Soybean Boron Foliar Trial

Trial ID: 2025-SBF04 – R.M. of Brokenhead

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 V2 foliar boron (B) application. A spring composite soil sample of the trial area resulted in a ''high'' soil B (1.8 ppm) level. All plots were plant tissue sampled after boron application and while there was significantly higher B content in the treated strips compared to untreated, both treatments were considered ''sufficient'' in plant B. Nodulation ratings were similar between treatments. As a result, there was a decrease in profit/ac equal to the application.

Trial Information

Treatment	Untreated vs. Solubor®
Application Timing	V2
Application Date	6/20/2025
Application Rate	0.5 lbs/ac
Application Method	Broadcast
Soil Texture	Clay
Spring Soil Test Boron (0-6'')	1.8 ppm (''High'' per AGVISE interpretation)
Previous Crop	Wheat
Tillage	Conventional Tillage
Seeding Date	5/15/2025
Seeding Rate	225,000 seeds/ac
Row Spacing	7 in.
Plant Stand @ V4	243,000 plants/ac
Harvest Date	9/26/2025

Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	15.2	54.1	48.7	69.9	187.9
Normal	65.02	89.83	77.24	74.64	306.73
% Norm	23%	60%	63%	94%	61%

Foliar Boron Content (V4) ǂ

	Foliar B Content (ppm)
Solubor	48.3 A
Untreated	41.8 B

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. Averages followed by different letters are significantly different at α =0.05.

Nodulation Rating ǂ

	Nodulation Rating
Solubor	2.9 A
Untreated	3.1 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.

NDVI Field Image August 12

[Additional On-Farm Network Research Reports]

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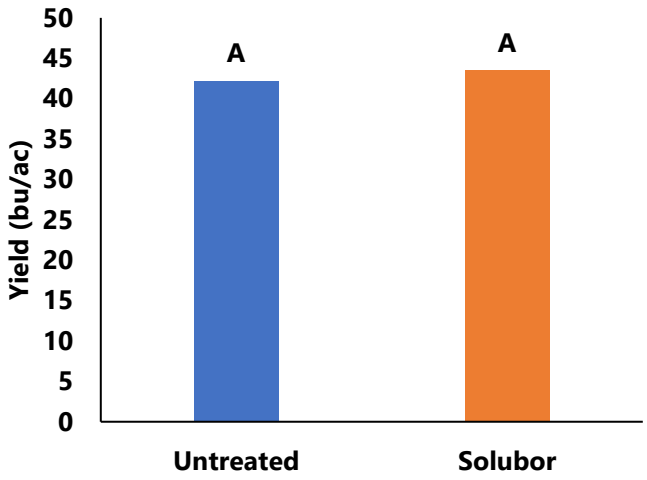
Yield by Treatment



Overall Yield & Economics

	Mean (bu/ac)	Cost ǂ	Change in Profit ǂǂ
Solubor	43.5	$2.00/ac	-$2.00/ac
Untreated	42.2		
Yield Difference	1.3		
P-Value	0.2109		
CV	3.3%		
Significance	**No**	**Economic**	**No**

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

ǂǂ 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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