Sunflower Planting Rate

Trial ID: 2022-SFLP02 — R.M. of Ritchot

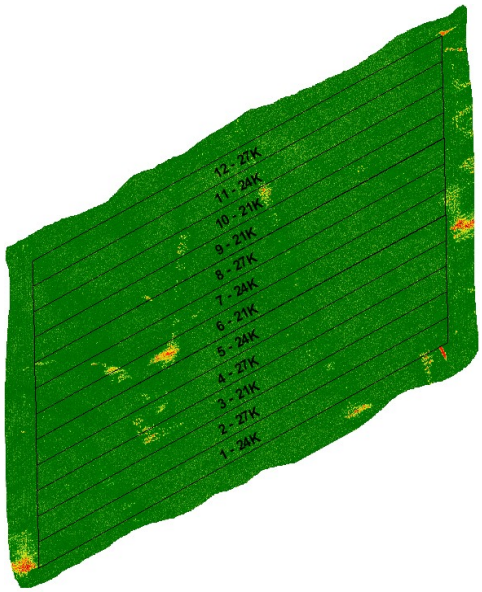
Objective: The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing normal planting rate in oil-type sunflower.

Summary: There was no significant yield difference between planting rates of 21,000, 24,000 and 27,000 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	21k vs. 24k vs. 27k
Soil Texture	Clay
Previous Crop	Oats
Tillage	Conventional
Planting Equipment	60’ Planter
Planting Date	May 26
Variety	P63ME80 (oil-type)
Germination	95%
Row Spacing	20”
Harvest Date	October 21

NDVI Imagery August 13



Sunflower Response†

	Plant Stand (plants/ac)	Oil (%)	TWT (lbs/bu)	Sizing 8 Slot	Grade
21k	18,100[C]	47.0	33.0	78.0	—
24k	21,500[B]	46.8	32.3	—	—
27k	23,900[A]	47.5	32.4	—	—

†Analysis performed by Scoular will be included at a later date

Precipitation† (mm)

	May	June	July	Aug	Total
Rainfall	150	81	85	146	**461**
Normal	57	79	62	103	**301**
% Normal	261%	102%	137%	142%	**153%**

†Growing season precipitation (mm) - May 01—Aug 31

Overall Yield & Economics

	Mean (lbs/ac)	Cost†	Change in Profit/ac††
21k	2,220	$48/ac	+$7/ac
24k	2,271	$55/ac	$0/ac
27k	2,365	$62/ac	-$7/ac
P-Value	0.2714	**Economics: There is an increase in profit for the lower planting rate due to the lower cost of seed/acre.**	
CV	4.94%		
Significance	No		

†Based on MB Agriculture 2022 Cost of Production Guidelines ($46.00/ac)
††Change in profit is calculated as the difference in cost between planting rate treatments.

MCA would like to thank Tone Ag Consulting Ltd. for the research support and Scoular for quality analysis for this trial.

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