



Fertilizer Program Comparisons in Corn (15-715)

Experiment Info:

Planted:	5/1/2015
Harvest:	10/23/2015
Yield Goal:	170 bu/A
Target Fert.:	175-30-60
Variety:	DKC 53-56 RIB
Population:	32,300
Row Width:	30"
Prev. Crop:	Soybeans
Plot Size:	15 x 210
Replications:	4
DBC (Fall)	10/28/2014
DBC (PPI)	4/28/2015
SD (V5)	5/29/2015

Soil Test Values (ppm):

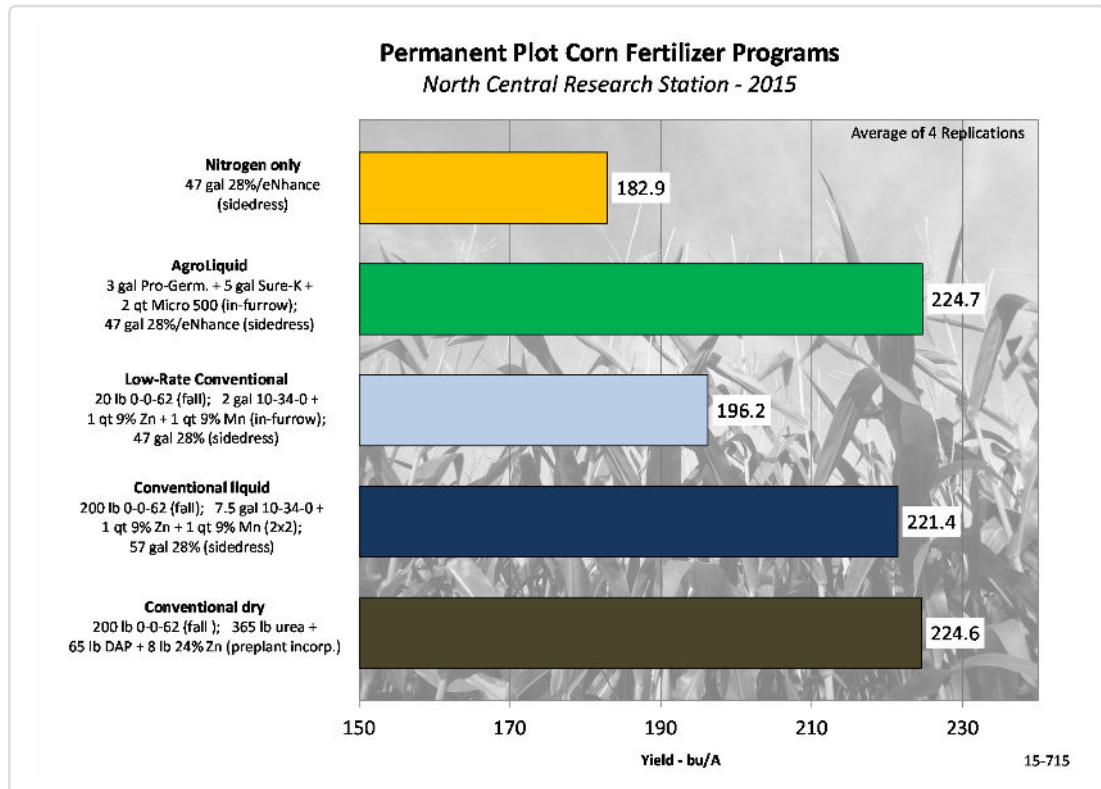
pH:	7
CEC:	12.4
%OM:	3.4
Bray P1:	25
Bicarb P:	17
K:	111
S:	5
%K:	2.3
%Mg:	21.4
%Ca:	75.9
%H:	0
Zn:	1.5
Mn:	4
B:	0.7

Objective:

Compare effects on corn yield of an AgroLiquid corn fertilizer program to those of conventional fertilizers.

AgroLiquid fertilizers are promoted as effective and sustainable for producing comparable yields with a reduction in the total amounts of nutrients applied. This is due to enhanced efficiency leading to less loss in the soil and greater uptake. And experiment was initiated in 2011 where the same fertilizer programs would be applied to the same plots in a corn-soybean rotation to measure effects on yield over time. An AgroLiquid program was compared to programs with conventional dry and liquid fertilizers. Additionally, there was a "Low Rate Conventional" program that applied the same amount of nutrients per acre as did the AgroLiquid program, but used conventional fertilizers.

This was a new farm back at the start of the experiment, and actual corn yield potential was not known. So a yield goal of 170 bu/A was set, which is higher than average for the area, but the soil was good. From the first year, the actual yield was considerably higher than the goal. But the same fertilizer programs were continued with no adjustment for higher yield goal in order to monitor performance over time. Yields from 2015 appear below.



Conclusions:

- All fertilizer programs resulted in increased corn yields.
- The yields for the three main fertilizer programs were all similar in corn yield. The AgroLiquid program applied less than half of the nutrients applied with the full-rate conventional programs. (156 lb/A vs 332 lb/A). (Note: the 0-0-62 potash application is actually for this corn crop as well as for next year's soybean crop.)
- The AgroLiquid program far out-yielded the Low-Rate Conventional program despite having the same amounts of applied nutrients per acre.