



on-farm network
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Soybean Single Inoculant Trial

Trial ID: 2023-S1IN01 – R.M. of Brokenhead

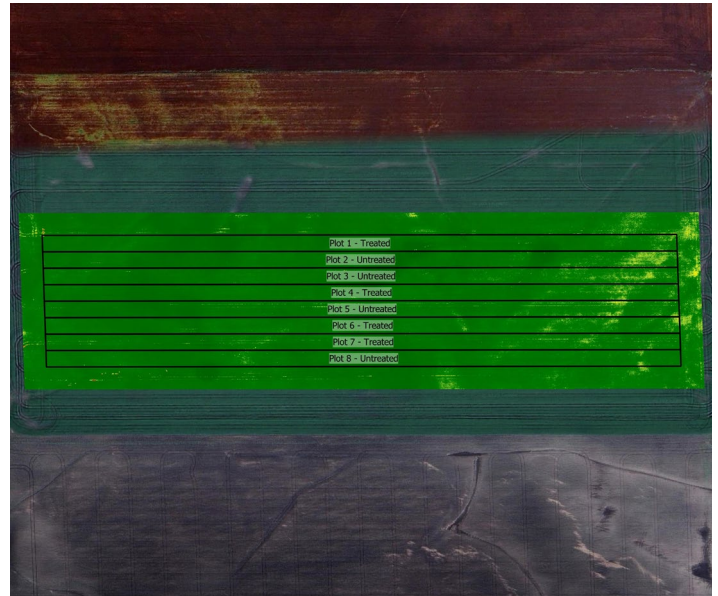
Objective: Quantify the agronomic impacts of single inoculation vs. no inoculant in soybean fields.

Summary: Nodulation was the same between soybeans with and without a single inoculant. There was no significant yield difference between soybeans with and without a single inoculant. Due to the lack of yield response, there was a decrease in profit/ac in the inoculated area of the trial, equivalent to the cost of the seed-applied inoculant.

Trial Information

Treatment	5lbs/ac Cell-Tech (granular)
Last Soybean Crop	2021
Soybean History	5+ year history
Soil Texture	Clay Loam
Previous Crop	Wheat
Tillage	Conventional
Seeding Date	May 13
Variety	RR1
Seeding Rate	200 000 seeds/ac
Row Spacing	10"
Plant Stand @ V2	268 000 plants/ac
Harvest Date	September 13

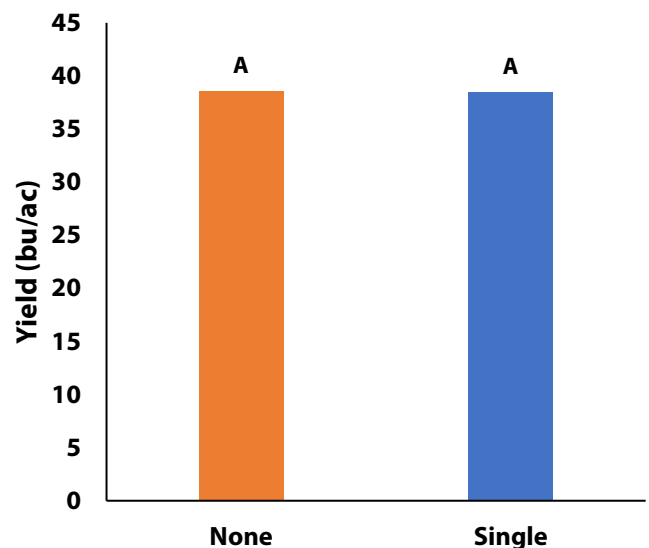
NDVI Field Image August 14



Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	53.6	57.1	53	39	203
Normal	54	89.9	73	72.6	290
% Norm	99%	64%	73%	54%	70%

Yield by Treatment



Nodulation †

	Average nodulation rating @ R2
Single	3.8 A
None	3.8 A

† 0 = no nodules, 1 = Poor (<5/plant), 2 = Fair (<10/plant), 3 = Good (<20/plant), 4 = Excellent (>20/plant). Averages followed by different letters are significantly different at $\alpha=0.05$



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Overall Yield & Economics

	Mean (bu/ac)	Cost †	Change in Profit ††
Single Inoculant	38.5	\$10/ac	-\$10/ac
Untreated	38.6		
Yield Difference	-0.1		
P-Value	0.869		
CV	3.1%		
Significance	No	Economic	No

† Based on an estimated cost for granular in-furrow inoculant

†† Because yields were not significantly different, there was no increased income to offset the cost of the single inoculant



Nodulation captured at R5