



## Sunflower Planting Rate

**Trial ID: 2022-SFLP04 — R.M. of Argyle**

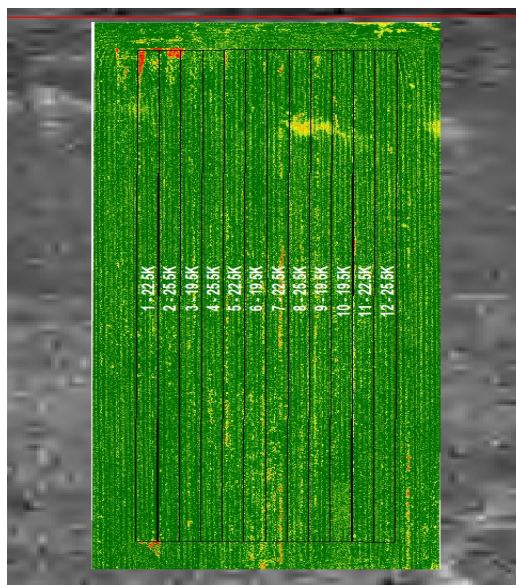
**Objective:** The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing normal planting rate in oil-type sunflower.

**Summary:** There was a significant yield difference between planting rates of 19,500, 22,500 and 25,500 plants/ac. As a result, the lower planting rate was the most profitable compared to the normal and increased planting rates.

### Trial Information

Treatment	19.5k vs. 22.5k vs. 25.5k
Soil Texture	Clay Loams
Previous Crop	Oats
Tillage	Minimal
Planting Equipment	40' Planter
Planting Date	May 26
Variety	N4HM354 (oil-type)
Germination	86%
Row Spacing	30"
Harvest Date	October 31

### NDVI Imagery August 13



### Sunflower Response<sup>†</sup>

	Plant Stand (plants/ac)	Oil (%)	TWT (lbs/bu)	Sizing 8 Slot	Grade
19.5k	17,500 <sup>B</sup>	42.7	30.3	82.0	—
22.5k	20,000 <sup>A</sup>	43.1	30.2	81.0	—
25.5k	20,250 <sup>A</sup>	46.4	29.8	50.0	—

<sup>†</sup>Analysis performed by Scoular will be included at a later date

### Precipitation<sup>†</sup> (mm)

	May	June	July	Aug	Total
Rainfall	146	53	92	51	342
Normal	61	78	70	93	302
% Normal	238%	68%	131%	55%	113%

<sup>†</sup>Growing season precipitation (mm) - May 01—Aug 31

### Overall Yield & Economics

	Mean (lbs/ac)	Cost <sup>†</sup>	Change in Profit/ac <sup>††</sup>
19.5k	2,661 <sup>AB</sup>	\$45/ac	+\$7/ac
22.5k	2,778 <sup>A</sup>	\$52/ac	\$0/ac
25.5k	2,512 <sup>B</sup>	\$59/ac	-\$113/ac
P-Value	0.0375	<b>Economics: Yields were significantly different between the normal practice of planting 22,500 seeds/acre compared to the higher planting rate. The lower rate of 19,500 seeds/acre was the most profitable.</b>	
CV	3.85%		
Significance	<b>Yes</b>		

<sup>†</sup>Based on MB Agriculture 2022 Cost of Production Guidelines (\$46.00/ac)

<sup>††</sup>Change in profit is calculated as the difference in cost between planting rate treatments. A price of \$0.40/lb (Nov 2022) is used for the calculation of changes



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