

# **Wheat Seeding Rate**

#### Trial ID: 2023-WP05 — R.M. of Springfield

**Objective:** The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing normal seeding rate in wheat.

**Summary:** There was no significant yield difference between seeding rates of 60, 80 and 100 lbs/ac. As a result, there was a decrease in profit equivalent to the increase in seed cost for the higher seeding rates.

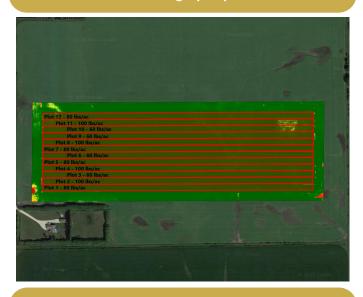
### **Trial Information**

| Treatment         | 60 lbs vs. 80 lbs vs. 100 lbs |
|-------------------|-------------------------------|
| Soil Texture      | Clay                          |
| Previous Crop     | Canola                        |
| Tillage           | Conventional Tillage          |
| Seeding Equipment | 50' Disc Drill                |
| Seeding Date      | May 13                        |
| Variety           | AAC Viewfield                 |
| Germination       | 97%                           |
| Row Spacing       | 7.5"                          |
| Harvest Date      | August 28                     |
|                   |                               |

# Wheat Response

|         | Plants/ft²      | Protein<br>(%) | TWT<br>(kg/hL) | Falling<br>Number | Grade |
|---------|-----------------|----------------|----------------|-------------------|-------|
| 60 lbs  | 13 <sup>B</sup> | 13.1           | 64             | 304               | 2     |
| 80 lbs  | 16 <sup>A</sup> | 13.5           | 64             | 300               | 2     |
| 100 lbs | 18 <sup>A</sup> | 12.7           | 64             | 310               | 2     |

## **NDVI Imagery July 18**



## Precipitation<sup>†</sup> (mm)

|          | May | June | July | Aug | Cumulative |
|----------|-----|------|------|-----|------------|
| Rainfall | 15  | 88   | 46   | 56  | 83         |
| Normal   | 83  | 107  | 98   | 83  | 371        |
| % Normal | 18% | 82%  | 46%  | 68% | 55%        |

 $<sup>{}^{\</sup>dagger}\text{Growing season precipitation (mm)}$ 

## **Overall Yield & Economics**

|              | Mean (bu/ac) | Cost <sup>†</sup>          | Change in Profit/ac <sup>††</sup>   |  |  |
|--------------|--------------|----------------------------|---|--|--|
| 60 lbs       | 83.0         | \$17.00/ac                 | + \$5.67/ac   |  |  |
| 80 lbs       | 83.2         | \$22.67/ac                 | \$0/ac  |  |  |
| 100 lbs      | 82.8         | \$28.34/ac                 | - \$5.67/ac   |  |  |
| P-Value      | 0.6869       |                            | Economics: There is an increase in profit for the lower seeding rate due to |  |  |
| cv           | 0.76%        | the lower cost of seed/acr | the lower cost of seed/acre.  |  |  |
| Significance | No           |                            |   |  |  |

<sup>†</sup>Based on MB Agriculture 2023 Cost of Production Guidelines (\$34.00/ac)

<sup>††</sup>Change in profit is calculated as the difference in cost between seeding rate treatments.



