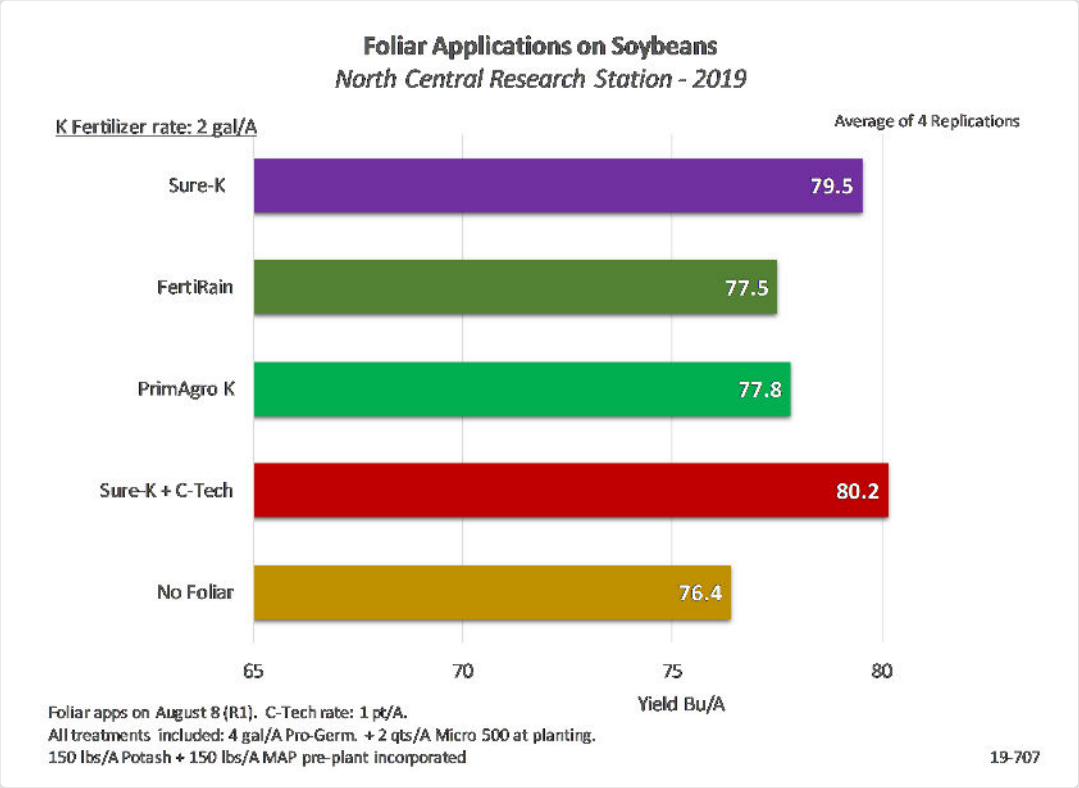
Foliar Applications on Soybeans (19-707)

Experiment Info:	
Planted:	6/8/2019
Harvest:	10/20/2019
Yield Goal:	60 bu/A
Target Fert.:	0-53-36
Variety:	13GA62
Population:	105,000
Row Width:	15"
Prev. Crop:	Corn
Plot Size:	15 X 265
Replications:	4

Soil Test Values (ppm):	
pH:	6.8
CEC:	14.9
%OM:	2.8
Bray P1:	16
Bicarb P:	
K:	145
S:	6
%K:	2.5
%Mg:	21
%Ca:	76.1
%H:	
Zn:	1.5
Mn:	5
B:	.5

Objective:

To evaluate several different nutrient product applications on soybeans in a high-yield potential soil. Foliar applications have been proven to increase soybean yield since the beginning of the NCRS in the mid-1990's. In particular, Sure-K has proven effective particularly in soils with moderate soil test P and K levels. Previous research has found that simply adding a potassium foliar-applied product will not have a major response when both soil test P and K are very low. In this experiment, the soil test P and K are moderate, although the P level may be considered low at 14 ppm. To strive for higher yield, a preplant broadcast application of MAP (11-52-0) and Potash (0-0-62) was applied to the entire field. All treatments also included a planter application of Pro-Germinator + Micro 500 (4 gal + 0.5 gal/A). Foliar applications were 2 gal/A applications of Sure-K, FertiRain, PrimAgro K, Sure-K + C-Tech (1 pt/A) and no foliar. Applications were at the R1 growth stage using Guardian Air Twin 02 nozzles at 10 gal/A.



LSD(0.2): 3.1; CV:6.3%

Conclusions:

- Foliar application of 2 gal/A of Sure-K + 1 pt/A of C-Tech did result in a significant yield increase (3.8 Bu/A) over that of the No Foliar.
- The Sure-K only resulted in a 3.1 Bu/A yield increase which is very close to that with the addition of C-Tech. But this addition may not be an economical return. Other tests have shown yield increases and this will have to be further researched.
- The Sure-K formulation yielded higher than did the PrimAgro K formulation and the multi-nutrient FertiRain. Although there is more potassium in Sure-K than in FertiRain. Overall these were excellent yields for the year and late planting, and foliar K was a contribution.