



## PERFORMANCE OF 90-100 RM CORN PRODUCTS GROWN IN 110-115 RM REGIONS

### TRIAL OVERVIEW

- Concerns over potential water shortages and water restrictions in some corn growing areas of the western Great Plains have prompted some farmers to look at alternatives to full-season corn production with irrigation.
- One strategy for dealing with limited water availability is to use a shorter relative maturity (RM) corn product.
- Farmers considering this strategy will need to know what yield levels can be expected from corn products that are 10-20 day RM earlier than the products that are widely grown in that region.
- This trial took place over three seasons (from 2014-2016) at 5-6 locations per year.

### RESEARCH OBJECTIVE

- The objective of this study was to compare the yield performance of several 90-100 RM corn products grown in regions that typically grow 110-115 RM corn products.

Location	Soil	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield/Acre	Planting Rate/Acre
Bruning, NE	Silt loam	Corn	Conventional	05/06/2016	10/16/2016	240 bu/acre	32,000 seeds/acre
Battle Creek, NE	Loamy sand	Corn	Conventional	05/24/2016	10/26/2016	200 bu/acre	33,000 seeds/acre
Gothenburg, NE	Silt loam	Soybean	Strip Till	04/25/2016	10/20/2016	260 bu/acre	34,000 seeds/acre
Colby, KS	Silt loam	Sunflower	Strip Till	05/08/2016	10/13/2016	250 bu/acre	34,000 seeds/acre
Bethune, CO	Silt loam	Soybean	Strip Till	05/15/2016	10/17/2016	240 bu/acre	34,000 seeds/acre

#### SITE NOTES:

- Six different corn products with RM ranging from 93-108 were grown along with a 110 RM corn product as a control (check) at each location.
- All sites were irrigated to meet ET demands, and normal planting dates were targeted. Trial entries were replicated three times at all sites.

### UNDERSTANDING THE RESULTS

Corn Product	2014		2015		2016	
	Bu/acre	% of check	Bu/acre	% of check	Bu/acre	% of check
93 RM	202	82	214	86	187	81
96 RM	205	83	220	88	202	87
99 RM	210	85	----	----	----	----
100 RM	----	----	224	90	202	87
104 RM	218	88	229	92	210	91
108 RM	239	97	----	----	----	----
110 RM (check)	247	100	250	100	231	100
115 RM*	247		253		231	

Table 1. Average Yields across Locations (\*also used as a check but not grown at all locations)

- The 93-99 RM corn products consistently yielded 81-88% of the yield of the 110 RM check during the course of this trial.
- This data supports a similar study conducted by Monsanto in 2005-2007 in which similar trends were found.



## WHAT DOES THIS MEAN FOR YOUR FARM?

- Based on the results of this study, farmers can expect approximately 2 bu/acre less yield potential per RM day when planting corn products with an earlier RM than the corn products they would normally plant in 110-115 RM regions.
- A previous study conducted at Kansas State University has indicated that as much as 3 inches less water may be required for 95 RM corn products compared to 110-115 RM corn products.
- Farmers must consider the economics of the potential water savings and potential yield penalties with earlier maturing products when choosing products for their field.

### 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 multiple site, multiple year, 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. 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. All trademarks are the property of their respective owners. ©2017 Monsanto Company. 161216092052 011617CAM