

# Soybean Seeding Rate Trial

**Trial ID:** 2021-SSR10 – R.M. of Westlake-Gladstone

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

**Summary:** There was no significant yield difference between seeding rates of 120,000, 150,000 and 180,000 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>	120k vs. 150k vs. 180k
<b>Soil Texture</b>	Fine Sandy Loam
<b>Previous Crop</b>	Canola
<b>Tillage</b>	Conventional
<b>Seeding Equipment</b>	60 ft Planter
<b>Seeding Date</b>	May 15
<b>Variety</b>	P005A83X
<b>Germination</b>	89%
<b>Row Spacing</b>	30"
<b>Harvest Date</b>	September 29

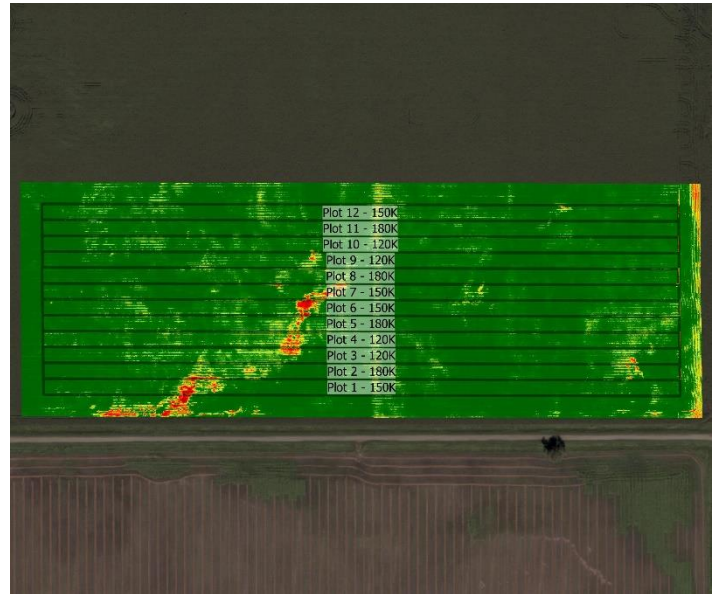
## Precipitation (mm)

	May	Jun	Jul	Aug	Total
<b>Rainfall</b>	35.3	48.3	8.9	119	211.5
<b>Normal</b>	52.7	70.5	73.5	67.7	264.4
<b>% Normal</b>	67%	69%	12%	176%	80%

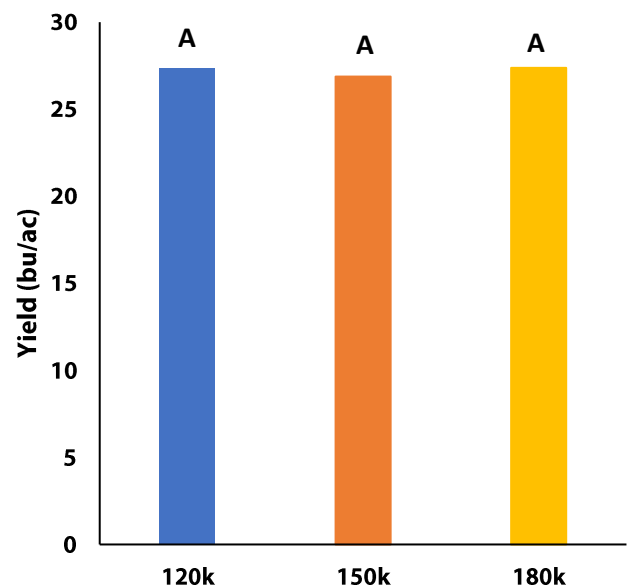
## Plant Stand (plants/ac)

	V2	R8
<b>120k</b>	98,000	104,000
<b>150k</b>	130,000	117,000
<b>180k</b>	155,000	129,000

## NDVI Field Image August 16



## Yield by Treatment





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### Overall Yield & Economics

	Mean (bu/ac)	Cost <sup>†</sup>	Change in Profit/ac <sup>††</sup>
<b>120k</b>	27.4	\$56/ac	
<b>150k</b>	26.9	\$70/ac	-\$14/ac
<b>180k</b>	27.4	\$84/ac	-\$28/ac
<b>P-Value</b>	0.9604	<b>Economic</b>	120k → 150k No
<b>CV</b>	13%		120k → 180k No
<b>Significance</b>	<b>No</b>		150k → 180k No

† Based on MB Agriculture 2021 Cost of Production Guidelines (\$65.30/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