

# **Soybean Biological Trial**

Trial ID: 2022-SB05 - R.M. of Oakland-Wawanesa

**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<sup>†</sup>

Treatment	Envita®			
<b>Application Timing</b>	V4			
<b>Application Date</b>	July 7			
<b>Application Rate</b>	40 ac/jug			
<b>Application Method</b>	Broadcast			
Soil Texture	Clay Loam			
Previous Crop	Barley			
Tillage	Conventional			
Seeding Date	May 25			
Variety	Young R2X			
Seeding Rate	160,000 seeds/ac			
Row Spacing	10"			
Plant Stand @ R2	136,000 plants/ac			
Harvest Date	September 30			
Envita® is a biological product intended to enable plant foliage and				

<sup>+</sup>Envita® is a biological product intended to enable plant foliage and roots to fix their own nitrogen.

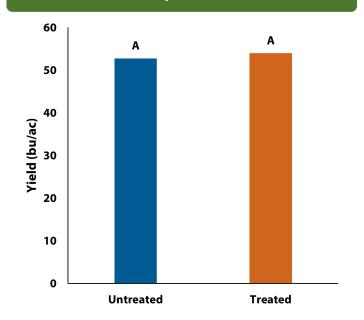
## **NDVI Field Image August 11**



#### **Precipitation (mm)**

	May	Jun	Jul	Aug	Total
Rainfall	95.8	96.4	108.4	77.2	377.8
Normal	51.2	72.8	74.4	67.5	265.9
% Normal	187%	132%	146%	114%	142%

# **Yield by Treatment**





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## **Overall Yield & Economics**

	Mean (bu/ac)	Cost <sup>+</sup>	Change in Profit/ac++
Envita®	54	\$14.50/ac	-\$14.50/ac
Untreated	52.8		
<b>Yield Difference</b>	1.2		
P-Value	0.5663		
CV	4.7%		
Significance	No	Economic	No

<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.