



CORN PRODUCT RESPONSE TO NITROGEN

TRIAL OVERVIEW

- Different corn products may have different responses to extra applied nitrogen (N). An understanding of how each new corn product responds to extra N can help to maximize a grower's return on investment and profitability.

RESEARCH OBJECTIVE

- Determine the yield response of five new DEKALB® corn brand products to extra N fertilizer applied at the V6 growth stage.

Location	Soil	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield/Acre	Planting Rate/Acre
Mingo, KS	Silt Loam	Sunflowers	Strip-Till	05/07/2016	10/11/2016	250	34,000

SITE NOTES:

- Nitrogen (N) was applied in the spring at approximately 200 lbs. of available N/acre in the soil and an additional 70 lbs. of N/acre was side-dressed at the V6 corn growth stage on half of the trial area.
- The trial was planted under center pivot irrigation and 32-0-0 UAN liquid N fertilizer was applied with a knife applicator at the V6 growth stage. The knife applicator was ran without applying N in the spring only applied N block to avoid any advantageous effects of opening up the soil surface.
- Profit or loss of applying extra N was determined using an extra application cost of \$31.50 and a corn selling price of \$2.74 per bushel.
- The same trial was replicated at another location, but lost due to hail.

UNDERSTANDING THE RESULTS

Figure 1. Response of five new DEKALB® corn brand products to extra applied nitrogen (N).

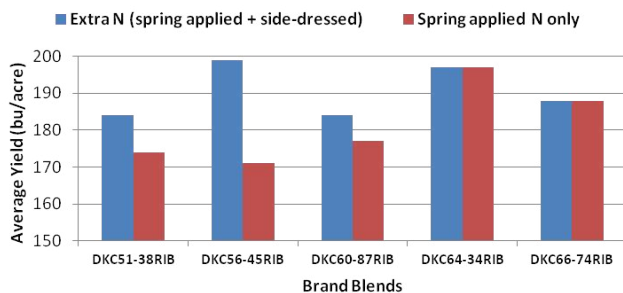
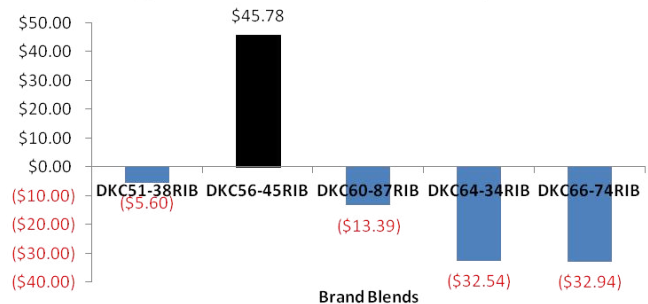


Figure 2. Profit or loss as a result of applying extra nitrogen on five new DEKALB® corn brand products.



- A hail storm at the R1 corn growth stage resulted in a 30% defoliation which may have limited the top-end yield potential and caused early maturation of the fuller-season corn products. As a result, only the products with a relative maturity of 110 and below (DKC51-38RIB, DKC56-45RIB, and DKC60-87RIB brand blends) may have been showing a potential yield advantage with additional N (Figure 1).
- DKC56-45RIB brand blend was the only product to show a profit by side-dressing extra N at the V6 corn growth stage (Figure 2).

WHAT DOES THIS MEAN FOR YOUR FARM?

- In a year without yield limiting factors, corn products should show a greater response to extra N.
- Low commodity corn prices can limit the profitability of applying extra N.
- It is important to match your N rates each year according to your yield potential and goals.
- Each corn product may respond differently to applying extra N. Monsanto plans to continue this research in the future to provide better N recommendations for specific corn products.



REGIONAL REPORT

LEGAL STATEMENT

For additional agronomic information, please contact your local brand representative.
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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:** Genuity® 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.

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