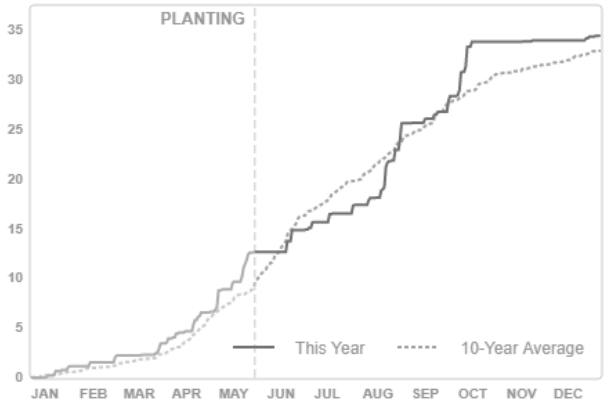
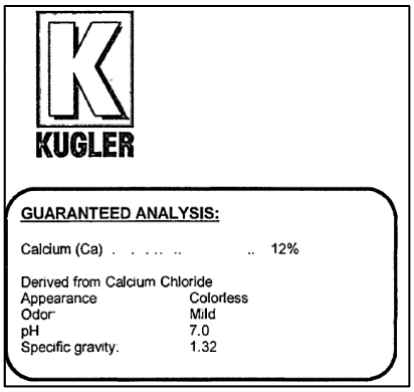
Evaluation of Kugler KQ Calcium Chloride Fertilization in Soybeans

Study ID: 319039201701
County: Cuming
Soil Type: Moody silty clay loam 2-6% slopes
Planting Date: 5/24/17
Harvest Date: 10/16/17
Row Spacing (in): 36
Variety: Curry 1252
Reps: 4
Tillage: No-Till
Herbicides: ***Pre:*** 3 oz/ac Surveil®, 6 oz/ac Tricor® DF, and 10 oz/ac 2,4-D LV6 ***Post:*** 2.5 oz/ac Anthem® Maxx, 28 oz/ac Roundup® PowerMAX, 6 oz Clethodim®, and 1 lb/ac dextrose
Seed Treatment: Commence® from Agnition and Nutriplant® SD from Amway

Fertilizer: 2.5 ton/ac beef manure (17.5 lb N, 181 lb P, 116 lb K, 41.3 lb S, and 1.6 lb Zn)
Irrigation: None
Rainfall (in):



Introduction: Kugler KQ calcium chloride (product information at right) was applied at a rate of 1 gal/ac to the soil on April 7, 2017. The calcium chloride application was compared with an untreated check. Yield, moisture, and net return were measured. Soil tests for the field indicated pH was 5.6. Base saturations were as follows: K% = 2.8, Mg% = 16.2, Ca% = 56.9, H% = 23.7, and Na% = 0.4.



Results:

	Moisture (%)	Yield (bu/acre)†	Marginal Net Return‡ ($/ac)
Check	12.7 A*	70 A	624.96 A
Calcium Chloride	12.8 A	70 A	606.84 B
P-Value	0.245	0.405	0.039

*Values with the same letter are not significantly different at a 90% confidence level.
†Bushels per acre corrected to 13% moisture.
‡Marginal net return based on $8.90/bu soybean, $5/ac for product, and $8.13 for product application.

Summary:

- There were no differences in yield or moisture for the calcium chloride treatment compared with the untreated check.
- The check had a significantly higher marginal net return due to reduced input costs compared with the calcium chloride treatment.

Sponsored by: University of Nebraska Lincoln; Nebraska Corn Board

In Partnership with: Nebraska Soybean Checkoff; Nebraska Corn Growers Association; Nebraska Dry Bean Commission