Soybean Boron Foliar Trial

Trial ID: 2025-SBF09 – R.M. of La Broquerie

Objective: Quantify the agronomic and economic impacts of a single foliar boron fertilizer application for soybean production.

Summary: There was no significant yield difference between soybeans with and without a R1 foliar boron (B) application. A spring composite soil sample of the trial area resulted in a ''low'' soil B (0.8 ppm) level. All plots were plant tissue sampled after boron application and both treatments were similar and considered ''sufficient'' in plant B. Nodulation ratings were similar between treatments. As a result, there was a decrease in profit/ac equal to the cost of product application.

Trial Information

Treatment	Untreated vs. Solubor®
Application Timing	R1
Application Date	7/1/2025
Application Rate	0.5 lbs/ac
Application Method	Broadcast
Soil Texture	Loamy Fine Sand
Spring Soil Test Boron (0-6'')	0.8 ppm (''Low'' per AGVISE interpretation)
Previous Crop	Canola
Tillage	Zero Tillage
Seeding Date	5/13/2025
Variety	S007-A2XS
Seeding Rate	185,000 seeds/ac
Row Spacing	10 in.
Plant Stand @ R2	158,375 plants/ac
Harvest Date	10/2/2025

Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	13.5	53	64.6	90.6	221.7
Normal	69.23	87.27	75.83	62.14	294.47
% Norm	20%	61%	85%	146%	75%

Foliar Boron Content (R2) ǂ

	Foliar Boron Content (ppm)
Solubor	28.0 A
Untreated	28.3 A

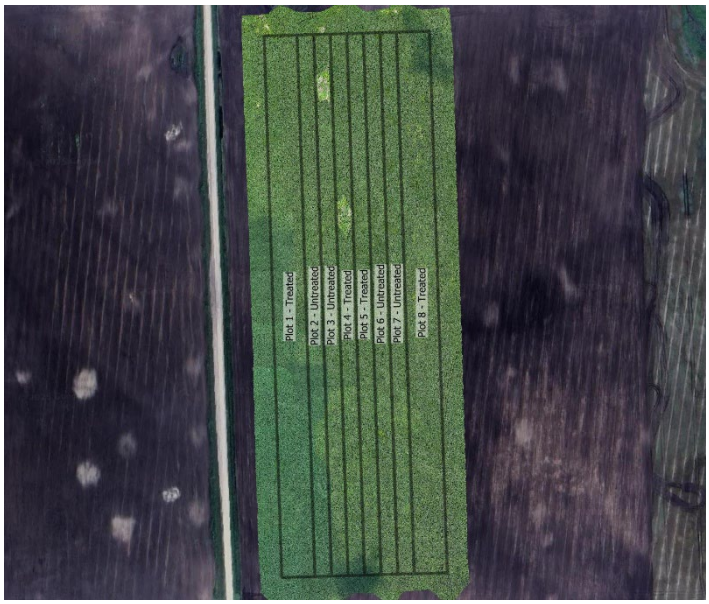
ǂ Foliar samples (uppermost trifoliates) were collected after at least 10 days after application. Samples were then sent for total foliar Boron content testing. Plant B values >20 ppm are considered ''sufficient'' per AGVISE Laboratories interpretation.

Nodulation Rating ǂ

	Nodulation Rating
Solubor	3.6 A
Untreated	3.5 A

ǂ Nodulation ratings were done at flowering (R1-R2) and the number of pink, healthy and active nodules were rated on a scale of 0-4, where 0 = no nodules, and 4 = 20+ healthy nodules/plant.

RBG Field Image August 13 ǂ



ǂ RBG image used due to technical difficulties with NDVI imaging.

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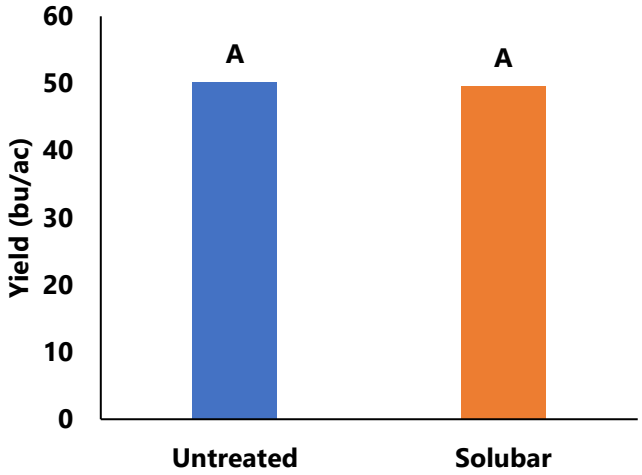
Yield by Treatment



Overall Yield & Economics

	Mean (bu/ac)	Cost ǂ	Change in Profit ǂ ǂ
Solubor	49.6	$2.00/ac	-$2.00/ac
Untreated	50.2		
Yield Difference	-0.6		
P-Value	0.7623		
CV	4.80%		
Significance	**No**	**Economic**	**No**

ǂ Based on an estimated cost for foliar boron fertility products, does not include application cost

ǂ ǂ Yields were not significantly different, therefore there is no increased income to offset the cost of the foliar boron fertility product.

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