

# Soybean Seeding Rate Trial

**Trial ID:** 2024-SSR05 – R.M. of Louise

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

**Summary:** There were no significant yield differences among seeding rates of 149,000, 179,000 and 209,000 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

<b>Treatment</b>	149k vs 179k vs 209k
<b>Soil Texture</b>	Clay Loam
<b>Previous Crop</b>	Canola
<b>Tillage</b>	
<b>Seeding Equipment</b>	40ft Air Drill
<b>Seeding Date</b>	May 13
<b>Variety</b>	S1 001XTN
<b>Germination</b>	82%
<b>Row Spacing</b>	10"
<b>Harvest Date</b>	October 2

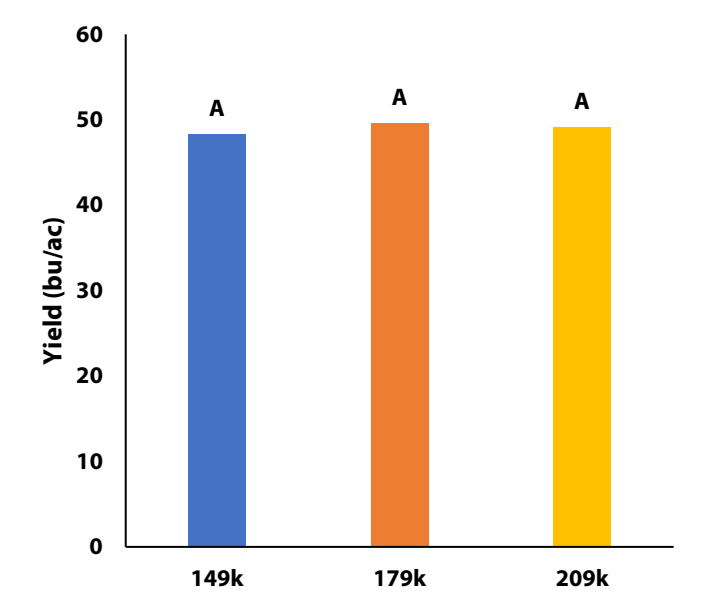
## NDVI Field Image August 9



## Precipitation (mm)

	May	June	July	Aug	Total
<b>Rainfall</b>	121.2	96.5	80.2	67.8	365.7
<b>Normal</b>	61.1	89.8	68.3	72.3	291.5
<b>% Norm</b>	198%	107%	117%	94%	125%

## Yield by Treatment



## Plant Stand (plants/ac) †

	V3	R7
<b>149k</b>	90,000 B	83,000 B
<b>179k</b>	117,000 AB	105,000 AB
<b>209k</b>	130,000 A	120,000 A

† Columns followed by different letters are significantly different from one another

## Plant Establishment and Survivability †

	Establishment at V3	Survivability to R7	Change V3 to R7
<b>149k</b>	61%	56%	-5%
<b>179k</b>	65%	59%	-7%
<b>209k</b>	62%	57%	-5%

† % establishment = plant count at V stages/seeding rate; % survivability = plant count at R stages/seeding rate



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### Overall Yield & Economics

	Mean (bu/ac)	Cost <sup>†</sup>	Change in Profit <sup>††</sup>
<b>149k</b>	48.3	\$67/ac	
<b>179k</b>	49.6	\$80/ac	-\$13/ac
<b>209k</b>	49.2	\$94/ac	-\$27/ac
<b>P-Value</b>	0.669	<b>Economic</b>	149k → 179k <b>No</b>
<b>CV</b>	4.3%		149k → 209k <b>No</b>
<b>Significance</b>	<b>No</b>		179k → 209k <b>No</b>

<sup>†</sup> Based on a \$62.94/unit soybean seed costs (Source: Manitoba Agriculture 2024 Cost of Production Guidelines)

<sup>††</sup> 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