

Experiment Info :

Planted:	6/11
Variety:	DKC49-29
Population:	26,000
Row Spacing:	30"
Previous Crop:	Corn
Plot Size:	4 rows x 10'
Replications:	4
Sidedress:	11/8
Harvested:	11/8

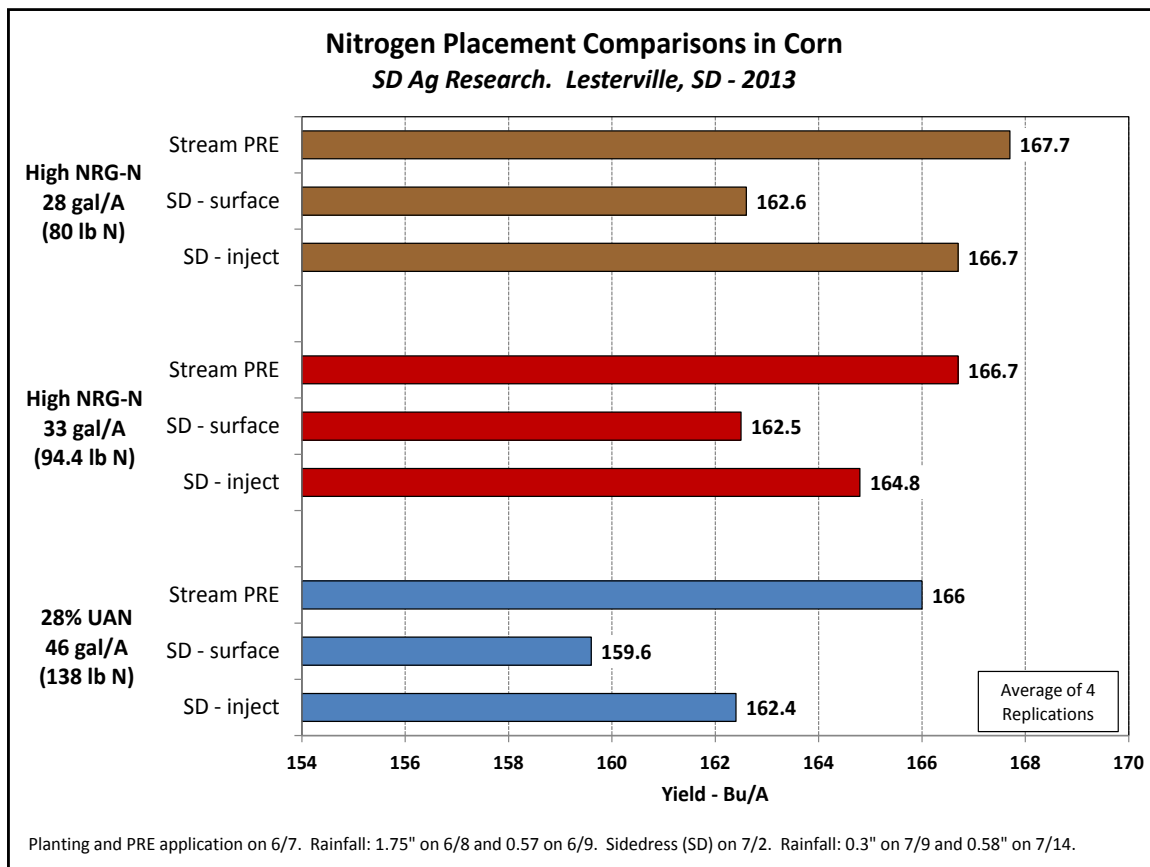
Soil Test Values (ppm):

pH:	6.4
CEC:	16.8
% OM:	3.1
Bray P1:	10
K:	136
S:	13
% K:	2
% Mg:	27.3
% Ca:	63.4
% H:	7.3
Zn:	0.4
Mn:	15.6
B:	0.3

Objective:

Compare placement of different nitrogen sources for effect on corn yield.

Application of nitrogen to corn can be a challenge. What is the best method of application? Some growers apply all of their solution nitrogen as a single application after planting as in weed and feed. Side dress is a common application method, but there too are options: inject into the soil or apply in a surface band? An experiment was conducted in South Dakota to provide some answers to these placement options. The spring was very wet and planting was delayed. In fact, the intended location was never able to be planted, and a second location was selected. However, this was corn in 2012, and all nitrogen application at sidedress is not a good option for corn following corn due to N depletion in the soil and danger of further yield loss if sidedress is delayed by weather. But due to the drought in 2012, soil test determined that there was 51 lb of N available to the crop in the spring. An N application rate of 140 lb/A was set. Three UAN sources were selected for comparison: 46 gal/A of 28% UAN, 33 gal/A of High NRG-N and 28 gal/A of High NRG-N. Stream nozzles were selected due to the corn stalks and residue. Applications were broadcast with stream nozzles after planting, sidedress with soil injection, and sidedress with a narrow surface band. All plots received 4 gal/A of Pro-Germinator + 2 gal/A of Sure-K + 1 qt/A of Micro 500 applied in-furrow at planting. Ample rain fell following the broadcast application, and rain fell within a week of the sidedress application. Yield results appear in the following chart.



Conclusions:

- Yield patterns were similar for all three N sources. Highest yield was with the broadcast application followed closely by the sidedress (SD) injected treatment. Lowest was with the surface dribble band. Ample rain likely influenced results. Will see about a repeat.