



# Preplant Band Fertilizer Applications on Corn ( 16-312 )

## Experiment Info:

Planted:	5/16/2016
Harvest:	10/17/2016
Yield Goal:	220 bu/A
Target Fert.:	242-16-138
Variety:	P0157AM
Population:	38,500
Row Width:	30"
Prev. Crop:	
Plot Size:	15 x 400
Replications:	3
CIB (PP)	04/29/2016
ST (Spring)	05/06/2016

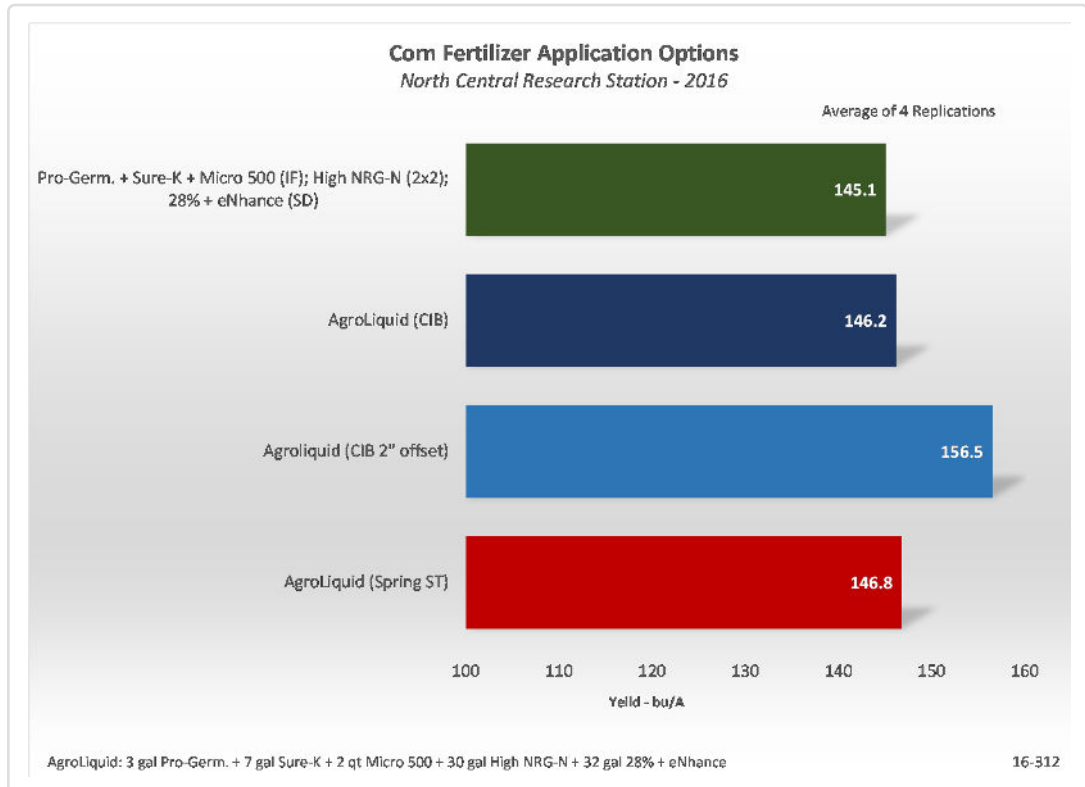
## Soil Test Values (ppm):

pH:	7
CEC:	5.5
%OM:	1.5
Bray P1:	28
Bicarb P:	7
K:	43
S:	12
%K:	2.0
%Mg:	17.0
%Ca:	79.8
%H:	0
Zn:	1.0
Mn:	3
B:	0.3

## Objective:

To evaluate different application options for a spring nutrient corn program.

It is practice in certain areas of the U.S. to apply all or a majority of a corn nutrient program in a band prior to planting and then plant directly into that band 1-4 weeks later. The North Central Research Station decided to try this application method utilizing a Dalton Liquid Nitrogen Side-Dress Applicator with a special setup to apply nutrients in a Coulter Injected Band (CIB) where the rows would be planted. This same coulter inject method was used with the application made at a 2" offset to the future row placement utilizing GPS RTK. The other comparisons included a spring strip till application with all of the nutrients placed at a 4" depth, and finally a standard planter application of 3 gal/A Pro-Germator + 7 gal/A Sure-K and 2 qt/A Micro 500 placed in-furrow with 30 gal/A High NRG-N 2x2 followed by 32 gal/A 28% + eNhanse sidedressed (the same nutrient program used for all treatments) for a check. The Coulter Injected Band and strip till methods applied the AgroLiquid nutrient program 11 days prior to planting.



## Conclusions:

- The planter, coulter injected band and strip till placement methods produced yields within a non significant 1.7 bu/A range.
- A coulter inject band placed 2" to the side of the eventual seed furrow did show a 10.3 bu/A yield advantage over the coulter injected band placed directly beneath the planted row.
- Although the applications were made 11 days prior to planting, the entire corn nitrogen program was applied with the coulter inject bands and strip till applications very near to the eventual seed placement.
- This experiment will be repeated in 2017 to further test these results and the possibility of placing a nutrient program ahead of planting time.