



Manitoba Crop Alliance
BARLEY SEEDING RATE
Replicated Strip Trial Protocol



**MANITOBA
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ALLIANCE**

Objective:

The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing targeted plant stands from normal seeding rate in Barley – 6 sites.

Brief Summary:

- The grower will seed their normal seeding rate in 4 strips, alternating with 4 strips each of a lower and a higher seeding rate.
- An example is shown on the right using a target plant population of 25 plants/ft², with a higher and lower suggested plant population rate.
- The width of a strip must be at least as wide as a complete combine pass, preferably wider. The harvested length should not be less than 1,000 feet.
- The alternating strips of the barley seeding rates can be planted by using GPS to plant every other strip with one seeding rate and then filling in the skipped passes with the second seeding rate.
- Take a seed sample from the seeder (about ½ an ice cream bucket).
- Harvesting must ensure at least one “pure” combine pass from each treatment (no mixing of yields from two different treatments).

33 plants/ft ²
17 plants/ft ²
25 plants/ft ²
17 plants/ft ²
33 plants/ft ²
25 plants/ft ²
33 plants/ft ²
17 plants/ft ²
25 plants/ft ²
25 plants/ft ²
33 plants/ft ²
17 plants/ft ²

Grower Requirements:

- Supply information (if unknown before planting) on location, seeding dates, variety, and treatments etc. by June 30.
- Area containing waterways and headlands should be avoided. All other factors in the trial must be managed the same (planting date, variety, etc.).
- If possible, accurately record where all the treatments were applied using GPS mapping equipment.
- All strips must be harvested on the same day.
- Allow the Manitoba Crop Alliance to use the collected data for research, education, and informative purposes.
- ***Must be a member in good standing with the MCA.***

MCA and Partners Agree to:

- Attempt to collect aerial images from each field and provide them to the grower at no cost.
- Set up the trial with the grower in the field. Soil sample and weigh individual harvested strips with a weigh wagon. Do plant counts both at seedling establishment and just prior to harvest.
- Provide a report analyzing the statistical and economical treatment differences.
- Keep data in a confidential manner that cannot be linked back to the individual grower by other parties.
- Make this minimum work for grower.

Benefits to the Grower:

- Access to the latest research which can be adapted to their farm.
- Creating a crop production database for your local area.
- Higher quality of data – multiple evaluations across numerous farms under different soil types, cropping history and management styles.