



DIVISION OF
CORPORATION FINANCE

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

February 5, 2013

Via E-Mail

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

**Re: Monsanto Company
Form 10-K for the year ended August 31, 2012
Filed October 19, 2012
File No. 001-16167**

Dear Mr. Courduroux:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within 10 business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Non-GAAP Financial Measures, page 19

1. We note you define free cash flow as the total of net cash provided or required by operating activities and net cash provided or required by investing activities. We further note you believe free cash flow is useful to investors and management as a measure of the ability of your business to generate cash and this cash can be used to meet business needs and obligations, to reinvest in the company for future growth, or to return to your shareowners through dividend payments or share repurchases. In this regard, please consider revising your disclosure to also include a statement that indicates free cash flow should not be interpreted to represent residual cash flow available for discretionary purposes (as it may exclude other mandatory expenditures such as debt service), to avoid any potential misleading inferences about its usefulness. Refer to Question 102.07 of the Compliance and Disclosure Interpretations issued by the Division of Corporation Finance on Non-GAAP Financial Measures.

Results of Operations, page 21

2. We note no discussion of cost of sales other than in the context of gross profit and that is to a limited degree. Given the significance of such costs to your results of operations for each period presented, and for a company with the size and breadth of operations as yours, please revise and expand your MD&A in future filings to separately quantify and discuss factors responsible for changes in the levels of the Company's cost of sales at both the consolidated and the segment level during all periods presented in the Company's financial statements as required by Item 303 of Regulation S-K. As part of your revised disclosure, please revise to quantify and discuss the impact of each significant component of costs comprising cost of sales that caused cost of sales to materially vary (or not vary when expected to). In this regard we believe materiality should be assessed in relation to both income from operations and income from continuing operations before income taxes. This disclosure should be presented in a manner so as to allow investors to discern the relative contribution of each of multiple components cited to the total change in cost of sales. Please note that even when total amounts of costs of sales do not materially vary from period to period, the impacts of material variances in components of cost of sales that offset each other should be separately disclosed, quantified, and discussed (not netted). Please provide us with an example of your proposed disclosure.
3. Also, given the potential for differing or offsetting results in your various segments, we encourage you to also provide the above disclosures at the segment level. At a minimum, we believe your segment disclosures would be more meaningful if cost of sales were disclosed for each segment as appropriate, so that investors may readily see the relative magnitude of changes in these costs. Please provide us with an example of your proposed disclosure.

Note 26. Commitments and Contingencies, page 102

4. Under "Governmental Proceedings and Undertakings" on page 13, you discuss a Notice of Violation issued to you by the EPA on May 25, 2011, and you indicate that you are working with them to reach resolution. It is unclear whether this case has been addressed in the notes to the financial as part of the cases described in the notes. If it has not been addressed, please tell us and revise future filings to give an estimate of the possible loss or range of loss or state that such an estimate cannot be made pursuant to the requirements of ASC 450.

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 Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

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In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to 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.

You may contact Effie Simpson at (202) 551-3346, or in her absence, Jean Yu at (202) 551-3305 if you have questions regarding comments on the financial statements and related matters. Please contact the undersigned at (202) 551-3750 with any other questions.

Sincerely,

/s/ Linda Cvrkel

Linda Cvrkel
Branch Chief