



ITEM 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers

On December 6, 2010, Monsanto Company's Board of Directors elected Laura K. Ipsen to the Board of Directors and appointed Ms. Ipsen to its Science and Technology Committee and its Sustainability and Corporate Responsibility Committee. Ms. Ipsen was elected to the class of directors whose terms expire at the Company's 2011 annual meeting of shareowners. In addition, the Board determined that Ms. Ipsen is independent under the New York Stock Exchange Listing Standards and the categorical independence standards of the Board of Directors' Charter and Corporate Governance Guidelines.

Ms. Ipsen is the Senior Vice President and General Manager, Connected Energy Industries for Cisco Systems, Inc., a manufacturer of Internet Protocol based networking products.

Ms. Ipsen will be entitled to receive the same compensation for service as a director as is provided to other directors of the Company under the Non-Employee Director Equity Incentive Compensation Plan (the "Plan"), which is described in more detail in the Proxy Statement for our 2011 annual meeting. Under the Plan, Ms. Ipsen will receive an annual base retainer having a value of \$195,000, which will be pro-rated for fiscal 2011 to reflect nine months of service. Half of the aggregate retainer is payable in deferred common stock, and the remainder is payable, at the election of each director, in the form of restricted common stock, deferred common stock, current cash and/or deferred cash. Pursuant to the Plan Ms. Ipsen was also provided a grant of restricted stock upon commencement of service as a member of the Board of Directors equal to the full annual base retainer divided by the closing price of a share of the Company's common stock on the commencement date, which amounted to 3,120 shares of restricted common stock.

A press release announcing the election of Ms. Ipsen as a director, as described above, is attached hereto as Exhibit 99.

ITEM 9.01 Financial Statements and Exhibits

(d) Exhibits. The following document is filed as an exhibit to this report:

Exhibit 99 Press Release dated December 6, 2010

---

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: December 10, 2010

MONSANTO COMPANY

By:	/s/ Jennifer L. Woods
Name:	Jennifer L. Woods
Title:	Assistant Secretary

EXHIBIT INDEX

Exhibit Number	Description of Exhibit
99	Press Release dated December 6, 2010

5

---