

Nitrogen Source and Method of Application Options for Corn (3 Year Average)

Experiment Info:

Planted:	5/27/2014
Harvest:	11/2/2014
Yield Goal:	175 bu/A
Target Fert.:	193-15-73
Variety:	DKC 49-29 RIB
Population:	30,000
Row Width:	30"
Prev. Crop:	Soybeans
Plot Size:	15 x 820
Replications:	3
Liquid BC:	5/27/2014
Sidedress:	6/30/2014

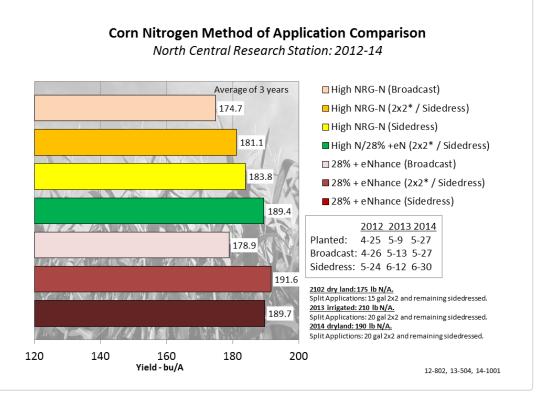
Soil Test Values (ppm):

pH:	6.8
CEC:	11.2
%OM:	2.3
Bray P1:	25
Bicarb P:	-
K:	99
S:	14
%K:	2.3
%Mg:	21.9
%Ca:	75.1
%H:	0
Zn:	0.9
Mn:	4
B:	0.6

Objective:

This experiment was conducted to evaluate the effects of nitrogen source and methods of application on corn yield.

This year is the third year of testing fertilizer sources, High NRG-N and 28% UAN + eNhance at three different methods of application: all broadcast after planting, all sidedressed or a split application placing 20 gal 2x2 and sidedressing the remaining. In high rainfall years like we have experienced in 2014 and 2013, there is risk of nitrogen loss from broadcast applications however at the same time if it is too wet to sidedress 30 days after planting there is risk of nitrogen deficiency. The use of a split application helps reduce these risks. The 3 year average yield appear on the chart below.



LSD(0.2) 5.8, CV: 15.8%

Conclusions:

- Broadcast applications of both High NRG-N and 28% + eNhance had lower yields than the other methods of application. This is likely due to the above normal rainfall experienced in two of the three years. 2014 weather data can be found at the start of the report.
- Splitting the application between a 2x2 band and sidedress provided similar yields to a sidedress application, however it provides the extra benefit of reducing risks by having some nitrogen upfront if sidedress applications can not be done in a timely manner.
- The top yielding program in the first two years and nearly the top this year was a split application using High NRG-N in the 2x2 at planting, followed by a sidedress application of 28% + eNhance. This combines the slow release benefits of High NRG-N with the quicker feed characteristics of 28% + eNhance.