



Influence of Row Width on Soybean Yield

Trial Objective

- Deciding which row width to use when planting a crop is one of the many important decisions farmers make when trying to maximize the potential yield of a production system. Thirty-inch rows are the standard row width and are typically seeded with a planter, which provides improved seed-to-soil contact and seed singulation when compared to a drill. Rows narrower than 15 inches are typically seeded with a drill. By using a drill, crop canopy closure can be achieved earlier in the growing season, providing the crop a competitive advantage over weeds. In addition, drills are not used to plant corn and are likely readily available to plant soybean during the spring.
- This trial was conducted to determine if row width impacts dryland soybean yield.

Research Site Details

Location	Soil Type	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield (bu/acre)	Seeding Rate (seeds/acre)
Gothenburg, NE	Hord silt loam	Corn	No-till	06/01/18	10/16/18	65	Varied

- The study was set up as a split-plot with four replications. Row width was the whole plot and seeding rate was the subplot.
- A 2.4 maturity group soybean product was planted in all plots.
- Two row widths were used:
 - 30-inch row seeded with the planter
 - 7.5-inch row seeded with the drill
- Four seeding rates were used:
 - 120,000, 160,000, 200,000, and 240,000 seeds/acre
- Weeds were controlled as needed and no fungicide or insecticide was used on the plots.

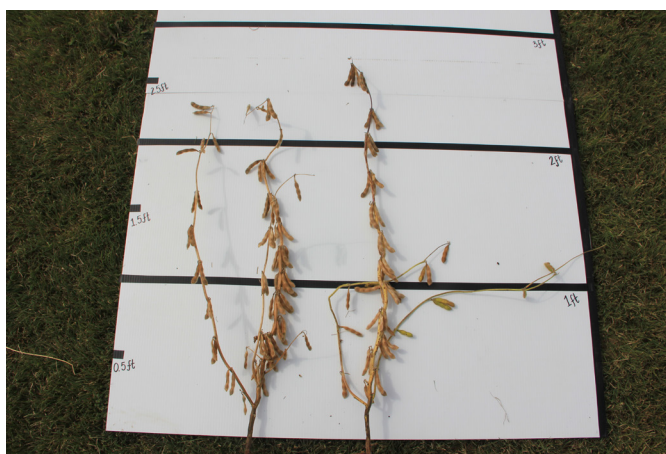


Figure 1. Field (left) and plant architecture (right) of soybean in 30-inch rows at 160,000 seeds/acre.



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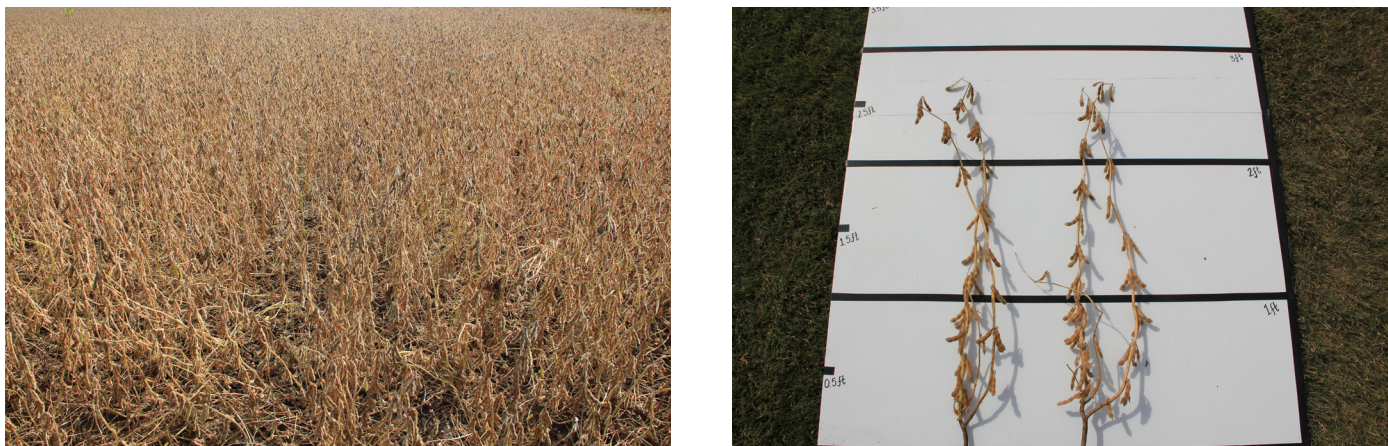


Figure 2. Field (left) and plant architecture (right) of soybean in 7.5-inch rows at 160,000 seeds/acre.

Understanding the Results

- There was no interaction between row width and seeding rate.
- There was no significant difference in yields by row width with the 30-inch row soybean yielding 61 bu/acre and the 7.5-inch row soybean yielding 64 bu/acre when averaged across the different seeding rates.
- Seeding rate did not influence yield significantly with the 120,000, 160,000, 200,000, and 240,000 seeds/acre rates yielding 61, 60, 61, and 61 bu/acre, respectively, when averaged across row widths.

What Does This Mean for Your Farm?

- On dryland fields with moderate yield potential, row width will likely not impact soybean yield.
- If soil conditions allow for good seed-to-soil contact from soybean seeded with a drill for 7.5 inch row, soybean yield will likely be on par with 30-inch row soybean seeded with a planter.

Legal Statements

The information discussed in this report is from a single site, replicated demonstration. This information 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.

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