

Calcium Added to a Soybean Fertilizer Program (14-203)

Experiment Info:

Planted:	5/23/2014
Harvest:	10/27/2014
Yield Goal:	45 bu/A
Target Fert.:	0-0-62
Variety:	P26T76R
Population:	152,000
Row Width:	15"
Prev. Crop:	Corn
Plot Size:	15 x 130
Replications:	4

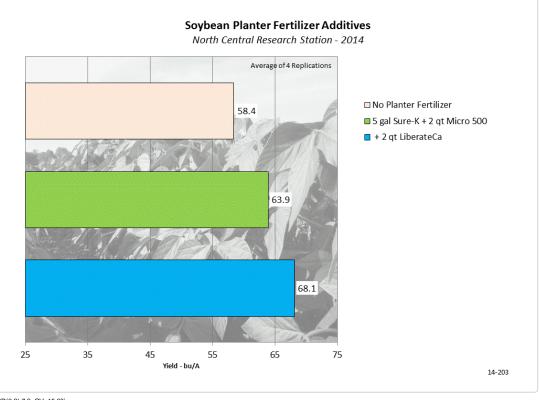
Soil Test Values (ppm):

pH:	7.7
CEC:	6
%OM:	1.6
Bray P1:	27
Bicarb P:	11
K:	106
S:	12
%K:	4.5
%Mg:	23.8
%Ca:	68.7
%H:	0
Zn:	1.1
Mn:	7
B:	0.5

Objective:

To test the yield benefit of adding a phosphorus compatible calcium source to a soybean planter fertilizer program.

Many soils and crops can benefit form applications of calcium. However compatibility with phosphorus fertilizers is an issue. Agro-Culture Liquid Fertilizers LiberateCa is a 2% calcium product that safely mixes with fertilizers containing phosphorus without worry of incompatibility. An experiment was established at the NCRS that has an average percent base saturation of calcium at 68%. With a pH of 7.7 and good potassium level at 4.5% base saturation, the biggest concern is a slightly elevated magnesium base saturation. To help adjust those levels in a seed zone and provide extra calcium 2 qt/A of LiberateCa was applied in-furrow with a planter program of 5 gal/A Sure-K and 2 qt/A Micro 500. Yield response appears on the chart below.



LSD(0.2) 7.9, CV: 15.6%

Conclusions:

- The standard program of 5 gal/A of Sure-K with 2 qt/A Micro 500, based off of soil test, increased soybean yield over the untreated check by 5.5 bu/A.
- The addition of LiberateCa to the AgroLiquid program further increased soybean yield by over 4 bu/A.