

## CruiserMaxx<sup>®</sup> Beans – To Treat or Not to Treat?

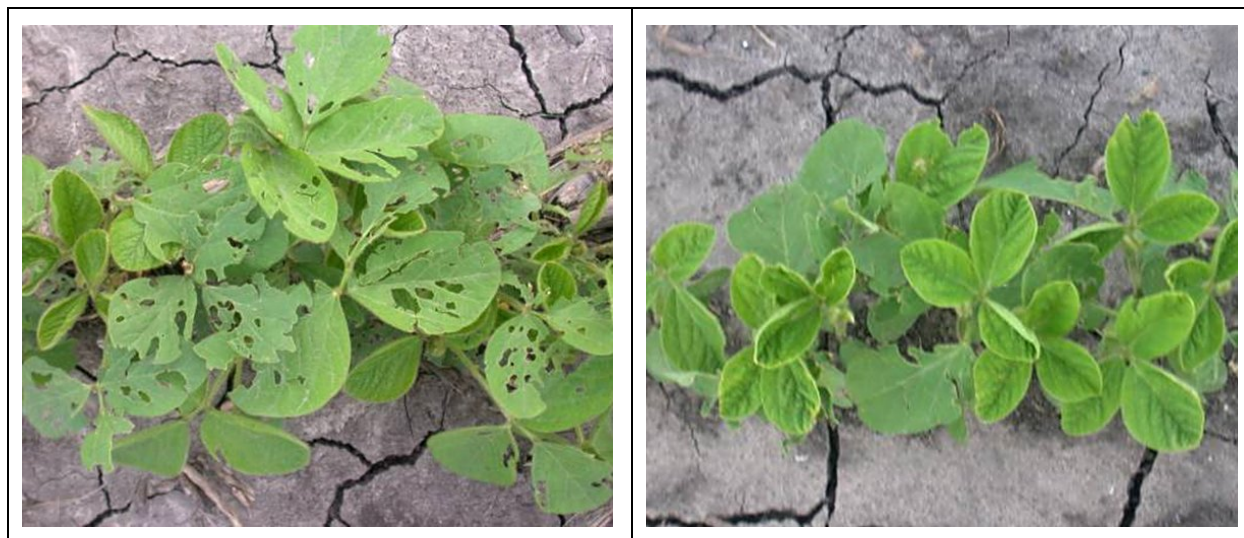
by Laura McCormack, Pioneer Area Agronomist

### Summary

- NEW for 2007, selected Pioneer<sup>®</sup> brand soybean varieties will be available with CruiserMaxx<sup>®</sup> Beans soybean seed treatment.
- CruiserMaxx Beans is a combination of Cruiser insecticide seed treatment (IST) and the fungicide seed treatment Apron<sup>®</sup> XL + Maxim<sup>®</sup>.
- Based on the label from Syngenta, CruiserMaxx Beans provides early-season protection against key soybean insect and disease pests including - bean leaf beetle, soybean aphid, seed corn maggot, wireworm, European chafer, Phythium, Rhizoctonia, Fusarium and early season Phytophthora. CruiserMaxx Beans has shown yield increases even under low insect pressure.
- CruiserMaxx Beans seed treatment is available only on the following NEW Pioneer varieties:  
**90M40 (RR), 91M01 (RR), 91M30 (RR), 91M41 (RR), 92M02 (RR), 92M11 (RR), 92M33 (RR), 92B38 (RR), 92M61 (RR) and 92M74 (RR), 92M91 (RR).**
- Insecticide treated soybeans are non-returnable.
- Seed treated with CruiserMaxx Beans is available only in PROBOX<sup>®</sup> Seed Handling System containers or 50 lb. paper bags.

