

Soybean Seeding Rate Trial

Trial ID: 2022-SSR02 – R.M. of North Norfolk

Objective: Quantify the agronomic and economic impacts of different soybean seeding rates.

Summary: There was no significant yield difference between seeding rates of 110,000, 140,000 and 170,000 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 | 110k vs 140k vs 170k |
|-------------------|----------------------|
| Soil Texture | Fine Sandy Loam |
| Previous Crop | Canola |
| Tillage | Conventional |
| Seeding Equipment | 60 ft Planter |
| Seeding Date | May 25 |
| Variety | DKB003-29 |
| Germination | 88% |
| Row Spacing | 30″ |
| Harvest Date | October 6 |

Precipitation (mm)

| | May | Jun | Jul | Aug | Total |
|----------|-------|-------|------|------|-------|
| Rainfall | 140.4 | 139.2 | 71.5 | 97.2 | 448.3 |
| Normal | 49.8 | 79.4 | 71.1 | 69.3 | 269.6 |
| % Normal | 282% | 175% | 101% | 140% | 166% |

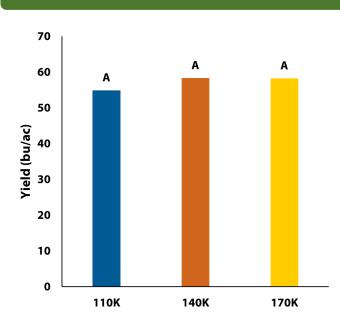
Plant Stand (plants/ac)

| | VC | R8 |
|------|---------|---------|
| 110k | 79,000 | 81,000 |
| 140k | 105,000 | 103,000 |
| 170k | 125,000 | 126,000 |

NDVI Field Image August 14



Yield by Treatment









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Overall Yield & Economics

| | Mean (bu/ac) | Cost ⁺ | Change in Profit/ac ⁺⁺ |
|--------------|--------------|-------------------|-----------------------------------|
| 110k | 54.9 | \$53/ac | |
| 140k | 58.3 | \$68/ac | -\$15/ac |
| 170k | 58.2 | \$82/ac | -\$29/ac |
| P-Value | 0.0905 | Economic | 110K to 140K → No |
| CV | 4.4% | | 110K to 170K → No |
| Significance | Νο | | 140K to 170K → No |

+ Based on Manitoba Agriculture's 2022 Cost of Production Guidelines (\$67.90/unit); does not include application cost.

++ Yields were not significantly different, therefore profit/ac decreased by the cost/ac of increasing seeding rate.

