-term rate. The Deferred Payment Plan is discussed in further detail under <code>|Non-Qualified Deferred Compensation Table|</code> beginning on page 56.

All Other Compensation

This column represents all other compensation for each proxy officer for the respective fiscal years not reported in the previous columns, such as company matching contributions to our savings and deferred compensation plans, gross-ups and the aggregate incremental costs of providing certain perquisites and benefits, as discussed below under |A|I Other Compensation beginning on page 41.

Executive Compensation continued

Summary Compensation Table

					Non-Equity	Change in Pension Value and Nonqualified Deferred		
Name and Principal		Salary	Stock Awards	Option Awards	Incentive Plan Compensation		All Other Compensation	Total
Position	Year	(\$) [*]	(\$)	(\$)	(\$)	(\$) ¹	(\$) ²	(\$)
Hugh Grant						_		
Chairman of the Board,	2008\$	1,286,019	\$3,922,320	\$6,419,620	\$3,326,796	Ē	\$644,503	\$15,599,258
President and Chief	2007	1,133,846	3,208,307	3,319,412	2,975,000		345,423	10,981,988
Executive Officer								
Terrell K. Crews								
Executive Vice President,								
Chief Financial	2008	556,827	1,534,836	1,063,443	800,000	\$129,874	156,597	4,241,577
Officer and Vegetable	2007	532,154	1,820,554	1,278,309	760,000	197,673	88,755	4,677,445
Business Chief								
Executive Officer 4								
Brett D. Begemann	2008	500,289	1,036,525	623,875	·		•	
Executive Vice President,	2007	466,846	493,498	515,905	650,000	113,560	59,729	2,299,538
Global Commercial								
Carl M. Casale	2000			050050	700.000	== 200		2 612 726
Executive Vice President,	2008	•	1,225,907	856,359	•	•	•	3,612,730
Strategy	2007	505,346	774,069	799,475	740,000	144,059	75,459	3,038,408
& Operations								
Robert T. Fraley, Ph.D.						107.040		
Executive Vice President	2008	566,827	, ,		•	•	•	
and Chief Technology Officer	2007	543,846	1,847,413	1,879,782	770,000	270,737	112,631	5,424,409

- 1 In addition to the aggregate change in pension value, this column includes interest earned under the company Deferred Payment Plan (which is set at the average Moody Baa Bond Index Rate in effect during the prior calendar year) to the extent that it exceeds 120% of the applicable federal long-term rate for the following proxy officers in 2007 and 2008: Mr. Crews, \$208 and \$360; Mr. Begemann, \$62 and \$167; and Dr. Fraley, \$4,856 and \$4,979.
- 2 Amounts in this column reflect the compensation set forth in the supplementary table below entitled All Other Compensation Table.
- 3 The actuarial present value of Mr. Grant s accumulated benefit under our pension plans decreased \$468,151 during the 2008 fiscal year. Mr. Grant has participated in our Third Country National (□TCN□) Retirement Plan since 1996. Mr. Grant year pension accrual under the TCN Retirement Plan was negative \$792,392. Mr. Grant 2008 fiscal year pension accrual under the other pension plans in which he participates, as set forth in the □Pension Benefits Table beginning on page 54, was \$324,241, resulting in an overall negative \$468,151 change in the present value of his accumulated pension value. The TCN Retirement Plan was amended, effective August 5, 2008, to terminate Mr. Grant s entitlement to a pension benefit and death benefit under the plan, and fix the amount of any annualized disability benefit at \$1,233,800 per year should he become disabled while employed by the company and prior to age 65.
- 4 During the 2008 fiscal year, Mr. Crews served as Executive Vice President and Chief Financial Officer from September 1, 2007 to October 23, 2007. From October 23, 2007 to August 5, 2008 Mr. Crews served as Executive Vice President, Chief Financial Officer and Seminis CEO. He was elected to his current position on August 5, 2008.

40 2008 PROXY STATEMENT MONSANTO COMPANY

All Other Compensation

The following table provides additional information on the amounts reported in the All Other Compensation column of the Summary Compensation Table for our 2008 fiscal year.

Company Contributions to Savings Plans

The company makes matching contributions for compensation contributed by participants under our Savings and Investment Plan, which we refer to as our [SIP,] and our SIP Parity Plan. For the January 1, 2007 [December 31, 2007 plan year, the company also made a special allocation with respect to eligible employees under each plan based on a uniform percentage of the employee [seligible pay for the year. The SIP is a tax-qualified defined contribution plan and our SIP Parity Plan is a non-qualified defined contribution plan under the Code. The company [smatching contributions and special allocation under the plans for each of our proxy officers for our 2008 fiscal year are set forth in the respective columns below. Information regarding the company matching contribution levels and special allocation are described under [] SIP Parity Plan[] on page 55.

Tax Gross-Ups

The company did not provide any tax gross-ups for the proxy officers in our 2008 fiscal year, other than for club dues for Mr. Grant who used the clubs for business-related purposes.

Perquisites

We provide only a few perquisites to our proxy officers, including:

- ◆ Limited personal use of our aircraft.
 - ♦ For security, our board of directors requires our CEO, Mr. Grant, to use company aircraft for both business and personal flights. Personal use of company aircraft by Mr. Grant is reported as a perquisite.
 - ♦ Other executives are occasionally permitted to use the aircraft for personal flights for extraordinary personal situations.
 - ◆ Personal travel by a guest or family member of an executive, even on a business trip, is considered a perquisite to the executive.
 - The incremental cost of company aircraft used for a non-business flight is calculated by multiplying the aircraft□s hourly variable operating cost by a trip□s flight time, which includes any flight time an empty return flight. Fixed costs that do not vary based on usage are not included in the calculation of direct operating costs. The company incurs minimal incremental costs for passengers who travel as the guest of executives traveling on the aircraft for business purposes.
 - We do not provide any gross-ups related to taxes on imputed income to the executives for personal use of our aircraft.
- ▲ Limited personal use of a company car and driver.
- Reimbursement for home security expenses for Mr. Grant.
- ♠ Annual club membership dues for Mr. Grant who uses the clubs for business-related purposes.
- ♦ Participation in our executive medical plan. The plan provides our executives the opportunity to obtain a comprehensive annual physical exam along with associated laboratory testing. The plan also covers related travel expenses including airfare, lodging and meals.

- When our board of directors holds a multi-day meeting to include a visit of a company facility outside of the St. Louis Metropolitan area, the company invites spouses and pays all expenses associated with travel, including meals and lodging as well as other incidentals such as leisure activities. We consider these incidentals perquisites, which had a total cost less than \$1,500 for the proxy officers in our 2008 fiscal year.
- ♦ When otherwise unused for business purposes, our proxy officers may occasionally request tickets to entertainment or sporting events for personal use.

Perquisites are not included in determining an employee∏s retirement benefits.

41 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

All Other Compensation Table

	Company Co	ontributions to			
		SIP			
	Qualified		Tax		
	Plan	Non-Qualified	Gross-Ups	Perquisites	Total
	_	Parity Plan			
Name	(\$)	(\$)	(\$)	(\$) ¹	(\$)
Hugh Grant	\$27,210	\$472,732	\$10,1742	\$134,387	\$644,503
Terrell K. Crews	27,210	129,387		[] 156,597
Brett D. Begemann	24,510	97,648]] 122,158
Carl M. Casale	24,510	110,988		16,124	151,622
Robert T. Fraley, Ph.D.	27,210	131,802		28,757	187,769

- 1 Amounts represent the aggregate incremental cost to the company of perquisites provided to our proxy officers, except for Messrs. Crews and Begemann, for whom such amounts are less than \$10,000. The amounts shown include, in the case of Mr. Grant, personal use of corporate aircraft of \$110,543, home security expenses, club dues, and tickets; for Mr. Casale, personal use of corporate aircraft and tickets; for Dr. Fraley, personal use of corporate aircraft; and, for each of the individuals, executive physicals, personal transportation costs and the board meeting perquisites described above.
- 2 Gross-up relates to club dues.

Grants of Plan-Based Awards

The following table provides additional information about plan-based awards granted to our proxy officers during our 2008 fiscal year. Our proxy officers generally received four types of plan-based awards:

Annual Incentive Plan

Our annual incentive plan is designed to reward financial and operational performance that drives shareowner value. Awards under the annual incentive plan are paid in cash. For details of this plan, see the description beginning on page 25.

Stock Options

These options were granted on October 22, 2007 under our 2005 Long-Term Incentive Plan. One-third of the options vest on each of November 15, 2008, November 15, 2009 and November 15, 2010, or earlier under certain circumstances, such as death, disability, retirement or a change of control, as described below. The term of these options may not exceed 10 years and may be shorter as a result of certain events, such as death or termination of

service.

Performance-RSUs

These awards were granted on October 22, 2007 under our 2005 Long-Term Incentive Plan. Performance-RSUs represent the right to receive a specified number of shares of our common stock if and to the extent the performance-RSUs vest. Vesting is generally subject to (i) our attainment of specified performance criteria relating to cumulative EPS, cash flow and return on capital goals during the designated performance period (September 1, 2007 through August 31, 2009), and (ii) the proxy officer sontinued employment during the designated service period (September 1, 2007 through August 31, 2010). However, vesting is accelerated under certain circumstances, such as death, disability, retirement or a change of control. We describe the terms of the performance-RSUs in more detail beginning on page 47.

42 2008 PROXY STATEMENT MONSANTO COMPANY

For grants made for fiscal years prior to 2008, during the restricted period, the executive receives cash payments equal to the cash dividends that would have been paid had he or she been the record owner of shares equal to the number of performance-RSUs initially granted. Beginning with the 2008 fiscal year grants, dividends will be accrued during the designated service period and will be paid upon vesting based on the number of units that vest.

Restricted Stock Units

These awards were granted on October 11, 2007 under our 2005 Long Term Incentive Plan. When the units vest, dividends are paid in cash equal to the value of cash dividends paid during the service period. Vesting is generally conditioned on achievement of positive net income and the participants continued employment through December 15, 2010. However, vesting is accelerated under certain circumstances, such as death, disability or change of control. We describe the terms of the restricted stock units beginning on page 48.

43 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

Grants of Plan-Based Awards Table

			Pay No Incentive	ated Possi outs Unde on-Equity e Plan Awa	r	Und Und	ated Fu Payouts der Equ ncentive n Award	ity	All Other Stock Awards;	All Other Option Awards;	Exercise Grant D
Name	Award Type	Based	Thresh- old (\$)	Target (\$)	Maxi- mum (\$) 3	Threshold (#)	Target (#)			Number of Securities Underlying Options (#) ⁵	Price of of Sto Option and Opt Awards Awards (\$/Sh) (\$)
Hugh Grant	Annual Incentive Stock			\$1,626,000)					☐ 149,230	
	Options Performance	10/22/07				□ 9,950	19,900	39,800)		□ □ 3,468

	RSUs											
Terrell K. Crews	Annual Incentive	[]1	.38,425	395,500								
	Stock Options	10/22/07								36,580	87.14	1,080,2
	Performance RSUs	10/22/07			2,440	4,880	9,760	0		0		850,4
Brett D. Begemann	Annual Incentive	1	.26,175	360,500								
-	Stock Options	10/22/07								27,980	87.14	826,2
		10/22/07			1,865	3,730	7,460	0				650,0
	Restricted Stock Units	10/11/07							20,000			1,815,8
Carl M. Casale	Annual Incentive		.29,850	371,000								
	Stock Options	10/22/07								32,280	87.14	953,2
	Performance RSUs	10/22/07			2,155	4,310	8,620	0				751,
	Restricted Stock Units	10/11/07							20,000			1,815,8
Robert T. Fraley, Ph.D.	Annual Incentive	[] 1	.40,875	402,500								
	Stock Options	10/22/07								53,800	87.14	1,588,
	Performance RSUs	10/22/07			3,590	7,180	14,360	0				1,251,3
	Restricted Stock Units	10/11/07							25,000			2,269,

¹ Amounts in this column represent the threshold, target and maximum payouts under our annual incentive plan with respect to our attainment of specified performance criteria for net sales (10% weighting), EPS (50% weighting) and cash flow (40% weighting). Threshold payout is 35% of the target annual incentive opportunity and the maximum payout is set by our Code Section 162(m) Annual Incentive Program approved by shareowners in 2006, described in footnote 3 below. See the information under []Annual Incentive Plan[] beginning on page 25 for a more detailed description of awards made under our 2008 fiscal year annual incentive plan. The actual amounts earned are reported in the Non-Equity Incentive Plan Compensation column in the []Summary Compensation Table[] on page 40.

44 2008 PROXY STATEMENT MONSANTO COMPANY

and return on capital) for which performance is below the threshold level, one-third of the target payout number of units is forfeited. The grant date fair value of the grants was \$87.14 per unit.

On October 20, 2008, we granted performance-RSUs as part of the long-term incentive component of their 2009 fiscal year compensation at the target level to the following individuals under our 2005 Long-Term Incentive Plan: Mr. Grant, 20,970 units; Mr. Crews, 5,320 units; Mr. Begemann, 4,200 units; Mr. Casale, 4,200 units; and Dr. Fraley, 6,990 units. The grant date fair value of the grants was \$89.45 per unit. These performance-RSUs were granted upon substantially the same terms and conditions described under [[Performance-RSUs,]] on page 47 except that the designated performance period is September 1, 2008 through August 31, 2010, and the designated service period is September 1, 2008 through August 31, 2011.

