Production economics of GMO vs. Non-GMO Soybean
Available alternatives to growers and their economic performance

Workshop, June 29, 10:00 – 11:00

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I. Background

(1) In 2014 around 82% of the soybean global acreage was cultivated with GMO soybean[1]. Major exporters as US, BR and AR have more than 90% of its area under GM production. The biotech industry has developed different types of GM – for example Roundup Ready (tolerance to glyphosate) and Intacta (glyphosate plus Bt trait), offering a diverse portfolio to farmers. Additionally, price incentives and increased resistance have motivated farmers to grow non-GM soybeans.

(2) These developments increased the alternatives for farmers when growing soybean. They decide either among the different GM varieties as well as the conventional. For *agri benchmark* it is essential to understand the economic drivers of these decisions, since they impact the supply of soybean as well as on-farm performance of soybean production.

II. Goals

(1) What are the major alternatives for soybean growers in US, BR and CA? How important are they in the total soybean production?

(2) How do these alternatives perform in the typical farms? Which factors drive the decision of growers?

(3) What kind of trends do we expect for the near future? New varieties, increase of non-GM acreage, etc.?

III. Key questions to address

(1) What is the current status and how do the alternatives perform (e.g. yields of non-GMO)?

(2) Which are indifference prices between GM and non-GM?

(3) Is there any technical constrains that inhibits famers to freely choose among the alternatives? I.e. availability of non-GM traders, minimum volume to justify “special” supply chain, availability of genetic material, etc.

[1] James, C. 2014. Global Status of Commercialized Biotech/GM Crops: 2014. ISAAA Brief No. 49. ISAAA: Ithaca, NY