AGRO-CULTURE LIQUID FERTILIZERS

Potassium Fertilizer Timing in Corn (13-705)

Experiment Info:

Planted:	5/7
Variety:	DKC53-78
Population:	31,500
Row Spacing:	30″
Previous Crop:	Corn
Plot Size:	15′ x 265′
Replications:	4
Potash:	11/9/12
PRE:	5/8
Sidedress:	6/8
Harvested:	10/15

Soil Test Values (ppm):

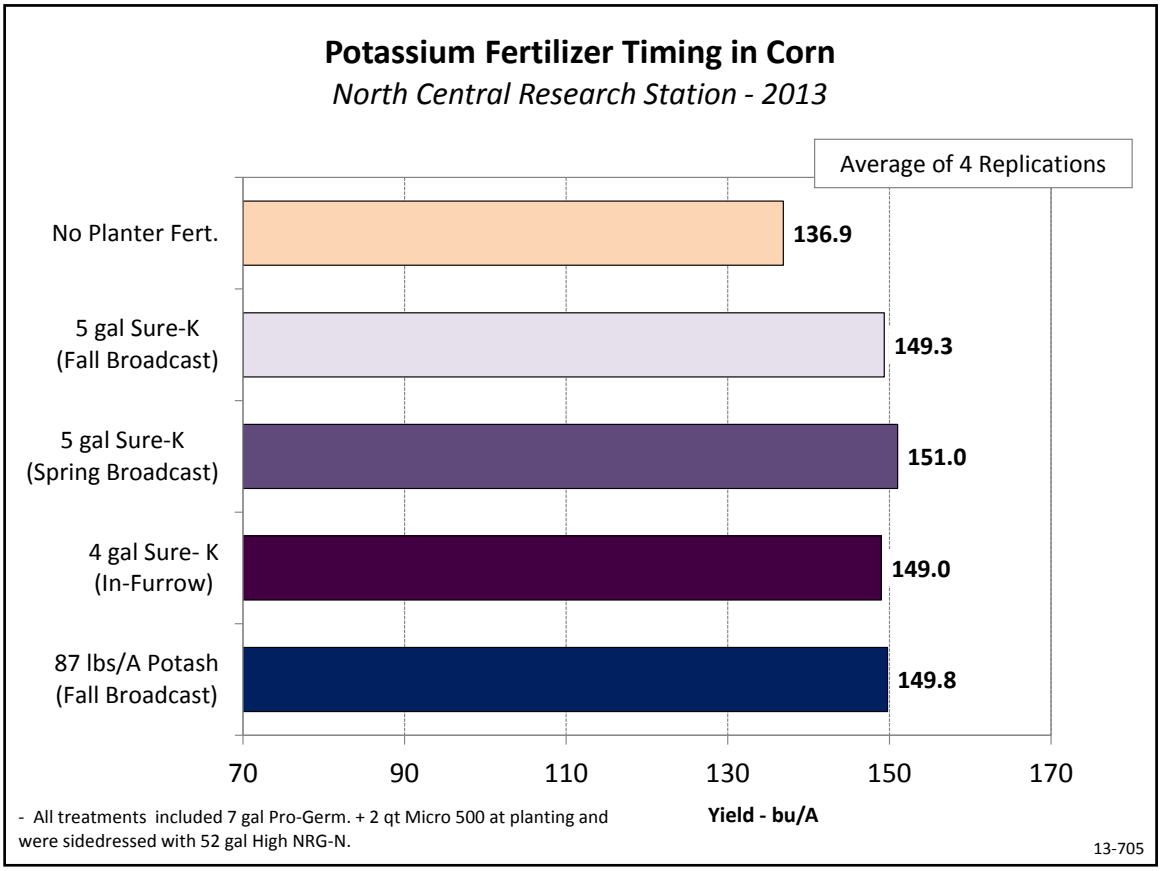
pH:	6.9
CEC:	9.5
% OM:	2.1
Bray P1:	10
K:	112
S:	7
% K:	3.0
% Mg:	19.5
% Ca:	77.2
% H:	0
% Na:	0.3
Zn:	1.5
Mn:	10
B:	0.5

Yield Goal:	175 bu
Target Fertilizer Rate:	192-90-48

Objective:

To determine the optimum time for fertilizing a corn crop with potassium.

Agro-Culture Liquid Fertilizer's Sure-K is seed safe to allow application of the required nutrients in-furrow when planting. Sometimes the question of when to apply potassium, if not with the planter, comes up. In determining to answer that question, a broadcast rate of Sure-K was applied in the fall. A comparison of fall broadcasted Potash was also applied. Both treatments were incorporated into the soil by chisel plowing the previous corn crop residue. The spring broadcast treatment of Sure-K was made and incorporated with a soil finisher before planting. Yield results appear in the table below.



LSD (0.2): 13.3 CV: 11.8%

Conclusions:

- The 4 gal/A rate of Sure-K gave nearly identical yields as the higher rate of Sure-K broadcasted or the dry Potash applications. The in-furrow placement puts nutrients where they are needed.
- Planter applied, fall or spring broadcast of potassium had no significant yield advantage to each other. The difference comes in the amount of nutrients applied to realize similar yields.
- In spite of these results, broadcast applications are not recommended at this time until more research is conducted.
- The no planter fertilizer treatment lacked the necessary nutrients needed to accomplish its yield potential.
- If Sure-K is going to be broadcast applied, a 20% increase in rate is needed to achieve comparable yields to planter applied rates.