Foliar Copper Applications in Wheat

Objective

Assess the return on investment by adding foliar copper sulfate to wheat fields with that are below critical soil test level of 0.4 ppm.

Field Selection

Mineral soils with an Agvise Cu soil test level below 0.4 ppm (non-peat fields).

Varieties – All varieties

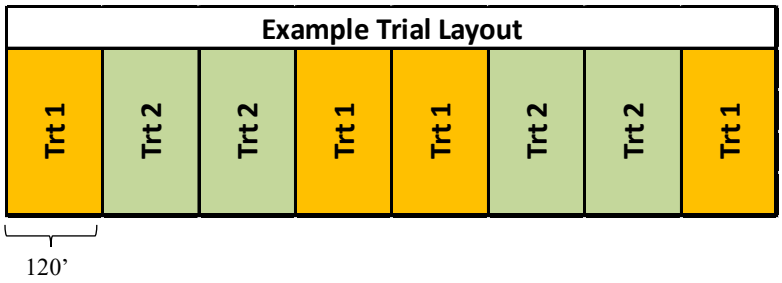
Treatments

Control — No added copper

Treatment — Product label rate of Copper applied alone at 4-5 leaf stage

Plot size: Strips should be wide enough to harvest one combine pass **without sprayer tracks**, and at least 750-1000 ft long.

Replications: Four replications of each treatment (8 plots total) is preferred. Three replications (6 plots total) may be acceptable if field size cannot accommodate 8 plots.



Please notify the Research Coordinator or your coordinating agronomist before planting and harvest so they assist with the trial

Harvest

- Yield can be measured using one of MN Wheat's weigh wagons to record yield and obtain protein samples
  - MN Wheat Staff will be available with the weigh wagon to assist with harvest

OR

- Yield can be measured in the producer's grain cart with a calibrated scale
  - Protein samples will need to be collected as the combine empties each plot into the grain cart

- Combine passes MUST avoid sprayer tracks and drown-outs
- MN Wheat will collect the as-applied map and yield map following harvest, if available
  - Participants will be compensated $500 for sharing data

Data MN Wheat will Collect

- Precipitation and other weather data.
- Grain yield, moisture, test weight, protein
- In-season tissue test for Cu uptake
- Post-harvest soil test for available Cu

Producer Report

- Participants will receive a preliminary statistical analysis of all harvested trials as soon as all trials are harvested, and the data can be analyzed by MN Wheat.

- Participants will receive a pdf copy of the annual On-Farm Research Report following the annual On-Farm Research Summit (paper copies can be mailed upon request).

- Participants are eligible for one free night at the CanadInn during the Prairie Grains conference in December in Grand Forks, ND, if they plan to attend MN Wheat's annual On-Farm Research Summit.

Data Use

- According to MN Wheat's data use and privacy policy, trial data will be included anonymously in the annual On-Farm Research Report booklet, shared at MN Wheat's annual On-Farm Research Summit in December, and posted on-line on MN Wheat's On-Farm Research Network homepage at the link below.

Compensation

Participants will be compensated according to the payment structure outlined in the Producer Agreement upon the successful implementation and harvest of each trial and submission of all necessary supporting field data. This trial is eligible to receive $1,000 in compensation, plus $250 each for sharing an application and yield map. The Producer Agreement can be found at www.mnwheat.org/farm-research-network/