

# CruiserMaxx Seed Treatment on Soybeans

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## Objective

To determine yield response of soybeans and pest dynamics in CruiserMaxx versus untreated soybeans.

## Background

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Cooperator:	Bill Shininger	Row Width:	7.5 inches
County:	Fulton	Herbicides:	Pre- (5/4) 1qt Credit Extra, 2.5oz Valor, 3.5 oz Sencor, 2 qt Microtech
Soil Type:	Mermill loam, Rimer loamy fine sand, Wauseon fine sandy loam		Post-(6/18) 0.3 oz FirstRate, 4 oz Select, 1% COC
Tillage:	No-till		Post-(7/3) .5 oz Harmony GTXP, 1% COC & AMS
Previous Crop:	Corn	Harvest Pop:	175,000 plants/A
Soil Test:	NA	Harvest Date:	10/5/2005
Fertilizer Rate:	150 lbs 0-0-60		
Variety:	SQC2803F		
Planting Date:	5/10/2005		
Seeding Rate:	230,000 seeds/A		

## Methods

Plots were established with Cruiser Maxx treated (0.125 oz) and untreated soybean seed. The plots were 60 feet wide by 1130 feet long. The experiment had 4 replications in a randomized complete block design. A John Deere 750, 15-foot drill with 7.5-inch rows was used to plant the plots. Plant population counts were taken on 6/16/2005 in stage V3-V4. The plots were monitored for soybean aphid populations starting June 30<sup>th</sup> through July 28<sup>th</sup>. The plot was sprayed on August 1, 2005 with Warrior at a rate of 3.2 ounces per acre. The plots were harvest with a John Deere 9400 equipped with a 20-foot header and Green Star yield monitor. Yield data was post processed with ARCVIEW 3.3 and eliminated yield points near plot edges.

## Results

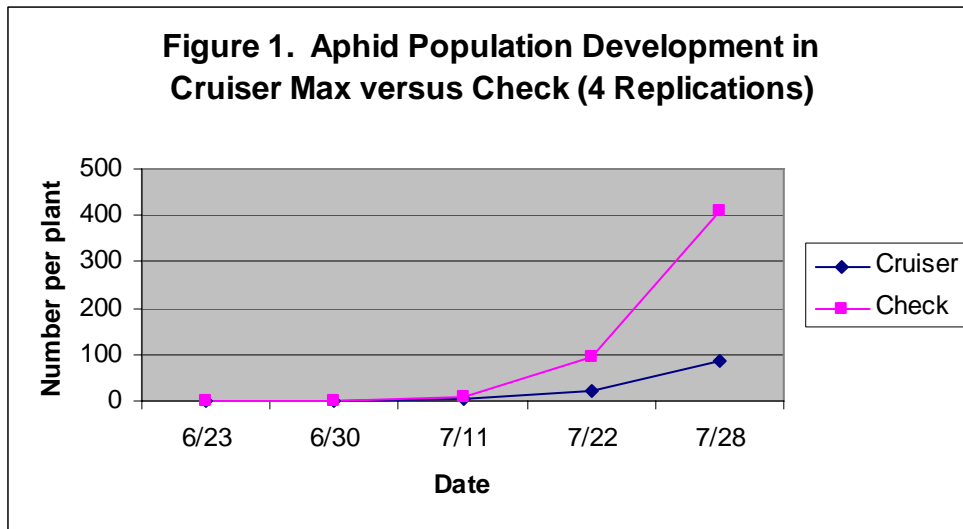
Table 1 shows a significant difference between plant populations of 7% less plants in the CruiserMaxx treated plot. This is reasonable if the planter was not calibrated for the treated seed. Treatment materials tend to change the flow over untreated seed. These results also indicate no pressure from early season root rot disease such as phytophthora.

Figure 1 shows aphid development in the plot. Aphids were found in the check plot on July 11. Aphids developed more rapidly in the check plot as compared to the Cruiser Max treated plot. The check plot reached the 250 aphid per plant threshold between July 22 and July 28<sup>th</sup>. In both plots the aphid numbers increased 4 fold during this period with the check reaching an average of 400 aphids per plant. The plots were sprayed on 8/1. From Figure 1 it can be expected that the check plot had reached threshold about 7 days earlier while the CruiserMaxx treated beans were likely just reaching threshold. Yield differences (Table 2) observed appear to have resulted from aphid populations seen in the check having reached threshold 1 week earlier (Figure 1). The extended feeding of aphids resulted in 4.3 bushels per acre less yield. CruiserMaxx did slow the

development of aphid population but did not result in making an insecticide treatment unnecessary.

**Table 1. Plant population.**

<b>Treatment</b>	<b>Plants per Acre</b>
CruiserMaxx	174,240
Check	186,437
LSD (0.05)	11,598



**Table 2. Yield Results**

<b>Treatment</b>	<b>Yield (bu/A)</b>
CruiserMaxx	57.5
Check	53.2
LSD (0.05)	1.1

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