

# Soybean Seeding Rate Trial

**Trial ID:** 2024-SSR08 – R.M. of Lorne

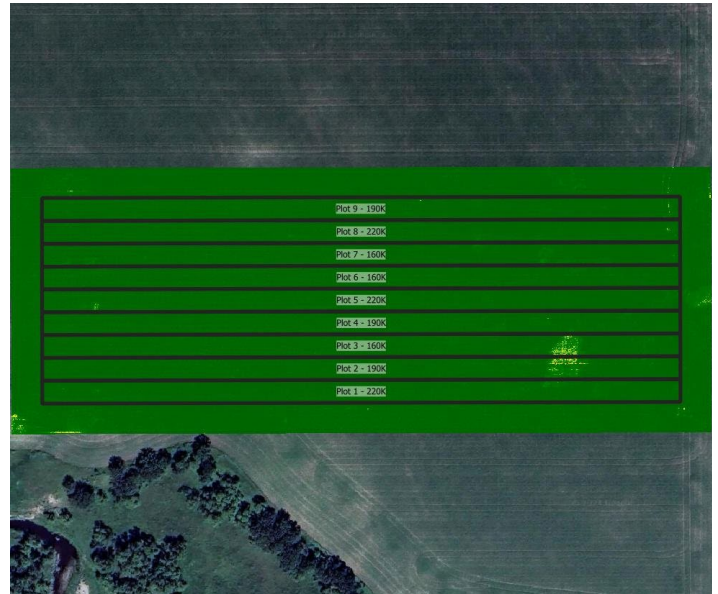
**Objective:** Quantify the agronomic and economic impacts of different soybean seeding rates.

**Summary:** There were no significant yield differences among seeding rates of 160,000, 190,000 and 220,000 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>	160k vs 190k vs 220k
<b>Soil Texture</b>	Clay Loam
<b>Previous Crop</b>	Wheat
<b>Tillage</b>	Conventional Till
<b>Seeding Equipment</b>	50ft Air Drill
<b>Seeding Date</b>	May 19
<b>Variety</b>	S007-A2XS
<b>Germination</b>	90%
<b>Row Spacing</b>	10"
<b>Harvest Date</b>	October 9

## NDVI Field Image August 9



## Precipitation (mm)

	May	June	July	Aug	Total
<b>Rainfall</b>	127.9	113.8	55.4	70.7	367.8
<b>Normal</b>	54.7	83.2	78.6	65.1	281.6
<b>% Norm</b>	234%	137%	70%	109%	131%

## Plant Stand (plants/ac)

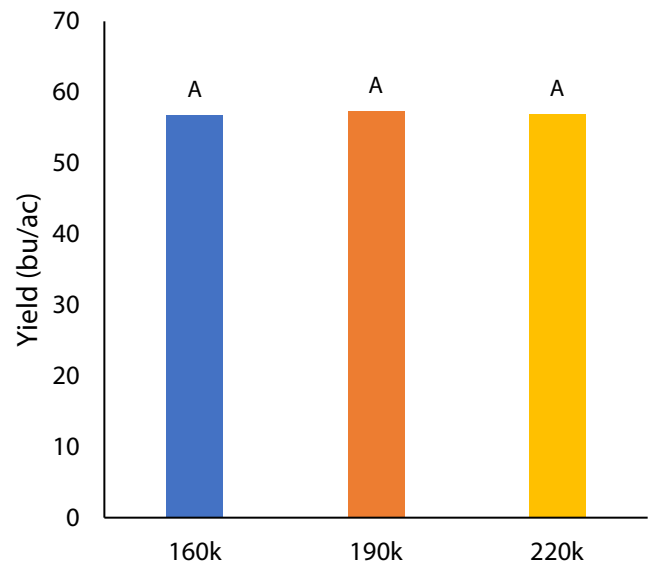
	V3	R7
<b>160k</b>	125,000 B	115,000 A
<b>190k</b>	134,000 B	125,000 A
<b>220k</b>	160,000 A	149,000 A

## Plant Establishment and Survivability †

	Establishment at V2	Survivability to R7	Change V2 to R7
<b>160k</b>	78%	72%	-7%
<b>190k</b>	71%	66%	-5%
<b>220k</b>	73%	68%	-5%

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

## Yield by Treatment





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### Overall Yield & Economics

	Mean (bu/ac)	Cost <sup>†</sup>	Change in Profit <sup>††</sup>
<b>160k</b>	56.8	\$72/ac	
<b>190k</b>	57.4	\$85/ac	-\$13/ac
<b>220k</b>	57.0	\$99/ac	-\$27/ac

<b>P-Value</b>	0.931	<b>Economic</b>	160k → 190k <b>No</b>
<b>CV</b>	3.5%		160k → 220k <b>No</b>
<b>Significance</b>	<b>No</b>		190k → 220k <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