

MONSANTO LEARNING CENTER AT GOTHENBURG, NE

COMPARISON OF CORN PRODUCTS FROM DIFFERENT ERAS TO WATER STRESS

TRIAL OVERVIEW

• This study highlights the advancements, through breeding and crop technologies, in the ability of corn products to yield in different environments.

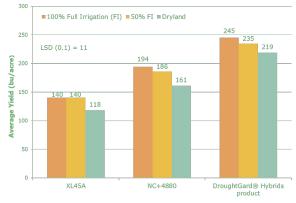
RESEARCH OBJECTIVE

Location	Soil	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield/Acre	Planting Rate/Acre
Gothenburg, NE	Hord silt loam	Soybean	Strip-tillage	04/26/2016	10/21/2016	260 bu/acre	33,940 seeds/acre

SITE NOTES:

- Three corn products were used in this study:
- A popular corn product from the 1970s, XL45A Brand, 110 relative maturity (RM), small seed, first product sold in an 80,000 seed count bag.
- A popular corn product from the 1990s, NC+ 4880 Brand, 111RM.
- A current product, DroughtGard® Hybrids with VT Double PRO® RIB Complete® Corn Blend product, 112 RM.
- Three irrigation treatments were used: 100% full irrigation (FI) (6 inches applied), 50% FI (3 inches applied), and a dryland
- Seasonal rainfall: April 6.7 inches; May 7.7 inches; June 2.65 inches; July 3.61 inches; August 0.69 inches; September 0.61 inches. Total 22 inches.
- -Environmental stress during the growing season was low as calculated by the stress units (SSUs) from Smartfield.
- Modern day herbicides were used for weed control, no insecticides or fungicides were applied.
- The study was set up as a randomized split plot design with three replications.

UNDERSTANDING THE RESULTS





Comparison of Corn Products from Different Eras to Water Stress - 2016

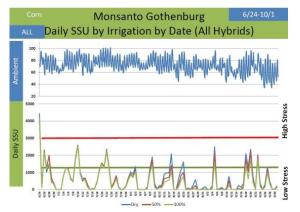
Comparison of Corn Products from Different Eras to Water Stress - 2015

- The DroughtGard® Hybrids with VT Double PRO® RIB Complete® Corn Blend product provided greater yield potential across irrigation environments when compared with the other corn products.
- · Comparing products in the dryland versus 50% FI treatments, the DroughtGard® Hybrids with VT Double PRO® RIB Complete® Corn Blend product produced 6% and 9% more grain than NC+4880 Brand and XL45A Brand, respectively.
- Similar results were obtained in 2015.
- The DroughtGard® Hybrids with VT Double PRO® RIB Complete® Corn Blend product had significantly less stalk lodging and barren plants than the other products (data not shown).



Demonstration Report

MONSANTO LEARNING CENTER AT GOTHENBURG, NE



Gothenburg Daily SSU by Irrigation by Date



1990s product NC+ 4880 Brand at 50% FI



1970s product XL45A Brand at 50% FI



DroughtGard® Hybrids with VT Double PRO® RIB Complete® Corn Blend product at 50% FI

WHAT DOES THIS MEAN FOR YOUR FARM?

- The DroughtGard® Hybrids with VT Double PRO® RIB Complete® Corn Blend product performed well across the different irrigation treatments.
- The value of DroughtGard® Hybrids with VT Double PRO® RIB Complete® Corn Blend products is the ability to perform across a wide range of environments, a consideration for farmers when evaluating corn products for a variable environment.
- · Corn breeders and crop technologies help improve drought stress for higher yield potential.

LEGAL STATEMENT

For additional agronomic information, please contact your local brand representative. Developed in partnership with Technology Development & Agronomy by Monsanto.

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B.t. products may not yet be registered in all states. Check with your Monsanto 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. See

the IRM/Grower Guide for additional Information. Always read and follow IRM requirements.
Individual results may vary, and performance may vary from location to location and from year to year. This result may not be an indicator of results you may obtain as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible.

ALWAYS READ AND FOLLOW PESTIGIDE LABEL DIRECTIONS. Roundup Ready technology contains genes that confer tolerance to glyphosate, an active ingredient in Roundup® brand agricultural herbicides. Agricultural herbicides containing glyphosate will kill crops that are not tolerant to glyphosate. DroughtGard®, Monsanto and Vine Design®, RiB Complete®, Roundup Ready 2 Technology and Design®, Roundup Ready®, Roundup® and VT Double PRO® are trademarks of Monsanto Technology LLC. ©2016 Monsanto Company. 161102113436 12142016JSC