² Amounts in this column represent the threshold, target and maximum payout for performance-RSUs granted as part of the proxy officers 2008 fiscal year long-term incentive compensation under our 2005 Long-Term Incentive Plan. The threshold payout is 50% of target and the maximum payout is 200% of target. For each goal (cumulative earnings per share, cash flow

3

In 2006 our shareowners approved our Code Section 162(m) Annual Incentive Program which was designed to meet the requirements of Code Section 162(m), with respect to our annual incentive plan. The program imposes a maximum annual incentive plan award to each of our proxy officers subject to Code Section 162(m), equal to three-quarters of one percent (.75%) of corporate net income for the applicable performance year, or \$15.3 million in our 2008 fiscal year. The program applies to each of our proxy officers other than Mr. Crews. The people and compensation committee has discretion to award less than the maximum amount and historically has determined the amount of all annual incentive awards based on company and individual performance measured against pre-established goals under our annual incentive plan as described below. The annual incentive awards have been substantially lower than the maximum amount for Code Section 162(m) purposes. Net income is defined to exclude unusual events, such as restructuring charges and the cumulative effect of accounting changes required under generally accepted accounting principles, as pre-determined by the committee.

Amounts in this column represent the restricted stock units granted to Messrs. Begemann and Casale and Dr. Fraley on October 11, 2007 under our 2005 Long-Term Incentive Plan. The grant date fair value of the award was \$90.79 per share. Vesting of these awards is generally conditioned on:

- achievement of positive Net Income (as defined below) performance goal for the purpose of meeting Code Section 162(m) requirements for the September 1, 2007 through August 31, 2010 performance period; and
- the participant
 continued employment through December 15, 2010, or
 the □service period.
 □

In the event of a [change of control, all units vest, regardless of whether the performance goal is met. After the end of the three-year performance period, we will determine whether the performance goal has been met, and, if so, the units will vest on December 15, 2010, and the participant will receive the number of shares of stock equal to the number of units granted. In addition, the participant will receive a cash payment when the units vest equal to the value of the cash dividends accrued during the service period. In the case of involuntary termination of employment without cause, or death or disability, the officer would vest in a pro rata portion of units, if the performance goal is met.

Amounts in this column represent stock options granted to the proxy officers on October 22, 2007 under our 2005 Long-Term Incentive Plan. The grant date fair value was \$29.53 per option. On October 20, 2008, we granted stock options as part of the long-term incentive component of their 2009 fiscal year compensation to the proxy officers under the 2005 Long-Term Incentive Plan as follows: Mr. Grant, 157,220 options; Mr. Crews, 39,830 options; Mr. Begemann, 31,450 options; Mr. Casale, 31,450 options; and Dr. Fraley, 52,410 options. The options were granted with an exercise price of \$89.45 upon substantially the same terms and conditions described above, except that one-third of the options become exercisable on each of November 15, 2009, November 15, 2011.

In accordance with SEC rules, amounts reported in this column for performance-RSUs disclose the maximum payout, regardless of when or whether these amounts are ultimately realized by the proxy officer. The actual amounts that will be received by the proxy officer for performance-RSUs will be determined at the end of the performance period based upon our actual performance, which may differ from the performance required to achieve maximum payout. Based on company performance in our 2008 fiscal year and the probability of payout, the column entitled \$\textstyle{\texts

5

6

45

MONSANTO COMPANY

Executive Compensation continued

Additional Information Explaining Grants of Plan-Based Awards Table

ANNUAL INCENTIVE PLAN

Our 2008 annual incentive plan covered all of our proxy officers and other regular employees, except those who participate in a sales or manufacturing annual incentive plan or a specific business annual incentive plan. The performance period covered our 2008 fiscal year. The plan focused the organization on achieving financial goals as shown below, all of which affect shareowner value. The following describes our 2008 fiscal year annual incentive plan:

- ◆ The people and compensation committee approved company financial goals for the performance period.
 The goals related to net sales, EPS and cash flow.
- ♦ Each participant also had individual performance goals relating to business and people initiatives.
- ◆ Each participant was provided a target annual incentive opportunity. Each employee opportunity was determined by his or her level of responsibility and contribution to the organization. The opportunity was communicated as a percentage of base pay. The 2008 fiscal year target incentive opportunities for our proxy officers are shown on page 29.
- ◆ After the end of the performance period, the people and compensation committee determined funding for the plan based upon the company sperformance against goals for the fiscal year and other subjective performance factors. Under the terms of the plan, the people and compensation committee could exercise judgment in determining plan funding and individual awards based on strategic and market factors.
- ♦ The plan also provided for the following special consideration for the people and compensation committee to follow in determining plan funding:
 - ♦ Funding at no less than 20% of the target level of funding in the event the company paid dividends with respect to each of its financial quarters ending during the fiscal year. However, if the company had not attained at least the threshold level of performance with respect to the plan EPS goal, the plan could not have been funded at above the 20% funding level.

For purposes of determining our company sperformance against the EPS and cash flow goals of our 2008 fiscal year annual incentive plan and performance-RSUs described below, metrics follow generally accepted accounting principles. However, the people and compensation committee may exercise discretion and make adjustments, as follows:

- ♦ The people and compensation committee may consider the following items (either positive or negative) as extraordinary and excluded for purposes of EPS (but not cash flow) calculations:
 - Restructuring charges and reversals;
 - ♠ Impact of lawsuit outcomes;
 - ♠ In-process R&D write-offs on acquisitions;
 - Impact of liabilities, expenses, settlements or agreements associated with Solutia, Inc.□s reorganization plan;
 - ♦ Impact of unbudgeted business sales/divestitures; or
 - Impact of changes in accounting rules.
- ♦ The people and compensation committee may consider the following items as extraordinary and excluded for purposes of cash flow calculations:
 - ♠ Impact of acquisitions; or
 - Impact of agreements associated with Solutia Inc. □s bankruptcy

For information regarding the annual incentive and performance-RSU awards to our proxy officers for our 2008 fiscal year, please see $\square 2008$ Fiscal Year Annual Incentive Plan Design, Financial Goals and Funding \square on page 26 and

□Performance-RSU Design, Financial Goals and Funding□ on page 32.

46 2008 PROXY STATEMENT MONSANTO COMPANY

LONG-TERM INCENTIVE AWARDS

In our 2008 fiscal year, we granted long-term incentive awards to our proxy officers and other members of our executive team based on each executive long-term incentive opportunity and provided 75% as stock options and 25% as performance-RSUs.

For all management employees other than our proxy officers and executive team members, (approximately 2,500 people), all long-term compensation was delivered in the form of stock options upon the same terms and conditions as used for proxy officers.

Stock Options

We generally award stock options with ten year terms that vest ratably over three years, except in certain circumstances. In the event of a change of control, as defined on page 57, all options become fully vested. In the event of termination of employment for any reason before the first anniversary of the grant date, unvested options are forfeited. In the event of death, disability, involuntary termination without cause or retirement at age 50 or older, options held more than one year become fully vested. The terms and conditions of the stock options provide for single-trigger vesting so that upon a change of control, employees are provided certainty as to their equity-based compensation and afforded the same flexibility as shareowners in determining whether to continue to be tied to the company success following the change in control.

Performance-RSUs

The terms and conditions of performance-RSUs granted to our proxy officers and other executive team members as a portion of the long-term incentive component of their annual compensation provide as follows:

- ♦ Vesting of the grants is subject to:
 - ♦ the company

 attainment of specified performance criteria relating to cumulative EPS, cash flow and return on capital metrics during the designated performance period (for the 2008 fiscal year grants, the September 1, 2007 through August 31, 2009 performance period); and
 - ♦ the executive s continued employment during the designated service period (for the 2008 fiscal year grants. September 1, 2007 through August 31, 2010); or
 - vesting upon a change of control of the company (as defined on page 57), based on the target number of units, in the case of a change of control during the performance period, or the number of units earned, in the case of a change of control following the performance period. The terms and conditions provide for single-trigger vesting given that it is unlikely that the pre-set performance metrics would be appropriate after the change of control. In the case of involuntary termination of employment without cause, or death or disability, the participant would vest in either (1) a pro-rata portion of units earned, if the performance goal is met, in the case of termination during the performance period, or (2) the number of units earned based on the performance goal, in the case of termination following the performance determination.
- ♦ After the end of the two-year performance period, the people and compensation committee determines performance against the goal the committee established for purposes of Code Section 162(m) prior to the start of the performance period. If the Code Section 162(m) performance goal is met, all units earned are fully deductible by the company. If the Code Section 162(m) performance goal is not met, all units are

forfeited. For our 2008 fiscal year grants, the company must have positive Net Income for the September 1, 2007 through August 31, 2009 performance period. [Net Income] means grosposit (i) minus (a) sales, general and administrative expenses, (b) research and development expense, (c) amortization, (d) net interest expense, and (e) income taxes and (ii) plus or minus other income and expense, all as reported in the company financial statements, but excluding positive or negative effects of (1) restructuring charges and reversals, (2) the outcome of lawsuits, (3) research and development write-offs on acquisitions, (4) impact of liabilities, expenses or settlements related to Solutia, Inc. or agreements associated with a Solutia, Inc. plan of reorganization, (5) unbudgeted business sales

47 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

and divestitures and (6) the cumulative effects of changes in accounting methodology made after August 31, 2007.

- ◆ If the Code Section 162(m) performance goal is met, the people and compensation committee considers a corresponding portion of the units initially awarded to each officer, from zero to 200%, as eligible for vesting based on the company sattainment of the specified performance criteria during the performance period and the executive semployment during the service period. If the company achieves between the threshold and target level for a goal, up to 50% of the units will be forfeited. If the company achieves target, 100% of the units will be eligible for vesting, and if the company exceeds target, up to 200% of the units will be eligible for vesting.
- ♦ Any performance-RSUs eligible for vesting will then vest and be delivered in shares of company stock if the officer meets the additional one-year service requirement.
- ♦ The performance-RSUs are settled by delivery of the appropriate number of shares of our common stock at the time of vesting. The officer may elect to defer payment to a later time.

The following chart shows performance-RSU grants vesting on or after August 31, 2008:

Performance-RSU Grant Vesting Table

For Fiscal Year	Grant Date	Performance Period	Performance Determination Date	Vesting Date
2006	10/28/2005	Fiscal Years 2006-2007	October 2007	8/31/2008
2007	10/26/2006	Fiscal Years 2007-2008	October 2008	8/31/2009
2008	10/22/2007	Fiscal Years 2008-2009	October 2009	8/31/2010
2009	10/20/2008	Fiscal Years 2009-2010	October 2010	8/31/2011

Restricted Stock and Restricted Stock Units

We grant restricted stock and restricted stock unit awards from time to time with specified vesting periods. Generally, the shares or units are forfeited in the event of termination of employment prior to vesting. However, in the event of death, disability or involuntary termination without cause, the shares or units vest on a pro rata basis. In the event of a change of control, as defined on page 57, all shares or units become fully vested. Participants are entitled to receive dividends and to vote shares of restricted stock.

48 2008 PROXY STATEMENT MONSANTO COMPANY

56

Outstanding Equity Awards at Fiscal Year-End Table

The table below provides information regarding each proxy officer so outstanding equity awards as of August 31, 2008. The equity awards in this table consist of stock options, restricted stock, restricted stock units and performance-RSUs.

			Option Aw	ards ¹		Restricted St	Stock ock and RSUs	Awards ¹ Perf
			орион ин					Equity Incentive
		Number of	Number of Securities					Plan Award Number o Unearned
Name	Grant Date or Performance Period	Securities Underlying Unexercised Options (#) Exercisable	Underlying Unexercised Options (#) Unexercis- able	Option Exercise Price (\$)	Option Expiration Date		Market Value of Shares or Units of Stock That Have Not Vested (\$) 2	or Other
Hugh Grant	10/22/2007		149,230	\$87.1400	10/21/2017	• • • • • • • • • • • • • • • • • • • •	1001011 (4)	
J	10/26/2006	82,987	165,973		10/25/2016			
	10/28/2005	224,614	112,306	29.2175	10/27/2015			
	10/29/2004	450,620		20.8050	10/28/2014			
	9/1/07-8/31/09							39,80
	9/1/06-8/31/08							66,40
Terrell K. Crews	10/22/2007		36,580	87.1400	10/21/2017			
	10/26/2006	24,117	48,233	44.0600	10/25/2016			
	10/28/2005	72,734	36,366	29.2175	10/27/2015			
	10/29/2004	153,220		20.8050	10/28/2014			
	02/27/2004	70,040		16.1925	02/26/2014			
	01/16/2007					18,000	\$2,056,500	
	9/1/07-8/31/09							9,70
	9/1/06-8/31/08							19,30
Brett D.	10/22/2007		27,980	87.1400	10/21/2017			
Begemann	10/26/2006	14,187	28,373	44.0600	10/25/2016			
	10/28/2005	42,788	21,392	29.2175	10/27/2015			
	10/29/2004	27,033		20.8050	10/28/2014			
	10/11/2007					20,000	2,285,000	
	9/1/07-8/31/09							7,46
	9/1/06-8/31/08							11,30
Carl M. Casale	10/22/2007		32,280	87.1400	10/21/2017			
	10/26/2006		42,560	44.0600	10/25/2016			
	10/28/2005		32,092	29.2175	10/27/2015			
	10/11/2007					20,000	2,285,000	
	9/1/07-8/31/09							8,62
	9/1/06-8/31/08							17,04
Robert T.	10/22/2007		53,800	87.1400	10/21/2017			
Fraley, Ph.D.	10/26/2006	35,464	70,926	44.0600	10/25/2016			
	10/28/2005	53,480	53,480	29.2175	10/27/2015			

10/11/2007 25,000 2,856,250 9/1/07-8/31/09

9/1/06-8/31/08

49 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

Stock options, restricted stock, restricted stock units and performance-RSUs become exercisable or vested in accordance with the vesting schedules below, subject to accelerated vesting under certain circumstances described in the

[Grants of Plan-Based Awardsection.

Amounts in these columns are based on the closing stock price of \$114.25 for our common stock on August 31, 2008.

