



Planter Time Nitrogen Applications - Corn (19-716)

Experiment Info:

Planted:	6/6/2019
Harvest:	11/8/2019
Yield Goal:	175 bu/A
Target Fert.:	193-105-124
Variety:	DKC 48-56
Population:	32,000
Row Width:	30"
Prev. Crop:	Corn
Plot Size:	15x210
Replications:	4

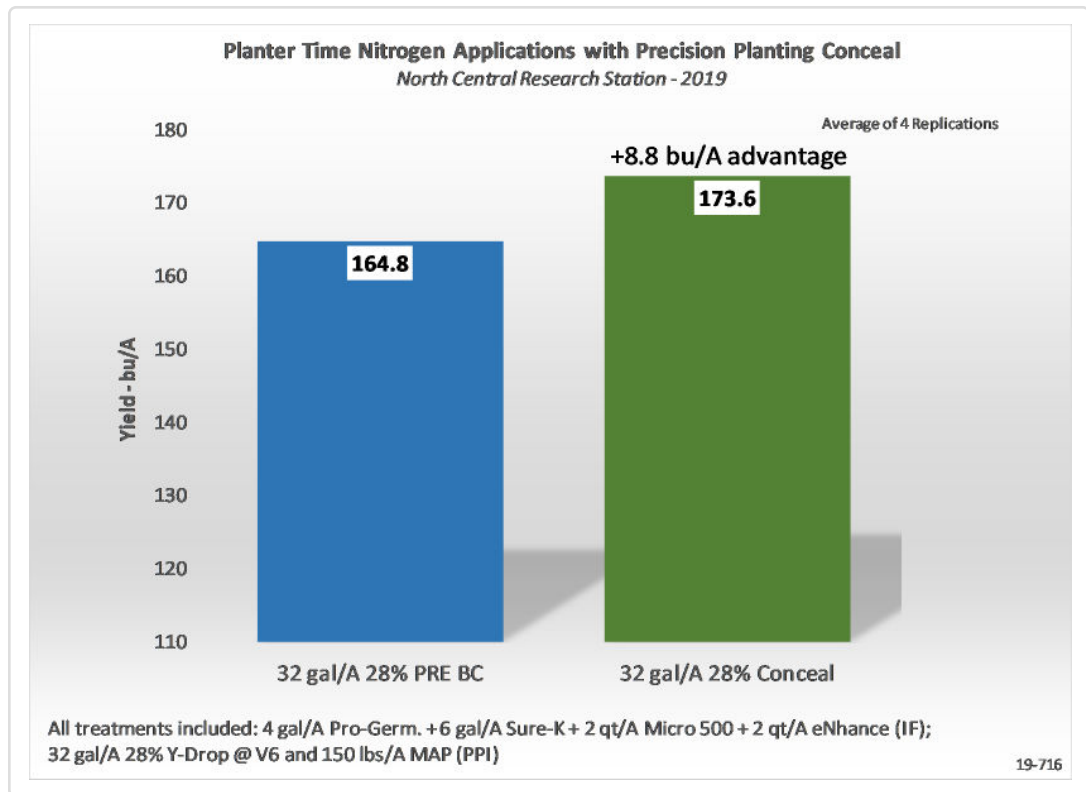
Soil Test Values (ppm):

pH:	7.2
CEC:	12.7
%OM:	3.2
Bray P1:	7
Bicarb P:	6
K:	72
S:	4
%K:	1.5
%Mg:	22.6
%Ca:	75.7
%H:	
Zn:	1
Mn:	2
B:	0.6

Objective:

To evaluate the Precision Planting Conceal dual placement of nutrients near the row.

Often early nitrogen on corn is broadcasted across the soil surface or maybe applied with a single 2x2 coultter on the planter. The first method places the majority of the nitrogen outside of the early root zone of uptake and could lead to potential loss through volatilization. The 2x2 planter placement can be good for early root findings but the attachment to deliver it may interfere with the actual planting process and possibly result in reduced stands. This experiment used the Precision Planting Conceal equipment to deliver 32 gal/A of 28% UAN in an even split 3 inches to each side of the seed furrow at planting vs the same amount applied as a pre-emergence broadcast application. Corn was planted at 32,000 seeds per acre on June 6th with 4 gal/A Pro-Germinator + 6 gal/A Sure-K + 2 qt/A Micro 500 + 2 qt/A eNhanche in-furrow. The remaining 32 gal/A of 28% was sidedressed with Y-Drop @ V6 growth stage on July 8th.



LSD(0.1)7.5 CV:12.8%

Conclusions:

- The Conceal dual placement of planter nitrogen near the seed furrow yielded a significant 8.8 bu/A better than the PRE broadcast treatment. Planter nitrogen placed in the soil and in a convenient location to the roots alleviates atmospheric loss and provides more of the nitrogen value to the plant.
- The Conceal equipment is easy to use and causes less disturbance to the soil than planter 2x2 placement. This particular planting season had many wet soils and 2x2 would bring up "muddy" soil from 3" - 4" deep causing buildup on seed furrow gauge wheels. The Conceal equipment alleviates bringing up mud and buildup on the gauge wheels.