Soybean Row Spacing Trials

Evaluating different soybean row widths on-farm

Long-term Results (2019 – 2024)

on-farm network
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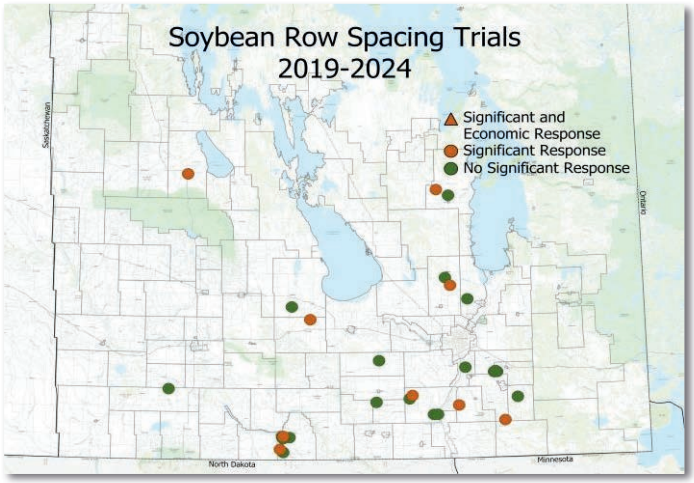
Trial Information:

- 26 trials from 2019 to 2024.
- Seeding rates are the same for both row widths.
- 12 trials tested narrow (7.5"–10") vs. intermediate (15"–20") rows and 14 trials tested intermediate (15") vs. wide (30") rows.

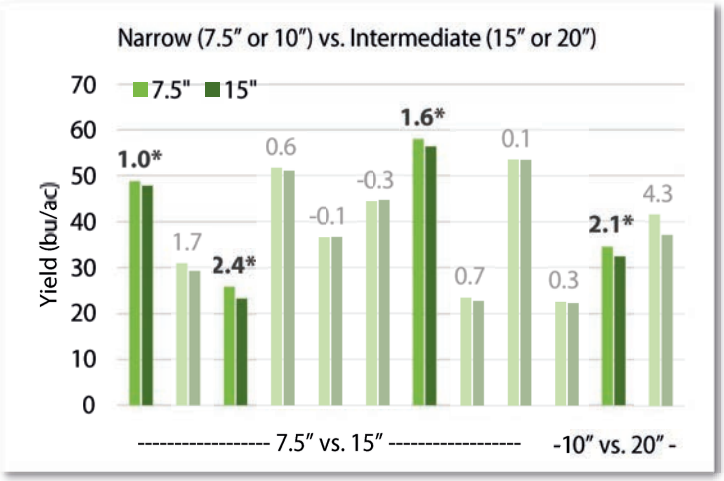


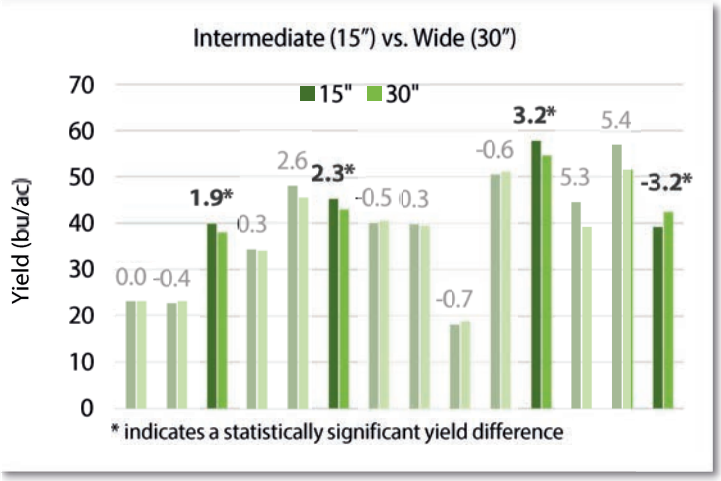
Supporting Data:

- Plant counts are recorded during V-stages and R-stages.
- Average early-season survivability has been 85% for 7.5" rows, 82% for 15" rows and 78% for 30" rows.
- Wide rows were typically associated with lower percent survivability and more mortality throughout the growing season (4% on average) due to increased competition within the row.
- Canopy closure is assessed at R1, R3 and R5 growth stages using the *Canopeo* app to assess percent canopy cover.
- Narrow and intermediate row widths close earlier in the season than wide row widths, improving crop competitive ability against weeds.

Yield Results:

- Overall, 73% of the time row spacing had no effect on yield.
- Narrow rows improved yield over intermediate rows 33% of the time, increasing yield by 1.8 bu/ac on average.
- Intermediate rows improved yield over wide rows 21% of the time, increasing yield by 2.5 bu/ac on average, however, in one trial, the 30" row width had a 3.2 bu/ac advantage over the 15" rows.





Recommendations from this Research:

- Soybeans may be grown successfully at any row spacing, however, there is greater yield potential with narrower rows.
- A yield response to row spacing is complex and unpredictable suggesting other factors such as equipment cost should weigh on the decision to change row spacings.
- Different varieties display different growth habits at various row spacings and this likely influences a yield response.
- Though yield responses may not occur every year on every farm, the competitive advantage of a crop canopy that closes earlier in the season is important to mitigating the development of herbicide-resistant weeds.

View trial reports here

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