



# Influence of Seeding Rate and Planting Date on Soybean Yield

## Trial Objective

- Previous work at the Bayer Learning Center at Monmouth, IL demonstrated planting date as an important factor influencing soybean yield potential.
- Depending on the year, earlier soybean planting dates may be a management practice with low-risk and high-return.
- Generally, soybean seeding rate should increase when planting occurs later in the season.
- In 2020, the Learning Center at Monmouth, IL conducted a trial to determine if seeding rate influences the average yield of soybeans across multiple planting dates.

## Research Site Details

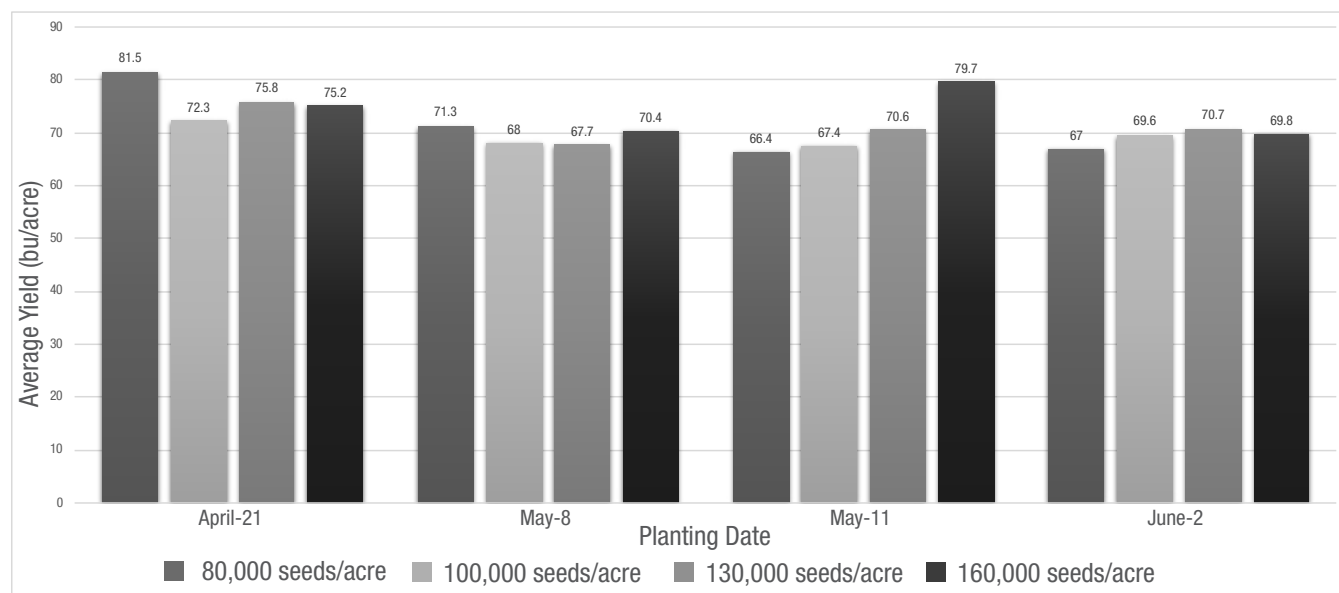
Location	Soil Type	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield (bu/acre)	Seeding Rate (seeds/acre)
Monmouth, IL	Silt Loam	Corn	Conventional	4/21/20, 5/8/20, 5/11/20, 6/2/20	10/20/20	80	80K, 100K, 130K, 160K

- Treatments consisted of a 3.6 maturity group soybean product planted at four planting dates and four seeding rates for a total of 16 treatments.
- Planting dates:
  - April 21, 2020
  - May 8, 2020
  - May 11, 2020
  - June 2, 2020
- Seeding rates:
  - 80,000 seeds/acre
  - 100,000 seeds/acre
  - 130,000 seeds/acre
  - 160,000 seeds/acre



# Influence of Seeding Rate and Planting Date on Soybean Yield

## Understanding the Results



**Figure 1. Effect of planting date and seeding rate on average soybean yield.**

- The soybean plant is rather versatile in its growth and development. As plant population decreases, soybean plants develop additional branches and nodes to compensate for lost yield components.
- In this trial, earlier planting dates typically had greater average yields compared to later planting dates, which is in line with university recommendations as well as previous Learning Center results.
- In addition, later planting dates responded more positively to increased seeding rates. This finding is also supported by university recommendations and previous research at the Learning Center.

## Key Learnings

- These results suggest:
  - Planting soybean early may help maximize profit potential.
  - Planting soybean late may require increased seeding rates to optimize yield and profit potential.
- Optimum seeding rate for soybean is highly variable from year to year. Contact your local Field Sales Representative or Technical Agronomist and discuss planting recommendations for the current situation and year.

## 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. 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.

©2020 Bayer Group. All rights reserved. 3011\_R1\_20

