

Soybean Single Inoculant Trial

Trial ID: 2025-S1IN01 – R.M. of Hanover

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

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	Untreated vs. Signum® Soybean (liquid on seed)
Last Soybean Crop	2022
Soybean History	5+ years
Soil Texture	Clay
Previous Crop	Canola
Tillage	Conventional Tillage
Seeding Date	5/8/2025
Variety	DKB006-80
Seeding Rate	210,000 seeds/ac
Row Spacing	10 in.
Plant Stand @ V3	167,063 plants/ac
Harvest Date	10/1/2025

NDVI Field Image August 13



Precipitation (mm)

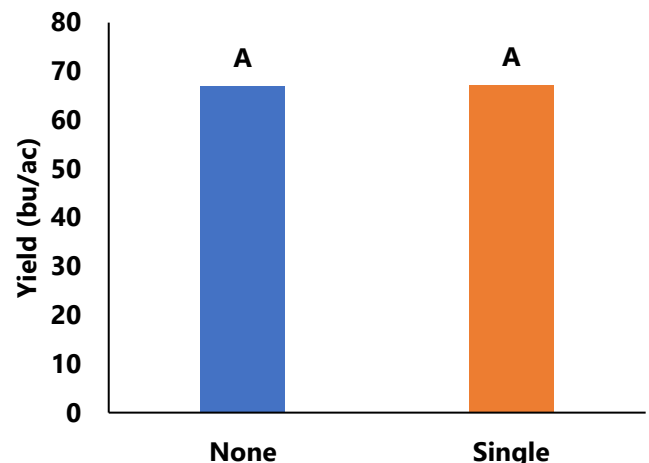
	May	June	July	Aug	Total
Rainfall	19.6	39.6	72.7	108.7	240.6
Normal	71.08	92.39	83.65	73.86	320.98
% Norm	28%	43%	87%	147%	75%

Nodulation†

	Average nodulation rating @ R2
Single	3.97
None	3.90

† 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 $\alpha = 0.05$

Yield by Treatment





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Overall Yield & Economics

	Mean (bu/ac)	Cost †	Change in Profit ††
Single Inoculant	67.2	\$5.00/ac	-\$5.00/ac
Untreated	67.0		
Yield Difference	0.2		
P-Value	0.8368		
CV	1.4%		
Significance	No	Economic	No

† Based on an estimated cost for liquid on-seed inoculant

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



Picture of plant, roots and nodules on July 9, at R2 stage.