

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

March 13, 2015

Pierre Courduroux Chief Financial Officer Monsanto Company 800 North Lindbergh Blvd. St. Louis, Missouri 63167

Re: Monsanto Company

Form 10-K for the Fiscal Year Ended August 31, 2014

Filed October 29, 2014 File No. 001-16167

Dear Mr. Courduroux:

We have completed our review of your filing. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or the filing and the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States. We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable rules require.

Sincerely,

/s/ Melissa Raminpour

Melissa Raminpour Branch Chief