



**Manitoba Crop Alliance**  
**FLAX NITROGEN RATE**  
**Replicated Strip Trial Protocol**



**Objective:**

The purpose of this project is to quantify the agronomic and economic impacts, in flax, of three different nitrogen rates in alternating strips across the field.

**Brief Summary:**

- The grower will seed their normal seeding rate in 4 strips, alternating with 4 strips each of a lower and higher nitrogen rate.
  - An example is shown on the right using a “normal” nitrogen rate of 80N, and a higher and lower rate of 100N and 60N, respectively.
- The width of a strip must be at least as wide as the combine pass, preferably wider. Harvest length should be not less than 1,000 feet.
- The alternating strips of the flax nitrogen rate can be planted by using GPS to plant every other strip with one nitrogen rate and then filling in the skipped passes with the second nitrogen rate.
- Take a seed sample from planter (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 seeding rates).

80 N
100N
60N
100N
80N
60N
80N
100N
60N
60N
80N
100N

**Grower Requirements:**

- Supply information (if unknown at seeding) on location, planting date, variety, fertility, cropping history, etc. by June 30.
- Areas containing waterways and headlands should be avoided. All other factors in the trial area must be managed the same (planting date, variety, fertility, 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, educational, and informational 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 trial with growers in field, soil sample, weigh individual strips with weigh wagon, do plant counts after seeding but before harvest, take a harvest sample.
- Provide a report analyzing the statistical and economical treatment differences.
- Keep data in a confidential manner that cannot be linked back to the individual producer by other parties.

**Benefits to Growers:**

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