



Advantages of a SmartStax[®] Corn Product in a Continuous Corn System

Trial Objective

- The corn rootworm (CRW) complex consists of the western and northern corn rootworm. This complex is the most economically damaging insect pest of corn in the U.S.
- Control tactics include crop rotation to a non-corn crop, a pyramided CRW *B.t.* corn product (two *B.t.* proteins directed towards the larval stage), and insecticide applications.
- Use of a pyramided corn product may be more effective in preventing economic injury than using a soil-applied insecticide on a non-CRW protected corn product.
- The objective of this study was to compare the yield of a pyramided CRW *B.t.* corn product to a non-CRW protected corn product with and without a soil-applied insecticide.

Research Site Details

Location	Soil Type	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield (bu/acre)	Seeding Rate (seeds/acre)
Monmouth, IL	Silt loam	Corn	Conventional	4/30/18	9/26/18	260	36K

- The treatments included products from the same genetic family:
 - A pyramided CRW *B.t.* corn product - 114 relative maturity SmartStax[®] RIB Complete[®] corn product with and without Force[®] 3G insecticide applied at planting in-furrow.
 - A non-CRW protected corn product - 114 relative maturity VT Double Pro[®] RIB Complete[®] corn product with and without Force[®] 3G insecticide applied at planting in-furrow.
- There were five replications of each treatment.
- This trial location has been in corn-on-corn production for over five years.
- CRW pressure was not measured in this trial.

Understanding the Results

- The average yield of the SmartStax[®] RIB Complete[®] corn product was 14 bu/acre above the VT Double Pro[®] RIB Complete[®] product from the same genetic family in this continuous corn production system.
- The yield of each corn product was increased by the inclusion of a soil-applied insecticide; about 6 bu/acre for the SmartStax[®] RIB Complete[®] corn product and about 10 bu/acre for the VT Double Pro[®] RIB Complete[®] corn product.

What Does This Mean for Your Farm?

- The CRW complex is always a risk in a continuous corn production system.
- This trial showed that using a SmartStax[®] RIB Complete[®] corn product will provide more protection against CRW than a soil-applied insecticide alone.



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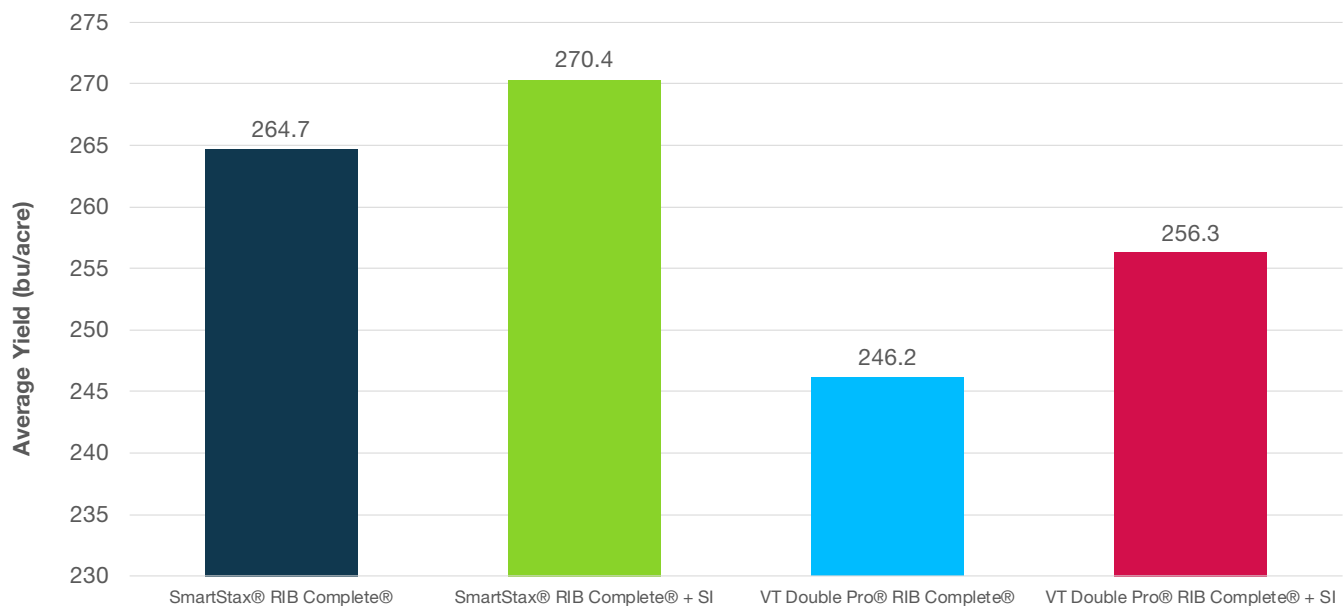


Figure 1. Average yields of the SmartStax® RIB Complete® corn product and the VT Double Pro® RIB Complete® corn product with and without a soil-applied insecticide in a continuous corn production system.

Legal Statements

The information discussed in this report is from a single site, replicated demonstration. This information piece is designed to report the results of this demonstration and is not intended to infer any confirmed trends. Please use this information accordingly.

Force®3G insecticide is a restricted use pesticide- 3rd party.

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B.t. products may not yet be registered in all states. Check with your seed brand representative for the registration status in your state.

IMPORTANT IRM INFORMATION: RIB Complete® corn blend products do not require the planting of a structured refuge except in the Cotton-Growing Area where corn earworm is a significant pest. SmartStax® RIB Complete® corn blend is not allowed to be sold for planting in the Cotton-Growing Area. **See the IRM/Grower Guide for additional information. Always read and follow IRM requirements.**

Performance may vary, from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields. All other trademarks are the property of their respective owners.

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