

## **Bean and Beet Farm Report**

### **2006 Field season**

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#### Projects at the Bean & Beet Research Farm in 2006

*a. Soybean aphid RAMP Trial*

*b. Syngenta seed treatment trial*

The Field Crops Entomology Program had two soybean projects at the Bean and Beet Farm. One was a continuation of a multi-state RAMP project examining the economics of soybean aphid management, and a soybean seed treatment trial using Syngenta products. The RAMP project compared aphid populations and yield in 1-acre replicated plots which were untreated, Cruiser seed-treated, sprayed on a threshold, and sprayed at the R3 stage with a tank mix of Warrior insecticide plus Headline fungicide. Aphid populations were extremely low in 2006. The high average aphid count in untreated soybean was less than 2 SBA per plant (compared to 17,000 SBA per plant in 2005). There was no difference in yields among the treatments. Economically, the threshold-treated plots did not have to be treated, thus the economic of untreated and threshold treated plots was more favorable than Cruiser or tank-mix sprayed plots. A similar trend was found in the second study, testing Syngenta seed treatments. Aphid populations were extremely low and yield was not significantly different among treatments.

The Bean and Beet Farm also has one of the traps for the Northcentral Regional Aphid Suction Trap Network, which now has over 40 sites in the Midwest. The suction trap is a 24-foot tall pipe that draws in air as well as migrating aphids. The trap is changed each week, and the insect sample is sent to the University of Illinois for sorting and identification. This year, the trap recorded flights of soybean aphid fall migrants going back to buckthorn. The data from the network has lead entomologists to predict a soybean aphid outbreak in 2007.