



# Corn Response to Seeding Rate

## Trial Objective

- Corn products can respond differently to seeding rates depending on their ability to ‘flex’ ear size and their ability to compete for resources.
- The Bayer Learning Center at Monmouth, IL conducts annual trials and demonstrations to illustrate different responses to seeding rates.

## Research Site Details

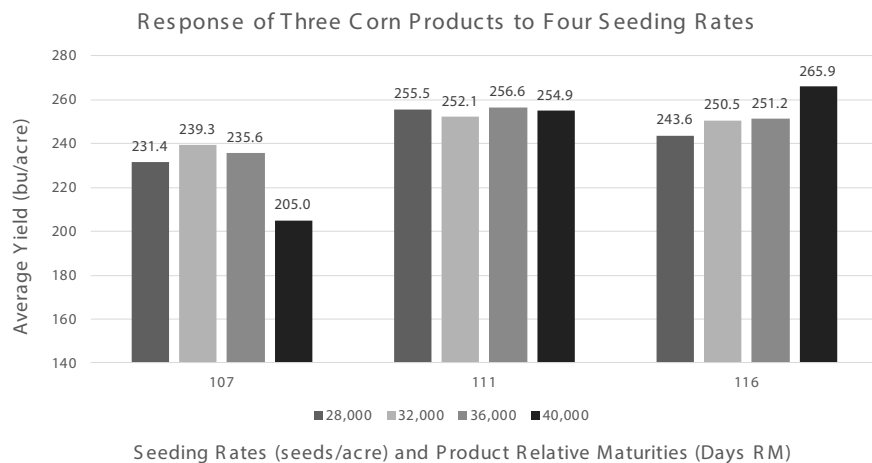
Location	Soil Type	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield (bu/acre)	Seeding Rate (seeds/acre)
Monmouth, IL	Silt loam	Soybean	Conventional	6/7/19	10/29/19	250	28K, 32K, 36K, 40K

- Three different SmartStax® RIB Complete® corn blend products were planted at four seeding rates (seeds/acre):
  - » 28,000
  - » 32,000
  - » 36,000
  - » 40,000
- Plots were harvested and adjusted to 15% moisture.

## Understanding the Results

- The three corn products in this demonstration typified the differences that we see across different products.
  - » The 107-day relative maturity (RM) product yielded the lowest, did not respond positively to increased seeding rates, and lodged badly at higher seeding rates (Figures 1 and 2).
  - » The 111-day RM product performed at the same level regardless of seeding rate.
  - » The 116-day RM product responded positively to an increase in seeding rates, yielding the highest overall at the 40,000 seeds/acre seeding rate.

**Figure 1. Average yield response of three corn products with different relative maturities to four seeding rates at the Bayer Learning Center at Monmouth, IL in 2019.**



# Corn Response to Seeding Rate

## Key Learnings

- Individual corn products can respond differently to different seeding rates depending on several factors including:
  - » Genetic ability to compete for resources
  - » Pest pressure and trait packages
  - » Weather and growing conditions
- Please consult your local Field Sales Representative or Technical Agronomist for specific recommendations for your farming operation.

## 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.

Monsanto Company is a member of Excellence Through Stewardship® (ETS). Monsanto products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with Monsanto's Policy for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. This product has been approved for import into key export markets with functioning regulatory systems. Any crop or material produced from this product can only be exported to, or used, processed or sold in countries where all necessary regulatory approvals have been granted. It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product. Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship. B.t. products may not yet be registered in all states. Check with your seed brand representative for the registration status in your state. IMPORTANT IRM INFORMATION: 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. Performance may vary, from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should

evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields. ALWAYS READ AND FOLLOW IRM, WHERE APPLICABLE, GRAIN MARKETING AND ALL OTHER STEWARDSHIP PRACTICES AND PESTICIDE LABEL DIRECTIONS. Roundup Ready® 2 Technology contains genes that confer tolerance to glyphosate. Glyphosate will kill crops that are not tolerant to glyphosate. Herculex® is a registered trademark of Dow AgroSciences LLC. LibertyLink® and the Water Droplet Design® is a trademark of BASF Corporation. Respect the Refuge and Corn Design® and Respect the Refuge® are registered trademarks of National Corn Growers Association. RIB Complete®, Roundup Ready 2 Technology and Design™, Roundup Ready® and SmartStax® are trademarks of Bayer Group. All other trademarks are the property of their respective owners. ©2019 Bayer Group. All rights reserved.



**Figure 2. The 107-day RM product lodged badly at higher seeding rates.**



Before opening a bag of seed, be sure to read, understand and accept the stewardship requirements, **including applicable refuge requirements for insect resistance management**, for the biotechnology traits expressed in the seed as set forth in the Monsanto Technology/Stewardship Agreement that you sign. By opening and using a bag of seed, you are reaffirming your obligation to comply with the most recent stewardship requirements.

