

## Trait-Based Modeling of GM Corn Adoption

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### IMBA Project 2007-7

Project Period: 10/1/06-6/30/09

**Progress Report** (covers period of 10/1/06-6/30/08)

Overall the project has completed the year 1 tasks set out in the original project and made strong progress on the year 2 tasks that involve estimations, analysis, and writing journal articles. The work so far has produced a journal article in 3<sup>rd</sup> review at *American Journal of Agricultural Economics*, a working paper, and numerous conference presentations. We expect to have a number of additional working papers and journal submissions ready by the end of this summer.

**Survey work:** The team has designed and implemented the 2007 survey of corn producers in Minnesota, Wisconsin, and Illinois in which farmers were asked their *ex ante* evaluation of new traits in GM corn, such as drought resistance and the next generation Bt. This survey received high response rates that will make for high quality data for analysis.

**Methodological work:** Professor Useche has taken the lead on the design and implementation of the econometric analysis and the estimation of trait values, bundling values, and market shares of different GM corn varieties, including the new GM traits. In the process, we have developed a model that accounts for regional and spatial heterogeneity of farms and calibrated our model to value bundled traits.

### Papers:

Useche, Pilar, Bradford Barham, and Jeremy Foltz. "A Trait Specific Model of GM Crop Adoption among Corn Farmers in the Upper Midwest." in submission (3<sup>rd</sup> review) at *American Journal of Agricultural Economics*.

De Los Campos, Gustavo and Jeremy Foltz "Timing of Adoption for Genetically Modified Soybean in Wisconsin" Mimeo, U. of Wisconsin-Madison. 2007.

Barham, Bradford, Pilar Useche, Ursula Aldana, and Jeremy Foltz. "Dynamics of GM Corn Adoption in the Upper Midwest." Mimeo, U. of Wisconsin-Madison. 2008.

### Presentations:

U. of Wisconsin Madison (Barham, 2007, 2008 Foltz, 2007, 2008), U. of Florida (Useche), AAEA meetings (Useche, 2007, 2008).