MONSANTO CO /NEW/

Form 4

October 17, 2007

FORM 4

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF

SECURITIES

OMB Number:

3235-0287

Expires:

January 31, 2005

0.5

Estimated average burden hours per

OMB APPROVAL

response...

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

Check this box

obligations may continue. See Instruction

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

1(b).

(Print or Type Responses)

1. Name and Address of Reporting Person * LEIDY MARK J			2. Issuer Name and Ticker or Trading Symbol MONSANTO CO /NEW/ [MON]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable)		
(Last)	(Last) (First) (Middle)		3. Date of Earliest Transaction	(Check all applicable)		
800 N. LINDBERGH BLVD.		VD.	(Month/Day/Year) 10/15/2007	Director 10% Owner _X Officer (give title Other (specify below) EVP - Manufacturing		
(Street)			4. If Amendment, Date Original	6. Individual or Joint/Group Filing(Check		
ST LOUIS, MO 63167			Filed(Month/Day/Year)	Applicable Line) _X_ Form filed by One Reporting Person Form filed by More than One Reporting Person		

(Cit	y)	(State)	(Zip) Tabl	e I - Non-I	Derivative	Securi	ties Acqui	red, Disposed of,	or Beneficiall	y Owned
1.Title o Security (Instr. 3)	(M	Transaction Date fonth/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. 4. Securities Acquired (A) Transaction Disposed of (D) Code (Instr. 3, 4 and 5) (Instr. 8)			5. Amount of 6. Securities Ownership Beneficially Form: Owned Direct (D) Following or Indirect Reported (I)	7. Nature of Indirect Beneficial Ownership (Instr. 4)		
				Code V	Amount	or (D)	Price	Transaction(s) (Instr. 3 and 4)	(Instr. 4)	
Comm Stock	on 10	/15/2007		S <u>(1)</u>	1,200	D	\$ 93.77	66,376	D	
Comm Stock	on 10	/15/2007		S <u>(1)</u>	700	D	\$ 93.75	65,676	D	
Comm Stock	on 10	/15/2007		S <u>(1)</u>	100	D	\$ 93.76	65,576	D	
Comm Stock	on 10	/15/2007		S <u>(1)</u>	200	D	\$ 93.74	65,376	D	
Comm Stock	on 10	/15/2007		S <u>(1)</u>	200	D	\$ 93.73	65,176	D	

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Common Stock	10/15/2007	S <u>(1)</u>	700	D	\$ 93.72 6	54,476	D
Common Stock	10/15/2007	S <u>(1)</u>	1,327	D	\$ 93.7 6	53,149	D
Common Stock	10/15/2007	S <u>(1)</u>	173	D	\$ 93.69 6	52,976	D
Common Stock	10/15/2007	S <u>(1)</u>	900	D	\$ 93.68 6	52,076	D
Common Stock	10/15/2007	S <u>(1)</u>	100	D	\$ 93.67 6	51,976	D
Common Stock	10/15/2007	S <u>(1)</u>	800	D	\$ 93.64 6	51,176	D
Common Stock	10/15/2007	S <u>(1)</u>	100	D	\$ 93.65 6	51,076	D
Common Stock	10/15/2007	S(1)	463	D	\$ 93.63 6	50,613	D
Common Stock	10/15/2007	S <u>(1)</u>	237	D	\$ 93.62 6	50,376	D
Common Stock	10/15/2007	S(1)	200	D	\$ 93.61 6	50,176	D
Common Stock	10/15/2007	S <u>(1)</u>	100	D	\$ 93.59 6	50,076	D
Common Stock	10/15/2007	M	21,034	A	\$ 20.805 8	31,110	D
Common Stock	10/15/2007	S	3,700	D	\$ 91 7	77,410	D
Common Stock	10/15/2007	S	500	D	\$ 91.01 7	76,910	D
Common Stock	10/15/2007	S	100	D	\$ 91.02 7	76,810	D
Common Stock	10/15/2007	S	300	D	\$ 91.04 7	76,510	D
Common Stock	10/15/2007	S	500	D	\$ 91.06 7	6,010	D
Common Stock	10/15/2007	S	100	D	\$ 91.07 7	75,910	D
Common Stock	10/15/2007	S	100	D	\$ 91.08 7	75,810	D
Common Stock	10/15/2007	S	2,300	D	\$ 91.09 7	73,510	D
	10/15/2007	S	1,100	D	\$ 91.1 7	2,410	D

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Common Stock								
Common Stock	10/15/2007	S	1,000	D	\$ 91.11	71,410	D	
Common Stock	10/15/2007	S	1,100	D	\$ 91.12	70,310	D	
Common Stock	10/15/2007	S	3,900	D	\$ 91.13	66,410	D	
Common Stock						319	I	By 401(k) Plan

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

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SEC 1474

(9-02)

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

1. Titl Deriv Secur (Instr.	ative ity	2. Conversion or Exercise Price of Derivative	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	TransactionDerivative Code Securities (Instr. 8) Acquired (A) or Disposed of		6. Date Exercisab Expiration Date (Month/Day/Year		7. Title and A Underlying S (Instr. 3 and A	Securities
		Security				(D) (Instr. 3, 4, and 5)				
					Code V	(A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Share
Option (right buy)	t to	\$ 20.805	10/15/2007		M	21,034	11/15/2005(2)	10/28/2014	Common Stock	21,034

Reporting Owners

Reporting Owner Name / Address	Relationships					
•	Director	10% Owner	Officer	Other		
LEIDY MARK J						
800 N. LINDBERGH BLVD.			EVP - Manufacturing			
ST LOUIS, MO 63167						

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Signatures

/s/ Christopher A. Martin, Attorney-in-Fact

10/17/2007

**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) These sales were effected pursuant to a Rule 10b5-1 trading plan adopted by the Reporting Person on July 5, 2007.
 - One third of the options became exercisable on November 15, 2005, one-third of the options became exercisable on November 15, 2006
- (2) 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.

Remarks:

The Reporting Person had multiple transactions on October 15, 2007. Due to a limitation on the number of transactions that can be electronically filed on Form 4, the Reporting Person is reporting these transactions on two separate Form 4s. This Form 4 is 1 of 2.

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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