Soybean Single Inoculant Trial

Trial ID: 2025-S1IN02 – R.M. of Brokenhead

Objective: Quantify the agronomic impacts of a single inoculation vs. no inoculation in soybean fields. This trial requires a minimum field history of three previous soybean crops.

Summary: Nodulation at R2 was the same between soybeans with and without a single granular 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 granular inoculant.

Trial Information

Treatment	1 x Nodulator® SGC (granular In-Furrow)
Last Soybean Crop	2020
Soybean History	3-year history minimum
Soil Texture	Clay
Previous Crop	None – too wet to seed
Tillage	Zero Tillage
Seeding Date	5/30/2025
Variety	OAC Prudence
Seeding Rate	312,000 seeds/ac
Row Spacing	10 in.
Plant Stand @ V4	179,813 plants/ac
Harvest Date	11/22/2025

Precipitation (mm)

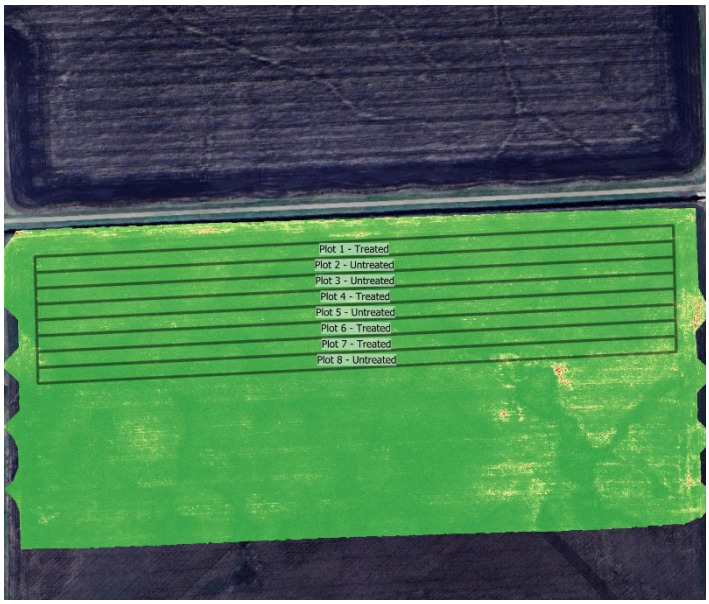
	May	June	July	Aug	Total
Rainfall	15.2	54.1	48.7	69.9	187.9
Normal	65.02	89.83	77.24	74.64	306.73
% Norm	23%	60%	63%	94%	61%

Nodulation†

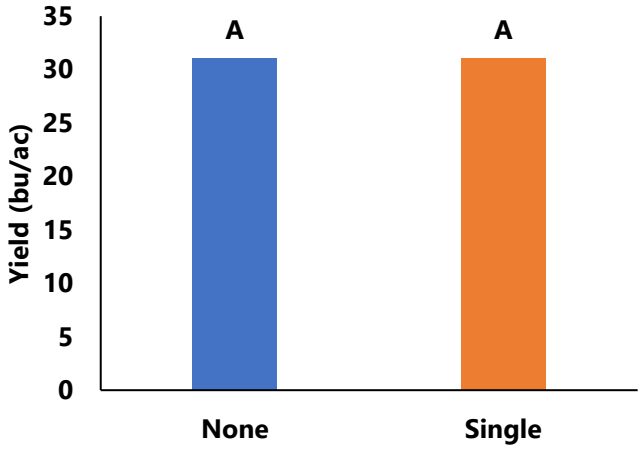
	Average nodulation rating @ R2
Single	3.99
None	3.98

† 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 α =0.05

NDVI Field Image August 12



Yield by Treatment



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Overall Yield & Economics

	Mean (bu/ac)	Cost †	Change in Profit ††
Single Inoculant	31.1	$12.00/ac	-$12.00/ac
Untreated	31.1		
Yield Difference	Nil		
P-Value	0.9687		
CV	2.8%		
Significance	**No**	**Economic**	**No**

† Based on an estimated cost for granular inoculant

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

Picture of the roots and nodules on July 18, at R1 stage.

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