

**Manitoba Corn Growers Association, Inc.**

**CORN NITROGEN TIMING**

**Replicated Strip Trial Protocol**

**Objective:**

The purpose of this project is to quantify the agronomic and economic impacts of split nitrogen applications to corn in alternating randomized strips across the field. There will be a maximum of 10 trials conducted.

- The farmer will apply their base rate N at planting vs. base rate less 40lbs N with 40lbs N topdressed between V4 and V6.
  - An example is shown on the right where 80 lbs of N is applied at planting and 40 lbs of N topdressed vs. 120 lbs of N applied at planting.
- The **width** of a strip must be at least as wide as the combine pass, preferably wider. Length should be approximately 1,320 feet (1/4 mile).
- Harvesting must ensure at least **one “pure” combine pass** from each treatment (not mixing yields from two different treatments).

1	Base Rate of N (Ex. 120 lbs/ac N) - At Planting
	Base Rate N - 40 lbs/ac at Planting (Ex. 80 lbs/ac N) + 40 lbs/ac N Topdress
2	Base Rate N - 40 lbs/ac at Planting (Ex. 80 lbs/ac N) + 40 lbs/ac N Topdress
	Base Rate of N (Ex. 120 lbs/ac N) - At Planting
3	Base Rate of N (Ex. 120 lbs/ac N) - At Planting
	Base Rate N - 40 lbs/ac at Planting (Ex. 80 lbs/ac N) + 40 lbs/ac N Topdress
4	Base Rate N - 40 lbs/ac at Planting (Ex. 80 lbs/ac N) + 40 lbs/ac N Topdress
	Base Rate of N (Ex. 120 lbs/ac N) - At Planting
5	Base Rate of N (Ex. 120 lbs/ac N) - At Planting
	Base Rate N - 40 lbs/ac at Planting (Ex. 80 lbs/ac N) + 40 lbs/ac N Topdress
6	Base Rate of N (Ex. 120 lbs/ac N) - At Planting
	Base Rate N - 40 lbs/ac at Planting (Ex. 80 lbs/ac N) + 40 lbs/ac N Topdress

**Farmer Requirements:**

- Areas containing waterways and headlands should be avoided. All other factors in the trial area must be managed the same (planting date, variety, etc.).
- **If possible**, accurately record where all treatments were applied using GPS mapping equipment.
- All strips must be harvested on the same day with the rows.
- If available, harvest with a grain cart with calibrated scale.
- Allow the Manitoba Corn Growers Association to use collected data for research, educational, and informational purposes.
- Must be a member in good standing with the Manitoba Corn Growers Association.

**TAC Agrees to:**

- Accurately record where all treatments are applied, including the time of application, seeding date, hybrid, etc.
- Collect aerial images from each field and provide them to the farmer at no cost.
- Set up trial with farmers in field, soil sample, weigh individual strips with weigh wagon, conduct plant counts.
- Provide a report analyzing the statistical and economical treatment differences.
- Keep data in a confidential manner that can't be linked back to the individual producer by other parties.
- Make this **minimum work for farmers**.

**Benefits to the farmer:**

- Access to latest research which can be adapted to their farm.
- Creating a crop production database for your local area.
- There is a structure to coordinate resources and discussions.
- Higher quality of data – multiple evaluations across several farms under different management styles, soil types and cropping history.
- Share not only data but also personal errors and triumphs.



Please contact Ron Tone at Tone Ag Consulting  
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