Soybean Double Inoculant Trial

Trial ID: 2022-S2IN02 – R.M. of Portage la Prairie

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 very similar between treatments. There was no significant yield difference between single and double inoculated soybeans. Due to the lack of yield response, there was a decrease in profit/ac in the double inoculated area of the trial, equivalent to the cost of the in-furrow inoculant application.

Trial Information

Treatment	1 x Cell Tech (liquid on-seed) Lalfix START Spherical Soybean
Last Soybean Crop	2020
Soybean History	> 4 year history
Soil Texture	Fine Sandy Loam
Previous Crop	Oats
Tillage	Conventional
Seeding Date	May 30
Variety	ND 007GT
Seeding Rate	210,000 seeds/ac
Row Spacing	10”
Plant Stand @ V1	140,000 plants/ac
Harvest Date	October 5

Precipitation (mm)

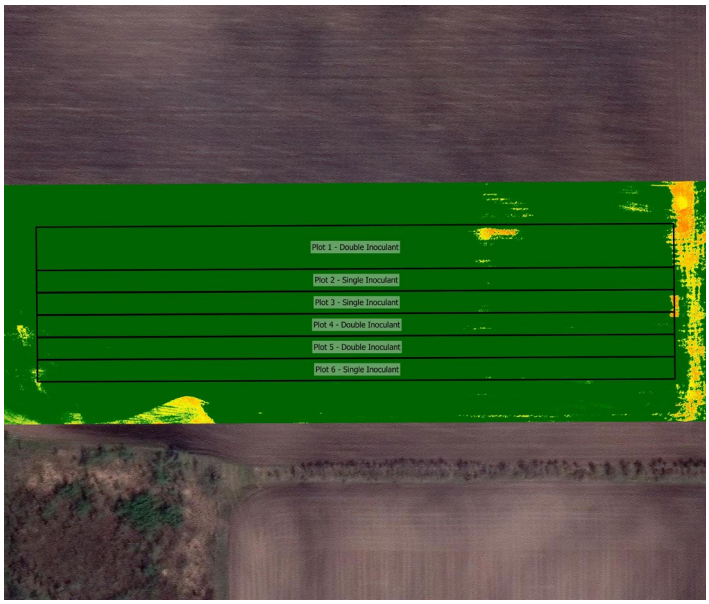
	May	Jun	Jul	Aug	Total
Rainfall	133.6	51.5	91.7	74.2	351
Normal	49.8	79.4	71.1	69.3	269.6
% Normal	268%	65%	129%	107%	130%

Nodulation (R2)ǂ

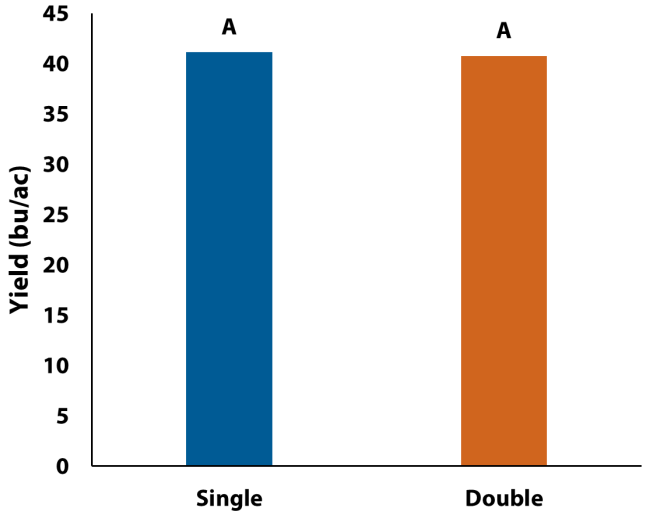
	Average Nodulation Rating
Double	4.0
Single	4.0

ǂ Nodulation is rated on a scale where 0 = no nodules, 1 = poor nodulation (<5/plant), 2 = fair nodulation (<10/plant), 3 = good nodulation (<20/plant) and 4 = excellent nodulation (>20/plant).

NDVI Field Image August 13



Yield by Treatment



[Additional On-Farm Network Research Reports]

MANITOBA Pulse Soybean GROWERS
T 204 745.6488
www.manitobapulse.ca

Soybean Double Inoculant Trial

on-farm network
PARTICIPATORY • PRECISE • PROACTIVE

Overall Yield & Economics

	Mean (bu/ac)	Cost ǂ	Change in Profit/ac ǂǂ
Double Inoculant	40.8	$13/ac	-$10/ac
Single Inoculant	41.1	$3/ac	
Yield Difference	-0.4		
P-Value	0.82		
CV	8.1%		
Significance	**No**	**Economic**	**No**

ǂ Based on an estimated cost of $3/ac for liquid inoculant and $10/ac for granular inoculant; does not include application cost.

ǂ ǂ Yields were not significantly different, therefore profit/ac decreased by the cost/ac of the double inoculation treatment.

MANITOBA Pulse Soybean GROWERS
T 204 745.6488
www.manitobapulse.ca