



## Sunflower Planting Rate

**Trial ID: 2023-SFLP02 — R.M. of St. Francois Xavier**

**Objective:** The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing normal planting rate in oil-type sunflower.

**Summary:** There was no significant yield difference between planting rates of 19,000, 22,000 and 25,000 plants/ac. As a result, there was a decrease in profit equivalent to the increase in seed cost for the higher planting rates.

### Trial Information

Treatment	19k vs. 22k vs. 25k
Soil Texture	Clay
Previous Crop	Barley
Tillage	Conventional Tillage
Planting Equipment	40' Planter
Planting Date	May 16
Variety	N4HM354 (oil-type)
Germination	87%
Row Spacing	30"
Harvest Date	October 11

### NDVI Imagery August 13



### Sunflower Response<sup>†</sup>

	Plant Stand (plants/ac)	Oil (%)	TWT (lbs/bu)	Sizing 8 Slot
19k	19,083 <sup>C</sup>	43.5	30.5	80
22k	21,333 <sup>B</sup>	43.9	30.3	76
25k	23,166 <sup>A</sup>	43.6	30.4	70

<sup>†</sup>Analysis performed by Scoular

### Precipitation<sup>†</sup> (mm)

	May	June	July	Aug	Cumulative
Rainfall	8	61	74	33	176
Normal	60	98	76	68	302
% Normal	14%	62%	97%	49%	58%

<sup>†</sup>Growing season precipitation (mm)

### Overall Yield & Economics

	Mean (lbs/ac)	Cost <sup>†</sup>	Change in Profit/ac <sup>††</sup>
19k	1615	\$43.70/ac	+ \$6.90/ac
22k	1636	\$50.60/ac	\$0/ac
25k	1765	\$57.50/ac	- \$6.90/ac
P-Value	0.9890	<b>Economics: There is an increase in profit for the lower planting rate due to the lower cost of seed/acre.</b>	
CV	4.41%		
Significance	No		

<sup>†</sup>Based on MB Agriculture 2023 Cost of Production Guidelines (\$46.00/ac)

<sup>††</sup>Change in profit is calculated as the difference in cost between planting rate treatments.



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