

# On-Farm Research Protocol

## Fall-applied Anhydrous Ammonia with a Nitrification Inhibitor (Centuro)

### Objective

Determine if using a nitrification inhibitor will keep nitrogen available in the  $\text{NH}_4^+$  form longer during the season to reduce N losses and increase yield or protein through greater available soil N.

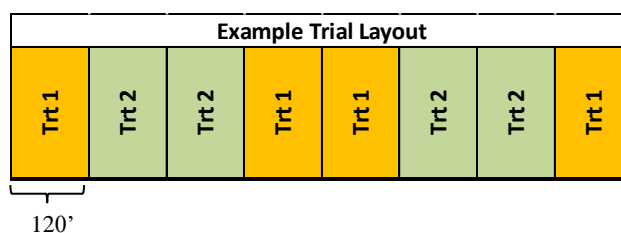
### Field Selection

- Plots typically run the full length of the field and must be wide enough to allow for at least one full combine pass through the plot that avoids sprayer tracks (usually 100-140 ft).

### Fall Anhydrous Ammonia Application

- Two fertilizer treatments will be replicated at least four times, for a total of eight harvested strips. Strips should be twice the width of the equipment used to fertilize (ex. 2-3 passes of a 40 ft applicator = 80-120 ft. per strip).

- Treatment 1 – No Centuro
- Treatment 2 – With Centuro



### Harvest

- Yield will be measured using one of MN Wheat's weigh wagon to record yield and obtain a protein sample
  - MN Wheat Staff will be available with the weigh wagon to assist with harvest
- Combine passes should avoid sprayer tracks and drown-outs if possible
- MN Wheat will also need to collect the as-applied map and yield map following harvest

### Data MN Wheat Will Collect

- Precipitation from application date to harvest
- Soil samples
  - Fall of 2018 before the treatments are applied
  - Total soil N 2, 4, and 6 weeks after planting
  - After harvest
- Yield, moisture, test weight

### Data Reporting

MN Wheat will email participants the preliminary results of all on-farm research trials after harvest. Data will also be included anonymously in the annual On-Farm Research Report booklet, be discussed at the annual On-Farm Research Summit in December and posted on-line on MN Wheat's On-Farm Research Network homepage at the link below.

*Participants will be compensated according to the payment structure outlined in the Producer Agreement upon the successful implementation and harvest of each trial for any extra time and costs incurred while participating in this research. This trial is eligible to receive \$500-\$1,000 in compensation. The Producer Agreement can be found at*

[www.mnwheat.org/farm-research-network/](http://www.mnwheat.org/farm-research-network/)

Call us anytime to discuss further: Thank you- Lauren 218-556-3174, Melissa 952-738-2000