These performance-RSUs were granted in October 2007 and October 2006 and will vest, if at all, on August 31, 2010 and August 31, 2009, respectively, subject to the satisfaction of the applicable performance criteria and generally subject to the recipient continued employment through such date. As required by the SEC disclosure rules, the number of units shown assumes that outstanding levels of performance (200%) will be achieved. In 2009, the people and compensation committee will determine the actual levels of performance achieved for awards made in October 2007. On October 20, 2008, after evaluating our performance with respect to the financial goals of the performance-RSUs awarded in October 2006, the people and compensation committee determined that, based on our outstanding performance during the performance period, 200% of each proxy officer starget-level award would be made available for vesting, subject to the additional service requirement.

Equity Award Vesting Summary

Stock Options

2

3

Grant Date	One-third vests on each of:
10/22/2007	November 15, 2008, November 15, 2009 and November 15, 2010
10/26/2006	November 15, 2007, November 15, 2008 and November 15, 2009
10/28/2005	November 15, 2006, November 15, 2007 and November 15, 2008
10/29/2004	November 15, 2005, November 15, 2006 and November 15, 2007
02/27/2004	March 15, 2005, March 15, 2006 and March 15, 2007

Restricted Stock

Grant Date	Vesting
01/16/2007	One-third vests on January 16, 2008 and two-thirds vest on January 16, 2009

Restricted Stock Units

Grant Date	Vesting
10/11/2007	Fully vest on December 15, 2010

Performance-RSUs

|--|

14,36

28,38

9/1/07 - 8/31/09	Fully vest on August 31, 2010
9/1/06 - 8/31/08	Fully vest on August 31, 2009

50 2008 PROXY STATEMENT MONSANTO COMPANY

Option Exercises and Stock Vested Table

The following table provides information about the value realized by the proxy officers on exercise of stock options and vesting of stock awards during the 2008 fiscal year.

Outing Assessed - Ct. d. Assessed 1

Mr. Crews□ stock awards totals include 9,000 shares of restricted stock that vested January 16, 2008 at \$112.70 per share for a total value realized on

	Option	Option Awards Stock Awards ¹			
	Number of		Number of		Total Value Realized on
	Shares Acquired	Value Realized	Shares Acquired on	Value Realized	Exercise and
Name	on Exercise (#)	on Exercise (\$) ²	Vesting (#)	on Vesting (\$) ³	Vesting (\$)
Hugh Grant	534,940	\$50,673,633	74,880	\$8,672,602	\$59,346,235
Terrell K. Crews ⁴	94,580	9,334,271	33,280	3,826,410	13,160,681
Brett D. Begemann	74,782	6,542,370	14,280	1,653,910	8,196,280
Carl M. Casale	129,332	8,504,966	21,400	2,478,548	10,983,514
Robert T. Fraley, Ph.D.	128,586	9,037,691	35,680	4,132,458	13,170,149
1	granted o period (Se		. The units we rrough Augus	ere subject to a two t 31, 2007) upon w	-RSUs that were o-year performance hich a performance
2		represent the differ se or base price of		•	upon exercise and
3	market va	described in footno lue of \$115.82 for o gust 31, 2008.			

Pension Benefits

We maintain the following defined benefit retirement plans for the benefit of our U.S. employees: (1) the company Pension Plan, which is a tax-qualified defined benefit plan under the Code; (2) the Parity Pension Plan, which is a non-qualified defined benefit plan under the Code; and (3) the Supplemental Pension Plan, which also is a non-qualified pension plan under the Code. The disclosure that follows reflects the status of our defined benefit pension plans as of the end of the 2008 fiscal year.

vesting of \$1,014,300.

Pension Plan

Prior to January 1, 1997, Former Monsanto sponsored a traditional defined benefit pension plan. Effective January 1, 1997, Former Monsanto converted this plan to a form of pension plan known as a cash balance plan. Former Monsanto similarly converted certain non-qualified pension plans that intended to offset certain federal tax

limitations as to the benefits participants could receive under the Former Monsanto defined benefit plan. The cash balance plan provides benefits that are a function of two notional accounts maintained on behalf of plan participants, a [prior plan account[] and a []cash balance account. [] Cash balance plan participants who were employed before and after the 1997 conversion date have both a prior plan account and a cash balance account. Participants who were not employed by Former Monsanto, Pharmacia or us prior to January 1, 1997 have only a cash balance account.

The opening balance of the prior plan account was (at a minimum) the actuarial equivalent lump sum value of the executive sold defined benefit plan monthly retirement benefit accrued prior to January 1, 1997. The formula used to calculate the opening balance for employment with Former Monsanto was the greater of 1.4% (1.2% for employees hired by Former Monsanto on or after April 1, 1986) of the average final compensation multiplied by years of service, without reduction for Social Security or other offset amounts, or 1.5% of average final compensation multiplied by years of service, less a 50% Social Security offset. Average final compensation for

51 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

purposes of determining the opening balance was the greater of: (1) average compensation received during the 36 months of employment prior to 1997; or (2) average compensation received during the highest three of the five calendar years of employment prior to 1997.

In calculating the opening prior plan account balances, Former Monsanto assumed that all participants were eligible for a full, unreduced pension at age 55, rather than at age 65, the plan so normal retirement age. For participants who had not yet reached age 55 at the time of conversion, the pension payable at age 55 was discounted to an actuarially equivalent lump sum as of the date of conversion using an 8.5% interest rate for each year that a participant sage was less than 55. Beginning January 1, 1997, interest credits are added to the prior plan account monthly, at an annual rate of 8.5% until the participant reaches age 55 or benefits begin if earlier. Pay credits are also added to the prior plan accounts monthly, at an annual rate of 4%, until the participant retires or terminates employment, to reflect future increases in compensation that would have increased prior plan benefits.

We credit the cash balance account for all plan participants service beginning January 1, 1997. The cash balance account grows by the addition of various compensation-based and interest-based credits posted over the course of participants employment. We credit annual contributions to the cash balance account in amounts depending upon a participant sage as follows: 3% before age 30, 4% for ages 30 to 39, 5% for ages 40 to 44, 6% for ages 45 to 49 and 7% for age 50 and over. Participants also receive contribution credits equal to 3% of eligible compensation in excess of the social security wage base. Participants who were covered under the prior traditional defined benefit plan on December 31, 1996 also received transition credits while employed based on the number of years of benefit service earned as of that date (up to a maximum of ten years). The applicable percentages and age ranges are: 2% before age 30, 3% for ages 30 to 39, 4% for ages 40 to 44, 5% for ages 45 to 49, and 6% for age 50 and over. In addition, each participant scash balance account accrues monthly interest credits, based on the average interest rate for 30-year Treasury Bonds for October of the prior calendar year, with a minimum rate of 5% and a maximum rate of 10%.

A pension plan participant may elect to receive his or her vested plan benefit on the first day of any month coinciding with or following the date upon which the participant semployment with our company and affiliated companies is terminated or the participant becomes disabled (but no later than the April 1 following the calendar year in which the participant attains age 70.5). Pension plan benefits are normally paid in either a single life annuity for unmarried participants or a 50% joint and survivor annuity for married participants, with additional optional forms of benefit available, including a lump sum distribution. All available forms of distribution are actuarially equivalent to the single life annuity.

Parity Pension Plan and the Supplemental Pension Plan

We maintain the Parity Pension Plan and the Supplemental Pension Plan for certain of our U.S. management-level employees, including the proxy officers. Each plan is a non-qualified defined benefit plan.

The Parity Pension Plan provides pension benefits to participants in our tax-qualified defined benefit pension plan who cannot be provided full benefits because of the following limitations imposed by federal law and regulations: (1) the limitation on annual compensation that can be used to compute benefits under our tax-qualified defined benefit plan, which was \$230,000 in 2008 and is indexed for inflation thereafter; and (2) the limitation on the amount of benefits that can be paid as a single life annuity each year, which was generally \$185,000 in 2008 and is indexed for inflation thereafter. The amount of a participant Pension Plan benefit is the excess of the amount of benefit that would he or she would have received under our tax-qualified defined benefit pension but for either or both of the limitations.

Our Supplemental Pension Plan provides a benefit to participants in our tax-qualified defined benefit plan who defer payment of all or a portion of an annual incentive award under our Deferred Payment Plan described on page 55, since the deferred amount may not be considered compensation for purposes of calculating benefits

52 2008 PROXY STATEMENT MONSANTO COMPANY

under our tax-qualified defined benefit plan. The amount of a participant Supplemental Pension Plan benefit is the excess of the amount of benefit that he or she would have received under our tax-qualified defined benefit pension but for the deferral of the annual incentive award.

Parity Pension Plan and Supplemental Pension Plan benefits are vested only to the extent a participant stax-qualified defined benefit pension plan benefits are vested, but are forfeited in the event of a termination for cause. Currently, Parity Pension Plan and Supplemental Pension Plan benefits may be paid in one of three forms:

- ♠ an automatic lump-sum on the first January 1 or July 1 that is six months following termination of employment;
- ♦ in the same form as pension plan benefits beginning the first January 1 or July 1 that is six months following termination of employment, but only if pension plan benefits are paid; or
- ◆ deferred at least three years following termination of employment and paid in a lump-sum, term certain, or over a participant and his or her spouse is joint life expectancies, calculated either at benefits commencement or recalculated each year benefits are paid, with residual payments to a beneficiary if applicable.

During any waiting or deferral period, we credit participants Parity Pension Plan and Supplemental Pension Plan benefits with interest, currently based on the prior year saverage of the average Moody Saa Bond Index, which was 6.48% for each of the twelve months of our 2008 fiscal year. A Parity Pension Plan or Supplemental Pension Plan participant may request an emergency benefit distribution during the waiting period, deferral period or after benefit payments have begun if he or she incurs a severe, unforeseeable financial hardship.

Effective December 31, 2008, the provisions of the Parity Pension Plan relating to the timing of distributions will be amended to comply with the final regulations under Code Section 409A. In addition, certain payment options are being eliminated from the grandfathered portion of the plan, and the Supplemental Pension Plan will be merged into the Parity Pension Plan.

The following table reports the present value of accumulated benefits payable to each of our proxy officers under our defined benefit retirement plans. For the Parity Pension Plan and Supplemental Pension Plan, the present value of the accumulated benefit has been calculated assuming, for valuation purposes only, that each of our proxy officers will remain in service until age 65, that the discount rate is 6.50%, and the benefit is payable as a lump sum. For the Pension Plan, the present value of the accumulated benefit has been calculated assuming, for

valuation purposes only, that each of our proxy officers will remain in service until age 65, that the discount rate is 6.50%, and that 80% of the benefit is payable as a lump sum and the remainder as a single life annuity. The post-retirement mortality assumption for all of the retirement plans is based on the \Box RP2000 healthy no collar combined table, \Box projected to 2010.

53 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

Pension Benefits Table

			Present Value of	
Name	Plan Name	Number of Years Credited Service (#)	Accumulated Benefits (\$)	Payments During Last Fiscal Year (\$)
Hugh Grant	Pension Plan (US) 1	12.67	\$ 191,712	
	Parity Pension Plan (US) ²	12.67	1,540,034	
	Pension Plan (United Kingdom) ⁴	15.04	300,047	
	Total		2,031,793	
Terrell K. Crews	Pension Plan ¹	31.21	609,704	
	Parity Pension Plan ²	31.21	798,837	
	Supplemental Pension Plan ³	31.21	8,463	
	Total		1,417,004	
Brett D. Begemann	Pension Plan 1	25.63	355,484	
	Parity Pension Plan ²	25.63	433,157	
	Supplemental Pension Plan ³	25.63	22,445	
	Total		811,086	
Carl M. Casale	Pension Plan ¹	24.12	362,571	
	Parity Pension Plan 2	24.12	608,918	
	Total		971,489	
Robert T. Fraley, Ph.D.	Pension Plan 1	27.67	676,762	
	Parity Pension Plan ²	27.67	1,622,558	
	Supplemental Pension Plan ³	27.67	115,634	
	Total		2,414,954	

The estimated August 31, 2008 account balances under our Pension Plan (as opposed to the present value of accumulated benefits shown in the table) are as follows: Mr. Grant, \$242,639; Mr. Crews, \$920,782; Mr. Begemann, \$500,538; Mr. Casale, \$515,506; and Dr. Fraley, \$1,011,172.

The estimated August 31, 2008 account balances under our Parity Pension Plan (as opposed to the present value of accumulated benefits shown in the table) are as follows: Mr. Grant, \$1,897,611; Mr. Crews, \$973,669; Mr. Begemann, \$553,891; Mr. Casale, \$788,282; and Dr. Fraley, \$2,038,183.

The estimated August 31, 2008 account balances under our Supplemental Pension Plan (as opposed to the present value of accumulated benefits shown in the table) are as follows: Mr. Crews, \$10,045; Mr. Begemann, \$28,701; and Dr. Fraley, \$197,218.

2

1

3

4

In addition to the retirement benefits for Mr. Grant based on his years of service as our employee in the U.S., Mr. Grant is also eligible for regular retirement benefits based on his years of service as our employee outside the United States in the United Kingdom ([U.K.[]). The U.K. plan is closed to new entrants. Mr. Grant ceased accruing benefits in the U.K. plan in 1996 when he moved to the U.S. The plan is a cash balance plan, and his benefit is calculated as (i) 18% times final plan salary, times (ii) pre-January 1, 1995 service, plus (iii) 20%, times (iv) final plan salary, times (v) post-January 1, 1995 plan service. Benefits for service prior to 1993 must be no less than the amounts offered under a prior U.K. pension plan. Benefits increase in accordance with cost-of-living indices.

54 2008 PROXY STATEMENT MONSANTO COMPANY

Non-Qualified Deferred Compensation

We maintain two non-qualified deferred compensation plans for certain of our management-level U.S. employees: (1) the Savings and Investment Parity Plan, which we refer to as our \[\]SIP Parity Plan,\[\] and (2) our Deferred Payment Plan.

