# Sunflower Planting Rate

## Trial ID: 2023-SFLP01 — R.M. of Rhineland

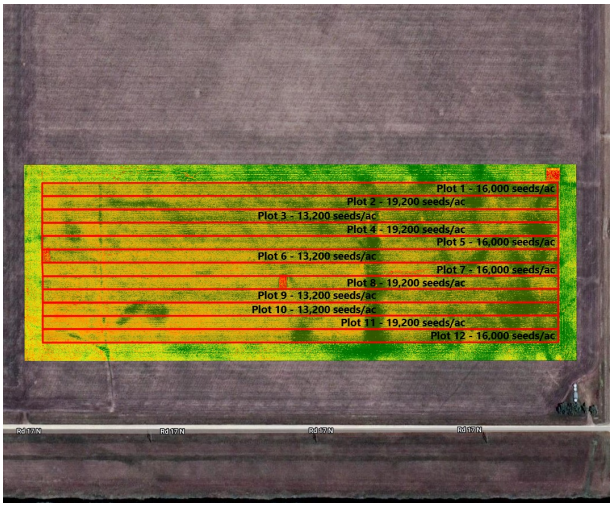
**Objective:** The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing normal planting rate in confection-type sunflower.

**Summary:** There was no significant yield difference between planting rates of 13,200, 16,000 and 19,200 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** | 13.2 vs. 16k vs. 19.2k |
| **Soil Texture** | Clay |
| **Previous Crop** | Oats |
| **Tillage** | Conventional Tillage |
| **Planting Equipment** | 60’ Planter |
| **Planting Date** | May 13 |
| **Variety** | Panther DMR (confection-type) |
| **Germination** | 97% |
| **Row Spacing** | 30” |
| **Harvest Date** | October 25 |

## NDVI Imagery August 09




## Sunflower Response†

| | Plant Stand (plants/ac) | TWT (lbs/bu) |
|---|---|---|
| **13.2k** | 16,417 | 31.6 |
| **16k** | 17,167 | 31.2 |
| **19.2k** | 21,167 | 31.6 |

†Analysis performed by Scoular

## Precipitation† (mm)

| | May | June | July | Aug | Cumulative |
|---|---|---|---|---|---|
| **Rainfall** | 9 | 25 | 60 | 27 | **122** |
| **Normal** | 69 | 102 | 86 | 84 | **340** |
| **% Normal** | 13% | 25% | 70% | 32% | **36%** |

†Growing season precipitation (mm)

## Overall Yield & Economics

| | Mean (lbs/ac) | Cost† | Change in Profit/ac†† |
|---|---|---|---|
| **13.2k** | 1683 | $41.58/ac | + $8.82/ac |
| **16k** | 1701 | $50.40/ac | $0/ac |
| **19.2k** | 1791 | $60.48/ac | - $10.08/ac |
| **P-Value** | 0.4136 | **Economics: There is an increase in profit for the lower planting rate due to the lower cost of seed/acre.** | |
| **CV** | 6.63% | | |
| **Significance** | **No** | | |

**†Based on MB Agriculture 2023 Cost of Production Guidelines ($56.70/ac)**
**††Change in profit is calculated as the difference in cost between planting rate treatments.**

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