



# Permanent Fertilizer Programs in Corn ( 16-714 )

## Experiment Info:

Planted:	5/9/2016
Harvest:	10/25/2016
Yield Goal:	175 bu/A
Target Fert.:	
Variety:	DKC 53-68 RIB
Population:	32,300
Row Width:	30"
Prev. Crop:	Soybeans
Plot Size:	15 x 210
Replications:	4
Sidedress:	6/10/2016

## Soil Test Values (ppm):

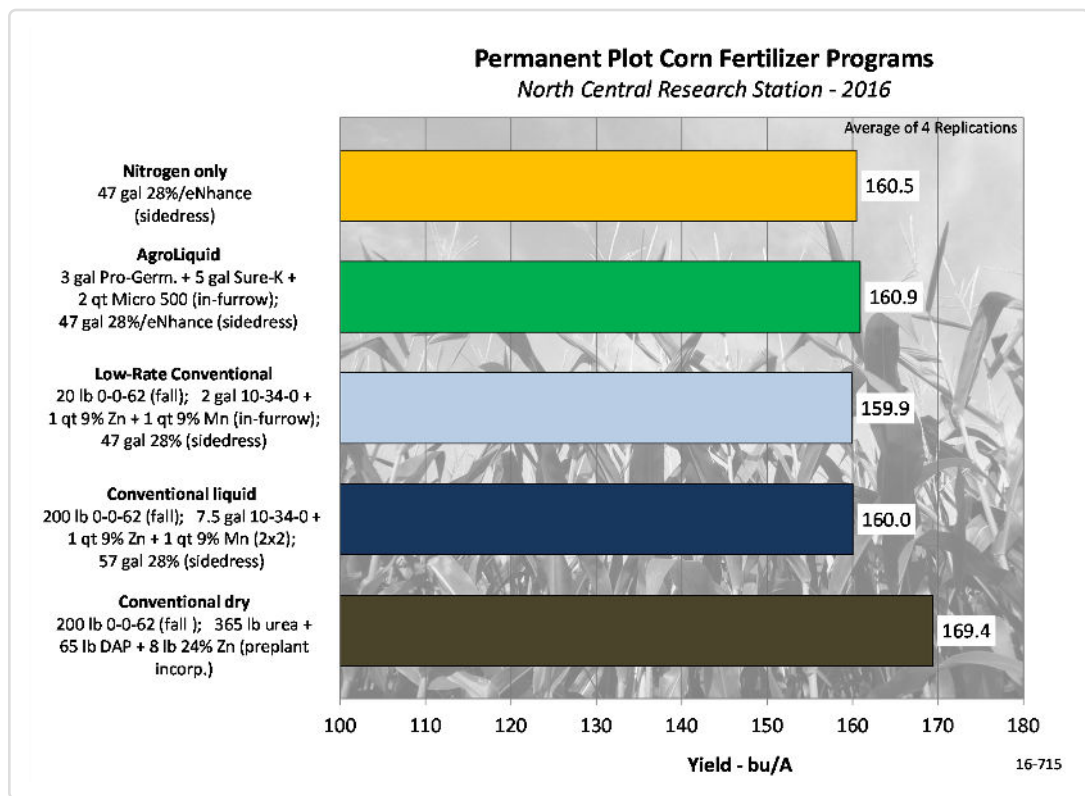
pH:	6
CEC:	11.4
%OM:	2.3
Bray P1:	12
Bicarb P:	
K:	106
S:	24
%K:	2.4
%Mg:	17
%Ca:	64.8
%H:	14.8
Zn:	.7
Mn:	7
B:	.5

## Objective:

Compare fertilizer programs of different nutrient sources and rates for effects on corn yield.

AgroLiquid nutrients are promoted as being considerably more efficient than conventional fertilizers, and thereby being able to be applied at substantially reduced rates with the same outcome.

In this experiment, now in it's sixth year of placing the same fertilizer programs in the same plots in a corn-soybean rotation, an AgroLiquid fertilizer program is compared to one of partial dry fertilizer (fall potash) and then conventional liquid 10-34-0, micros and 28% UAN; and then a total dry fertilizer application. Results in the chart indicate that there was no significant fertilizer program response for yield increase over that of nitrogen only. Additionally, the Low-Rate Conventional treatment, which had the same pounds of nutrients as the AgroLiquid treatment produced similar yield. this was the first time for this type of outcome and was due to the dry conditions following planting and through June and July where nutrient effects weren't able to be expressed. This is the first year to produce results in this manner. Multi-year results tell the results over time, and should be considered in any nutrient decision.



## Conclusions:

- Nutrient effects aren't always able to be expressed under yield-depressing conditions. Yields in this field have been in the 220 Bu/A range, so weather resulted in a 60 Bu/A reduction. It was surprising that the Nitrogen only treatment yielded as well as the fertilized treatments. So economically this was a good treatment.....this year.
- It was also unexpected that the total dry plot would be the highest yielding treatment. In previous testing under dry weather conditions, the total dry treatment yields lower than treatments with banded liquid due to promotion of root development from the bands. But not this year for some reason.
- Look at the write-up covering six year averages.