

## Dry Bean Inoculant Trial

**Trial ID:** 2025-DB1IN03 – R.M. of Norfolk Treherne

**Objective:** Quantify the agronomic and economic impacts of a single inoculation vs. no inoculation in dry beans.

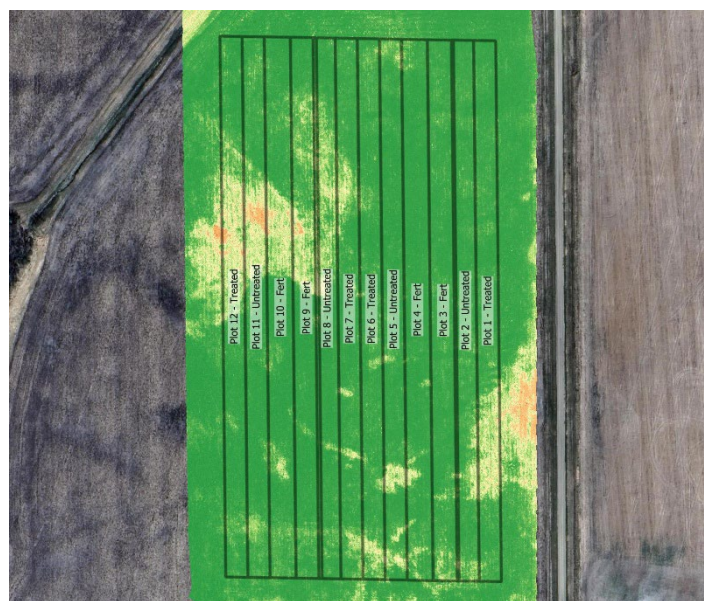
**Summary:** The untreated with 35 lbs/ac nitrogen (N) dry beans yielded significantly more by 230 lbs/ac than the BOS Peat® no N treatment, and this increased profit by \$44.11/ac. The untreated with 35 lbs/ac N yielded significantly more by 191 lbs/ac than untreated, no N treatment, and this increased profit by \$24.24/ac. There were significantly more nodules per plant in the untreated with N treatment compared to inoculated dry beans. Nodulation in the untreated, no N was similar to the two other treatments.

### Trial Information†

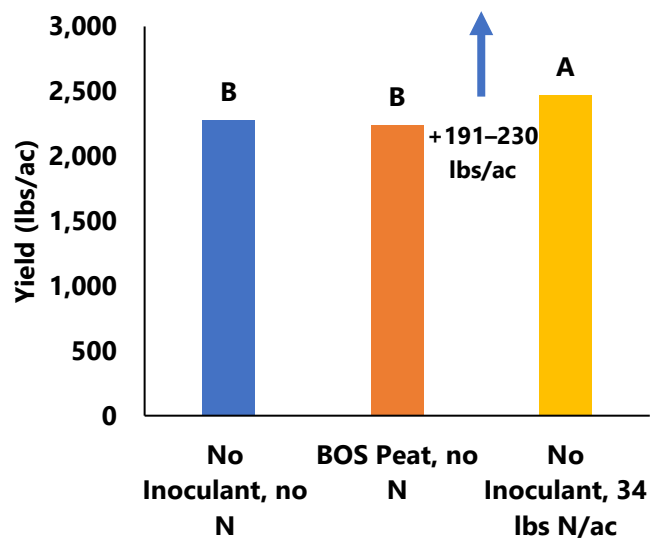
**Treatments** Untreated (no N) vs.  
Untreated (35 lbs N) vs.  
1.5kg BOS Peat®/450kg seed

<b>Years Since Dry Beans</b>	Two
<b>Soil Texture</b>	Clay
<b>Previous Crop</b>	Corn
<b>Seeding Date</b>	27/05/25
<b>Variety</b>	Black Bean BL Black Tails
<b>Seeding Rate</b>	160,000 seeds/ac
<b>Row Spacing</b>	20 in.
<b>Plant Stand @ V5</b>	121,208 plants/ac
<b>Spring Soil Test N (0-24")</b>	16 lbs/ac
<b>Harvest Date</b>	27/09/25

### NDVI Field Image August 14



### Yield by Treatment



### Precipitation (mm)

	May	June	July	Aug	Total
<b>Rainfall</b>	62.3	23.2	60.9	57.2	203.6
<b>Normal</b>	77.83	88.48	78.21	62.24	306.76
<b>% Norm</b>	80%	26%	78%	92%	66%

### Nodulation†

	Average Total Nodule Number Per Plant at R6
<b>Untreated (no N)</b>	11.9 AB
<b>BOS (no N)</b>	8.8 B
<b>Untreated (with N)</b>	15.4 A

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

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### Overall Yield & Economics

	Mean (lbs/ac)	Cost <sup>†</sup>	Change in Profit <sup>††</sup>
Untreated (no N)	2280 B		
BOS (no N)	2241 B	\$8.95/ac	-\$8.95/ac
Untreated (with N)	2471 A	\$29.24/ac	+\$24.24/ac UNTRT (w/ N) → UNTRT (No N) +\$44.11/ac BOS → UNTRT (w/ N)
P-Value	0.0284	<b>Economic</b>	UNTRT (no N) → BOS <b>No</b>
CV	6.10%		UNTRT (w/ N) → UNTRT (No N) <b>Yes</b>
Significance	<b>Yes</b>		BOS → UNTRT (w/ N) <b>Yes</b>

<sup>†</sup> Based on an estimated cost for in-furrow inoculant and fertilizer (\$0.86/lb of actual N)

<sup>††</sup> Change in profit is calculated as the difference in cost between treatments. When a significant yield difference occurs, the change in profit is calculated from profit gained or lost due to yield differences, treatment cost/ac and the current black bean market price of \$0.28/lb (Source: Estimated based on conversations with grain buyers); UNTRT = untreated, TRT = treated.