Spring Strip-Till Nitrogen Sources on Corn (15-203)

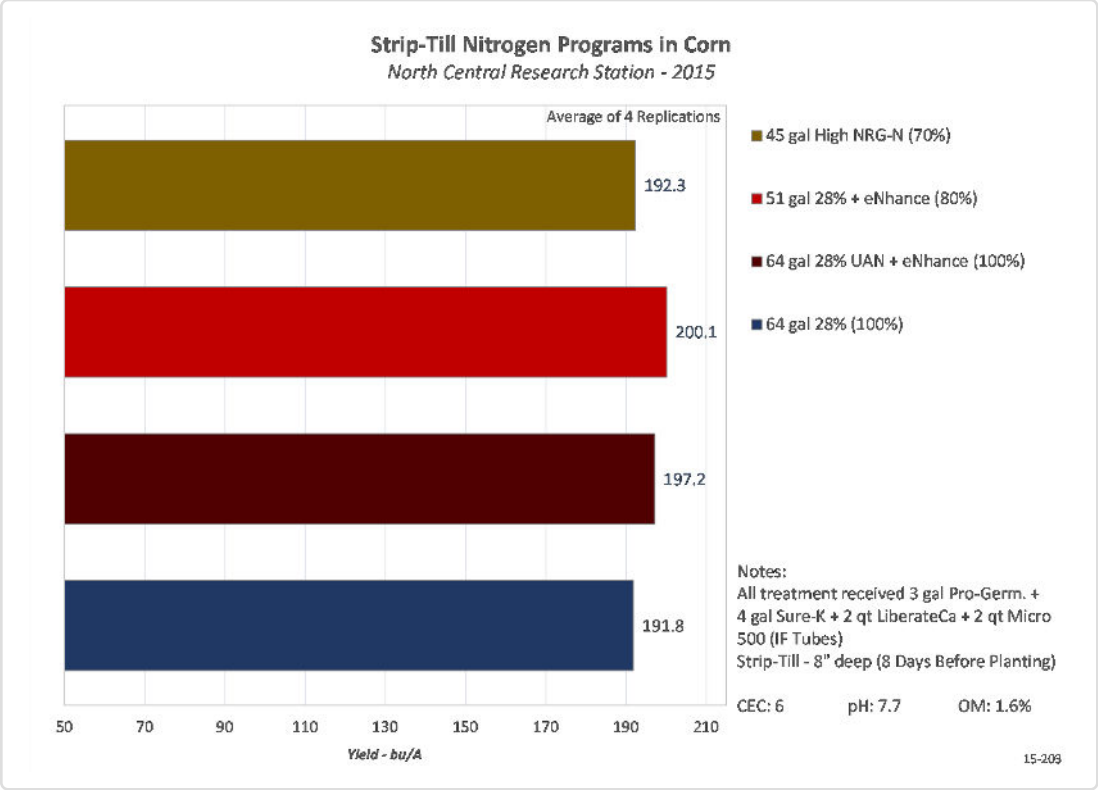
Experiment Info:	
Planted:	5/2/2015
Harvest:	10/13/2015
Yield Goal:	175 bu/A
Target Fert.:	193-5-46
Variety:	DKC 46-36 RIB
Population:	31,500
Row Width:	30"
Prev. Crop:	Soybeans
Plot Size:	15 x 130
Replications:	4
ST (Spring	4/24/2015

Soil Test Values (ppm):	
pH:	7.7
CEC:	6
%OM:	1.6
Bray P1:	27
Bicarb P:	11
K:	106
S:	12
%K:	4.5
%Mg:	23.8
%Ca:	68.7
%H:	0
Zn:	1.1
Mn:	7
B:	0.5

Objective:

To compare nitrogen sources and their respective rates on corn in a spring strip tillage environment.

Strip till on lighter soils is possible in the spring without damaging soil structure and the placement of a nitrogen program with the tillage operation is an efficient method of application. However lighter soils may be more conducive to a split application of nitrogen, depending on the seasons weather events. This experiment compared a single spring strip-till application of 45 gal/A of High NRG-N, 51 gal/A of 28% + eNhance and 64 gal/A of 28% UAN as nitrogen sources. Strip tillage and the nitrogen applications were completed 8 days prior to planting with an Orthman 1tRIPr and the nitrogen was placed at an 8 inch depth below the soil surface which is 6 inches below the planted seed depth. The tillage depth was 9 inches and width was 12 inches in a previous crop of soybean stubble. Harvest yields are reported on the chart below.



LSD(0.2) 9.9, CV: 9.8%

Conclusions:

- No significant yield advantages were realized between the different treatments of nitrogen sources.
- High NRG-N applied at 45 gal/A resulted in similar yields to the recommended rate of 28% UAN while applying 19 less gal/A and providing application efficiency at a critical time of the spring season.
- An 80% rate or 51 gal/A of 28% UAN plus the addition of AgroLiquid eNhance provided a yield advantage of 8.3 bu/A over the full rate of 28% UAN. Again lowering gallons applied to provide spring time efficiency and not sacrificing yield.