

# Soybean Biological Trial

**Trial ID:** 2022-SB07 – R.M. of Cartwright-Roblin

**Objective:** Quantify the agronomic and economic impacts of biological products for soybean production.

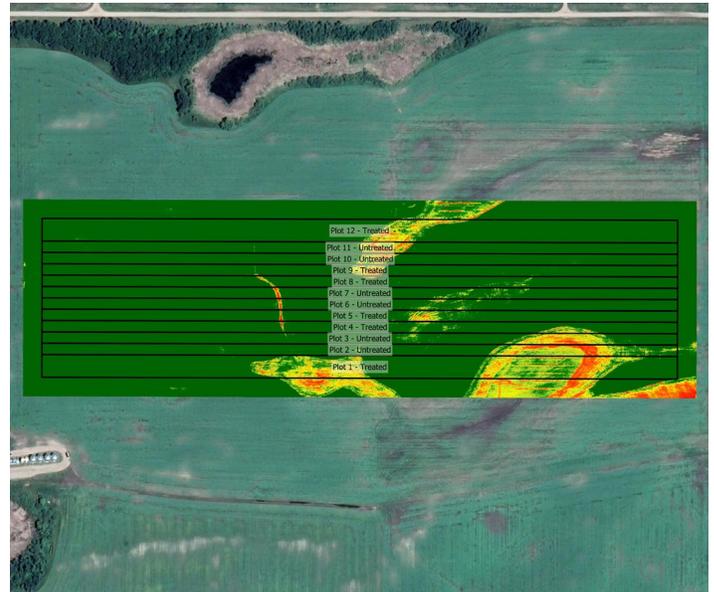
**Summary:** There was no significant yield difference between soybeans treated with Envita® and those without. Due to the lack of yield response, there was a decrease in profit/ac in the treated area of the trial, equivalent to the cost of product application.

## Trial Information †

<b>Treatment</b>	Envita®
<b>Application Timing</b>	V3
<b>Application Date</b>	July 5
<b>Application Rate</b>	40 ac/jug
<b>Application Method</b>	Broadcast
<b>Soil Texture</b>	Loam
<b>Previous Crop</b>	Wheat
<b>Tillage</b>	Zero Till
<b>Seeding Date</b>	June 7
<b>Variety</b>	Akras R2
<b>Seeding Rate</b>	150,000 seeds/ac
<b>Row Spacing</b>	12"
<b>Plant Stand @ R1</b>	166,000 plants/ac
<b>Harvest Date</b>	September 30

† Envita® is a biological product intended to enable plant foliage and roots to fix their own nitrogen.

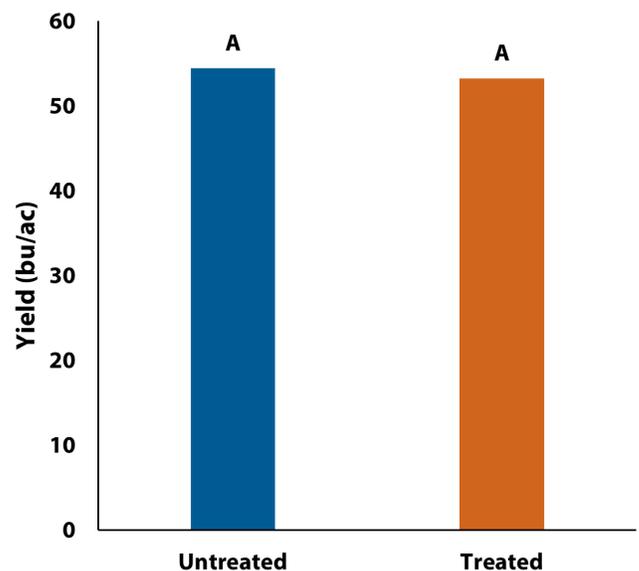
## NDVI Field Image August 13



## Precipitation (mm)

	May	Jun	Jul	Aug	Total
<b>Rainfall</b>	124.8	48	108.5	30.7	312
<b>Normal</b>	61.1	89.8	68.3	72.3	291.5
<b>% Normal</b>	204%	53%	159%	42%	107%

## Yield by Treatment





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### Overall Yield & Economics

	Mean (bu/ac)	Cost <sup>†</sup>	Change in Profit/ac <sup>††</sup>
<b>Envita®</b>	53.3	\$14.50/ac	-\$14.50/ac
<b>Untreated</b>	54.4		
<b>Yield Difference</b>	-1.1		
<b>P-Value</b>	0.5832		
<b>CV</b>	7.6%		
<b>Significance</b>	<b>No</b>	<b>Economic</b>	<b>No</b>

<sup>†</sup> Based on an estimated cost of \$14.50/ac for biological products; does not include application costs.

<sup>††</sup> Yields were not significantly different, therefore profit/ac decreased by the cost/ac of the biological treatment.