



Potassium Comparison on Soybeans (21-717)

Experiment Info:

Planted:	5/10/2021
Harvest:	9/28/2021
Yield Goal:	65 bu/A
Target Fert.:	0-92-146
Variety:	17EB02
Population:	135000
Row Width:	30"
Prev. Crop:	Corn
Plot Size:	15 x 210
Replications:	4

Soil Test Values (ppm):

pH:	7.3
CEC:	15.8
%OM:	3.5
Bray P1:	7
Bicarb P:	13
K:	95
S:	6
%K:	1.5
%Mg:	23.6
%Ca:	74.7
%H:	0
Zn:	0.7
Mn:	2
B:	0.4

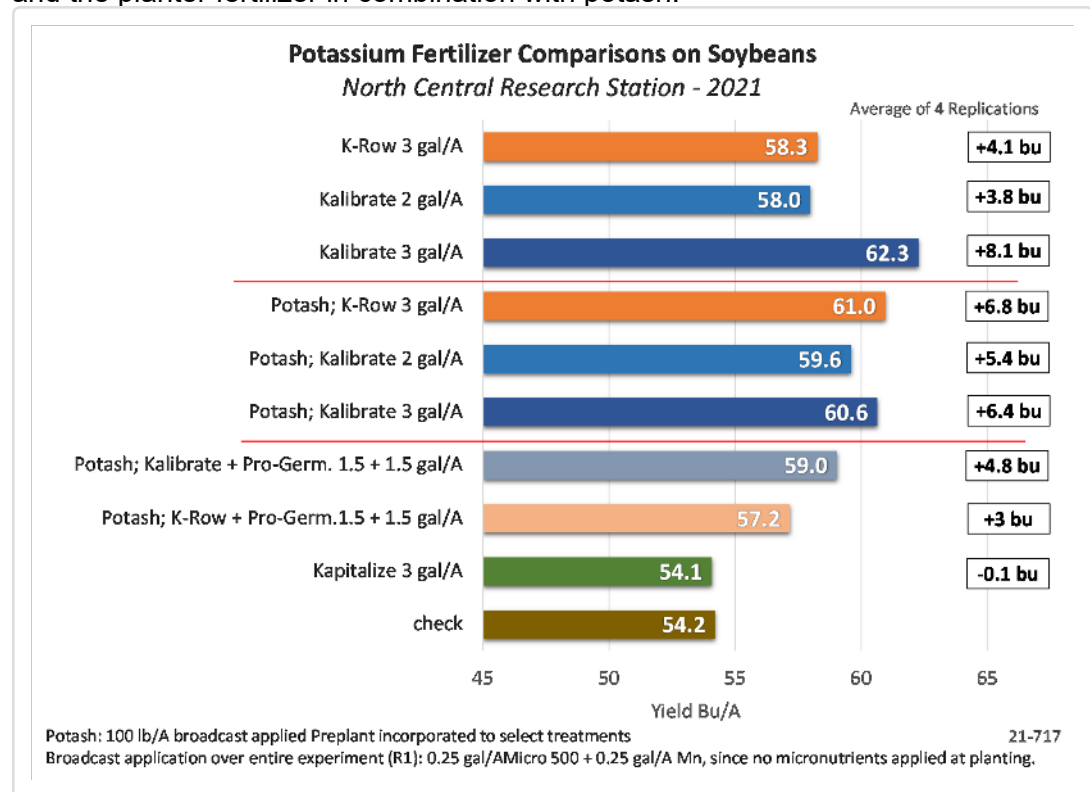
Objective:

Compare planter applications two liquid potassium fertilizers (Kalibrate and K-Row, 0-0-23-8S) both alone and in combination with pre-plant application of broadcast potash for effect on corn yield. Plus evaluation of a new fertilizer (Kapitalize, 3-1-8-0.5Ca-1S) applied at planting for effect on soybean yield.

Addition of a liquid potassium fertilizer at planting can be an advantage if there is a yield response. Potassium planter fertilizers were evaluated as the single K source or in a shared K source role along with a pre-plant application of a reduced rate of potash (100 lb/A). The soil at this site has low Soil Test Potassium and calls for potassium fertilizer. Other treatments evaluated K fertilizer combination with Pro-Germinator at a total rate of 3 gal/A.

Additionally, a new AgroLiquid fertilizer, Kapitalize was included as a planter application only.

Yield results are shown in the following table, with the red lines separating the planter only and the planter fertilizer in combination with potash.



LSD(0.05): 4.4; (0.1): 3.7; (0.2): 2.8.

Conclusions:

- All treatments involving K-Row and Kalibrate resulted in varying levels of statistically significant yield increases.
- Unlike the corn experiment (21-516), the addition of potash generally did not increase yield over that of the liquid K fertilizers alone. In fact, the highest overall yield was a 3 gal/A rate of Kalibrate alone.
- • The addition of Pro-Germinator with K fertilizers did not result in higher yields.
- With an opposite response vs corn, the new fertilizer Kapitalize did not increase yield.