



## Sunflower Planting Rate

**Trial ID: 2022-SFLP05 — R.M. of St. Andrews**

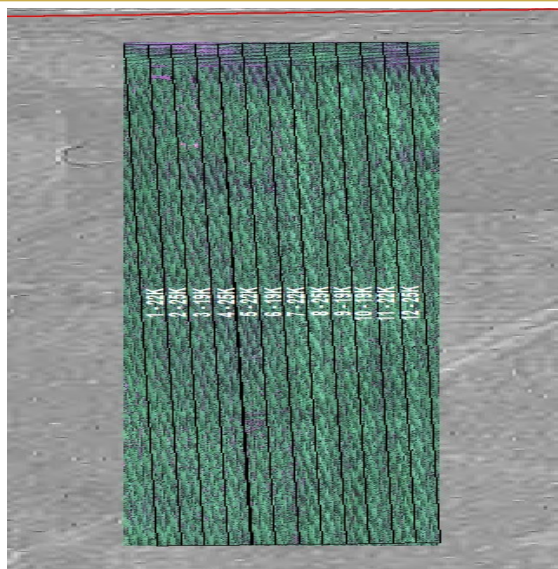
**Objective:** The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing normal planting rate in oil-type sunflower.

**Summary:** There was a significant yield difference between planting rates of 19,000, 22,000 and 25,000 plants/ac. As a result, the farmer's normal practice of 22,000 plants/ac was most profitable compared to the other two rates.

### Trial Information

<b>Treatment</b>	19k vs. 22k vs. 25k
<b>Soil Texture</b>	Clay
<b>Previous Crop</b>	Winter Wheat
<b>Tillage</b>	Conventional
<b>Planting Equipment</b>	40' Air Planter
<b>Planting Date</b>	June 22
<b>Variety</b>	Talon (oil-type)
<b>Germination</b>	83%
<b>Row Spacing</b>	30"
<b>Harvest Date</b>	November 26

### NDVI Imagery August 13



### Sunflower Response<sup>†</sup>

	Plant Stand (plants/ac)	Oil (%)	TWT (lbs/bu)	Sizing 8 Slot	Grade
<b>19k</b>	17,250 <sup>B</sup>	36.8	31.5	89.0	—
<b>22k</b>	18,750 <sup>AB</sup>	36.8	31.2	84.0	—
<b>25k</b>	21,500 <sup>A</sup>	36.5	31.2	82.0	—

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

### Precipitation<sup>†</sup> (mm)

	May	June	July	Aug	Total
<b>Rainfall</b>	139	54	93	81	<b>367</b>
<b>Normal</b>	54	79	78	102	<b>314</b>
<b>% Normal</b>	256%	68%	118%	80%	<b>117%</b>

<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>
<b>19k</b>	1,598	\$44/ac	-\$47/ac
<b>22k</b>	1,626	\$51/ac	\$0/ac
<b>25k</b>	1,650	\$58/ac	-\$7/ac
<b>P-Value</b>	0.4838	<b>Economics: There is a decrease in profit for the 20k seeding rate compared to the 23k seeding rate of \$47/ac.</b>	
<b>CV</b>	2.97%		
<b>Significance</b>	No		

<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 in profit between treatments.



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**MANITOBA  
CROP  
ALLIANCE**

Phone: 204-745-6661  
Website: [mbcropalliance.ca](http://mbcropalliance.ca)  
Email: [hello@mbcropalliance.ca](mailto:hello@mbcropalliance.ca)