

## Dry Bean Inoculant Trial

**Trial ID:** 2023-DB1IN01 – R.M. of Glenboro – South Cypress

**Objective:** Quantify the agronomic and economic impacts of an inoculant product vs. no inoculant in dry beans.

**Summary:** There were no significant differences in yield or nodulation among dry beans treated with AGTIV® THRIVE™, compared to those without. 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 inoculant. Please note: this trial was hand-harvested, and yields are an estimate.

### Trial Information†

Treatment	1x AGTIV® THRIVE™
Previous dry bean crop	2020
Soil Texture	Clay Loam
Previous Crop	Wheat
Tillage	Conventional
Seeding Date	May 24
Variety	T9905 Navy Bean
Seeding Rate	103 000 seeds/ac
Row Spacing	30"
Plant Stand @ V2	101 000 plants/ac
Irrigation	Yes
Spring Soil Test N (0-24")	80 lb/ac
Harvest Date	August 24

### Precipitation (mm)

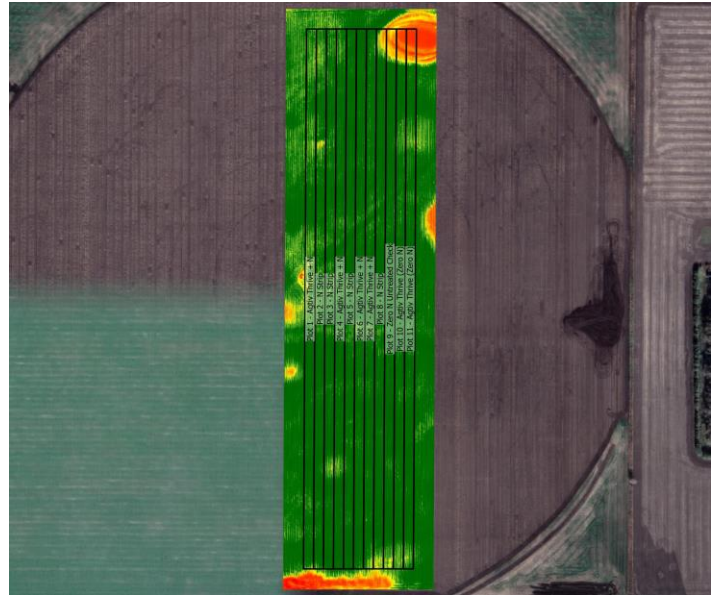
	May	June	July	Aug	Total
<b>Rainfall</b>	13.8	109	9	29.6	161
<b>Normal</b>	54.4	76.4	75	66	272
<b>% Norm</b>	25%	142%	12%	45%	59%

### Nodulation†

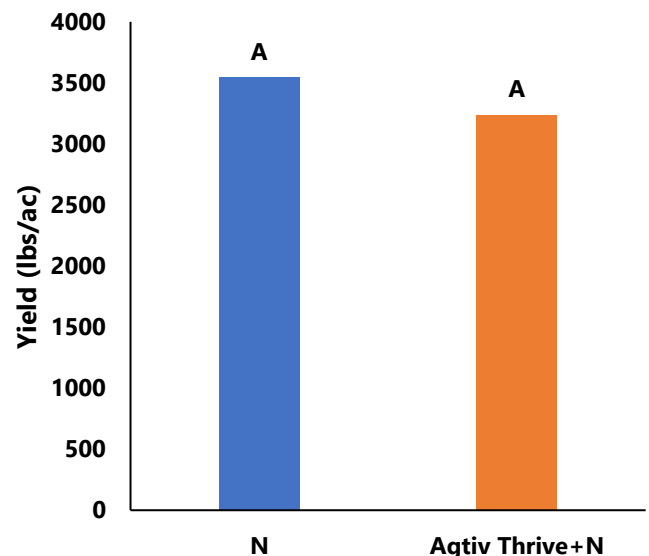
	Average total nodule number per plant at R2
<b>Single</b>	0.0 A
<b>Untreated +N</b>	0.1 A

† Averages followed by different letters are significantly different at  $\alpha = 0.05$

### NDVI Field Image July 12



### Yield by Treatment



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### Overall Yield & Economics

	Mean (lbs/ac) <sup>†††</sup>	Cost <sup>†</sup>	Change in Profit <sup>††</sup>
Single Inoculant	3235.8	\$18/ac	-\$18/ac
Untreated +N	3543.2		
Yield Difference	-307.4		
P-Value	0.2818		
CV	10%		
Significance	No	Economic	No

<sup>†</sup> Based on an estimated cost for in-furrow inoculant

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

<sup>†††</sup> Yields are estimates using hand-harvested areas (2x 10 ft of neighbouring 30" rows), dried on a drying bed, threshed using a stationary thresher and then corrected to 17% moisture

### 0N Check Strip Nodulation and Yield Summary <sup>†</sup>

	Average total nodule number per plant at R2	Yield (lbs/ac) <sup>††</sup>
Strip 9 (UNTRT)	0.2	2755.5
Strip 10 (TRT)	0	3036.4
Strip 11 (TRT)	0	2522.4

<sup>†</sup> UNTRT= Untreated; TRT= Treated; Strips 9-11 are 0N check strips and they are not replicated.

<sup>††</sup> Yields are estimates using hand-harvested areas (2x 10 ft of neighbouring 30" rows), dried on a drying bed, threshed using a stationary thresher and then corrected to 17% moisture