



## Sunflower Planting Rate

**Trial ID: 2022-SFLP01 — R.M. of Brokenhead**

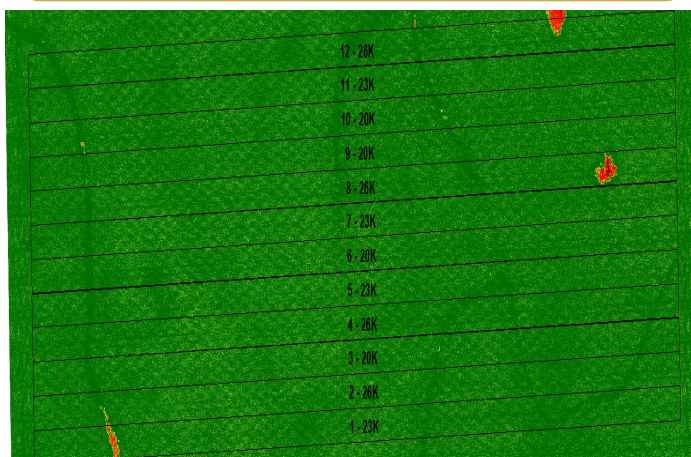
**Objective:** The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing normal planting rate in oil-type sunflower.

**Summary:** There was a significant yield difference between planting rates of 20,000, 23,000 and 26,000 plants/ac. As a result, the farmer's normal practice of 23,000 plants/ac was most profitable compared to the other two rates.

### Trial Information

Treatment	20k vs. 23k vs. 26k
Soil Texture	Clay Loams
Previous Crop	Soybeans
Tillage	Minimal
Planting Equipment	60' Air Planter
Planting Date	May 25
Variety	P63ME80 (oil-type)
Germination	95%
Row Spacing	20"
Harvest Date	October 20

### NDVI Imagery August 13



### Sunflower Response<sup>†</sup>

	Plant Stand (plants/ac)	Oil (%)	TWT (lbs/bu)	Sizing 8 Slot	Grade
20k	19,750 <sup>C</sup>	40.9	30.3	79.0	—
23k	21,100 <sup>B</sup>	41.1	30.3	—	—
26k	24,275 <sup>A</sup>	41.1	30.2	70.0	—

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

### Precipitation<sup>†</sup> (mm)

	May	June	July	Aug	Total
Rainfall	118	77	67	183	445
Normal	54	78	70	101	303
% Normal	218%	99%	96%	181%	147%

<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>
20k	1,285 <sup>B</sup>	\$46/ac	-\$47/ac
23k	1,421 <sup>A</sup>	\$53/ac	\$0/ac
26k	1,338 <sup>AB</sup>	\$60/ac	-\$7/ac
P-Value	0.0352	<b>Economics: There is a decrease in profit for the 20k seeding rate compared to the 23k seeding rate of \$47/ac.</b>	
CV	4.10%		
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 in profit between treatments.



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