# Wheat Seeding Rate

## Trial ID: 2023-WP01 — R.M. of Brokenhead

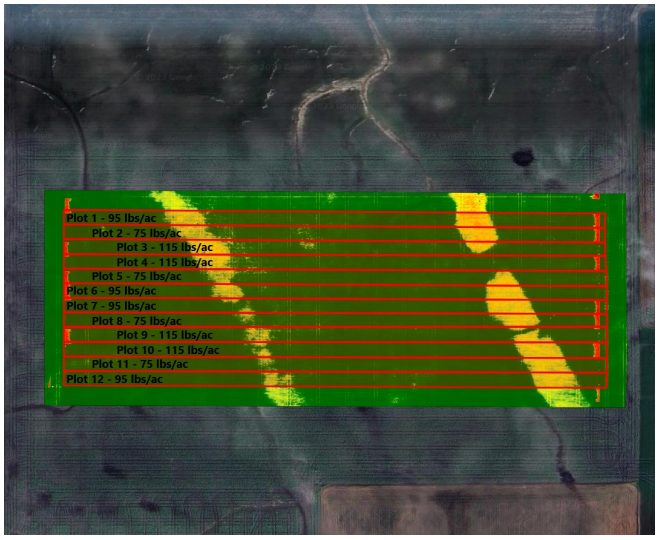
**Objective:** The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing normal seeding rate in wheat.

**Summary:** There was no significant yield difference between seeding rates of 75, 95 and 115 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** | 75 lbs vs. 95 lbs vs. 115 lbs |
| **Soil Texture** | Clay Loams |
| **Previous Crop** | Sunflower |
| **Tillage** | Conventional Tillage |
| **Seeding Equipment** | 60’ Disc Drill |
| **Seeding Date** | May 03 |
| **Variety** | AAC Starbuck VB |
| **Germination** | 98% |
| **Row Spacing** | 10” |
| **Harvest Date** | August 19 |

## NDVI Imagery July 18




## Wheat Response

| | Plants/ft² | Protein (%) | TWT (kg/hL) | Falling Number | Grade |
|---|---|---|---|---|---|
| **75 lbs** | 22[B] | 15.7 | 66 | 323 | 1 |
| **95 lbs** | 25[B] | 15.6 | 67 | 299 | 1 |
| **115 lbs** | 31[A] | 15.8 | 67 | 323 | 1 |

## Precipitation† (mm)

| | May | June | July | Aug | Cumulative |
|---|---|---|---|---|---|
| **Rainfall** | 8 | 106 | 50 | 22 | **186** |
| **Normal** | 69 | 100 | 93 | 74 | **336** |
| **% Normal** | 12% | 106% | 53% | 30% | **55%** |

†Growing season precipitation (mm)

## Overall Yield & Economics

| | Mean (bu/ac) | Cost† | Change in Profit/ac†† |
|---|---|---|---|
| **75 lbs** | 79.1 | $21.25/ac | + $5.67/ac |
| **95 lbs** | 77.6 | $26.92/ac | $0/ac |
| **115 lbs** | 78.1 | $32.59/ac | - $5.67/ac |
| **P-Value** | 0.2716 | **Economics: There is an increase in profit for the lower seeding rate due to the lower cost of seed/acre.** | |
| **CV** | 1.58% | | |
| **Significance** | **No** | | |

**†Based on MB Agriculture 2023 Cost of Production Guidelines ($34.00/ac)**
**††Change in profit is calculated as the difference in cost between seeding rate treatments.**

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MANITOBA CROP ALLIANCE
Phone: 204-745-6661
Website: mbcropalliance.ca
Email: hello@mbcropalliance.ca