

# Soybean Biological Trial

**Trial ID: 2020-SB02 – R.M. of Brokenhead**

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

**Summary:** Soybean yield was significantly reduced by 1.8 bu/ac where foliar Crop Aid was used in addition to Crop Aid seed treatment, compared to yield of soybeans with Crop Aid seed treatment alone. Due to the significant decrease in yield, there was a loss in profit/ac based on the decreased income and cost of product.

## Trial Information†

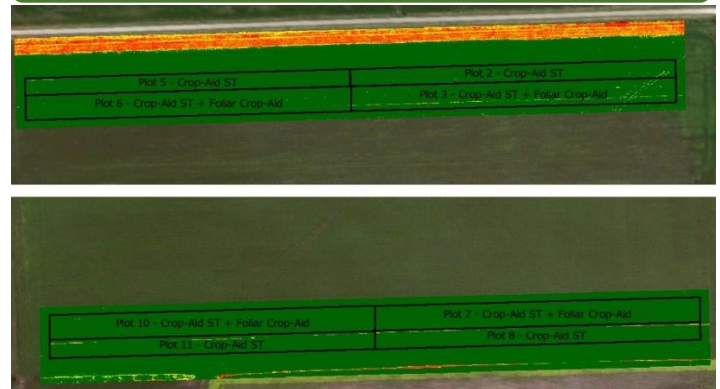
<b>Treatment</b>	Crop Aid Foliar @ R2
<b>Soil Texture</b>	Clay Loam
<b>Previous Crop</b>	Wheat
<b>Tillage</b>	Conventional
<b>Seeding Date</b>	May 18
<b>Variety</b>	24-10RY
<b>Seeding Rate</b>	200 000 seeds/ac
<b>Row Spacing</b>	6"
<b>Plant Stand @ R1</b>	234 000 plants/ac
<b>Harvest Date</b>	September 23

† Crop Aid seed treatment is intended to promote germination and vigour. Crop Aid foliar is intended to promote healthy plants and supplement a fertilizer program. Crop aid seed treatment was used in both treatments.

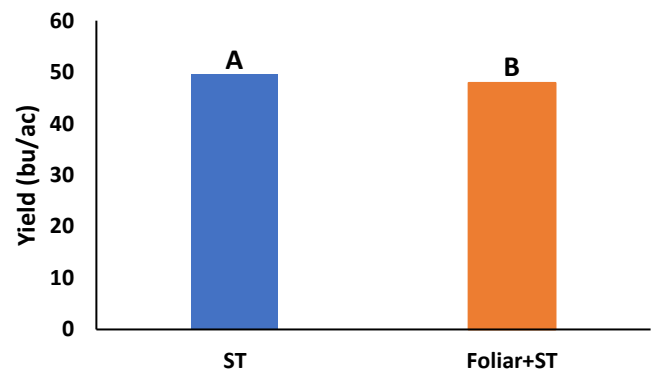
## Precipitation (mm)

	May	June	July	August
<b>Normal</b>	54	89.9	73.4	72.6
<b>Rainfall</b>	11.3	74.9	49.8	110.7

## NDVI Field Image August 19



## Yield by Treatment



## Overall Yield & Economics

	Mean (bu/ac)	Cost †	Change in Profit/ac (@ soybean price of \$10 - \$12/bu) ††
<b>Foliar + Seed Treatment</b>	47.9	\$5/ac	-\$23 to -\$27/ac
<b>Seed Treatment</b>	49.7		
<b>Yield Difference</b>	-1.8		
<b>P-Value</b>	0.0496		
<b>CV</b>	7.1%		
<b>Significance</b>	<b>Yes</b>	<b>Economic</b>	<b>No</b>

† Based on an estimated cost for biological products

†† Change in profit is calculated using the change in income per acre from the significant yield decline, and the cost of product per acre