Fields Janice L Form 4 October 27, 2008

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF

SECURITIES

OMB Number:

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January 31, 2005

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if no longer subject to Section 16. Form 4 or Form 5 obligations may continue.

See Instruction

Check this box

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(b).

1. Name and Address of Reporting Person * 5. Relationship of Reporting Person(s) to 2. Issuer Name and Ticker or Trading Fields Janice L Issuer Symbol MONSANTO CO /NEW/ [MON] (Check all applicable) (First) (Middle) (Last) 3. Date of Earliest Transaction (Month/Day/Year) X_ Director 10% Owner Officer (give title Other (specify 800 N. LINDBERGH BLVD. 10/24/2008 below) (Street) 4. If Amendment, Date Original 6. Individual or Joint/Group Filing(Check Filed(Month/Day/Year) Applicable Line) _X_ Form filed by One Reporting Person Form filed by More than One Reporting ST. LOUIS, MO 63167 Person (City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned 2. Transaction Date 2A. Deemed 4. Securities Acquired 5. Amount of

1.Title of 6. Ownership 7. Nature of Security (Month/Day/Year) Execution Date, if Transaction(A) or Disposed of (D) Securities Form: Direct Indirect (Instr. 3) Code (Instr. 3, 4 and 5) Beneficially (D) or Beneficial any (Month/Day/Year) (Instr. 8) Owned Indirect (I) Ownership Following (Instr. 4) (Instr. 4) Reported (A) Transaction(s) (Instr. 3 and 4) Code V Amount (D) Price Common 10/24/2008 3,573 D Stock

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

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

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1. Title of Derivative	2. Conversion	3. Transaction Date (Month/Day/Year)		4.	5.	6. Date Exerc Expiration D		7. Title and Amount of		
Security (Instr. 3)	or Exercise Price of Derivative Security	(X. Cara)	any (Month/Day/Year)	Code (Instr. 8)	of	of (Month/Day/Year) Derivative Securities Acquired (A) or Disposed of (D) Instr. 3,		Underlying Securities (Instr. 3 and	Security (Instr. 5)	Secur Bene Owne Follo Repo Trans (Instr
				Code V	(A) (D)	Date Exercisable	Expiration Date	Title Amo or Num of	nber	

Reporting Owners

Reporting Owner Name / Address	Relationships						
FB	Director	10% Owner	Officer	Other			
Fields Janice L							
800 N. LINDBERGH BLVD.	X						
ST. LOUIS, MO 63167							

Signatures

Christopher A. Martin, Attorney-in-Fact

**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).

Represents dividend equivalents with respect to shares of deferred common stock deliverable upon termination as a director under the Monsanto Company Non-Employee Director Equity Incentive Compensation Plan. Shares of stock are credited in the form of

(1) hypothetical shares to a stock unit account in installments on the last day of each plan month during the director's term and for the payment of dividends. Shares of deferred stock not credited to the stock unit account because of termination as a director before the end of the director's term are forfeited.

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.

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