## Edgar Filing: MONSANTO CO /NEW/ - Form 4

| MONSANT  | O CO /NEW/   |   |  |                            |  |                       |             |  |  |   |  |
|--|--|---|--|----------------------------|--|-----------------------|-------------|--|--|---|--|
| Form 4   | 2 2010   |   |  |                            |  |                       |             |  |  |   |  |
| September 0  |  |   |  |                            |  |                       |             |  |  |   |  |
| FORM   | UNITED   | STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF<br>SECURITIES Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,<br>Section 17(a) of the Public Utility Holding Company Act of 1935 or Section |  |                            |  |                       |             |  |  | 3 APPROVAL<br>.: 3235-0287                      |  |
| Check th<br>if no long<br>subject to<br>Section 1<br>Form 4 c<br>Form 5<br>obligatio<br>may cont<br>See Instr<br>1(b). | ger<br>5<br>16.<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |   |  |                            |  |                       |             |  |  | January 31,<br>2005<br>average<br>rs per<br>0.5 |  |
| (Print or Type ]   | Responses)   |   |  |                            |  |                       |             |  |  |   |  |
| HARPER ARTHUR H Sy   |  |   | 2. Issuer Name <b>and</b> Ticker or Trading<br>Symbol<br>MONSANTO CO /NEW/ [MON] |                            |  |                       |             | 5. Relationship of Reporting Person(s) to Issuer   |  |   |  |
| (Last)   | (First) (N   | /liddle)  | (Chec  |                            |  |                       |             | ck all applicable)   |  |   |  |
| (Mont<br>800 N. LINDBERGH BLVD.<br>(Street) 4. If A<br>Filed(1   |  |   | (Month/Day/Year)<br>09/01/2010   |                            |  |                       |             | X_ Director 10% Owner<br>Officer (give title Other (specify<br>below)  |  |   |  |
|  |  |   |  | ndment, Da<br>nth/Day/Year | -                                      | 1                     |             | <ul> <li>6. Individual or Joint/Group Filing(Check<br/>Applicable Line)</li> <li>_X_ Form filed by One Reporting Person</li> <li> Form filed by More than One Reporting</li> </ul> |  |   |  |
| ST. LOUIS  | , MO 63167   |   |  |                            |  |                       |             | Person   |  | r8  |  |
| (City)   | (State)  | (Zip)   | Tabl   | e I - Non-D                | erivative                              | Secur                 | ities Acq   | uired, Disposed of   | , or Beneficial  | ly Owned  |  |
| 1.Title of<br>Security<br>(Instr. 3)   | 2. Transaction Date<br>(Month/Day/Year)  | ansaction Date 2A. Deemed<br>th/Day/Year) Execution Date, if<br>any<br>(Month/Day/Year)   |  |                            | 4. Securi<br>on(A) or Di<br>(Instr. 3, | spose<br>4 and<br>(A) | d of (D)    | Beneficially<br>Owned  | 6. Ownership<br>Form: Direct<br>(D) or<br>Indirect (I)<br>(Instr. 4) |   |  |
| Common   | 09/01/2010   |   |  |                            | Amount<br>1,806                        | or<br>(D)             | Price<br>\$ | (Instr. 3 and 4)   | D  |   |  |
| Stock  | 09/01/2010   |   |  | А                          | (1)                                    | А                     | 53.99       | 18,777   | D  |   |  |
| Common<br>Stock  | 09/01/2010   |   |  | А                          | 1,806<br>(2)                           | А                     | \$<br>53.99 | 20,583   | D  |   |  |

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

Persons who respond to the collection of information contained in this form are not required to respond unless the form 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<br>Derivati<br>Security<br>(Instr. 3 | ve Conversion<br>or Exercise | 3. Transaction Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date, if<br>any<br>(Month/Day/Year) | 4.<br>Transacti<br>Code<br>(Instr. 8) | 5.<br>orNumber<br>of<br>Derivative<br>Securities<br>Acquired<br>(A) or<br>Disposed<br>of (D)<br>(Instr. 3,<br>4, and 5) | ;                   | Date               | Amou<br>Unde<br>Secur | le and<br>unt of<br>rlying<br>ities<br>. 3 and 4) | 8. Price of<br>Derivative<br>Security<br>(Instr. 5) | 9. Nu<br>Deriv<br>Secu<br>Bene<br>Owne<br>Follo<br>Repo<br>Trans<br>(Instr |
|---|------------------------------|---|---|---------------------------------------|---|---------------------|--------------------|-----------------------|---|---|--|
|   |                              |   |   | Code V                                | (A) (D)   | Date<br>Exercisable | Expiration<br>Date | Title                 | Amount<br>or<br>Number<br>of<br>Shares            |   |  |

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## **Reporting Owners**

| Reporting Owner Name / Address                                   | Relationships |            |         |       |  |  |  |
|--|---------------|------------|---------|-------|--|--|--|
| L O  | Director      | 10% Owner  | Officer | Other |  |  |  |
| HARPER ARTHUR H<br>800 N. LINDBERGH BLVD.<br>ST. LOUIS, MO 63167 | Х             |            |         |       |  |  |  |
| Signatures   |               |            |         |       |  |  |  |
| Jennifer L. Woods,<br>Attorney-in-Fact                           |               | 09/03/2010 | )       |       |  |  |  |

\*\*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 shares of deferred common stock deliverable upon termination as a director under the Monsanto Company Non-Employee Director Equity Incentive Compensation Plan. Shares of deferred stock are credited in the form of hypothetical shares to a stock unit

(1) Director Equity incentive compensation rule, on 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.

Represents shares of restricted stock granted under the Monsanto Company Non-Employee Director Equity Incentive Compensation Plan.(2) Shares of restricted stock vest in installments on the last day of each plan month during the director's term. Shares of restricted stock that do not vest 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.