

# Soybean Fungicide Trial

**Trial ID: 2020-SF04 – R.M. of Brokenhead**

**Objective:** Quantify the agronomic and economic impacts of a single foliar fungicide application in soybeans.

**Summary:** Septoria brown spot was prevalent throughout the trial; frogeye and downy mildew were also present. There was no significant yield difference between soybeans with and without a single application of Dyax. 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 the fungicide application.

## Trial Information

<b>Treatment</b>	Dyax
<b>Application Timing</b>	R2
<b>Application Date</b>	July 16
<b>Application Rate</b>	120 ml/ac
<b>Application Method</b>	Broadcast
<b>Soil Texture</b>	Clay Loam
<b>Previous Crop</b>	Wheat
<b>Tillage</b>	Conventional
<b>Seeding Date</b>	May 18
<b>Variety</b>	LS 0036RR
<b>Seeding Rate</b>	160 000 seeds/ac
<b>Row Spacing</b>	10"
<b>Plant Stand @ R5</b>	192 000 plants/ac
<b>Harvest Date</b>	September 25

## Precipitation (mm)

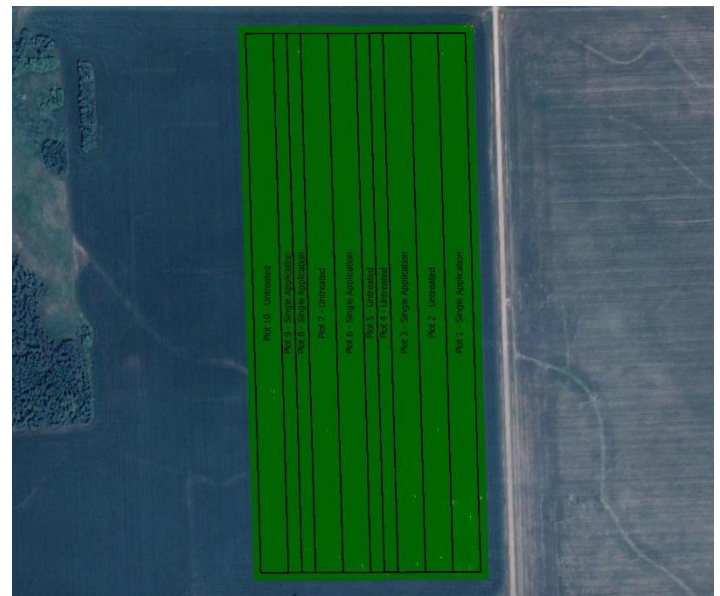
	May	June	July	August
<b>Normal</b>	54	89.9	73.4	72.6
<b>Rainfall</b>	11.3	74.9	49.8	110.7

## Summary of Disease Rating (R4) †

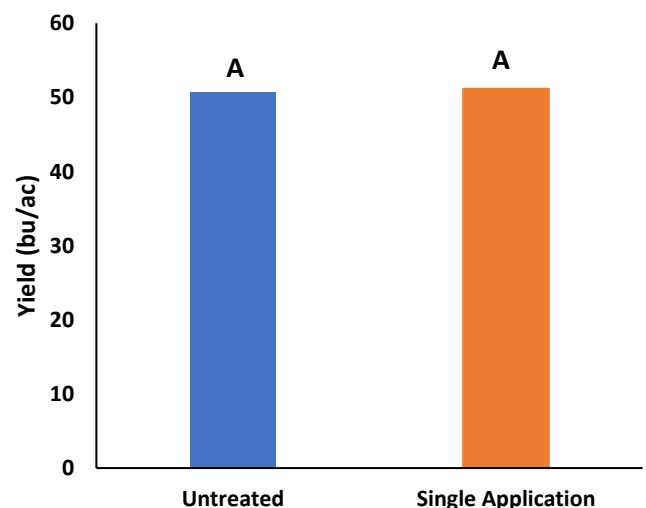
	Frogeye		Septoria Brown Spot		Downy Mildew	
	UN	SGL	UN	SGL	UN	SGL
<b>Incidence</b>	10%	12%	100%	86%	24%	8%
<b>Severity</b>	n/a	n/a	1.88	1.34	n/a	n/a

† SGL=Single application; Frogeye (presence/absence), septoria brown spot 0 – 5 rating scale, downy mildew (presence/absence); bacterial blight present throughout the trial

## NDVI Field Image August 19



## Yield by Treatment





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### Overall Yield & Economics

	<b>Mean (bu/ac)</b>	<b>Cost †</b>	<b>Change in Profit/ac ††</b>
<b>Single Application</b>	51.2	\$15/ac	-\$15/ac
<b>Untreated</b>	50.6		
<b>Yield Difference</b>	0.6		
<b>P-Value</b>	0.1335		
<b>CV</b>	2.3%		
<b>Significance</b>	<b>No</b>	<b>Economic</b>	<b>No</b>

† Based on an estimated cost for a single application of soybean fungicide

† † Because yields were not significantly different, there was no increased income with fungicide application to offset the cost of the product