Sunflower Planting Rate

Trial ID: 2023-SFLP06 — R.M. of Tache

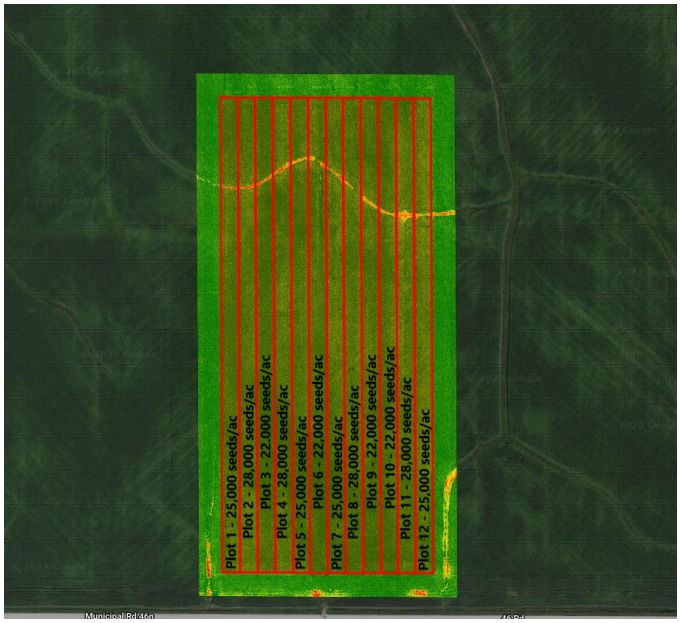
Objective: The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing normal planting rate in oil-type sunflower.

Summary: There was no significant yield difference between planting rates of 22,000, 25,000 and 28,000 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	22k vs. 25k vs. 28k
Soil Texture	Clay
Previous Crop	Corn
Tillage	Conventional Tillage
Planting Equipment	60’ Planter
Planting Date	May 23
Variety	P63ME80 (oil-type)
Germination	95%
Row Spacing	20”
Harvest Date	October 25

NDVI Imagery August 10



Sunflower Response†

	Plant Stand (plants/ac)	Oil (%)	TWT (lbs/ bu)	Sizing 8 Slot
22k	21,250[B]	48.5	30.9	75
25k	23,917[A]	47.3	30.9	69
28k	24,917[A]	48.7	30.8	75

†Analysis performed by Scoular

Precipitation† (mm)

	May	June	July	Aug	Cumulative
Rainfall	22	43	64	49	**179**
Normal	83	107	98	83	**371**
% Normal	26%	40%	66%	60%	**48%**

†Growing season precipitation (mm)

Overall Yield & Economics

	Mean (lbs/ac)	Cost†	Change in Profit/ac††
22k	2110	$50.60/ac	+ $6.90/ac
25k	2216	$57.50/ac	$0/ac
28k	2410	$64.40/ac	- $6.90/ac
P-Value	0.3251	**Economics: There is an increase in profit for the lower planting rate due to the lower cost of seed/acre.**	
CV	11.62%		
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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