

PALEY ROBERT A  
Form 4  
October 30, 2006

**FORM 4**

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
PALEY ROBERT A

(Last) (First) (Middle)  
800 NORTH LINDBERGH BLVD.  
  
(Street)

ST. LOUIS, MO 63167

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol  
MONSANTO CO /NEW/ [MON]

3. Date of Earliest Transaction  
(Month/Day/Year)  
10/26/2006

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

\_\_\_\_ Director \_\_\_\_\_ 10% Owner  
 Officer (give title below) \_\_\_\_\_ Other (specify below)  
Vice President and Treasurer

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
\_\_\_\_ Form filed by More than One Reporting Person

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
				(A) or (D) Code V Amount (D) Price			
Common Stock					5,171 <sup>(1)</sup>	D	
Common Stock					6,497 <sup>(1)</sup>	I	By 401(k) Plan
Common Stock					578 <sup>(1)</sup>	I	By 401(k) Plan of spouse

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474  
(9-02)

displays a currently valid OMB control number.

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	Amount or Number of Shares
Option (Right to Buy)	\$ 44.06	10/26/2006		A	14,190	11/15/2007 <sup>(2)</sup> 10/26/2016	Common Stock	14,190
Option (Right to Buy)	\$ 8.0725 <sup>(4)</sup>					04/25/2004 <sup>(5)</sup> 04/24/2013	Common Stock	(6)
Option (Right to Buy)	\$ 16.1925 <sup>(4)</sup>					03/15/2005 <sup>(7)</sup> 02/27/2014	Common Stock	(6)
Option (Right to Buy)	\$ 20.805 <sup>(4)</sup>					11/15/2005 <sup>(8)</sup> 10/29/2014	Common Stock	(6)
Option (Right to Buy)	\$ 29.2175 <sup>(4)</sup>					11/15/2006 <sup>(9)</sup> 10/28/2015	Common Stock	(6)
Phantom Share Units	(10)					(11) (11)	Common Stock	(6)

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
PALEY ROBERT A 800 NORTH LINDBERGH BLVD. ST. LOUIS, MO 63167			Vice President and Treasurer	

## Signatures

Christopher A. Martin,  
Attorney-in-Fact

10/30/2006

\_\_Signature of Reporting Person

Date

## Explanation of Responses:

- \* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) Holdings reflect a 2-for-1 split of Monsanto Company common stock on July 28, 2006.  
One third of the options become exercisable on November 15, 2007, one-third of the options become exercisable on November 15, 2008 and one-third of the options become exercisable on November 15, 2009, subject to the terms and conditions of the Monsanto Company Long Term Incentive Plan.
- (2) Price is not applicable to acquisitions resulting from grants of stock options.
- (3) Exercise price has been adjusted to reflect a 2-for-1 split of Monsanto Company common stock on July 28, 2006.
- (4) One-third of the options became exercisable on April 25, 2004, one-third became exercisable on March 15, 2005 and one-third became exercisable on March 15, 2006, pursuant to the terms and conditions of the Monsanto Company Long Term Incentive Plan..
- (5) No transaction is reported on this Form 4 for these securities.  
One-third of the options became exercisable on March 15, 2005, one-third of the options became exercisable on March 15, 2006 and one-third of the options become exercisable on March 15, 2007, subject to the terms and conditions of the Monsanto Company Long Term Incentive Plan.
- (6) One third of the options became exercisable on November 15, 2005, one-third of the options become exercisable on November 15, 2006 and one-third of the options become exercisable on November 15, 2007, subject to the terms and conditions of the Monsanto Company Long Term Incentive Plan.
- (7) One third of the options become exercisable on November 15, 2006, one-third of the options become exercisable on November 15, 2007 and one-third of the options become exercisable on November 15, 2008, subject to the terms and conditions of the Monsanto Company Long Term Incentive Plan.
- (8) 1 for 1
- (9) The reported phantom share units were acquired under Monsanto Company's excess benefit plan and are to be settled upon the reporting person's retirement or other termination of service.
- (10) 1 for 1
- (11) The reported phantom share units were acquired under Monsanto Company's excess benefit plan and are to be settled upon the reporting person's retirement or other termination of service.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.