

## EVALUATION OF NOVEL SOYBEAN INPUTS TO ENHANCE YIELD

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### Abstract

The U.S. average soybean yield was 43.5 bushels/acre in 2010 ([www.nass.usda.gov](http://www.nass.usda.gov)), with reports of much higher yields in some areas. With large yield differences among years and locations, as well as some high-profile marketing and publicity campaigns promoting “high yield” management, producers are interested in any inputs or management practices that might improve yields. High soybean prices at present and interest in finding ways to increase yield has led to emergence of a number of new products, many of which are not well-characterized with regard to activity or benefits. We have over the past two years compared the effect on soybean yield of ‘novel’ inputs and some traditional inputs, including fungicidal and insecticidal seed treatments, inoculants, biological growth enhancers, macronutrients, micronutrients, and growth- and reproduction-promoting hormones. The trials are conducted at four locations ranging from southern to northern Illinois: Brownstown, Urbana, Monmouth, and DeKalb. Over sites in 2010, only two treatment combinations – one with ten and one with eleven different products – yielded about 4.5 bu/acre (7 percent) higher than the checks (70.1 vs. 65.6 bu/acre). This difference was statistically significant but would not have resulted in a positive return on investment. Under conditions of these trials in 2010, some inputs like foliar fungicide increased yields at some locations, but not consistently across locations. These results will help producers make decisions to help optimize the mix of inputs used on soybean.

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