

EFFECTS OF PLANTING RATE AND ROW SPACING ON CORN YIELD

TRIAL OVERVIEW

- Optimum corn planting rates have steadily increased over time.
- As planting rates increase, narrower row configurations should be considered to increase space between plants and reduce stress.



Figure 1. Row spacings for the trial were 20-inch, 30-inch, and twin-row with 30-inch centers.

RESEARCH OBJECTIVE

- This trial was designed to evaluate the effects of three different row spacings and three planting rates.

Location	Soil	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield/Acre	Planting Rate/Acre
Monmouth, IL	Silt Loam	Corn	Conventional	05/18/2017	10/26/2017	240 bu/acre	35, 40, and 45 (000's) seeds/acre

SITE NOTES:

- This trial was replicated twice using two corn products:
 - A 108 RM product with SmartStax® technology
 - A 114 RM product with SmartStax® technology
- Row spacings used were 20-inches, 30-inches, and twin-rows with 30-inch centers (Figure 1).
- Seeding rates within each row spacing were 35,000, 40,000, and 45,000 seeds/acre.

UNDERSTANDING THE RESULTS

- The 20-inch and twin-row 30-inch center spacings appeared to relieve stress as planting rates increased.
- The two corn products responded similarly; however, the 108 RM product appeared to show somewhat of an increased stress tolerance in the 30-inch rows.

WHAT DOES THIS MEAN FOR YOUR FARM?

- Row configurations narrower than 30-inch may provide some stress relief, especially at higher planting rates.
- Corn products respond differently to stress; therefore, contact your local seed representative for information on adapted corn products.

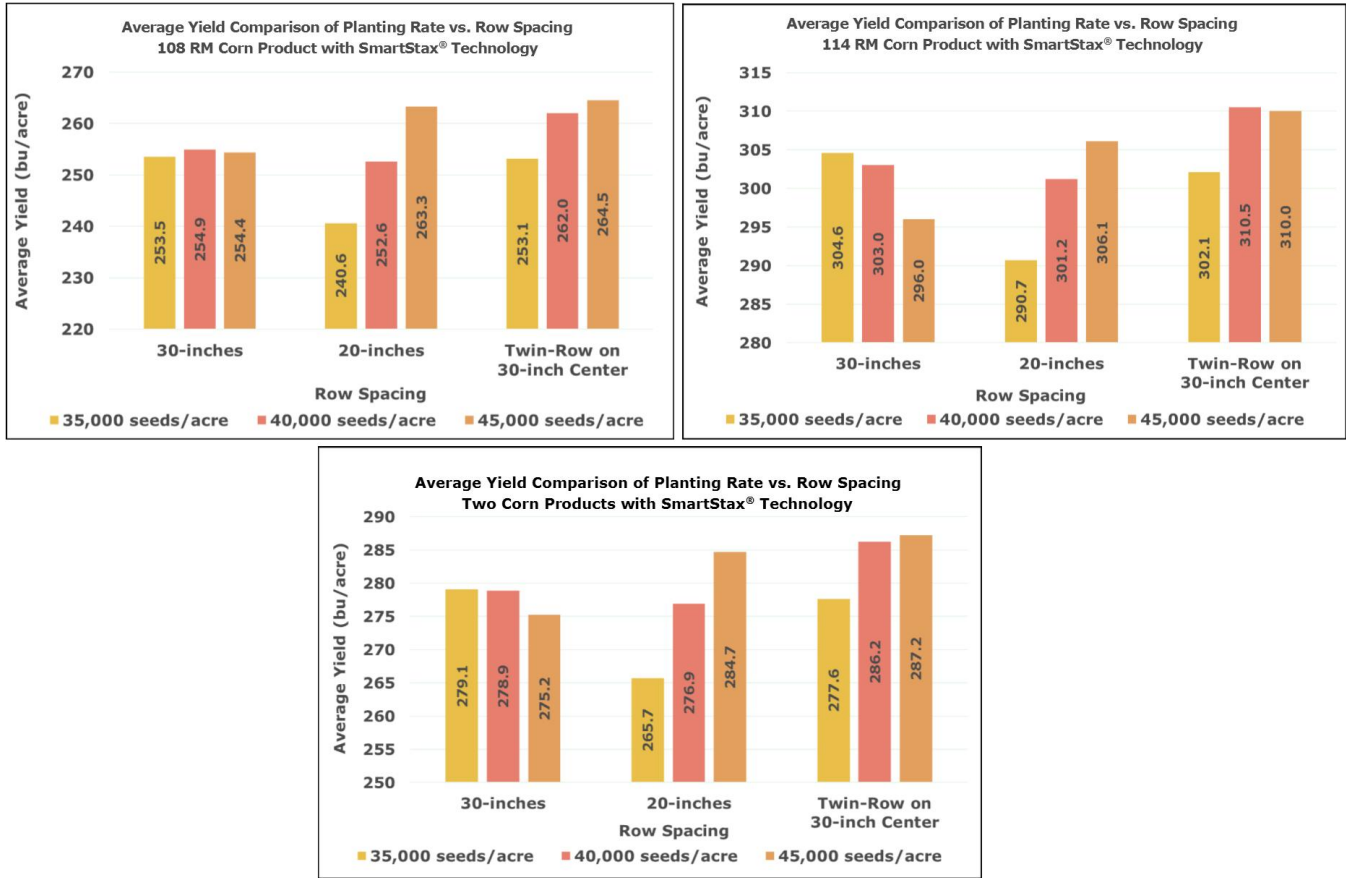


Figure 2. Average yield of products, row spacings, and planting rates. (Top Left) 108 RM product, (Top Right) 114 RM product, and (Bottom) both products.

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