

Nitrogen Fertilizer Strip Trial

“MU Certified” Strip Trial Program

Objective:

Testing N rates – can we increase N efficiency in corn and milo?

Approach:

Compare two or three treatments: Farmer rate vs. plus N rate and/or vs. minus N rate. We are open to other ideas based on farmer interest.

Key design elements:

- Suggested +/- N rate of at least 30 lbs N/acre. Farmer choice of looking at plus, minus, or both a plus and a minus rate.
- Farmer choice of N sources and timing of treatments. Typically, this trial is applied as part of the side-dress N application.
- Can work with variable N rate fields as well as farmers applying one rate on a field.
- Minimum of four replicates (eight to twelve strips).

Information needed to layout trial:

Name:	Phone:	Email:
MU Extension Contact:	Phone:	Email:
Commercial Applicator/Ag Specialist Name:	Phone:	Email:

Field Information	
Field location/size:	Harvest direction:
Description of your N management: Including sources, rates, placement, timing:	
Describe what you want to test: which application to vary N rate, what comparison (+ trial, - trial, both)?	Planned grain crop:

Equipment		
N applicator type/model used for trial:	Spread width (ft):	
Fertilizer controller type/model:		GPS enabled? yes or no
Planter type/model:	Planter width (ft):	GPS enabled? yes or no
Combine type/model:	Combine width (ft):	GPS enabled? yes or no
Yield monitor type/model:		GPS enabled? yes or no

Applying UAN solution with Y-drops to an N trial in Chariton County on June 1, 2018.



Interested?

Contact the local Extension Office, David Kleinsorge (KleinsorgeD@missouri.edu; 573-884-8696) or Kent Shannon (ShannonD@missouri.edu).

More Information

Key measurements

- Nitrogen approach can be flexible.
- In the EC, C and NE regions, we can support a farmer testing the use of aerial imagery as part of the decision making process. For all trials, aerial imagery will be obtained to look at corn color between treatments applied after V-8 and before VT.
- Farmer provides GPS referenced yield map.

Key additional information needed from farmer:

- As-applied/coverage map for N treatment applications/locations.
- Agronomic information on grain crop including planting date, seeding rate, harvest date.
- Detailed information on nitrogen fertilizer applications.

Key trial implementation notes:

- We will work with you to create a treatment map for your field. Typically treatments will alternate across the field.
- We will try to create a trial where the farmer does not have to change how the field is harvested.
- Work with your local extension specialist and state program staff if you have questions.



Example of a +/- Nitrogen trial from Marion County in 2018, i.e. 140 lbs N/acre +/- 25 lbs N/acre. All nitrogen was applied sidedress as UAN solution on June 1, 2018.

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