SIP Parity Plan

All eligible U.S. employees may contribute up to 25% of eligible pay to our SIP, which is a tax-qualified defined contribution plan. We make a matching contribution equal to 60% of up to the first 7% of compensation contributed by the participant, and may make an annual discretionary matching contribution on up to 10% of their pay. For the January 1, 2007 [December 31, 2007 plan year, the company also made a special allocation to SIP in an amount equal to 3.8% of eligible pay of all eligible employees.

Once contributions to the SIP reach a Code limit on compensation or contributions, contribution amounts are allocated to bookkeeping accounts under the SIP Parity Plan. Employee contributions to the SIP Parity Plan are fully vested; however, company matching amounts vest 20% per year over five years. Effective January 1, 2008, the company credits both participant contributions and its matching amounts to the SIP Parity Plan with earnings or losses matching the performance of one or more investment options available under the SIP, as determined by the participant. We currently offer 15 investment options, one of which is a book account based on our company stock which provided a return of 63.7% for our 2008 fiscal year. The other 14 investment options provided returns ranging from -15.5% to 12.3% for our 2008 fiscal year. A participant may change his or her investment choices at any time, except that reallocations involving our common stock funds must be made in compliance with our policies on trading our stock. The SIP Parity Plan provides for payment following termination of employment in a lump sum or through a deferral election not later than age 70.5 in any form of payment allowed under the Pension Parity Plan. After termination of employment, we credit accounts with interest, currently based on the prior year |s average of the average Moody∏s Baa Bond Index Rate, as in effect from time to time, which was 6.48% for our 2008 fiscal year. If approved by the plan s administrative committee, at its discretion, a participant may receive an early distribution of benefits if he or she incurs a severe, unforeseeable financial hardship. The provisions of the SIP Parity Plan relating to the timing of elections to contribute to the plan and distributions from the plan will be amended effective December 31, 2008 to comply with the final regulations under Code Section 409A. In addition, certain payment options are being eliminated from the grandfathered portion of the plan.

Deferred Payment Plan

Our Deferred Payment Plan provides certain management-level employees the opportunity to defer, until a specific date in the future or until termination of employment or beyond, the receipt of all or a portion of cash compensation they may earn under our annual incentive plan. The Deferred Payment Plan permits participants to choose between or among two investments. Under the cash election, earnings on deferred amounts will accrue at a rate equivalent to the average yield of the Moody sa Baa Bond Index for the prior calendar year. Under the stock

election, earnings on deferred amounts will accrue at a rate that tracks the performance of our common stock (including reinvestment of dividends), with deferred amounts converted into hypothetical stock units based on the average trading price during the preceding ten trading days. Participants may transfer between funds subject to certain rules and procedures. Amounts are distributed on either a date specified by the participant at the time of the deferral election or in a lump sum or monthly installments for up to ten years following retirement. Amounts attributable to the stock election will be paid in shares of our common stock unless the participant otherwise elects to receive cash. If approved by the plan administrative committee, at its discretion, a participant may receive an early distribution of benefits if he or she incurs a severe, unforeseeable financial hardship. The provisions of the Deferred Payment Plan relating to the timing of elections to defer

55 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

annual incentive plan amounts under the plan and distributions from the plan will be amended effective December 31, 2008 effective for deferrals contributed beginning in 2005, to comply with the final regulations under Code Section 409A.

The following table provides information for each of our proxy officers regarding aggregate individual and company contributions and aggregate earnings for our 2008 fiscal year and year-end account balances under our deferred compensation plans:

Non-Qualified Deferred Compensation Table

Name and Non-Qualified Plan	Executive Contributions in Last FY (\$) 1	Monsanto Contributions in Last FY (\$) ²	Aggregate Earnings in Last FY (\$)	Aggregate Withdrawals/ Distributions (\$)	Aggregate Balance at Last FYE (\$) ³
Hugh Grant					
SIP Parity Plan	\$ 442,966	\$472,732	\$1,194,131		\$7,514,493
Deferred Payment Plan					
Terrell K. Crews					
SIP Parity Plan	108,635	129,387	521,865		2,116,937
Deferred Payment Plan			84,022		243,128
Brett D. Begemann					
SIP Parity Plan	64,360	97,648	268,867		1,216,514
Deferred Payment Plan			452,510		1,160,056
Carl M. Casale					
SIP Parity Plan	72,315	110,988	58,201		988,831
Deferred Payment Plan					
Robert T. Fraley, Ph.D.		_		_	
SIP Parity Plan	110,635	131,802	544,660		3,226,731
Deferred Payment Plan			33,034	410,994 4	384,985

Amounts in this column reflect the proxy officers deferral of compensation. Executive deferrals of salary for the 2007 and 2008 fiscal years into the SIP

Parity Plan are also included in the Salary column of the []Summary

Compensation Table on page 40 and are as follows: Mr. Grant, \$115,716; Mr. Crews, \$32,635; Mr. Begemann, \$18,860; Mr. Casale, \$20,515; and Dr. Fraley, \$33,635. The 2007 annual incentive award was paid in the 2008 fiscal year. Deferrals of the 2007 annual incentive award into the SIP Parity Plan and the Deferred Payment Plan are included in this column and were included in the

Amounts in this column reflect our matching contributions. These amounts are also included in the All Other Compensation column of the \[\]Summary Compensation Table \[\]pn page 40.

Includes, among other things, executive contributions from salary or incentive compensation reported in the Summary Compensation Table of our previous proxy statements for the year earned to the extent the officer was a proxy officer for that period.

This amount reflects the amount distributed pursuant to a date-certain payout election under the Deferred Payment Plan.

Potential Payments Upon Termination or Change of Control

2

3

4

We have entered into change of control employment security agreements with each of the proxy officers and other executives that may require us to make payments to these individuals in the event of the termination of their employment following a change of control. In addition, many of our executive compensation, benefit and deferred compensation plans provide the proxy officers with certain rights or the right to receive payments in the event of the termination of their employment.

56 2008 PROXY STATEMENT MONSANTO COMPANY

Change of Control Employment Security Agreements

Under the terms of the agreements, each proxy officer is generally an employee at-will until and unless the occurrence of a change of control. Upon a change of control, we will provide certain protections for a period of time to the proxy officers, including the payment of specified termination benefits if their employment is terminated during the period. If a proxy officer incurs an involuntary termination of employment or a termination of employment for good reason after the occurrence of a change of control while his agreement is in effect, he would not be entitled to severance pay or benefits under any company severance plan or program.

A ∏change of control generally means:

- ♦ Any other person or entity acquires beneficial ownership of 20% or more of our outstanding common stock or the combined voting power over our outstanding voting securities;
- ◆ The incumbent directors, as defined in the agreements, cease for any reason to constitute at least a majority of the board;
- ◆ The completion of certain corporate transactions including a reorganization, merger, statutory share exchange, consolidation or similar transaction, a sale or other disposition of all or substantially all of our assets, or the acquisition of assets or stock of another entity, subject to certain exceptions; or
- Our shareowners approve a complete liquidation or dissolution.

The same definition is used with respect to the equity awards included in the tables below.

TERMS OF EMPLOYMENT FOLLOWING A CHANGE OF CONTROL

Upon a change of control, the agreement establishes certain protections in the form of fixed terms of employment during a protected period for two years following the first day during the term of the agreement on which a change of control occurs. More specifically, during the protected period, we provide the proxy officer certain guarantees with respect to the officer sposition, job location and travel requirements. In addition, during the protected period,

we guarantee the proxy officer certain minimums with respect to base salary, annual incentive plan award payments, incentive opportunities and other benefits. The guaranteed benefits are generally determined, as appropriate, in accordance with the most favorable plans, practices, policies and programs in effect during the 120-day period before the change of control or afterwards, as applicable, to peer executives at our company:

- ♦ An annual base salary which shall, at minimum, be equal to 12 times the highest monthly base salary paid or payable to that proxy officer and which shall be paid at such intervals as we pay other executive salaries:
- ♠ An annual cash bonus which shall, at minimum, be equal to the proxy officer saverage bonus, which is generally the average annual incentive plan award payment earned by the proxy officer in the three fiscal years prior to a change of control and which shall be paid no later than two and a half months after the end of the fiscal year next following the fiscal year in which the annual cash bonus is awarded;
- Participation in all long-term, stock-based and other incentive plans and practices;
- Participation in all savings and retirement plans and programs;
- ♦ Together with his or her family, as the case may be, participation in all benefits under welfare benefit plans and programs (including without limitation medical, prescription drug, dental, vision, disability, life insurance, accidental death and dismemberment, and travel accident insurance plans and programs);
- ◆ Reimbursement for reasonable expenses; and
- Paid vacation.

57 2008 PROXY STATEMENT

MONSANTO COMPANY

Executive Compensation continued

TERMINATION OTHER THAN FOR CAUSE OR DISABILITY; VOLUNTARY TERMINATION FOR GOOD REASON

If the proxy officer is terminated other than for cause or disability, or the officer terminates employment for <code>good</code> reason during the <code>protected</code> period following a change of control and executes a timely release, the proxy officer is entitled to a lump sum payment within 30 days after the termination date or, if later, within five days after the proxy officer executes a release of claims equal to the following:

- Base salary through the termination date, plus accrued pay in lieu of unused vacation;
- ♦ A pro-rata portion of the officer s average bonus; and
- ↑ The product of three times the sum of (i) annual base salary, (ii) □average bonus, □ and (iii) our employer matching contributions made or credited to the proxy officer under our SIP and SIP Parity Plan, and any other defined contribution plan that the officer participates in immediately prior to the date of termination, for the most recent plan year that ended before the change of control, or, if higher, for the most recent plan year that ended after the date of the change of control.

All benefits accrued through the termination date under our Pension Plan and supplemental pension or retirement plans will be vested and paid in accordance with their terms. In addition, a lump sum payment will be made within 30 days after the termination date or, if later, within five days after the proxy officer executes a release of claims equal to the amount of incremental benefits that would have accrued (whether or not vested) under those plans through the end of a three-year severance period.

Each proxy officer is eligible for outplacement benefits, in accordance with our normal practice for our most senior executives and specified welfare benefits (i.e., medical, prescription drug, dental, vision, disability and life insurance), through the end of the severance period. Further, for purposes of eligibility for retiree welfare benefits, the executive will be considered to have remained employed until the end of the severance period and to have retired on the last day and, if age 50 on the termination date, will be entitled to receive retiree medical benefits at least as favorable as those available on the date of the change in control.

□Good reason generally means:

- ♦ a material diminution in authority, duties or responsibilities of the executive or the individual or group to whom he or she reports or his or her budgetary authority;
- ◆ a material failure by the company with respect to provisions in the agreement regarding the executive

 position, location, duties, responsibilities or compensation;
- ♦ any purported termination by the company of his or her employment except as expressly permitted under the agreement; or
- any failure by the company to require a successor to expressly assume the agreement.

In order to terminate employment for $[good\ reason,]$ the proxy officer must first provide us with notice of the existence of an event or condition constituting $[good\ reason]$ within 90 days after such event or condition initially occurs and allow us 30 days to cure such event or condition.

TERMINATION FOR DEATH OR DISABILITY

If the proxy officer is terminated on account of death or disability during the protected period following a change of control, the company will pay the proxy officer (or his estate or beneficiaries):

- a lump sum cash payment of all base salary accrued through the termination date, plus accrued pay in lieu of unused vacation:
- a pro-rata portion of the officer
 □s □average bonus;
 □
- in the case of death, death benefits to the proxy officer

 s estate or beneficiaries which are at least as favorable as death benefits provided to peer executives of our company; and

 s estate or beneficiaries which are at least as favorable as death benefits provided to peer executives of our company; and

 s estate or beneficiaries which are at least as favorable as death benefits provided to peer executives of our company; and

 s estate or beneficiaries which are at least as favorable as death benefits provided to peer executives of our company;

 and

 s estate or beneficiaries which are at least as favorable as death benefits provided to peer executives of our company;

 and

 s estate or beneficiaries which are at least as favorable as death benefits provided to peer executives of our company;

 and

 s estate or benefits provided to peer executives of our company;

 and

 s estate or benefits provided to peer executives of our company;

 and

 s estate or benefits provided to peer executives of our company;

 s estate or benefits provided to peer executives of our company;

 s estate or benefits provided to peer executives of our company;

 s estate or benefits provided to peer executives of our company;

 s estate or benefits provided to peer executives of our company;

 s estate or benefits provided to peer executives of our company;

 s estate or benefits provided to peer executives of our company;

 s estate or benefits provided to peer executives of our company;

 s estate or benefits provided to peer executives of our company;

 s estate or benefits provided to peer executives of our company;

 s estate or benefits provided to peer executives of our company;

 s estate or benefits provided to peer executives or benefits provided to peer executives.

 The executive of the executive of the executive or benefits provided to peer executive or benefits provided to pee

58 2008 PROXY STATEMENT MONSANTO COMPANY

♦ in the case of disability, disability benefits to the proxy officer and/or his family which are at least as favorable as disability benefits provided to peer executives of our company.

TERMINATION FOR CAUSE OR VOLUNTARY TERMINATION OTHER THAN FOR GOOD REASON

If the proxy officer is terminated for cause during the <code>protected</code> period following a change of control, the company must pay the proxy officer base salary and provide him his benefits through the termination date. Cause is defined as a proxy officer:

- ♦ willful and continued failure to perform substantially his or her duties, subject to certain exceptions for incapacity and □good reason□ terminations; or
- willful and illegal conduct or gross misconduct that materially and demonstrably injures our company.

