

Soybean Single Inoculant Trial

Trial ID: 2021-S1IN01 – R.M. of Hanover

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

Summary: Nodulation was very similar between treatments. 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	1x Nodulator (liquid + peat)
Last Soybean Crop	2018
Soybean History	6-year history
Soil Texture	Clay
Previous Crop	Canola
Tillage	Conventional
Seeding Date	May 10
Variety	RX Acron
Seeding Rate	210 000 seeds/ac
Row Spacing	10"
Plant Stand @ V2	150,000 plants/ac
Harvest Date	September 27

Precipitation (mm)

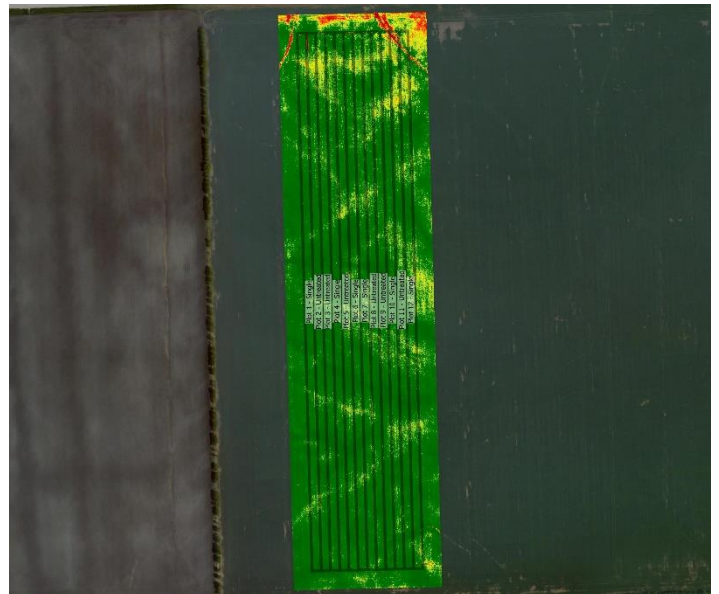
	May	Jun	Jul	Aug	Total
Rainfall	35.2	61.3	14.2	105	216.1
Normal	52.6	94.7	69.5	51.7	268.5
% Normal	67%	65%	20%	204%	80%

Nodulation†

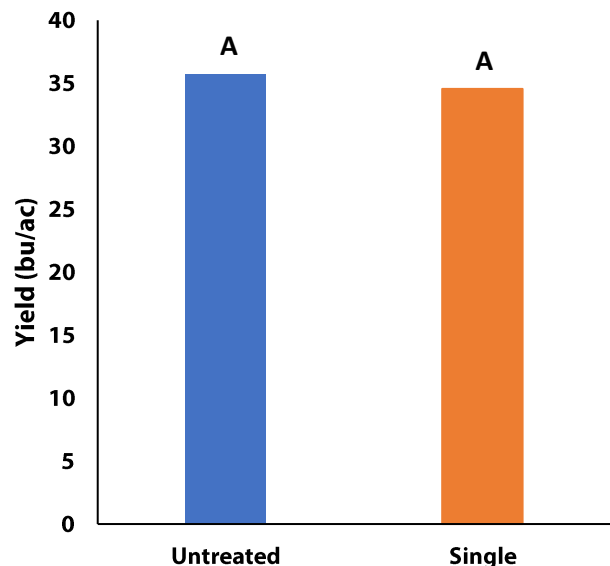
	Average nodulation rating @ R1
Single	2.9
None	2.9

† 0 = no nodules, 1 = Poor (<5/plant), 2 = Fair (<10/plant), 3 = Good (<20/plant), 4 = Excellent (>20/plant)

NDVI Field Image August 14



Yield by Treatment





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Overall Yield & Economics

	Mean (bu/ac)	Cost [†]	Change in Profit/ac ^{††}
Single Inoculant	34.6	\$3.50/ac	-\$3.50/ac
Untreated	35.7		
Yield Difference	-1.1		
P-Value	0.1722		
CV	5.9%		
Significance	No	Economic	No

† Based on an estimated cost for on-seed inoculant

†† Because yields were not significantly different, there was no increased income to offset the cost of the single inoculant. Profit/ac decreases by the cost of the inoculant as a result.