## **Research Question:** Can Manitoba canola farms reduce their seeding rates without sacrificing yield to increase return on investment?

Yield (bu/ac)

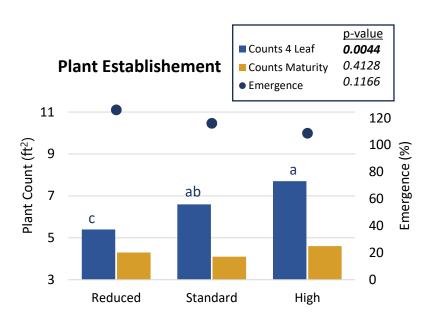
| Site Information   |                  |  |  |  |
|--------------------|------------------|--|--|--|
| R.M.               | Grey             |  |  |  |
| Seeding Date:      | May 13, 2023     |  |  |  |
| Seeding Equipment: | Planter          |  |  |  |
| Variety:           | DKLL 83 SC       |  |  |  |
| Seed Treatment:    | Prosper Evergol  |  |  |  |
| TKW:               | 5.5 g/1000 seeds |  |  |  |
| Row Spacing:       | 15″              |  |  |  |
| Harvest Date:      | Aug 25, 2023     |  |  |  |

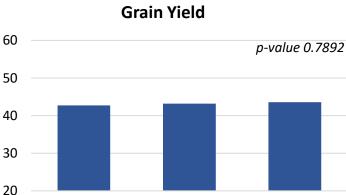
## Summary

- <u>Plant Establishment</u>: High seeding rate significantly increase the number of plants present at the 4-leaf stage compared to the other treatments (no difference in emergence % at 4 leaf). There were no differences between treatments for plant counts at maturity with all seeding rates resulting in a final plant population of 4 4.5 plants/ft<sup>2</sup>.
- <u>Grain Yield</u>: There was no significant difference in grain yield between all seeding rates tested.
- <u>Economic Considerations</u>: The reduced seeding rate treatment resulted in the greatest return on investment in this trial. With no effect on yield the adoption of a lower seeding rate could reduce seed costs by 25%.
- 2024 SRP is approximately \$1000/bag of canola seed, indicating a potential cost reduction of \$250/bag.
- Additional considerations: risks associated with low plant populations outside of the scope of this trial include reduced competitiveness against field pests.

|                    | Apr  | May  | June | July | Aug  | Total |
|--------------------|------|------|------|------|------|-------|
| Rainfall (mm)      | 31.1 | 17.4 | 25.1 | 23.9 | 59.1 | 157   |
| Avg Daily Temp (C) | 0.13 | 16   | 21   | 18   | 15   |       |

| Treatment |                              | lbs./ac | Seeds/ac |  |
|-----------|------------------------------|---------|----------|--|
| 1         | Reduced Seeding Rate (75%)   | 2.25    | 185,563  |  |
| 2         | Standard Seeding Rate (100%) | 3.0     | 247,418  |  |
| 3         | Hight Seeding Rate (125%)    | 3.75    | 309,272  |  |





The absence of lowercase letters for any data type indicates no significant differences between treatments.

Standard

High

Reduced

