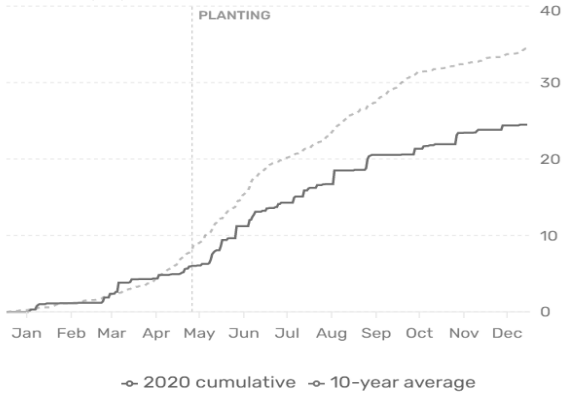
Impact of Humic Growth Solutions' Diamond Grow® Humi[K] WSP In-Furrow Treatment

Study ID: 0129155202003
County: Saunders
Soil Type: Alda fine sandy loam, occasionally flooded
Planting Date: 5/10/20
Harvest Date: 11/3/20
Seeding Rate: 32,400
Row Spacing (in): 30
Hybrid: Pioneer® P1108Q
Reps: 4
Previous Crop: Corn
Tillage: Stalk chopping May 5, 2020
Herbicides: ***Pre:*** 2 qt/ac Vilify™ and 24 oz/ac Roundup® on 5/16/20 ***Post:*** 32 oz/ac Roundup®, 1.25 pt/ac Resicore®, 1 pt/ac AAtrex®, and 2.5 lb/ac AMS on 6/16/20

Insecticides: 5 oz/ac Capture® at planting; Brigade® 2 EC aerially applied
Foliar Fungicides: Veltyma™ aerially applied
Irrigation: Pivot, Total: 8.5"
Rainfall (in):



Soil Test (December 2019):

Soil pH	Soluble Salts mmhos/cm	Na ppm	OM %	Nitrate N ppm	Bray P1 ppm	K ppm	Mg ppm	Ca ppm	S ppm	Zn ppm	Mn ppm	Cu ppm	Fe ppm	B ppm	Bulk Density
6.8	0.2	12.0	1.5	3.6	30	133	112	1483	5	0.8	6.6	0.3	52.9	0.2	1.4
6.6	0.2	12.0	1.3	4.9	23	183	121	1422	5	1.4	6.9	0.4	50.2	0.2	1.4

Introduction: This study evaluated Humic Growth Solutions' Diamond Grow® Humi[K] WSP in-furrow treatment. Humi[K] contains 12% potassium and 60-65% humic acid (with ISO/Lamar/AOAC/IHSS methods). Product information is available at: https://humicgrowth.com/product/humic-acid-powder/.

The check treatment included the following:

- In-furrow application of 3 gal/ac 10-34-0 + 1 pint ammoniated zinc + 1 gallon/ac water
- 2x2x2 placement application of 5 gal/ac 32% UAN + 15 gal/ac 10-34-0 + 1 gal/ac thiosulfate + 2 gal/ac water
- V8 sidedress application of 44 gal/ac 32% UAN + 2.7 gal/ac thiosulfate + 3 gal/ac water

The Humi[K] treatment applied the same fertilizer, but replaced the water with Humi[K]:

- In-furrow application of 3 gal/ac 10-34-0 + 1 pint ammoniated zinc + 1 gallon/ac Humi[K]
- 2x2x2 placement application of 5 gal/ac 32% UAN + 15 gal/ac 10-34-0 + 1 gal/ac thiosulfate + 2 gal/ac Humi[K]
- V8 sidedress application of 44 gal/ac 32% UAN + 2.7 gal/ac thiosulfate + 3 gal/ac Humi[K]

Both treatments also received 7.5 gal/ac 32% UAN with herbicide application on 5/16/20 and 52 lb/ac N through the center pivot. Stand counts, yield, test weight, grain moisture, and net return were evaluated.

Results:

	Stand Count (plants/ac)	Moisture (%)	Test Weight (lb/bu)	Yield (bu/ac)†	Marginal Net Return‡ ($/ac)
Check	33,332 A*	15.8 A	60 A	278 A	975.73 A
Humi[K]	34,060 A	15.9 A	59 A	280 A	961.85 B
P-Value	0.342	0.707	0.160	0.242	0.066

*Values with the same letter are not significantly different at a 90% confidence level.
†Bushels per acre adjusted to 15.5% moisture.
‡Marginal net return based on $3.51/bu corn and $21/ac Humi[K].

Summary: There was no difference in stand count, moisture, test weight, and yield between the check and the Humi[K] treatment. The Humi[K] resulted in a $13.88/ac reduction in net return.

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