



Nitrogen Source and Rate Comparison in Corn (16-504, 16-708, 15-908)

Experiment Info:

Planted:	6/1/2016
Harvest:	10/31/2016
Yield Goal:	175 bu/A
Target Fert.:	220-0-127
Variety:	P9644AM
Population:	31,500
Row Width:	30"
Prev. Crop:	Sugarbeets
Plot Size:	15 x 265
Replications:	4

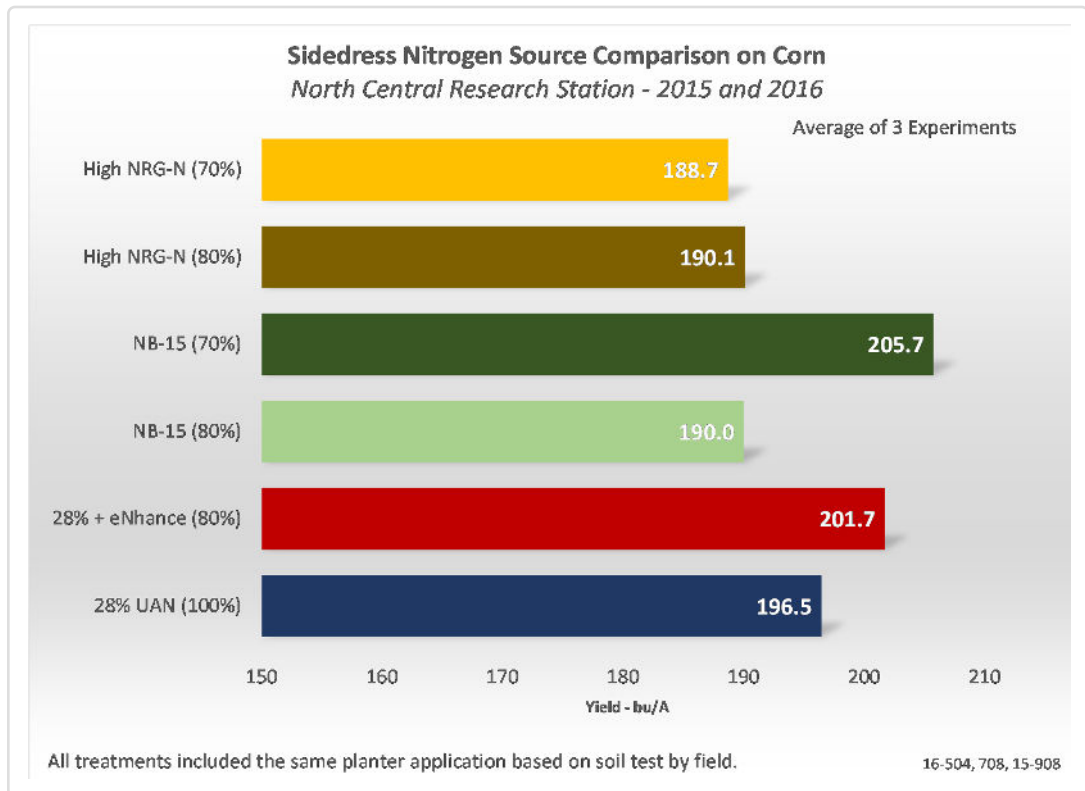
Soil Test Values (ppm):

pH:	6.7
CEC:	17.2
%OM:	3
Bray P1:	16
Bicarb P:	-
K:	119
S:	12
%K:	1.8
%Mg:	20.2
%Ca:	77.6
%H:	0
Zn:	1.3
Mn:	3
B:	0.6

Objective:

To evaluate different nitrogen sources and rates, including experimental product NB-15, effects on corn yield.

In the last two growing seasons, research done at the NCRS has compared AgroLiquid's nitrogen product High NRG-N to an experimental product NB-15. NB-15 is a 30% nitrogen with sulfur and this experiment was used to help determine the recommended rate structure. Also included in this trial was 28% + eNhanche and 28% UAN. Because this data is a compilation of three experiments over two years, target nitrogen rate did vary based on yield potential. However, within each location and year, the amount of applied nitrogen was the same for each nitrogen source. Yield results appear on the chart below.



LSD(0.05)15.7 LSD(0.1)13.1 LSD(0.2)10.1, CV:16.1%

Conclusions:

- At the NCRS past research as shown that High NRG-N needs to be applied at the 70% use rate of conventional fertilizer, this research project shows that there is no further economic benefit to increasing the rate.
- Rate comparisons of NB-15, in this experiment, show that there is no benefit to increasing the 70% total N use rate.
- The reduced rate of 28% + eNhanche averaged over these experiments yielded higher than the full rate of 28%.