



# Response of DEKALB<sup>®</sup> Brand Corn Products To Planting Errors - 2017- Scott, MS

2017 Learning Center Demo Report  
Monsanto Learning Center at Scott, MS





# BACKGROUND

- The purpose of this demonstration was to simulate planting errors that growers often encounter when planting corn.
- This demonstration is similar to the missing row research that has been conducted over the last few years at the Monsanto Learning Center at Scott, MS.



# BACKGROUND

- Measure the yield potential of corn products planted “correctly” at the appropriate populations.
- Measure the ability of corn products to compensate or “flex” in response to missing rows or missing twins in a planter pass.
- Give another measure of the flex characteristics of DEKALB<sup>®</sup> brand corn products.



# BACKGROUND

Location	Soil Type	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield bu/acre	Planting Rate
Scott, MS	Clay Loam	Soybeans	Conventional	3/28/2017	8/25/2017	250	Various



# STUDY GUIDELINES

- 5 DEKALB<sup>®</sup> brand corn products were planted in 4 different configurations:
- These were 4-row, twin-row passes planted with a Monosem<sup>®</sup> planter
- Rows were 175 feet long
- All agronomic inputs were per local standards
- Nitrogen (N) was applied at a rate of 240 lb/acre



# STUDY GUIDELINES

- Populations planted:
  - DKC70-27 brand and DKC67-44 brand were planted at 32,000 kernels/acre in checks and 24,000 or 28,000 in treatments
  - All others were planted at 36,000 kernels/acre in the check and 27,000 or 31,500 in treatments
- Solid planted at either 32,000 or 36,000 kernels/acre planted
- One full row unplanted – 1/4 of the pass missing
  - Corn products planted at 32,000 kernels/acre would have a final population of 24,000 kernels planted/acre
  - Corn products planted at 36,000 kernels/acre would have a final population of 27,000 kernels planted/acre



# STUDY GUIDELINES

## Populations planted:

- One twin-row unplanted
  - Corn products planted at 32,000 kernels/acre would have a final population of 28,000 kernels planted/acre
  - Corn products planted at 36,000 kernels/acre would have a final population of 31,500 kernels planted/acre
- Two separated twins on two different rows left unplanted
  - Corn products planted at 32,000 kernels/acre would have a final population of 24,000 kernels planted/acre



# STUDY GUIDELINES



Figure 1. Example of the uniformity and distribution of corn plants in two-row planting.





# STUDY GUIDELINES



Figure 2. single-row (right) and twin-row (left) corn plantings.



# STUDY GUIDELINES



Figure 3. Uniformly planted twin-row corn.



