AGRO-CULTURE LIQUID FERTILIZERS

Strip-till Corn Fertilizer Placement (14-307)

Experiment Info:	
Planted:	5/19/2014
Harvest:	10/30/2014
Yield Goal:	200 bu/A
Target Fert.:	220-29-130
Variety:	DKC 53-56 RIB
Population:	36,500
Row Width:	30"
Prev. Crop:	Wheat
Plot Size:	15x180/210/13
Replications:	5
Fall	11/20/2013
Sp.	5/19/2014
Sidedress:	6/20/2014

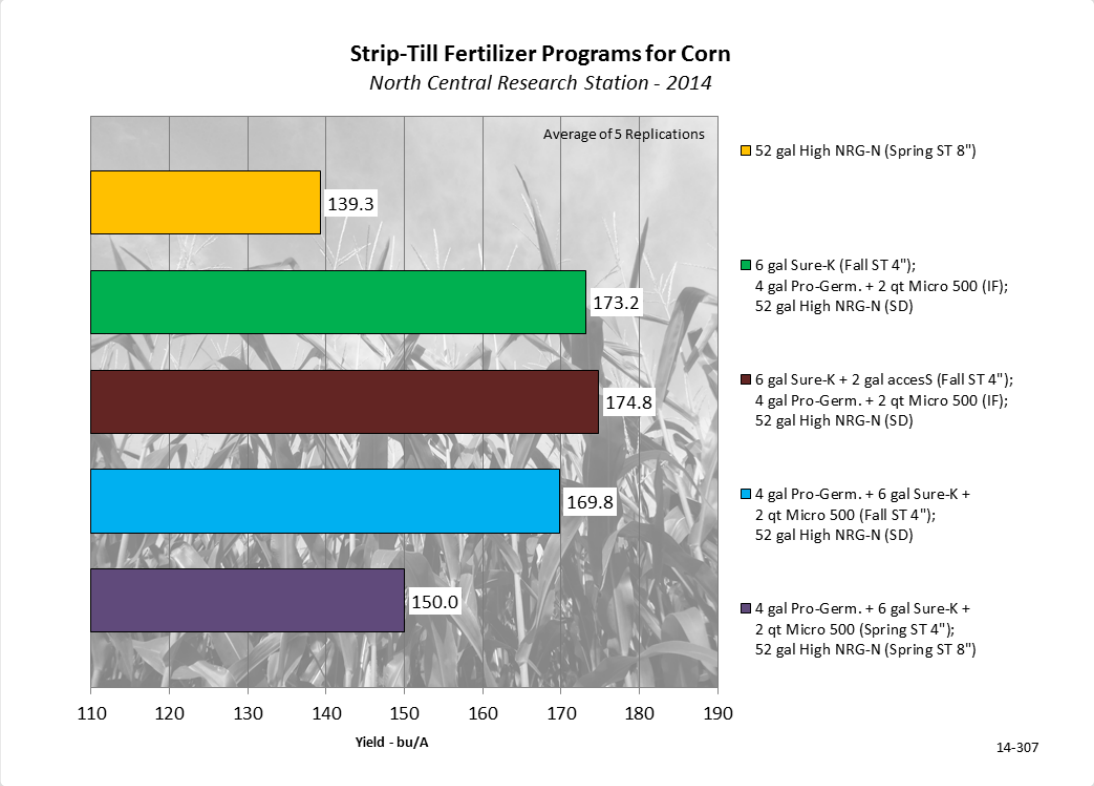
Soil Test Values (ppm):	
pH:	7.7
CEC:	6.5
%OM:	1.2
Bray P1:	24
Bicarb P:	10
K:	49
S:	9
%K:	1.9
%Mg:	17.4
%Ca:	79.5
%H:	0
Zn:	1.2
Mn:	8
B:	0.6

Objective:

To compare the placement methods of a recommended nutrient program for strip-tilled corn.

The recommended fertilizer program included 4 gal/A Pro-Germinator + 6 gal/A Sure-K + 2 qt/A Micro 500 + 52 gal/A High NRG-N. One treatment also added 2 gal/A accesS. Placement of these nutrients varied among the treatments. A nitrogen only treatment using High NRG-N placed at 8" deep with the strip till was used as a check.

Pro-Germinator was placed in-furrow with the planter, in the fall strip at 4" or the spring strip at 4". Sure-K was placed either in the fall at a 4" depth with the strip-till operation or one treatment placed it with the Pro-Germinator and Micro 500 in a spring strip-till trip at 4". Micro 500 was always placed with the Pro-Germinator. High NRG-N was sidedressed in most cases except for the check or the treatment that included all nutrients being placed with the strip-till. Nitrogen should always be placed further from the seed to avoid seedling injury. Spring strip-till applications were made the same day as planting. All strip tillage and planting was completed using GPS RTK to insure correct placements of the seed and fertilizer.



LSD(0.1) 10.1, CV: 13.3%

Conclusions:

- High rainfall events in the spring may have lead to lower yields in the treatments with nitrogen applied in the spring strips at an 8 depth.
- Fall strips with nitrogen sidedressed 30 days after planting yielded significantly higher bu/A than spring strip-till with strip-till placed nitrogen.
- accesS provided a small benefit to this experiment that had a sulfur soil test level in the low range.
- Phosphorus and micronutrients were more beneficial being placed in-furrow with the planter than at 4" in a strip-tilled environment.