



Fertilizer Programs for High Yielding Corn (15-718)

Experiment Info:

Planted:	5/1/2015
Harvest:	10/23/2015
Yield Goal:	175 bu/A
Target Fert.:	193-75-39
Variety:	DKC 53-56 RIB
Population:	31,500
Row Width:	30"
Prev. Crop:	Sugarbeets
Plot Size:	15 x 210
Replications:	4
SD (V5)	5/29/2015
YD (V8)	6/17/2015
YD (VT)	7/22/2015

Soil Test Values (ppm):

pH:	6.9
CEC:	16.2
%OM:	3.1
Bray P1:	13
Bicarb P:	-
K:	131
S:	9
%K:	2.1
%Mg:	23
%Ca:	74.6
%H:	0
Zn:	1.3
Mn:	3
B:	0.5

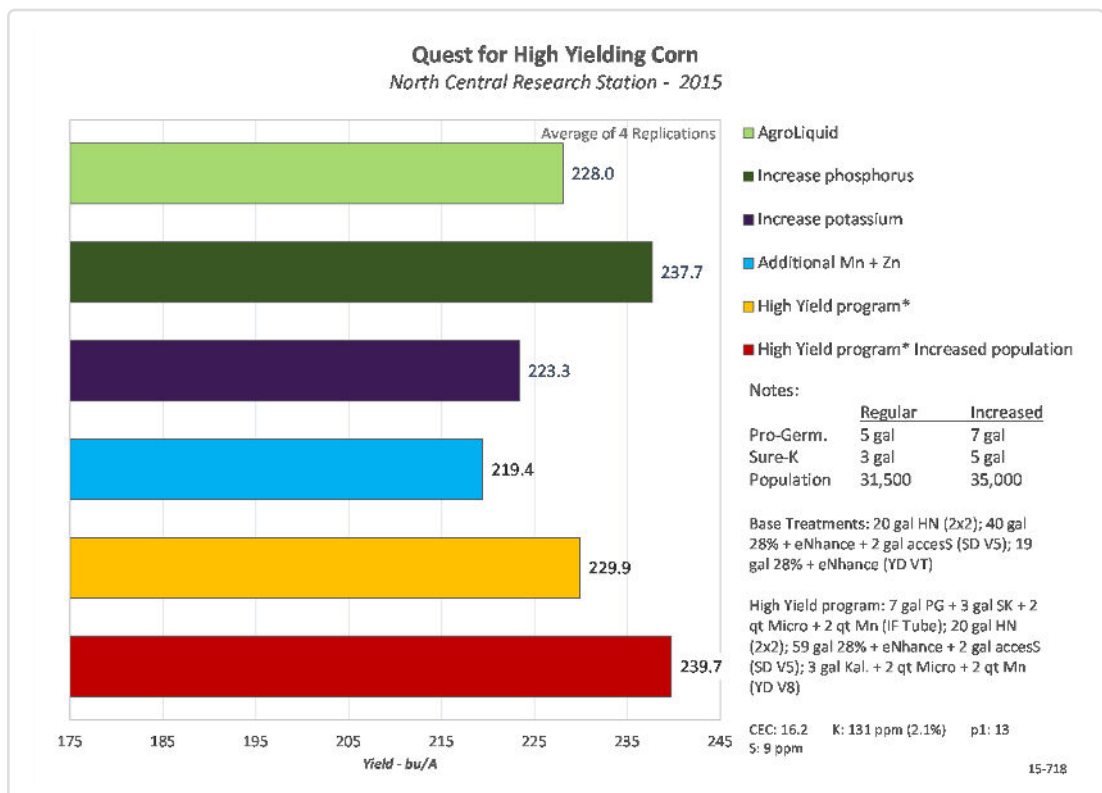
Objective:

To determine if increased amounts of nitrogen, phosphorus, potassium or micro nutrients have the largest impact on yields on a highly productive soil.

The recommended AgroLiquid program consisted of 5 gal/A Pro-Germinator + 3 gal/A Sure-K + 2 qt/A Micro 500 + 2 qt/A Mn applied in-furrow with the seed at planting. The base nitrogen program was 20 gal/A High NRG-N (2x2); 40 gal/A 28% + eNhance + 2 gal/A accesS (SD V5); 19 gal/A 28% + eNhance (YD VT).

The increased phosphorus was an additional 2 gal/A Pro-Germinator to the planter program. Increased potassium was an additional 2 gal/A Sure-K to the planter program. Additional Mn was added at 1 qt/A and Zn at 1 qt/A.

The high yield program consisted of an additional 2 gal/A Pro-Germinator to the recommended program and all of the 28% + eNhance sidedressed at V5 with an additional 3 gal/A Kalibrate + 2 qt/A Micro 500 + 2 qt/A Mn applied with Y-DROPS at V8. Populations were increased by 3,500 plants/A. Yields appear in the chart below.



Conclusions:

- High yielding corn will require more nutrients, with the question being which ones. The soil test numbers indicate that one of the lowest values would be phosphorus and with the increased phosphorus applied those treatments showed the biggest yield advantage.
- Increased fertility of extra phosphorus + potassium and micro nutrients applied along with an increase in population provided the highest yields in this experiment, although only slightly higher than the yield from increased Pro-Germinator application.
- The recommended AgroLiquid program yielded a respectable 228 bu/A.