If the proxy officer voluntarily terminates, other than for good reason, during the <code>protected</code> period, the company must pay the proxy officer in a lump sum in cash within 30 days of the date of termination:

- a lump sum cash payment of all base salary accrued through the termination date, plus accrued pay in lieu
 of unused vacation; and
- ♦ a pro-rata portion of the officer□s □average bonus.□

TAX GROSS-UP PAYMENTS

If any payment to an officer would be subject to excise tax, we will pay the executive a gross-up payment (whether or not his or her employment has terminated), so that, after payment of taxes and excise taxes on the payment, the officer retains an amount of the gross-up payment equal to the applicable excise tax. However, if the payment subject to the tax does not exceed 110% of the amount that would not trigger an excise tax, the company would

instead reduce the payments under the agreement to the executive accordingly (unless the excise tax would not thereby be avoided).

59 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

Potential Impact on Compensation Upon Termination or Change of Control

The following tables show potential incremental payments, benefits and equity award accelerations and forfeitures upon termination of our proxy officers or a change of control. The amounts are determined under existing agreements and plans under various termination scenarios. The amounts assume that the terminations or change of control were effective as of August 31, 2008 and use the closing price of our common stock on that date of \$114.25 per share. Other material assumptions used in calculating the estimated compensation and benefits under each triggering event are noted below. All amounts are estimates of the amounts which would be paid to the proxy officers upon their termination or as a result of the change of control. Because the compensation impact upon termination or a change of control depends on several factors, the actual impact can only be determined at the time of the event. All amounts included in the table are stated in the aggregate, even if the payments will be made on a monthly basis, except in the case of amounts contained under Annual Benefit Value.

The tables do not reflect amounts attributable to vested, non-forfeited equity-based awards or accrued compensation, retirement and other benefits and deferred compensation. For information about these previously earned and accrued amounts, see the <code>[Summary Compensation Table,]</code> <code>[Outstanding Equity Awards at Fiscal Year End Table,]</code> <code>[Pension Benefits Table]</code> <code>[Amon-Qualified Deferred Compensation Table]</code> located elsewhere in this proxy statement.

Unvested stock options, restricted stock, restricted stock units and performance-RSUs vest under certain circumstances, as described in footnotes 1, 2, and 3 to the tables below, including in the event of a change of control, regardless of any termination of employment. The value of such awards are reflected in the [Change of Control Without Termination] column and, accordingly, are not also reflected in the [Change of Control] column under [Termination.]

Our proxy officers participate in our company sbroad-based Separation Pay Plan covering our full-time U.S. employees. Under the terms of the plan, a proxy officer would receive severance benefits in the event of his involuntary termination without cause, absent a change of control. The amount of the severance benefits would be paid as a lump sum equal to the product of: (a) 15, times (b) the sum of: (i) the proxy officer smonthly base salary in effect at the time of the termination, plus (ii) the average of his annual incentive plan awards paid to him under our annual incentive plan for the three prior years, divided by 12. Their severance benefit calculation follows the same formula used in determining all other U.S. employees severance pay upon an involuntary termination without cause under the Separation Pay Plan. The information in the tables below reflects estimated severance benefits in the event of the proxy officer involuntary termination without cause, absent a change of control based on the Separation Pay Plan formula.

HUGH GRANT

Dotontial Impact				Terminati	ion Event			Change of
Potential Impact on Compensation		Invo	luntary				Change of	Control Without
Upon Termination or Change of Control	Voluntary (\$)	No	ot for use (\$)	For Cause (\$)	Death (\$)	Disability (\$)	Control (\$) 6	Termination (\$) 6
Cash Payments								
Severance Payment Payments in Lieu of		□ \$4,	667,917				\$ 11,203,000)
Additional Savings Plan and Retirement Plan Credits							2,663,408	3
Equity Value								
Stock Options ¹	\$21,199,305	5 21,	199,305		[\$21,199,3	305 \$21,199,30	5	\$25,244,930
Performance-RSUs ²								1,136,788
Benefits								
Excise Tax & Gross-up								
Outplacement Services			25,000				□ 25,000)
Total	21,199,305	5 25,8	392,222		[21,199,3	05 21,199,30	5 13,891,408	326,381,718
Forfeited Equity Value Stock Options Performance-RSUs						25) (4,045,625 75) (2,273,575		
Total	(6,319,200)	(6,3	19,200)(104,410,814	I)(6,319,20	00)(6,319,200))	
Annual Benefit Value								
Enhanced Health & Welfare Benefits ⁴ Disability Payment under the Third			14,100				22,244	1
Country National Retirement Plan ⁵					0	<pre>[] 1,233,80</pre>	0	
For an explanation of numeric	footnotes, see	footno	tes on pag	e 65.				
61 2008 PROXY STAT	ГЕМЕПТ					1	MONSANTO COI	MPANY

Executive Compensation continued

Potential Impact on Compensation Upon Termination or Change of Control Table

TERRELL K. CREWS

			Terminatio	n Event			Change of
Potential Impact							Control
on Compensation		Involuntary				Change of	Without
Upon Termination	Voluntary	Not for	For Cause	Death	Disability	Control	Termination
or Change of Control	(\$)	Cause (\$)	(\$)	(\$)	(\$)	(\$) ⁶	(\$) ⁶

Cash Payments							
Severance Payment		\$1,522,917			(\$:	3,655,000	
Payments in Lieu of							
Additional Savings						1,127,701	
Plan and Retirement							
Plan Credits							
Equity Value							
Stock Options ¹	\$6,477,766	6,477,766		\$6,477,766	\$6,477,766	□\$7	7,469,450
Performance-RSUs ²							278,770
Restricted Stock ³		1,628,063		1,628,063	1,628,063	2	2,056,500
Benefits							
Excise Tax & Gross-up							
Outplacement Services		25,000				25,000	
Total	6,477,766	9,653,746		8,105,829	8,105,8294	,807,701 9	,804,720
Forfeited Equity Value							
Stock Options	(991,684)	(991,684) (\$36,532,566)	(991,684)	(991,684)		
Performance-RSUs	(557,540)	(557,540)	(3,320,105)	(557,540)	(557,540)		
Restricted Stock	(2,056,500)	(428,437)	(2,056,500)	(428,437)	(428,437)		
Total	(3,605,724)(1,977,661)(41,909,171)(1,977,661)(1,977,661)		
Annual Benefit Value							
Enhanced Health &		11,700				10,417	
Welfare Benefits ⁴							
For an explanation of numeric	footnotes, see foo	otnotes on pag	e 65.				
62 2008 PROXY STA	TEMENIT				846	NICANITO COM	ID A NIV
62 2008 PROXY STA	IEMENI				MC	NSANTO COM	IPANY

Potential Impact on Compensation Upon Termination or Change of Control Table

BRETT D. BEGEMANN

Detential Impact			Terminat	ion Event			Change of Control
Potential Impact on Compensation Upon Termination or Change of Control	Voluntary (\$)	Involuntary Not for Cause (\$)	For Cause (\$)	Death (\$)	Disability (\$)	Change of Control (\$) ⁶	Without Termination (\$) 6
Cash Payments							
Severance Payment		□ \$1,306,250				[\$3,135,000	
Payments in Lieu of							
Additional Savings]			□ 786,868	В
Plan and Retirement							
Plan Credits							
Equity Value							
Stock Options ¹		□ 3,810,516		□ \$3,810,5	16 \$3,810,51	6	□\$4,569,054

Performance-RSUs ² Restricted Stock Units ³	<u>П</u>	1,724,033 644,484		1,724,033 644,484	1,724,033 644,484	□ 86 □ 2,28	52,016 85.000
Benefits		0, . 0 .		0, . 0 .	0 : 1, 10 :	,	,
Excise Tax & Gross-up							[
Outplacement Services		25,000				25,000	
Total		7,510,283		6,179,033	6,179,0333	,946,868 7,71	6,070
Forfeited Equity Value							
Stock Options	(\$4,569,054)	(758,538) (9	\$11,729,309)	(758,538)	(758,538)		
Performance-RSUs	(2,150,185)	(426,153)	(2,150,185)	(426,153)	(426,153)		
Restricted Stock Units	(2,285,000)	(1,640,516)	(2,285,000)	(1,640,516)	(1,640,516)		
Total	(9,004,239)(2	2,825,207)(L6,164,494) (2,825,207)(2,825,207)		
Annual Benefit Value Enhanced Health & Welfare Benefits ⁴				С] 0	12,601	Ε
For an explanation of numeric	footnotes, see foo	otnotes on page	e 65.				
63 2008 PROXY STAT	ГЕМЕНТ				М	ONSANTO COMPAN	ΙΥ

Executive Compensation continued

Potential Impact on Compensation Upon Termination or Change of Control Table

CARL M. CASALE

			Termination	on Event			Change of
Potential Impact							Control
on Compensation		Involuntary				Change of	
Upon Termination or Change of Control	Voluntary (\$)	Not for Cause (\$)	For Cause (\$)	Death (\$)	Disability (\$)	Control (\$) ⁶	Termination (\$) ⁶
Cash Payments							
Severance Payment		□ \$1,472,917				\$3,535,000	
Payments in Lieu of							
Additional Savings]			882,933	В
Plan and Retirement							
Plan Credits							
Equity Value							
Stock Options ¹		□ 5,716,149		□ \$5,716,149	\$5,716,149)	□\$6,591,260
Performance-RSUs ²		□ 2,439,238		<pre>2,439,238</pre>	2,439,238	3	□ 1,219,619
Restricted Stock Units ³		□ 644,484		□ 644,484	644,484	ļ	<pre>2,285,000</pre>
Benefits							
Excise Tax & Gross-up]				
Outplacement Services		□ 25,000				<pre> 25,000</pre>	
Total		10,297,788		□ 8,799,871	8,799,871	4,442,933	10,095,879

Forfeited Equity Value

Stock Options	(\$6,591,260)	(875,111)	(\$6,591,260)	(875,111)	(875,111)		
Performance-RSUs	(2,931,655)	(492,418)	(2,931,655)	(492,418)	(492,418)		
Restricted Stock Units	(2,285,000)	(1,640,516)	(2,285,000)	(1,640,516)	(1,640,516)		
Total	(11,807,915)	(3,008,045)	(11,807,915)	(3,008,045)	(3,008,045)		
Annual Benefit Value Enhanced Health & Welfare Benefits ⁴	[J []] [] [] 17,397	
For an explanation of numeric	footnotes, see foo	tnotes on page	65.				
64 2008 PROXY STA	TEMENT				МС	ONSANTO COM	PANY

Potential Impact on Compensation Upon Termination or Change of Control Table

ROBERT T. FRALEY, Ph.D.

On Compensation Upon Termination or Change of Control (\$) Voluntary (\$) Cause (\$) (\$) (\$) Death (\$) (\$) Control (\$) Cash Payments Severance Payment \$1,618,750	ange of					nt	on Eve	Terminatio					Detential Incorp
or Change of Control (\$) Cause (\$) (\$) </th <th>ntroi hout</th> <th></th> <th>nange of</th> <th>CI</th> <th></th> <th></th> <th></th> <th></th> <th>,</th> <th>nvoluntary</th> <th>In</th> <th></th> <th>Potential Impact on Compensation</th>	ntroi hout		nange of	CI					,	nvoluntary	In		Potential Impact on Compensation
Cash Payments Severance Payment	ination								ı				
Severance Payment) •		(\$) 0	\$)	(\$)	\$)		(\$)		Cause (\$)	((\$)	
Payments in Lieu of Additional Savings Plan and Retirement Plan Credits Equity Value Stock Options 1 \$9,525,834 9,525,834 \$9,525,834 \$9,525,834 \$10,985 Performance-RSUs 2		_			_	_	_		_				•
Additional Savings Plan and Retirement Plan Credits Equity Value Stock Options Performance-RSUs Restricted Stock Units Restricted Equity Value Stock Options Total Additional Savings Plan and Retirement Plan Credits \$9,525,834 9,525,834 \$9,525,834 \$10,988 \$9,525,834 9,525,834 \$9,525,834 \$10,988 \$10,988		J	,885,000	[\$3]	L			0	\$1,618,750	∐ \$		•
Plan and Retirement Plan Credits Equity Value Stock Options 1 \$9,525,834 9,525,834 \$9,525,834 \$9,525,834 \$10,988 Performance-RSUs 2													•
Plan Credits Equity Value Stock Options 1 \$9,525,834 9,525,834 \$9,525,834 \$9,525,834 \$10,98 Performance-RSUs 2 41 Restricted Stock Units 3 805,577 805,577 805,577 2,85 Benefits Excise Tax & Gross-up	[5	,205,465	[] 1]								_
Equity Value Stock Options 1 \$9,525,834 9,525,834 \$9,525,834 \$9,525,834 \$10,988 Performance-RSUs 2													Plan and Retirement
Stock Options 1 \$9,525,834 9,525,834 \$9,													Plan Credits
Performance-RSUs 2													Equity Value
Restricted Stock Units 3	84,352	\$ 10,		25,834	\$9,52	25,834	□ \$9,5		4	9,525,834	4	\$9,525,834	Stock Options ¹
Benefits Excise Tax & Gross-up	10,158]								Performance-RSUs ²
Excise Tax & Gross-up Outplacement Services 25,000 25,000 25,000 10,331,411 10,331,411 5,115,465 14,25 Forfeited Equity Value Stock Options	56,250	□ 2,		05,577	80	05,577	<u> </u>		7	805,577			Restricted Stock Units ³
Outplacement Services 25,000 25,000 Total 9,525,834 11,975,161 10,331,411 10,331,411 5,115,465 14,25 Forfeited Equity Value Stock Options (1,458,518) (1,458,518) (\$18,021,108) (1,458,518) (1,458,518) 0 Performance-RSUs (820,315) (820,315) (4,883,045) (820,315) (820,315) 0 Restricted Stock Units (2,856,250) (2,050,673) (2,856,250) (2,050,673) (2,050,673) 0													Benefits
Outplacement Services 25,000 25,000 Total 9,525,834 11,975,161 10,331,411 10,331,411 5,115,465 14,25 Forfeited Equity Value Stock Options (1,458,518) (1,458,518) (\$18,021,108) (1,458,518) (1,458,518) [Performance-RSUs (820,315) (820,315) (4,883,045) (820,315) (820,315) [Restricted Stock Units (2,856,250) (2,050,673) (2,856,250) (2,050,673) (2,050,673) [Г]								Excise Tax & Gross-up
Forfeited Equity Value Stock Options (1,458,518) (1,458,518) (\$18,021,108) (1,458,518) (1,458,518) [Performance-RSUs (820,315) (820,315) (4,883,045) (820,315) (820,315) [Restricted Stock Units (2,856,250) (2,050,673) (2,050,673) [[o	25,000]				0	25,000			Outplacement Services
Forfeited Equity Value Stock Options (1,458,518) (1,458,518) (\$18,021,108) (1,458,518) (1,458,518) [Performance-RSUs (820,315) (820,315) (4,883,045) (820,315) (820,315) [Restricted Stock Units (2,856,250) (2,050,673) (2,050,673) [50,760	5 14,2	115,465	31,4115,	10,331	31,411	_ 		1	1,975,161	4 1 1	9,525,834	Total
Stock Options (1,458,518) (1,458,518) (\$18,021,108) (1,458,518) (1,458,518) [Performance-RSUs (820,315) (820,315) (4,883,045) (820,315) (820,315) [Restricted Stock Units (2,856,250) (2,050,673) (2,856,250) (2,050,673) (2,050,673) [,		,	,	•	•	_ ,					, ,	
Stock Options (1,458,518) (1,458,518) (\$18,021,108) (1,458,518) (1,458,518) [Performance-RSUs (820,315) (820,315) (4,883,045) (820,315) (820,315) [Restricted Stock Units (2,856,250) (2,050,673) (2,856,250) (2,050,673) (2,050,673) [Forfeited Equity Value
Performance-RSUs (820,315) (820,315) (4,883,045) (820,315) (820,315) Restricted Stock Units (2,856,250) (2,050,673) (2,050,673) (2,050,673)	Г	П		8.518)	(1.458	8.518)	(1.4	18.021.108)	3) (\$	1.458.518	3) ((1.458.518)	
Restricted Stock Units (2,856,250) (2,050,673) (2,856,250) (2,050,673) [[П											•
	[П				. ,			-	•	-		Restricted Stock Units
(0,200,000), (1,020,000), (1,020,000), (1,020,000),	[Total
				-,,	.,5_5	-,- 50,(, , ., ,	_,,,	,	,==,,	,	(=,==5,000)	
Annual Benefit Value													Annual Benefit Value
Enhanced Health & \(\preceq \) 14,100 \(\preceq \) \(\p	[3	20 653	П	1	П	П		0	14 100	П	1	
Welfare Benefits ⁴	L	-	20,033		1		П		•	1,100	П	ı	