# RESULTS & DISCUSSION

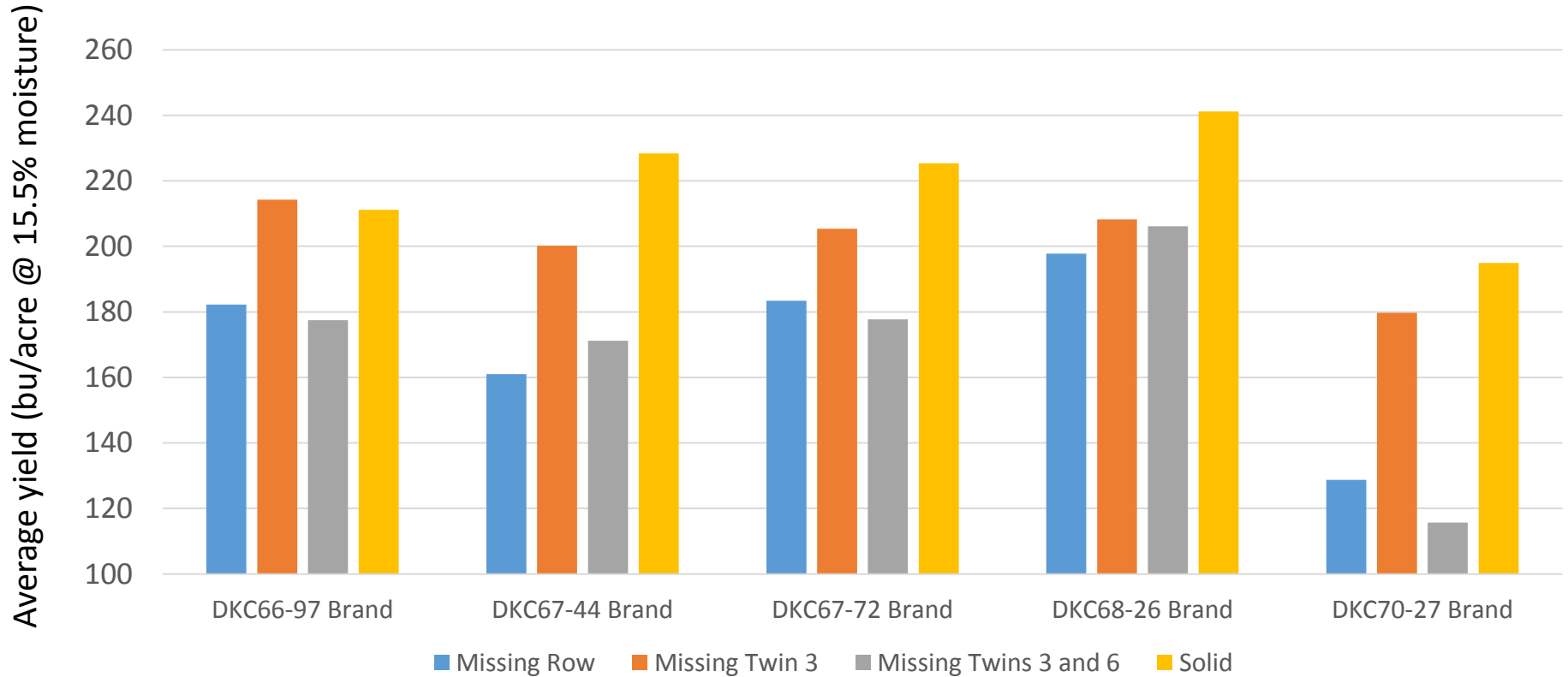


Figure 4. 2017 Response of DEKALB® brand corn products to planting errors at Scott, MS.



# RESULTS & DISCUSSION

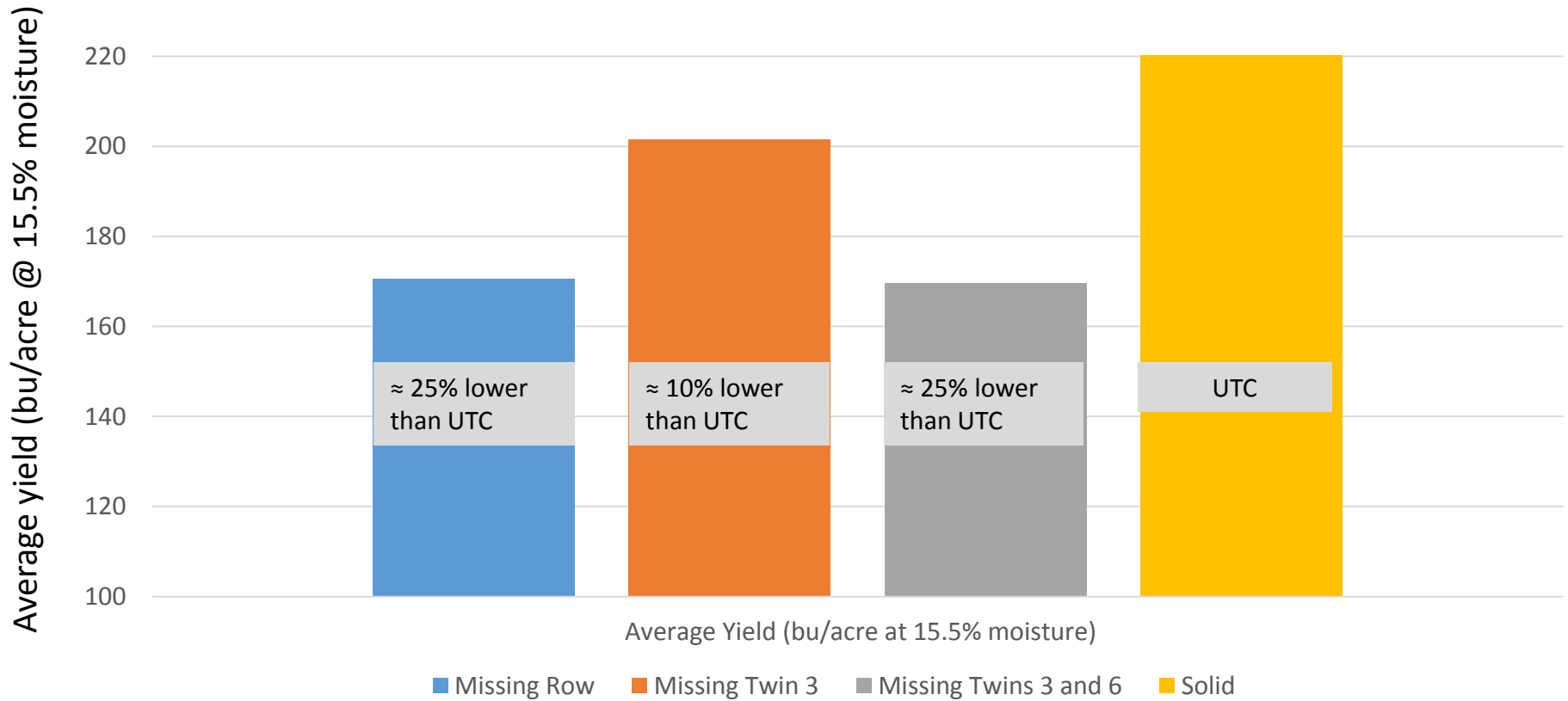


Figure 5. Response of DEKALB® brand corn products to planting errors at Scott, MS.



## RESULTS & DISCUSSION

- None of the corn products tested were able to compensate greatly for the missing plants in the field, although a range of compensation did appear to exist.
- DKC70-27 brand appeared to be the least compensatory and DKC68-26 brand was the most compensatory in this demonstration.
- The other corn products were intermediate in their ability to compensate.
- The populations tested may not be the appropriate populations for each corn product in every geography.



## TAKE AWAYS

- This information points out the requirement for correct populations and uniformity in corn fields to optimize yield potential.
- Fields should be carefully evaluated for replanting after emergence and issues corrected at once if they exist.
- Data from this demonstration may help in defining the “flex” inherent to each corn product tested.



# LEGAL STATEMENTS

*The information discussed in this report is from a single site, non-replicated demonstration. 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.*

**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.

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## THANK YOU

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