

CORN PRODUCT PERFORMANCE IN DROUGHT-STRESSED ENVIRONMENTS

TRIAL OVERVIEW

- Producers have many choices when selecting corn products that will fit various stress environments on their farm. However, it is hard to get data from environments that have consistent levels of stress.
- More data from these environments, particularly with corn products suited to these environments, can be extremely valuable to producers.

RESEARCH OBJECTIVE

- Compare a 113 RM DroughtGard® Hybrids with VT Double PRO® corn product to P1151AM, a 111 RM Pioneer® brand corn product with the Optimum® AcreMAX® trait package and branded AQUAMax®.
- Both corn products were evaluated in several moisture stress environments to determine if there is a yield advantage and to quantify the advantage if one exists.

Location	Soil	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield/Acre	Planting Rate/Acre
Gothenburg, NE	Silt Loam	Corn (5 years)	Conventional	05/18/2016	11/08/2016	220	34,000

UNDERSTANDING THE RESULTS



Figure 1. Planting in the Rainout Shelter using a four-row plot planter. Note the irrigation system being installed immediately after planting.

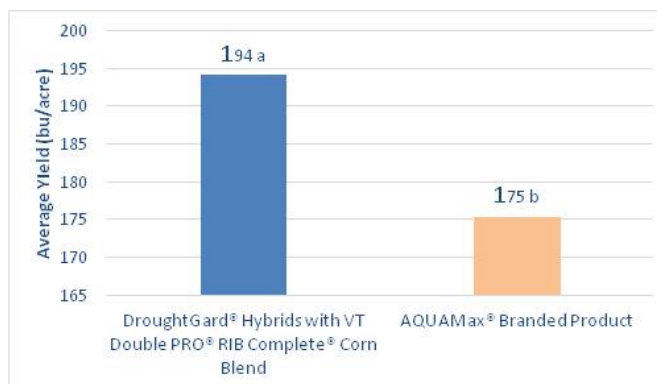


Figure 2. Across all stress levels in the study, the DroughtGard® Hybrids with VT Double PRO® RIB Complete® corn blend out-performed the AQUAMax® product across all irrigation treatments. (LSD 0.1 = 11.9)



Figure 3. On average, the DroughtGard® Hybrids with VT Double PRO® RIB Complete® corn blend product performed better than the AQUAMax® branded product in the 4-inch and 7-inch irrigation treatment, while the performance gap narrowed in the 10-inch irrigation treatment.

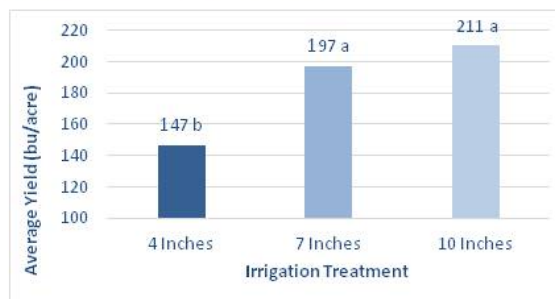


Figure 4. Yields across both corn products were impacted by irrigation treatment with the 4 inches of irrigation treatment yielding significantly lower than the 7 or 10 inches of irrigation. Water stress was imposed during the vegetative and grain-fill growth stages, with water applied near the VT growth stage to alleviate stress at pollination. (LSD 0.1 = 27.8)



Figure 5. DroughtGard® Hybrids with VT Double PRO® RIB Complete® corn blend displaying good staygreen at the mid-R5 growth stage in a plot irrigated with 4 inches of water.



Figure 6. AQUAmax® branded product displaying weaker staygreen at the mid-R5 growth stage in a plot irrigated with 4 inches of water.

WHAT DOES THIS MEAN FOR YOUR FARM?

- Research has shown that DroughtGard® Hybrids with VT Double PRO® corn products are a good choice in drought stressed yield environments.
- This demonstration indicates that DroughtGard® Hybrids with VT Double PRO® corn products also have high yield potential in environments where moisture stress is not a yield-limiting factor. Producers can have confidence in their corn product choice even when rainfall conditions are better than expected.
- Producers should carefully consider all corn product characteristics for proper product placement.
- Other considerations may supersede performance in moisture stress conditions.
- Contact your Monsanto seed representative for appropriate product placement recommendations.

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