

# Soybean Seeding Rate Trial

**Trial ID: 2023-SSR05 – R.M. of Brokenhead**

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

**Summary:** There were no significant yield differences among seeding rates of 165,000 and 222,000 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>	165k vs. 220k
<b>Soil Texture</b>	Clay Loam
<b>Previous Crop</b>	Wheat
<b>Tillage</b>	Conventional
<b>Seeding Equipment</b>	35 ft Press Drill
<b>Seeding Date</b>	May 20
<b>Variety</b>	-
<b>Germination</b>	87%
<b>Row Spacing</b>	7.5"
<b>Harvest Date</b>	October 16

## Precipitation (mm)

	May	June	July	Aug	Total
<b>Rainfall</b>	53.6	57.1	53	39	203
<b>Normal</b>	54	89.9	73	72.6	290
<b>% Norm</b>	99%	64%	73%	54%	70%

## Plant Stand (plants/ac)

	V2	R6
<b>165k</b>	130,000	125,000
<b>220k</b>	181,000	171,000

## Plant Establishment and Survivability †

	Establishment at V2	Survivability to R6	Change V2 to R6
<b>165k</b>	79%	76%	-3%
<b>220k</b>	82%	78%	-5%

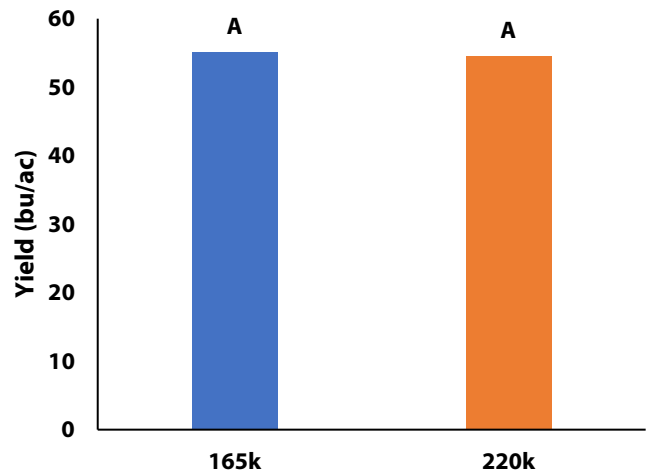
† % establishment = plant count at V stages/seeding rate; % survivability = plant count at R stages/seeding rate

Germination at this trial was 87%.

## NDVI Field Image August 14



## Yield by Treatment





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### Overall Yield & Economics

	Mean (bu/ac)	Cost †	Change in Profit ††
<b>165k</b>	55.1	\$80/ac	
<b>220k</b>	54.5	\$107/ac	-\$26.68/ac
<b>P-Value</b>	0.1425	<b>Economic</b>	165k → 220k <b>No</b>
<b>CV</b>	2%		
<b>Significance</b>	<b>No</b>		

† Based on a \$67.90/unit soybean seed costs (Source: Manitoba Agriculture 2023 Cost of Production Guidelines)

†† 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