



ADVANTAGES OF PRODUCTS WITH SMARTSTAX® TECHNOLOGY FOR CORN ROOTWORM PROTECTION

TRIAL OVERVIEW

- Corn rootworm (CRW) (*Diabrotica virgifera*) is dubbed the billion-dollar pest due to the significant annual yield losses and control costs associated with its infestation.¹
- Crop rotation to a non-host crop, scouting, insecticide applications (soil- and/or foliar-applied), and corn product selection are major management strategies.
- Use of dual mode of action corn products for CRW protection can prove to be more efficient than using a soil-applied insecticide on a corn product without *Bacillus thuringiensis* (*B.t.*) CRW protection.

RESEARCH OBJECTIVE

- To demonstrate the advantages of a dual-mode *B.t.* CRW protected corn product, such as products with SmartStax® technology.

Location	Soil	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield/Acre	Planting Rate/Acre
Monmouth, IL	Silt Loam	Corn	Conventional	04/24/2017	09/28/2017	240 bu/acre	36,000 seeds/acre

SITE NOTES:

- Two treatments with 4 replications were established using two 108 RM corn products with the same genetic background.
 - A product with SmartStax® technology.
 - A product with VT Double PRO® technology + Force® 3G soil-applied insecticide.

UNDERSTANDING THE RESULTS

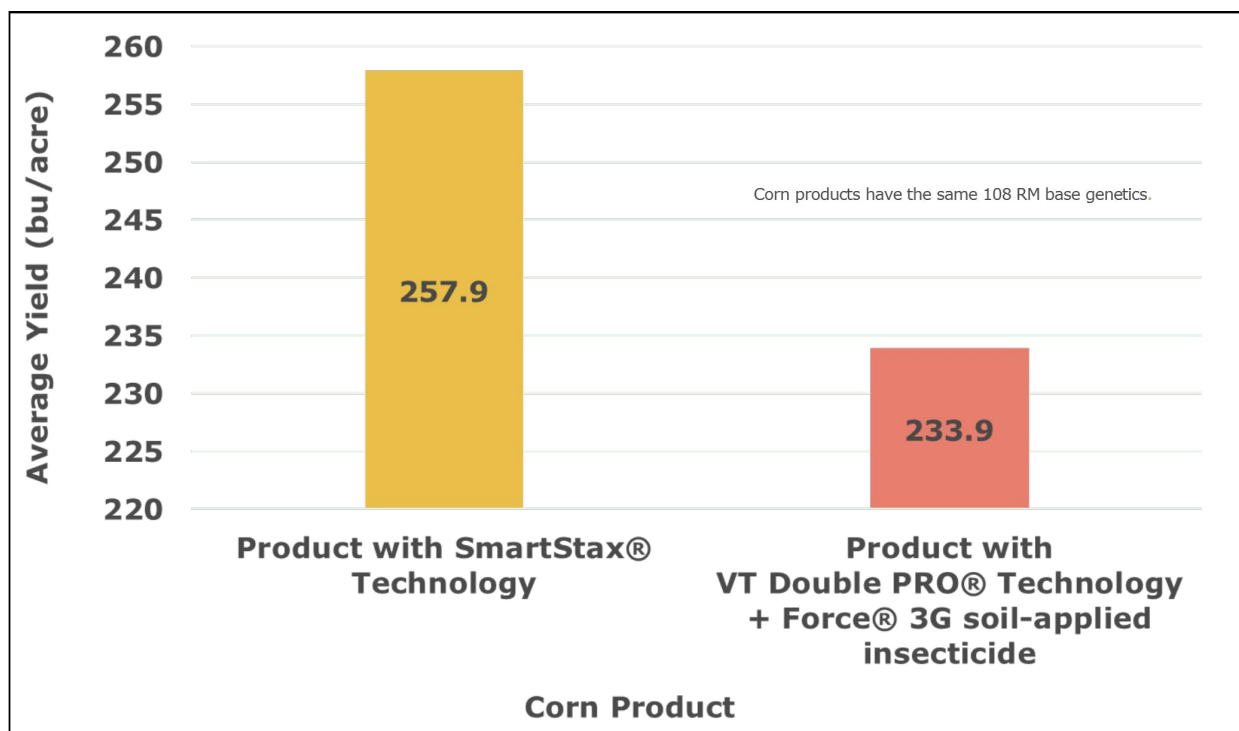


Figure 1. Average yield comparison of a product with SmartStax® technology compared to a product with VT Double PRO® technology + Force® 3G soil-applied insecticide at the Monsanto Learning Center at Monmouth, IL in 2017 (4 replications).



- Low levels of CRW pressure were observed at the Monsanto Learning Center at Monmouth, IL in 2017.
- Regardless of the low incidence of CRW, the product with SmartStax® technology demonstrated a yield advantage in this situation compared to the product with VT Double PRO® technology + Force® 3G soil-applied insecticide in a corn-on-corn situation (Figure 1).
- Yield advantages for *B.t.* protected CRW products with the same base genetics as products without *B.t.* CRW trait protection, especially when CRW pressure is low, are not always attributable to the *B.t.* trait.

WHAT DOES THIS MEAN FOR YOUR FARM?

- In a corn-on-corn situation, the use of a product with SmartStax® technology can provide more protection against CRW than the use of a soil-applied insecticide alone.
- Products with SmartStax® technology continue to provide assurance against CRW when planting into a corn-on-corn environment.
- Corn products for an operation should be selected based on needed agronomic characteristics for the fields for which the products will be grown. Characteristics include disease resistance, root and stalk strength, drought tolerance, adaptability for final use, and the use of *B.t.* insect protection when appropriate.

SOURCES

1 Gassmann, A. 2015. Management of western corn rootworm and other insect pests of corn. Iowa State University and USDA. <http://portal.nifa.usda.gov/web/crisprojectpages/1007123-management-of-western-corn-rootworm-and-other-insect-pests-of-corn.html>. 171016095229

LEGAL STATEMENT

For additional agronomic information, please contact your local brand representative.

Developed in partnership with Technology Development & Agronomy by Monsanto. The information discussed in this report is from a single-site demonstration trial. This informational piece is designed to report the results of this demonstration and is not intended to infer any confirmed trends. Please use this information accordingly.

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