STEINER GERALD A

Check this box

if no longer

subject to

Section 16.

Form 4 or

obligations

Form 5

Form 4

March 21, 2007

FORM 4

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF

OMB Number:

3235-0287

Expires:

January 31, 2005

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OMB APPROVAL

SECURITIES Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,

may continue. See Instruction 1(b).

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 * STEINER GERALD A | | | 2. Issuer Name and Ticker or Trading Symbol MONSANTO CO /NEW/ [MON] | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) | | |
|--|---------|----------|---|--|--|--|
| (Last) (First) (Middle) 800 N. LINDBERGH BLVD. | | (Middle) | 3. Date of Earliest Transaction | (====== an approact) | | |
| | | /D. | (Month/Day/Year) 03/19/2007 | Director 10% OwnerX Officer (give title Other (specify below) EVP Commercial Acceptance | | |
| (Street) | | | 4. If Amendment, Date Original | 6. Individual or Joint/Group Filing(Check | | |
| ST. LOUIS, M | O 63167 | | Filed(Month/Day/Year) | Applicable Line) _X_ Form filed by One Reporting Person Form filed by More than One Reporting Person | | |

| (City) | (State) | (Zip) Tab | ole I - Non- | Derivative | Secui | rities Acquir | red, Disposed of, | or Beneficiall | y Owned |
|--------------------------------------|---|---|-----------------|---------------------------|----------------|------------------|--|--|---|
| 1.Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | Code (Instr. 8) | onor Dispos (Instr. 3, | ed of (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) |
| Common Stock | 03/19/2007 | | Code V M(1) | Amount 18,540 | (D) | Price \$ 16.1925 | 99,894 | D | |
| Common Stock | 03/19/2007 | | S <u>(1)</u> | 940 | D | \$ 53.09 | 98,954 | D | |
| Common Stock | 03/19/2007 | | S <u>(1)</u> | 300 | D | \$ 53.05 | 98,654 | D | |
| Common Stock | 03/19/2007 | | S(1) | 900 | D | \$ 53.04 | 97,754 | D | |
| Common Stock | 03/19/2007 | | S(1) | 100 | D | \$ 53.08 | 97,654 | D | |

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| Common Stock | 03/19/2007 | S <u>(1)</u> | 200 | D | \$ 53.07 | 97,454 | D |
|-----------------|------------|--------------|-------|---|----------|--------|---|
| Common Stock | 03/19/2007 | S <u>(1)</u> | 1,100 | D | \$ 53.06 | 96,354 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 500 | D | \$ 53.1 | 95,854 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 1,500 | D | \$ 53.12 | 94,354 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 500 | D | \$ 53.13 | 93,854 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 100 | D | \$ 53.14 | 93,754 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 700 | D | \$ 53.15 | 93,054 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 1,600 | D | \$ 53.16 | 91,454 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 100 | D | \$ 53.17 | 91,354 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 300 | D | \$ 52.54 | 91,054 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 1,100 | D | \$ 52.53 | 89,954 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 600 | D | \$ 52.52 | 89,354 | D |
| Common Stock | 03/19/2007 | S(1) | 1,300 | D | \$ 52.51 | 88,054 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 700 | D | \$ 52.56 | 87,354 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 800 | D | \$ 52.5 | 86,554 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 200 | D | \$ 52.55 | 86,354 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 700 | D | \$ 52.46 | 85,654 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 400 | D | \$ 52.44 | 85,254 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 1,200 | D | \$ 52.42 | 84,054 | D |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 600 | D | \$ 52.45 | 83,454 | D |
| | 03/19/2007 | S <u>(1)</u> | 400 | D | \$ 52.43 | 83,054 | D |

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| Common Stock | | | | | | | | | |
|---|------------|--------------|-------|---|----------|--------|---|-------------------|--|
| Common Stock | 03/19/2007 | S(1) | 1,200 | D | \$ 52.41 | 81,854 | D | | |
| Common Stock | 03/19/2007 | S <u>(1)</u> | 500 | D | \$ 52.47 | 81,354 | D | | |
| Common Stock | | | | | | 3,775 | 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)

5. Number of 6. Date Exercisable and

7. Title and Amount of

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

| Derivative | Conversion | (Month/Day/Year) | Execution Date, if | TransactionDerivative | | Expiration Date | | Underlying Securities | |
|-----------------------|-------------|------------------|--------------------|-----------------------|----------------|------------------|-----------------|-----------------------|------------------------|
| Security | or Exercise | | any | Code | Securities | (Month/Day/Year) | | (Instr. 3 and 4) | |
| (Instr. 3) | Price of | | (Month/Day/Year) | (Instr. 8) | Acquired (A) | | | | |
| | Derivative | | | | or Disposed of | | | | |
| | Security | | | (D) | | | | | |
| | | | | | (Instr. 3, 4, | | | | |
| | | | | | and 5) | | | | |
| | | | | | | Date Exercisable | Expiration Date | Title | Amount or Number |
| | | | | Code V | (A) (D) | | | | of Share |
| Option (Right to Buy) | \$ 16.1925 | 03/19/2007 | | M(1) | 18,540 | 03/15/2005(2) | 02/27/2014 | Common Stock | 18,54 |

Reporting Owners

Attorney-in-Fact

1. Title of 2.

| Reporting Owner Name / Address | Relationships | | | | | | |
|---|---------------|-----------|---------------------------|-------|--|--|--|
| · · · · · · · · · · · · · · · · · · · | Director | 10% Owner | Officer | Other | | | |
| STEINER GERALD A 800 N. LINDBERGH BLVD. ST. LOUIS, MO 63167 | | | EVP Commercial Acceptance | | | | |
| Signatures | | | | | | | |
| Christopher A. Martin, | | 03/21/2 | 2007 | | | | |

03/21/2007

3. Transaction Date 3A. Deemed

**Signature of Reporting Person Date

Reporting Owners 3

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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) The sales and stock option exercise reported on this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by the Reporting Person on October 16, 2006.
- 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 became exercisable on March 15, 2007, subject to the terms and conditions of the Monsanto Company Long Term Incentive Plan.

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.