### Research on Soybean Seed Treatments

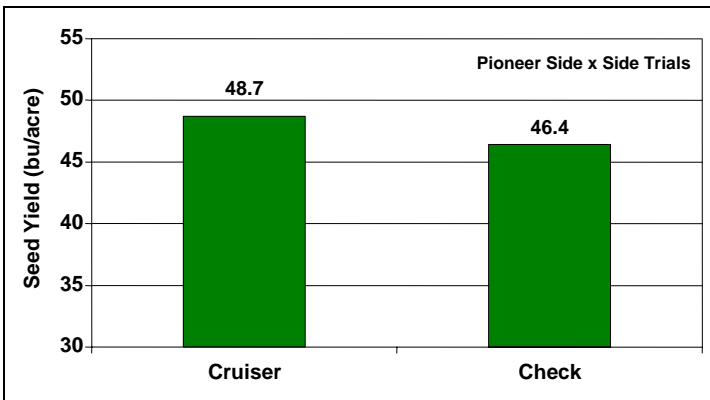
Research conducted at the University of Minnesota has shown a reduction in early soybean aphid populations using IST-treated seed. Pioneer Agronomy Sciences research using CruiserMaxx IST has shown a significant reduction in leaf defoliation from early bean leaf beetle (over-wintering generation) feeding as shown in Figure 1.



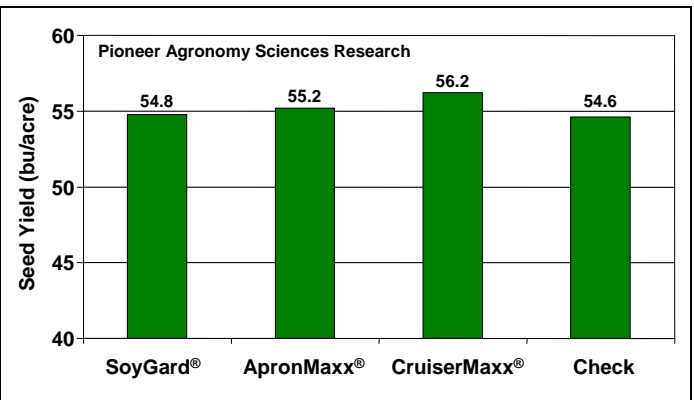
**Figure 1. Left:** Untreated check plot showing early season bean leaf beetle feeding.

**Right:** Soybean plot with CruiserMaxx<sup>®</sup> seed treatment.

Although yield losses from early season defoliation may not be large, reduction of potential for virus infections by foliar-feeding insects could be an additional benefit of an IST. The average yield increase of Cruiser from Pioneer side x side trials in Ontario over the past four years (41 comparisons) was +2.3 bu/acre (Figure 2). Results of Pioneer agronomy research conducted in 2004-2005 showed that Cruiser increased seed yield an average of +1.6 bu/acre even though none of the locations were under high early season insect pressure from either bean leaf beetle or soybean aphid (Figure 3).



**Figure 2.** Effect of Cruiser on soybean seed yield. Pioneer side x side trials, 41 comparisons. Ontario, Canada, 2004 to 2007.



**Figure 3.** Effect of soybean seed treatments on seed yield. 19 locations, 2004 to 2005.

Research in the lab and field has shown that thiametoxam, one of the active ingredients in CruiserMaxx Beans, can deliver more robust and vigorous plants (Figure 4). The increased vigor is evidenced by faster emergence, greater plant stands, earlier canopy and increased root mass. According to the manufacturer, this increased vigor may result in higher yields even in situations where there is no visible insect attack. An interesting overview of this can be found at:

[http://www.syngentacropprotection.com/assets/assetlibrary/canada\\_46006THX\\_pres11-06.pdf](http://www.syngentacropprotection.com/assets/assetlibrary/canada_46006THX_pres11-06.pdf)



**Figure 4.** Effect of CruiserMaxx® seed treatment on early growth and vigor of soybeans compared to untreated and ApronMaxx® seed treatment (two-row plots). Source: Pioneer Agronomy Sciences.

## Conclusions

It is well documented that early season bean leaf beetle (BLB) damage can reduce soybean yield and CruiserMaxx Beans does an excellent job controlling early season BLB feeding. In addition to controlling BLB, CruiserMaxx Beans helps protect growers' seed investment from many other damaging insects and seedling diseases that reduce stand and yield. Growers who are experiencing early season bean leaf beetle populations, early aphid infestations or stand establishment issues due to soil-borne diseases should consider trying Pioneer® brand soybeans treated with CruiserMaxx Beans next season. Comparing this treatment side by side with an untreated strip is an excellent way to determine the value of this seed treatment for your soybean acres.

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