Footnotes to tables located on pages 61-65.

- 1 These amounts reflect the value of accelerated vesting of stock option awards based on our closing stock price on August 31, 2008 of \$114.25. In the event of termination of employment for any reason before the first anniversary of the grant date, the options are forfeited. In the event of death, disability, involuntary termination without cause or retirement at age 50 or older, options held more than one year become fully vested. In the event of a change of control, as defined on page 57, all options become fully vested.
- 2 These amounts are based on our closing stock price on August 31, 2008 of \$114.25. In the case of involuntary termination of employment without cause, or death or disability, vesting at the normal date is as follows: after the performance determination (1) a pro-rata portion of units earned, if the performance goal is met, in the case of termination during the performance period, or (2) the number of units earned based on the performance goal, in the case of termination during the service period. For purposes of valuation, the tables assume that outstanding levels of performance (200%) will be achieved. It is anticipated that in October 2009, the people and compensation committee will determine the actual levels of performance achieved for awards made in October 2007. On October 20, 2008, after evaluating our performance with respect to the financial goals of the performance-RSUs awarded in October 2006, the people and compensation committee determined that, based on our outstanding performance during the performance period, 200% of each proxy officer starget-level award would be made available for vesting, subject to the additional service requirement. As Mr. Grant, Mr. Crews and Dr. Fraley are age 50 or older, their awards would become fully vested upon retirement. Accordingly, the tables do not reflect value of unvested performance-RSUs held by participants age 50 or older, as such awards vest in any termination event

65 2008 PROXY STATEMENT MONSANTO COMPANY

Executive Compensation continued

other than a termination ∏for cause. ☐ The units also fully vest upon a change of control, which is based on the target number of units, in the case of a change of control during the performance period, or the number of units earned, in the case of a change of control following the performance determination.

Reflects pro rata vesting of restricted stock or restricted stock unit awards in the case of involuntary termination of employment without cause, or death or disability and accelerated vesting in the case of a change of control.

This amount reflects the annual value of extended health and welfare benefit coverage for our proxy officers. In the event of an involuntary termination of employment without cause, Mr. Grant, Mr. Crews and Dr. Fraley would be eligible for retiree medical benefits. The net present value of the retiree medical benefits is: Mr. Grant, \$109,936; and Mr. Crews, \$97,447. In the event of a change of control, the annual value of the extended health and welfare benefit coverage would continue for three years. The net present value of the extended health and welfare benefit coverage and retiree medical benefits for our proxy officers is: Mr. Grant, \$162,501; Mr. Crews, \$127,308; Mr. Begemann, \$157,049; Mr. Casale, \$177,061; and Dr. Fraley, \$131,058.

This amount reflects the annual payment that would be made pursuant to the TCN retirement plan upon disability, as offset by our U.S. disability plan. Annual payments continue until age 65 as long as a participant is disabled. In August 2008, the TCN plan was amended to eliminate any retirement or death benefit for Mr. Grant and fix his annual disability benefit as \$1,233,800 through age 65. The net present value of future payments until age 65, assuming continued disability and no mortality, is \$12,355,079.

In the event of a termination coincident with a change of control, the officer would receive the value from both columns.

3

5

6

We currently have three compensation plans under which our equity securities are authorized for issuance to employees or non-employee directors: (i) the Monsanto Company Long-Term Incentive Plan (which we refer to as the 2000 Amended Long-Term Incentive Plan), (ii) the Monsanto Company 2005 Long-Term Incentive Plan (which we refer to as the 2005 Long-Term Incentive Plan), and (iii) the Monsanto Broad-Based Stock Option Plan (which we refer to as the Broad-Based Plan). Each of the plans has been approved by our shareowners. Equity-based compensation awards under the Directors Plan have been granted under the 2000 Amended Long-Term Incentive Plan as and when provided for under the Directors Plan.

The following table shows for these plans as a group the number of shares of common stock to be issued upon exercise of options outstanding at August 31, 2008, the weighted average exercise price of those options, and the number of shares of common stock remaining available for future issuance at August 31, 2008, excluding shares to be issued upon exercise of outstanding options.

issued upon exercise of outstanding options,	Number of securities remaining available for future issuance under equity compensation plans (excluding securities to be issued upon exercise ^{1, 3})	
21,495,993	\$32.49	21,211,072
21 405 002	¢22.40	21,211,072
	issued upon exercise of outstanding options, warrants and rights	outstanding options, options, warrants and warrants and rights rights 2 21,495,993 \$32.49

1 At August 31, 2008, under the 2000 Amended Long-Term Incentive Plan, there was a total of 14,835,938 shares of common stock to be issued upon exercise of outstanding options granted having a weighted average exercise price of \$22.50 and 557,351 shares of common stock remaining available for future issuance (excluding shares to be issued upon exercise of outstanding options). At August 31, 2008, under the Broad-Based Stock Option Plan, there was a total of 411,192 shares of common stock to be issued upon exercise of outstanding options having a weighted average exercise price of \$16.22 and 42,823 shares of common stock remaining available for future issuance (excluding shares issuable upon exercise of outstanding options). At August 31, 2008, under the 2005 Long-Term Incentive Plan, there was a total of 4,663,246 shares of common stock to be issued upon exercise of outstanding options granted having a weighted average exercise price of \$65.72 per share and 17,919,278 shares of common stock remaining available for future issuance (excluding shares to be issued upon exercise of outstanding options). As of August 31, 2008, 278,222 shares of deferred stock and 1,307,395 shares of unvested restricted stock units were issued.

66 2008 PROXY STATEMENT MONSANTO COMPANY

- 2 This calculation does not take into account awards of deferred stock or restricted stock units.
- 3 Our Employee Stock Purchase Plan allows certain of our employees in the United States, Canada and Singapore (excluding executive officers and directors) to borrow up to \$10,000 from the company to purchase shares of Monsanto stock at the fair market value of the stock on the date of the purchase, and repay the borrowed funds, without interest, through payroll deductions over 40 months. While there is no fixed limit on the number of shares available under the plan, all shares are purchased on the open market. The plan prohibits a participant from having loan advances for more than \$10,000 in total or for more than three separate purchases of stock outstanding at one time. Amounts relating to the Employee Stock Purchase Plan are not reflected in the above table. As of August 31, 2008, 2,691,620 shares of our common stock remain available for purchase by employees under the plan and 529 employees were participating in the plan. This plan has been approved by our shareowners.

Stock Ownership of Management and Certain Beneficial Owners

Information is set forth below regarding beneficial ownership of our common stock, to the extent known to us, by:

- each person who is a director or nominee;
- each proxy officer;
- all directors and executive officers as a group; and

• each person known to us to be the beneficial owner of 5% or more of our common stock.

Except as otherwise noted, each person has sole voting and investment power as to his or her shares. All information is as of August 31, 2008, except as otherwise noted. The business address for each of our directors and proxy officers listed below is c/o Monsanto Company, 800 North Lindbergh Blvd., St. Louis, Missouri 63167.

	Shares of Common	Shares Underlying	
Name	Stock Owned Directly or Indirectly (#)	Options Exercisable Within 60 Days (#) ³	Total (#) ⁴
	•		
Hugh Grant	391,510	1,003,258	1,394,768
Frank V. AtLee III	72,238		72,238
John W. Bachmann	36,091	Ш	36,091
Janice L. Fields	1,858		1,858
Arthur H. Harper	11,759		11,759
Gwendolyn S. King	32,098	20,000	52,098
C. Steven McMillan	38,956		38,956
William U. Parfet	275,716	20,000	295,716
George H. Poste, D.V.M., Ph.D.	20,227	П	20,227
Robert J. Stevens	41,098	20,000	61,098
Brett D. Begemann	60,695	128,914	189,609
Carl M. Casale	43,270	64,132	107,402
Terrell K. Crews	94,407	392,788	487,195
Robert T. Fraley, Ph.D.	117,889	195,821	313,710
All directors and executive officers as a group (25 persons)	1,573,772	2,359,574	3,933,346
FMR LLC ⁵	54,610,437		54,610,437
Marsico Capital Management, LLC ⁶	28,374,108		28,374,108

¹ Includes the following shares of deferred common stock deliverable to each non-employee director as compensation under the Directors Plan as described beginning on page 14: Mr. AtLee, 57,809; Mr. Bachmann, 21,891; Ms. Fields, 604; Mr. Harper, 2,769; Ms. King, 28,746; Mr. McMillan, 36,956; Mr. Parfet, 35,000; Dr. Poste, 20,227; Mr. Stevens, 31,098; and directors as a group, 235,100. Shares of deferred stock are credited in the form of hypothetical shares to a stock unit account on the first day of the plan year and vest in installments as of the last day of each calendar month during the plan year. Hypothetical shares are credited with dividend equivalents, also in the form of hypothetical shares. No director has voting

67 2008 PROXY STATEMENT MONSANTO COMPANY

or investment power of such shares until distributed in accordance with the terms of the Directors Plan, generally upon termination of service.

Includes the indicated number of shares of our common stock beneficially owned by the following individuals under our SIP Plan: Mr. Grant, 5,436; Mr. Crews, 6,642; Mr. Begemann, 5,268; Mr. Casale, 941; Dr. Fraley, 9,256; and executive officers as a group, 92,319. Excludes:

- ♦ the indicated number of hypothetical shares of our common stock credited to a bookkeeping account as deferred compensation in the name of the following individuals under our SIP Parity Plan: Mr. Grant, 38,946; Mr. Crews, 12,120; Mr. Begemann, 7,290; Mr. Casale, 4,023; Dr. Fraley, 16,314; and executive officers as a group, 122,513;
- ♦ the number of hypothetical shares of our common stock credited to a bookkeeping account as deferred compensation in the name of the following individuals under the Deferred Payment Plan: Mr. Crews, 1,806; Mr. Begemann, 9,972; and executive officers as a group, 13,819;

2

- ♦ the number of units credited to a bookkeeping account as deferred shares in the name of the following individuals who elected to defer receipt of shares upon vesting in accordance with the terms and conditions of performance-RSUs granted under the 2000 Long-Term Incentive Plan: Mr. Grant, 68,640; Mr. Crews, 57,440; and executive officers as a group, 174,760; and
- ♦ the number of restricted stock units credited to a book account granted to the following individuals under the Monsanto Company 2005 Long-Incentive Plan on October 11, 2007: Mr. Begemann, 20,000; Mr. Casale, 20,000; Dr. Fraley, 25,000 and executive officers as a group, 125,000.

The SEC deems a person to have beneficial ownership of all shares that he or she has the right to acquire within 60 days. For purposes of this table, we have used January 30, 2009 as the cut-off date, which is 60 days after December 1, 2008. The shares indicated represent shares underlying stock options granted under the 2000 Long-Term Incentive Plan or the 2005 Long-Term Incentive Plan. The shares underlying options cannot be voted.

The percentage of shares of our outstanding common stock, including options exercisable within 60 days after December 1, 2008, beneficially owned by any director or executive officer does not exceed 1%. The percentage of shares of our outstanding common stock, including options exercisable within 60 days after December 1, 2008, beneficially owned by all directors and executive officers as a group is 0.7%.

