



Sunflower Planting Rate

Trial ID: 2023-SFLP03 — R.M. of Brokenhead

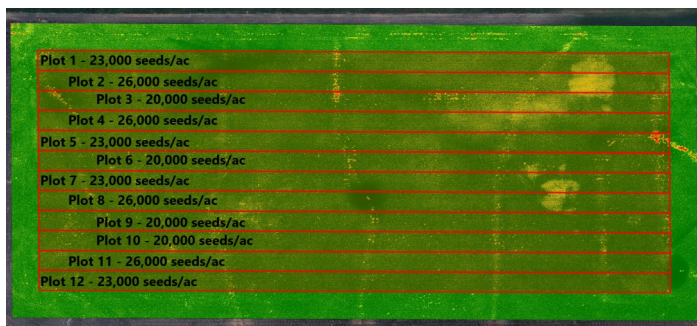
Objective: The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing normal planting rate in oil-type sunflower.

Summary: There was no significant yield difference between planting rates of 20,000, 23,000 and 26,000 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	20k vs. 23k vs. 26k
Soil Texture	Clay
Previous Crop	Soybeans
Tillage	Conventional Tillage
Planting Equipment	60' Planter
Planting Date	May 19
Variety	N4HM354 (oil-type)
Germination	85%
Row Spacing	20"
Harvest Date	October 21

NDVI Imagery August 14



Sunflower Response[†]

	Plant Stand (plants/ac)	TWT (lbs/bu)
20k	19,416 ^B	30.3
23k	21,500 ^A	30.8
26k	23,250 ^A	30.3

[†]Analysis performed by Scoular

Precipitation[†] (mm)

	May	June	July	Aug	Cumulative
Rainfall	8	106	50	38	202
Normal	58	88	87	76	309
% Normal	14%	121%	57%	50%	65%

[†]Growing season precipitation (mm)

Overall Yield & Economics

	Mean (lbs/ac)	Cost [†]	Change in Profit/ac ^{††}
20k	1945	\$46.00/ac	+ \$6.90/ac
23k	2026	\$52.90/ac	\$0/ac
26k	1948	\$59.80/ac	- \$6.90/ac
P-Value	0.3735	Economics: There is an increase in profit for the lower planting rate due to the lower cost of seed/acre.	
CV	4.34%		
Significance	No		

[†]Based on MB Agriculture 2023 Cost of Production Guidelines (\$46.00/ac)

^{††}Change in profit is calculated as the difference in cost between planting rate treatments.



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