

Soybean Seeding Rate Trial

Trial ID: 2020-SP05 – R.M. of Brokenhead

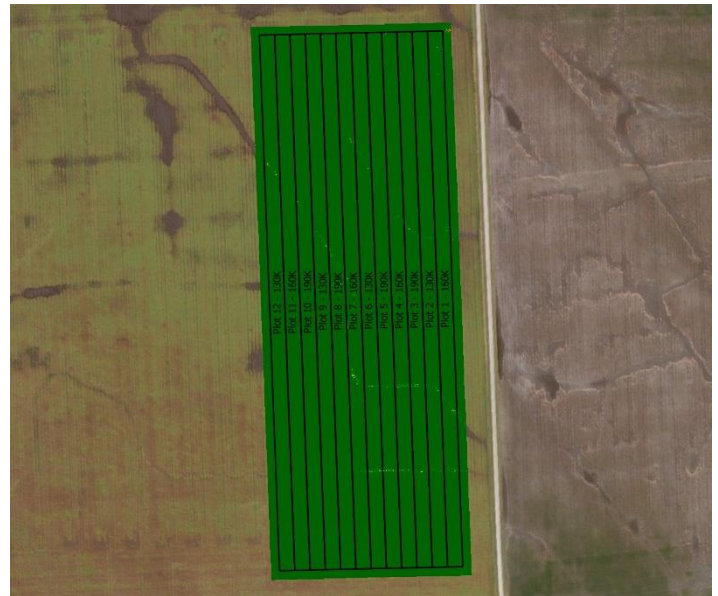
Objective: Quantify the agronomic impacts of a seeding rate of different soybean seeding rates

Summary: There was no significant yield difference between seeding rates of 190,000, 160,000 and 130,000 seeds/ac. As a result, there was a decrease in profit equivalent to the increase in seed cost for the higher seeding rates.

Trial Information

| | |
|--------------------------|----------------------|
| Treatment | 130k vs 160k vs 190k |
| Soil Texture | Clay Loam |
| Previous Crop | Wheat |
| Tillage | Conventional |
| Seeding Equipment | 60 ft Disc Drill |
| Seeding Date | May 19 |
| Variety | LS 0036RR |
| Row Spacing | 10" |
| Harvest Date | September 27 |

NDVI Field Image August 19



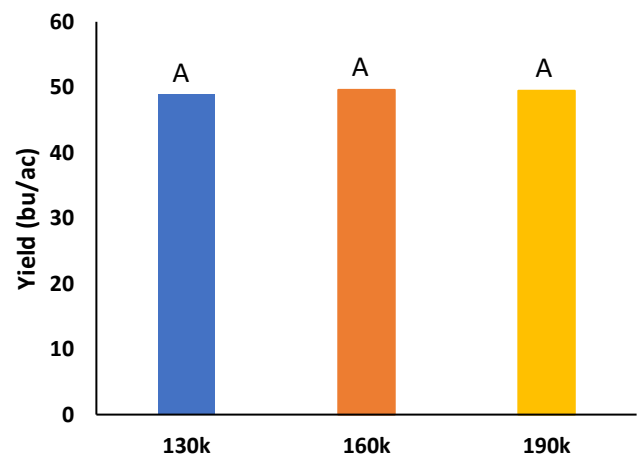
Precipitation (mm)

| | May | June | July | August |
|-----------------|------|------|------|--------|
| Normal | 54 | 89.9 | 73.4 | 72.6 |
| Rainfall | 11.3 | 74.9 | 49.8 | 110.7 |

Plant Stand (plants/ac)

| | V1 | R8 |
|-------------|---------|---------|
| 130k | 148 000 | 137 000 |
| 160k | 170 000 | 148 000 |
| 190k | 177 000 | 163 000 |

Yield by Treatment





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Soybean Seeding Rate Trial

Overall Yield & Economics

| | Mean (bu/ac) | Cost † | Change in Profit/ac †† |
|---------------------|--------------|-----------------|--|
| 130k | 48.9 | \$62/ac | |
| 160k | 49.6 | \$76/ac | -\$14/ac |
| 190k | 49.5 | \$90/ac | -\$28/ac |
| P-Value | 0.1322 | | |
| CV | 0.9% | | |
| Significance | No | Economic | 130k → 160k No 130k → 190k No 160k → 190k No |

† Based on MB Agriculture 2020 Cost of Production Guidelines (\$66.50/unit)

†† Change in profit is calculated as the difference in cost between seeding rate treatments. Because yields were not significantly different, there is no increased income to offset the increase in seed cost