Information is based on an amendment to Schedule 13G/A filed with the SEC on February 14, 2008, filed by FMR LLC and its affiliates in their capacity as investment advisors. FMR LLC\(\sigma\) shares represent 10.0% of our outstanding common stock. FMR LLC∏s business address is 82 Devonshire Street, Boston, MA 02109. FMR had beneficial ownership of and sole dispositive power with respect to 54,610,437 shares of common stock. FMR had sole power to vote 5,112,236 shares and shared voting or dispositive power for none of the shares. FMR\(\pi\)s Schedule 13G includes shares beneficially owned by Edward C. Johnson 3rd (54,610,437 shares), Fidelity Management & Research Company (49,531,542 shares), Pyramis Global Advisors Trust Company (817,684 shares), Pyramis Global Advisors, LLC (184,000 shares), Strategic Advisers, Inc. (121,231 shares), and Fidelity International Limited (3,901,040 shares). FMR and Fidelity International Limited are of the view that they are not acting as a ∏group∏ for purposes of Section 13(d) and that they are not otherwise required to attribute to each other the beneficial ownership of securities beneficially owned by the other corporation.

Information is based on a Schedule 13G filed with the SEC on February 14, 2008, filed by Marsico Capital Management, LLC ([Marsico]). Marsico[s shares represent 5.2% of our outstanding common stock. Marsico business address is 1200 17th Street, Suite 1600, Denver, Colorado 80202. Marsico had beneficial ownership of and sole dispositive power over 28,374,108 shares and sole voting power over 24,862,504 shares.

Report of the Audit and Finance Committee

The company saudit and finance committee operates pursuant to a charter adopted and amended from time to time by our company so board of directors. We have numerous oversight responsibilities beyond those related to the audited financial statements and the retention and oversight of the company independent registered public accounting firm. One of the requirements contained in the audit and finance committee charter is that all committee members meet the independence and experience requirements of the listing standards of the NYSE. Our board of directors believes that all members of the audit and finance committee meet these requirements and are sindependent, as that term is used in relevant SEC rules. In addition, under the audit and finance committees charter, no director may serve as a member of the audit and finance committee if he or she serves on the audit committee of more than two other public companies unless our board of directors determines that such

4

5

6

simultaneous service would not impair his or her ability to serve effectively on the audit and finance

68 2008 PROXY STATEMENT MONSANTO COMPANY

committee. Please see the audit and finance committee s charter for a description of requirements for its members and its responsibilities.

In reliance on the reviews and discussions referred to below, and exercising our business judgment, the audit and finance committee has recommended to our board of directors (and our board of directors has approved) that the audited financial statements be included in the company Annual Report on Form 10-K for the fiscal year ended August 31, 2008, for filing with the SEC. In fulfilling our responsibilities, the audit and finance committee, among other things, has reviewed and discussed the audited financial statements contained in the 2008 Form 10-K with the company management and its independent registered public accounting firm.

Management, which is responsible for the financial statements and the reporting process, including the system of internal control, has advised the audit and finance committee that all financial statements were prepared in accordance with accounting principles generally accepted in the United States. Further, the independent registered public accounting firm, which is responsible for expressing an opinion on the conformity of those audited financial statements with accounting principles generally accepted in the United States, has opined to the shareowners that the audited financial statements conform with such accounting principles. In addition, the audit and finance committee discussed with the independent registered public accounting firm the matters required to be discussed by: Statement on Auditing Standards, AU Section 380 (SAS No. 61), Communication with Audit Committees, as amended; Statement on Auditing Standards, AU Section 722 (SAS 100), Interim Financial Information; and Rule 2-07 of Regulation S-X, Communication with Audit Committees; as well as the auditor is independence from the company and its management, including the matters in the written disclosures and letter received by the audit and finance committee, as required by the applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered public accounting firm scommunications with the audit and finance committee concerning independence.

Members of the audit and finance committee rely, without independent verification, on the information and representations provided to them by management and on the representations made to them by the independent registered public accounting firm. Accordingly, the oversight provided by the audit and finance committee should not be considered as providing an independent basis for determining that management has established and maintained appropriate internal control over financial reporting, that the financial statements have been prepared in accordance with accounting principles generally accepted in the United States, or that the audit of the company sinancial statements by the independent registered public accounting firm has been carried out in accordance with auditing standards generally accepted in the United States.

For a detailed listing of the fees billed to the company by its independent registered public accounting firm, Deloitte and Touche LLP for fiscal years 2007 and 2008, see $\square Ratification$ of Independent Registered Public Accounting Firm (Proxy Item No. 2) below.

AUDIT AND FINANCE COMMITTEE
William U. Parfet, Chair
Frank V. AtLee III
John W. Bachmann
C. Steven McMillan
Robert J. Stevens
October 20, 2008

In accordance with the rules of the SEC, the information contained in the <code>[Report of the Audit and Finance Committee]</code> beginning on page 68 shall not be deemed to be <code>[soliciting material]</code> or to be <code>[filed]</code> with the SEC or subject to the SEC<code>[s Regulation 14A</code> or to the liabilities of Section 18 of the Securities Exchange Act of 1934, as amended, except to the extent that we specifically request that the information be treated as soliciting material or specifically incorporates it by reference into a document filed under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended.

69 2008 PROXY STATEMENT MONSANTO COMPANY

Ratification of Independent Registered Public Accounting Firm (Proxy Item No. 2

Our audit and finance committee, pursuant to its charter, has appointed Deloitte & Touche LLP as our independent registered public accounting firm for the 2009 fiscal year.

While the audit and finance committee is responsible for the appointment, compensation, retention, termination and oversight of the independent registered public accounting firm, the audit and finance committee and our board are requesting, as a matter of policy, that the shareowners ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm. The audit and finance committee is not required to take any action as a result of the outcome of the vote on this proposal. However, if the shareowners do not ratify the appointment, the audit and finance committee may investigate the reasons for shareowner rejection and may consider whether to retain Deloitte & Touche LLP or to appoint another independent registered public accounting firm. Furthermore, even if the appointment is ratified, the audit and finance committee in its discretion may direct the appointment of a different independent registered public accounting firm at any time during the year if it determines that such a change would be in the best interests of our shareowners or our company.

A formal statement by representatives of Deloitte & Touche LLP is not planned for the annual meeting. However, Deloitte & Touche LLP representatives are expected to be present at the meeting and available to respond to appropriate questions.

During and in connection with the 2008 fiscal year, we engaged Deloitte & Touche LLP, the member firms of Deloitte Touche Tohmatsu, and their respective affiliates (which we collectively refer to as <code>[Deloitte]</code>) as our independent registered public accounting firm and to provide other professional services. The table below sets forth an estimate of the fees that we expect to be billed for audit services for the 2008 fiscal year, as well as the fees expected to be billed by Deloitte with respect to audit-related, tax and all other services rendered during that period. In addition, the table sets forth the fees billed by Deloitte for audit, audit-related, tax and all other services during or in connection with the 2007 fiscal year.

	Amount Billed			
Description of Professional Service	2008 Fiscal Year (\$)	2007 Fiscal Year (\$)		
Audit Fees ☐ professional services rendered for the integrated audit of our annual consolidated financial statements and internal control over financial reporting, reviews of the consolidated financial statements included in Form 10-Qs, accounting consultation, consents related to other filings with the SEC, and statutory and regulatory audits required for foreign jurisdictions	\$8.7 million	\$8.6 million		
Audit-Related Fees assurance and related services that are reasonably related to the performance of the audit or review of financial statements, including employee benefit plan audits, due diligence services in connection with mergers and acquisitions, and attest or audit services that are not required	0.3 million	0.5 million		
Tax Fees ☐ professional services for U.S. and foreign tax compliance, such as preparation of tax returns and claims for refund and tax payment and assistance with tax audits and appeals; tax planning, such as assistance with transfer pricing matters; expatriate tax services; and tax advice, such as advice related to mergers and acquisitions and	2.9 million	2.3 million		

employee benefit plans and requests for rulings or technical advice from taxing authorities

All Other Fees □ expatriate assignment services

(non-tax related) 0.4 million 0.4 million

The audit and finance committee reviews, considers and ultimately pre-approves, where appropriate, all audit and non-audit engagement services to be performed by our independent registered public accounting firm. The audit and finance committee has a policy providing for the pre-approval of certain \square audit services, \square

70 2008 PROXY STATEMENT MONSANTO COMPANY

[audit-related services,] [tax services] and [all other services] to be provided by the independent registered public accounting firm and audit services to be provided by any other firm. Please see the above chart for a description of these types of services.

Each year in connection with the audit and finance committee sapproval of the audit engagement plan for the following year, management submits to the audit and finance committee a list of services expected to be provided during that period, as well as related estimated fees. As appropriate, and after obtaining an understanding of the services, the audit and finance committee then pre-approves under its policy the services, and the related estimated fees, to be provided during the next audit engagement period or other period as is approved by the audit and finance committee. If, following the annual pre-approval, it becomes necessary to engage our independent registered public accounting firm for additional services or fees not pre-approved with the annual proposal, or if we need to engage another firm to provide audit services, the audit and finance committee must specifically pre-approve the additional services and related fees. The chair of the audit and finance committee has the delegated authority to pre-approve the provision of additional services and fees not contemplated by these annual pre-approvals and will communicate any such approvals to the full audit and finance committee. In connection with any pre-approval, the audit and finance committee will consider whether such services are consistent with the rules of the SEC and the Public Company Accounting Oversight Board on auditor independence.

All of the <code>[audit services, [] audit-related services, [] [] tax services [] and [] all other services [] provided by Deloitte during or in connection with the 2008 fiscal year were pre-approved by the audit and finance committee in accordance with the audit and finance committee [] s policy.</code>

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE | FOR |

THE RATIFICATION OF THE APPOINTMENT OF DELOITTE & TOUCHE LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR OUR 2009 FISCAL YEAR.

Other Matters

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires all company executive officers, directors, and persons owning more than 10% of any registered class of our capital stock to file reports of ownership and changes in ownership with the SEC. Based solely on the reports received by us or filed with the SEC and on written representations from reporting persons, we believe that all such persons complied with all applicable filing requirements during our 2008 fiscal year, with the exception of the following persons for whom the company reported such reports late: Messrs. Mizell and McMillan and Ms. Foster, who each filed one late Form 4 reporting one transaction.

71 2008 PROXY STATEMENT MONSANTO COMPANY

Shareowner Proposals

Proposals Included in Proxy Statement

Proposals of our shareowners that are intended to be presented by such shareowners at our 2010 annual meeting and that shareowners desire to have included in our proxy materials relating to such meeting must be received by us at our principal executive offices no later than 5:00 p.m., Central Time, August 3, 2009, which is 120 calendar days prior to the anniversary of this year smalling date. The proposal, including any accompanying supporting statement, may not exceed 500 words. Upon timely receipt of any such proposal, we will determine whether or not to include such proposal in the proxy statement and proxy in accordance with applicable regulations governing the solicitation of proxies.

Proposals Not Included in the Proxy Statement

If a shareowner wishes to present a proposal at our annual meeting in the year 2010 or to nominate one or more directors and the proposal is not intended to be included in our proxy statement relating to that meeting, the shareowner must give advance written notice to us prior to the deadline for such meeting determined in accordance with our bylaws. In general, our bylaws provide that such notice should be addressed to the Secretary and be received at our Creve Coeur Campus no less than 90 days nor more than 120 days prior to the first anniversary of the preceding year∏s annual meeting, except in certain circumstances. For purposes of our 2010 annual meeting, such notice must be received not later than October 16, 2009 and not earlier than September 16, 2009. These time limits also apply in determining whether notice is timely for purposes of rules adopted by the SEC relating to the exercise of discretionary voting authority. Our bylaws set out specific requirements that such shareowners and written notices must satisfy. Any shareowner filing a written notice of nomination for director must describe various matters regarding the nominee and the shareowner and the underlying beneficial owner, if any, including, among other things, such information as name, address, occupation, shares, rights to acquire shares and other derivative securities or short interest held, and any relevant understandings or arrangements between the shareowner and beneficial owner, if any. Any shareowner filing a notice to bring other business before a shareowner meeting must include in such the same type of information as well as, among other things, the text of the proposal or business and the reasons therefor, and other specified matters.

Our bylaws also set out specific eligibility requirements that nominees for director must satisfy, which require nominees to:

- ◆ complete and return a written questionnaire with respect to the background and qualification of the nominees and the background of any other person or entity on whose behalf the nomination is being made: and
- provide a written representation and agreement that the nominee:
 - ♦ will abide by the advance resignation requirements of our bylaws in connection with director elections;
 - ♦ is not and will not become a party to (1) any agreement, arrangement or understanding with, and
 has not given any commitment or assurance to, any person or entity as to how such prospective
 nominee, if elected as a director, will act or vote on any issue or question (a

 Voting Commitment

 that has not been disclosed to us or (2) any Voting Commitment that could limit or interfere with
 the nominee

 s ability to comply, if elected as a director, with the nominee

 s fiduciary duties under
 applicable law;
 - ♦ is not and will not become a party to any agreement, arrangement or understanding with any person or entity other than us with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director that has not been disclosed therein: and
 - ♦ would be in compliance if elected as a director and will comply with all of our applicable corporate governance, conflict of interest, confidentiality and stock ownership and trading policies and

guidelines.

Copies of those requirements will be forwarded to any shareowner upon written request.

72 2008 PROXY STATEMENT

MONSANTO COMPANY

Electronic Access to Proxy Materials and Annual Report

Shareowners may view this proxy statement and our 2008 Annual Report to Shareowners over the Internet by accessing our website at http://www.monsanto.com and clicking on the \[Corporate Responsibility\] tab and then clicking on the \[SEC Filings\] tab. Information on our website does not constitute part of this proxy statement.

