Soybean Biological Trial

Trial ID: 2023-SB01 – R.M. of De Salaberry

Objective: Quantify the agronomic and economic impacts of a biological product applied at two different rates for soybean production.

Summary: There were no significant yield differences between soybeans treated with two different Humic Acid rates and untreated soybeans. Due to the lack of yield response, there was a decrease in profit/ac in the treated area of the trial, equivalent to the cost of product.

Trial Information

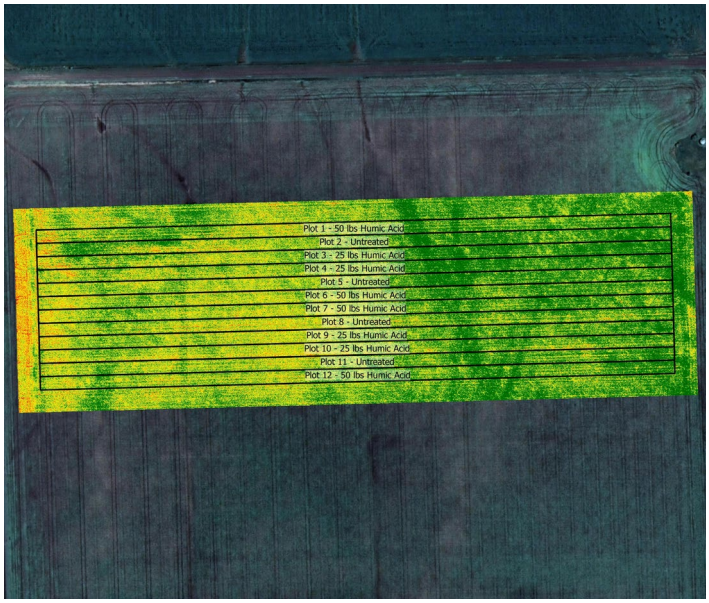
Treatments	Coarse Humic Acid (1x and 2x)
Soil Texture	Clay
Previous Crop	Corn
Tillage	Conventional
Seeding Date	May 14
Variety	Kudo R2X
Seeding Rate	175 000 seeds/ac
Row Spacing	10”
Plant Stand @ V2	124 000 plants/ac
Harvest Date	September 20

Precipitation (mm)

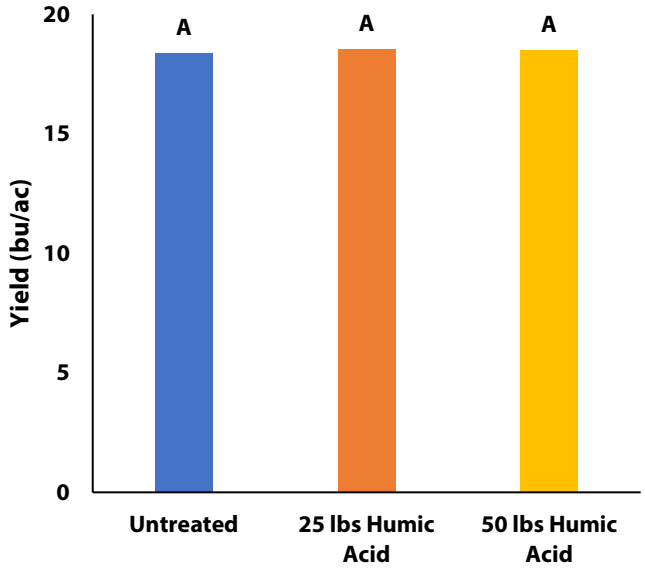
	May	June	July	Aug	Total
Rainfall	19.5	45.9	59	32.5	157
Normal	52.6	94.7	70	51.7	269
% Norm	37%	48%	85%	63%	58%

Hail damage seen in the trial area

NDVI Field Image August 12



Yield by Treatment



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Soybean Biological Trial

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Overall Yield & Economics

	Mean (bu/ac)	Cost ǂ	Change in Profit ǂǂ
25lbs Humic Acid	18.6	$12/ac	-$12/ac
50lbs Humic Acid	18.5	$24/ac	-$24/ac
Untreated	18.4		
P-Value	0.987		
CV	8.6%		
Significance	**No**	**Economic**	**No**

ǂ Based on an estimated cost for biological products

ǂǂ Yields were not significantly different, therefore there is no increased income to offset the cost of the biological product

Additional Observations

A moderate to severe hailstorm occurred at this trial in late July when soybeans were at R5 (early seed forming stages). Hail assessments were made on August 1 and 75% defoliation was noted on average with some stem breakage. A few areas of the field had less damage, with roughly 30% defoliation. Revisiting the field a week later, some diseases were starting to infect previous hail wounds, but most stem wounds had scabbed over.