

Soybean Double Inoculant Trial

Trial ID: 2023-S2IN06 – R.M. of Gilbert Plains

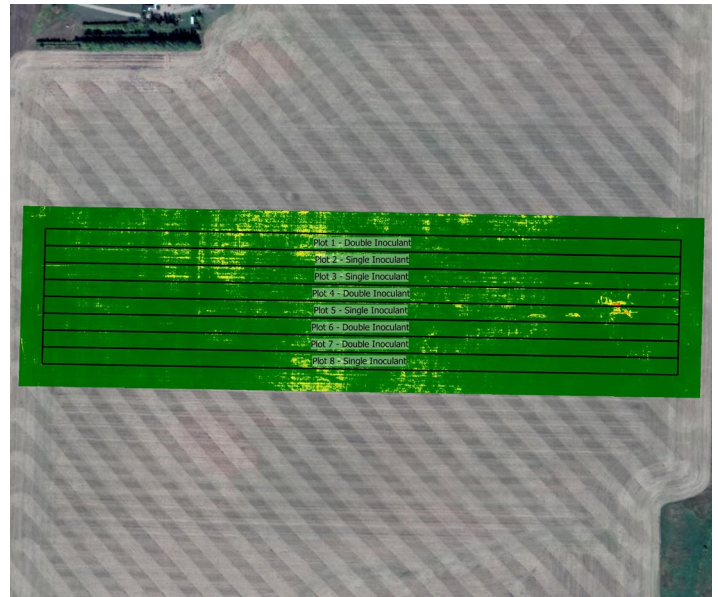
Objective: Quantify the agronomic and economic impacts of seed-applied inoculant (single inoculation) vs. seed-applied plus in-furrow inoculant (double inoculation) in soybeans. This trial requires a minimum field history of 2 previous soybean crops.

Summary: Nodulation ratings were similar between treatments and agronomically sufficient. There was no significant yield difference between single and double inoculation. Due to the lack of yield response, there was a decrease in profit/ac with double inoculation, equivalent to the cost of the in-furrow inoculant.

Trial Information

Treatments	1x Evergol Energy (liquid on-seed) vs 1x Evergol Energy (liquid on-seed) 5lbs/ac Nodulator (granular in furrow)
Last Soybean Crop	2019
Soybean History	2-year history
Soil Texture	Clay Loam
Previous Crop	Canola
Tillage	Zero Till
Seeding Date	May 23
Variety	P001A48X
Seeding Rate	185 000 seeds/ac
Row Spacing	10"
Plant Stand @ V2	234 000 plants/ac
Harvest Date	September 27

NDVI Field Image August 7



Precipitation (mm)

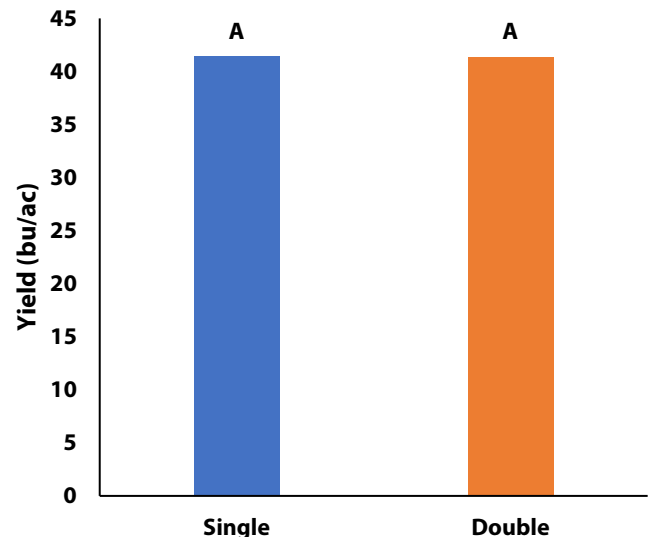
	May	June	July	Aug	Total
Rainfall	88.2	24.5	13	63.7	190
Normal	54.3	86.7	73	63.3	278
% Norm	162%	28%	18%	101%	68%

Nodulation †

	Average Nodulation Rating @ R2
Double	3.8 A
Single	3.4 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 $\alpha=0.05$

Yield by Treatment





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Overall Yield & Economics

	Mean (bu/ac)	Cost [†]	Change in Profit/ac ^{††}
Double Inoculant	41.3	\$13/ac	-\$10/ac
Single Inoculant	41.4	\$3/ac	
Yield Difference	-0.1		
P-Value	0.831		
CV	2.2%		
Significance	No	Economic	No

[†] Based on an estimated cost for on-seed + granular in-furrow vs. on-seed only

^{††} Because yields were not significantly different, there is no increased income with the double inoculant to offset the increase in price