Other Information

Our board of directors knows of no matter, other than those referred to in this proxy statement, which will be presented at the meeting. However, if any other matters, including a shareowner proposal excluded from this proxy statement pursuant to the rules of the SEC, properly come before the meeting or any of its adjournments, the person or persons voting the proxies will vote in accordance with their best judgment on such matters. Should any nominee for director be unable to serve or for good cause will not serve at the time of the meeting or any adjournments thereof, the persons named in the proxy will vote for the election of such other person for such directorship as our board of directors may recommend, unless, prior to the meeting, the board has eliminated that directorship by reducing the size of the board. The board is not aware that any nominee herein will be unable to serve or for good cause will not serve as a director.

We will bear the expense of preparing, printing and mailing this proxy material, as well as the cost of any required solicitation. Our directors, officers or employees may solicit proxies on our behalf. We have engaged Morrow & Co., Inc. to assist us in the solicitation of proxies. We expect to pay Morrow approximately \$10,000 for these services plus expenses. In addition, we will reimburse banks, brokerage firms and other custodians, nominees and fiduciaries for reasonable expenses incurred in forwarding proxy materials to beneficial owners of our stock and obtaining their proxies.

You are urged to vote promptly. You may revoke your proxy at any time before it is voted; and if you attend the meeting, as we hope you will, you may vote your shares in person.

By Order of the Board of Directors,

MONSANTO COMPANY DAVID F. SNIVELY Secretary

December 1, 2008

73 2008 PROXY STATEMENT

MONSANTO COMPANY

APPENDIX A BOARD OF DIRECTORS INDEPENDENCE STANDARDS

ATTACHMENT A BOARD OF DIRECTORS□ CHARTER AND CORPORATE GOVERNANCE GUIDELINES INDEPENDENCE STANDARDS

An independent Director is one whom the Board affirmatively determines has no material relationship with the Company (either directly or as a partner, shareholder or officer of an organization that has a relationship with the Company). The Board of Directors has adopted the following categorical standards to assist it in the determination of each Director\(\sigma\) independence. The Board of Directors will determine the independence of any Director with a relationship to the Company that is not covered by these standards and the Company will disclose the basis of such determinations and the identity of all directors who have been determined to be independent in the Company\\\ s annual proxy statements.

A Director will be presumed to be independent if the Director:

1. Has not been an employee of the Company for at least three years, other than in the capacity as a former interim Chairman, Chief Executive Officer or other executive officer;

> Has not, within the past three years, worked on the Company∏s audit as a partner or employee of a firm that is the Company∏s internal or external auditor, and is not a current partner or employee of such a firm;

Has not, during the last three years, been employed as an executive officer by a company for which an executive officer of the Company concurrently served as a member of such company \(\sigma \) compensation committee:

Has no immediate family members (i.e., spouse, parents, children, siblings, mothers and fathers-in-law, sons and daughters-in-law, brothers and sisters-in-law and anyone (other than domestic employees) who shares the Director s home) who did not satisfy the foregoing criteria; provided, however, that, with respect to the employment criteria, such Director s immediate family member may (i) currently serve or have served as an employee (other than as a partner) in a firm that is the Company∏s internal or external auditor, unless such family member has personally worked on the Company Is audit during that time: and (ii) currently serve or have served as an employee but not as an executive officer of the Company during such period;

Has not received, and has no immediate family member who has received, during any twelve-month period within the last three years, more than \$120,000 in direct compensation from the Company (other than director and committee meeting fees and pension or other deferred compensation for prior service, provided that such compensation is not contingent in any way on continued service); provided, however, that neither compensation received by a Director for former service as an interim Chairman or CEO or other executive officer nor compensation received by a Director immediate family member for service as a non-executive employee shall be considered in determining independence;

3.

2.

4.

5.

Is not a current executive officer or employee, and has no immediate family member who is a current executive officer, of a company that made payments to, or received payments from, the Company for property or services in any of the last three fiscal years in an amount which, in any single fiscal year, exceeds the greater of \$1 million, or 2% of such other company consolidated gross revenues as measured against the most recent completed fiscal year;

A-1 2008 PROXY STATEMENT

MONSANTO COMPANY

7.

Has not been, and has no immediate family member who has been, an executive officer of a foundation, university, non-profit trust or other charitable organization, for which charitable contributions from the Company and its respective trusts or foundations, account or accounted for more than 2% or \$1 million, whichever is greater, of such charitable organization sconsolidated gross revenues, in any single of the last three fiscal years, unless the Company discloses all contributions made to the recipient organization in its annual proxy statement; and

8.

Does not serve, and has no immediate family member who has served, as an executive officer or general partner of an entity that has received an investment from the Company or any of its subsidiaries, unless such investment is less than \$1 million or 2% of such entity total invested capital, whichever is greater, in any of the last three years.

In addition to the foregoing, in order to be considered independent for purposes of serving on the Company substitutions and Finance Committee, a member of the Audit and Finance Committee may not, other than in his or her capacity as a member of the Audit and Finance Committee, the Board of Directors, or any other Board committee:

1.

Accept, directly or indirectly, any consulting, advisory or other compensatory fee from the Company or any subsidiary of the Company, other than in the Director scapacity as a director or committee member or any pension or other deferred compensation for prior service, provided that such compensation is not contingent in any way on continued service; or

2.

Be an [affiliated person] of the Company or any subsidiary of the Company, as such term is defined by the Securities and Exchange Commission.

A-2 2008 PROXY STATEMENT

MONSANTO COMPANY

APPENDIX B DESIRABLE CHARACTERISTICS OF DIRECTORS

ATTACHMENT B to to BOARD OF DIRECTORS CHARTER AND CORPORATE GOVERNANCE GUIDELINES

DESIRABLE CHARACTERISTICS OF DIRECTORS

1. Personal Characteristics					
Integrity and Accountability:	High ethical standards, integrity and strength of character in his or her personal and professional dealings and a willingness to act on and be accountable for his or her decisions.				
Informed Judgment:	Demonstrate intelligence, wisdom and thoughtfulness decision-making. Demonstrate a willingness to thoroug discuss issues, ask questions, express reservations and voice dissent.				
Financial Literacy:	An ability to read and understand balance sheets, incom and cash flow statements. Understand financial ratios ar other indices for evaluating Company performance.				
Mature Confidence:	Assertive, responsible and supportive in dealing with others. Respect for others, openness to others opinions and the willingness to listen.				
High Standards:	History of achievements that reflect high standards for himself or herself and others.				
2. Core Competencies ¹					
Accounting and Finance:	Experience in financial accounting and corporate finance, especially with respect to trends in debt and equity markets. Familiarity with internal financial controls.				
Business Judgment:	Record of making good business decisions and evidence that duties as a Director will be discharged in good faith and in a manner that is in the best interests of the Company.				
Management:	Experience in corporate management. Understand management trends in general and in the areas in which the Company conducts its business.				
Crisis Response:	Ability and time to perform during periods of both short-term and prolonged crisis.				
Industry/Technology:	Unique experience and skills in an area in which the Company conducts its business, including science, manufacturing and technology relevant to the Company.				
International Markets:	Experience in global markets, international issues and foreign business practices.				
B-1 2008 PROXY STATEMENT	MONSANTO COMPANY				
Leadership:	Understand and possess skills and have a history of				
Strategy and Vision:	motivating high-performing, talented managers. Skills and capacity to provide strategic insight and direction by encouraging innovations, conceptualizing key trends, evaluating strategic decisions, and challenging the Company to sharpen its vision.				

3. Commitment to the Company **Time and Effort:**

Willing to commit the time and energy necessary to satisfy the requirements of Board and Board Committee membership. Expected to attend and participate in all Board meetings and Board Committee meetings in which they are a member. Encouraged to attend all annual meetings of shareholders. A willingness to rigorously prepare prior to each meeting and actively participate in the meeting.

Awareness and Ongoing Education

Other Commitments:

Stock Ownership:

4. Team and Company Considerations **Balancing the Board:**

balancing the board.

Diversity:

Willingness to make himself or herself available to management upon request to provide advice and counsel. Possess, or be willing to develop, a broad knowledge of both critical issues affecting the Company (including industry-, technology- and market-specific information), and director sroles and responsibilities (including the general legal principles that guide board members).

In light of other existing commitments, ability to perform adequately as a Director, including preparation for and attendance at Board meetings and annual meetings of the

shareholders, and a willingness to do so.

Complies with the Monsanto Company Executive and

Director Stock Ownership Requirements.

Contributes talent, skills and experience that the Board needs as a team to supplement existing resources and provide talent for future needs.

Contributes to the Board in a way that can enhance perspective and experiences through diversity in gender, ethnic background, geographic origin, and professional experience (public, private, and non-profit sectors). Nomination of a candidate should not be based solely on these factors.

1 The Board as a whole needs the core competencies represented by at least several directors.

B-2 2008 PROXY STATEMENT MONSANTO COMPANY

APPENDIX C MAP

Directions from downtown St. Louis:

Take Interstate 70 west past the airport to Lindbergh Boulevard (Hwy. 67) south. Take Lindbergh Boulevard south about 6 miles to Olive Boulevard west exit. Follow Olive to the first traffic light. Proceed directly across the intersection and then immediately turn left into Monsanto S Creve Coeur Campus. Please follow the signs to the parking area and entrance to Building K.

Directions from St. Louis International Airport (Lambert):

Take Interstate 70 west to Lindbergh Boulevard (Hwy. 67) south. Take Lindbergh Boulevard south about 6 miles to Olive Boulevard west exit. Follow Olive to the first traffic light. Proceed directly across the intersection and then immediately turn left into Monsanto ☐s Creve Coeur Campus. Please follow the signs to the parking area and entrance to Building K.

C-1 2008 PROXY STATEMENT MONSANTO COMPANY

MONSANTO COMPANY

800 NORTH LINDBERGH BOULEVARD ST. LOUIS, MISSOURI 63167 PHONE (314) 694-1000 http://www.monsanto.com

The Board of Directors recommends a vote FOR items 1 and 2.

Please mark your votes as indicated in this example

X

1. ELECTION OF DIRECTORS

NEES:					FOR	AGAINST	ABSTAIN
ected for terms in 2012:	FOR	AGAINST	ABSTAIN	ITEM 2 - RATIFICA' OF APPOINTN OF INDEPENI REGISTEF PUBLIC ACCOUNT FIRM	MENT C DENT	С	С
01 Janice L. Fields	c	c	c				
02 Hugh Grant	c	c	c			WILL ATTEND	
03 C. Steven McMillan	c	c	c	If you plan to attend the Annual Meeting, please mark the WILL ATTEND box		С	
04 Robert J. Stevens	c	c	c				

Mark Here for Address C Change or Comments SEE REVERSE

Signature Signature Date NOTE: Please sign as name appears hereon. Joint owners should each sign. When signing as attorney, executor, administrator, trustee or guardian, please give full title as such.

5 FOLD AND DETACH HERE 5

WE ENCOURAGE YOU TO TAKE ADVANTAGE OF INTERNET OR TELEPHONE VOTING, BOTH ARE AVAILABLE 24 HOURS A DAY, 7 DAYS A WEEK.

Internet and telephone voting is available through 11:59 PM Eastern Time the day prior to the annual meeting date.

INTERNET http://proxyvoting.com/mon

Use the Internet to vote your proxy. Have your proxy card in hand when you access the web site.

OR TELEPHONE 1-866-540-5760

Use any touch-tone telephone to vote your proxy. Have your proxy card in hand when you call.

If you vote your proxy by Internet or by telephone, you do NOT need to mail back your proxy card.

To vote by mail, mark, sign and date your proxy card and return it in the enclosed postage-paid envelope.

Your Internet or telephone vote authorizes the named proxies to vote your shares in the same manner as if you marked, signed and returned your proxy card.

Choose **MLinkSM** for fast, easy and secure 24/7 online access to your future proxy materials, investment plan statements, tax documents and more. Simply log on to **Investor ServiceDirect**® at www.bnymellon.com/shareowner/isd where step-by-step instructions will prompt you through enrollment.

Important notice regarding the internet availability of

http://bnymellon.mobular.net/bnymellon/mon

Shareowners are available at:

proxy materials for the Annual Meeting of shareholders The Proxy Statement and the 2008 Annual Report to

37515

PROXY

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS OF MONSANTO COMPANY

The undersigned hereby appoints Hugh Grant and David F. Snively, and each of them, with power to act without the other and with power of substitution, as proxies and attorneys-in-fact and hereby authorizes them to represent and vote, as provided on the other side, all the shares of Monsanto Company common stock which the undersigned is entitled to vote and, in their discretion, to vote upon such other business as may properly come before the Annual Meeting of Shareowners of the Company to be held January 14, 2009 or any adjournment thereof, with all powers which the undersigned would possess if present at the meeting.

THIS PROXY CARD, WHEN PROPERLY EXECUTED, WILL BE VOTED IN THE MANNER DIRECTED HEREIN BY THE UNDERSIGNED. IF NO DIRECTION IS MADE BUT THE CARD IS SIGNED, THIS PROXY CARD WILL BE VOTED FOR THE ELECTION OF ALL NOMINEES UNDER ITEM 1, FOR ITEM 2, AND IN THE DISCRETION OF THE PROXIES WITH RESPECT TO SUCH OTHER BUSINESS AS MAY PROPERLY COME BEFORE THE MEETING.

(Continued, and to be marked, dated and signed, on the other side)

Address Change/Comments (Mark the corresponding box on the reverse side)

BNY MELLON SHAREOWNER SERVICES P.O. BOX 3550 SOUTH HACKENSACK, NJ 07606-9250

FOLD AND DETACH HERE

ADMISSION TICKET

Annual Meeting of Shareowners
January 14, 2009
2:00 p.m. Central Standard Time
800 N. Lindbergh Blvd.
K Building
Creve Coeur, Missouri 63167

Please present proof of ownership and photo identification for the shareowner

named on the front of this card for admittance to the annual meeting. For security

purposes, bags and purses will be subject to search at the door. Seating at the

meeting will be limited and admittance will be based on space availability.