Soybean Boron Foliar Trial

Trial ID: 2025-SBF07 – R.M. of Lorne

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 V3 foliar boron (B) application. A spring composite soil sample of the trial area resulted in a ''very low'' soil B (0.3 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 cost of product application.

Trial Information

Treatment	Untreated vs. Solubor®
Application Timing	V3
Application Date	6/28/2025
Application Rate	0.5 lbs/ac
Application Method	Broadcast
Soil Texture	Clay Loam
Spring Soil Test Boron (0-6'')	0.3 ppm (''V. Low'' per AGVISE interpretation)
Previous Crop	Wheat
Tillage	Zero Tillage
Seeding Date	9/25/2025
Variety	DKB006-29
Seeding Rate	170,000 seeds/ac
Row Spacing	10 in.
Plant Stand @ R2	121,938 plants/ac
Harvest Date	10/3/2025

Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	74.3	16.5	53.3	31.1	175.2
Normal	66.53	84.32	62.29	52.94	266.08
% Norm	112%	20%	86%	59%	66%

Foliar Boron Content (R2) ǂ

	Foliar Boron Content (ppm)
Solubor	38 A
Untreated	34 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 interpretation. Averages followed by different letters are significantly different at α =0.05.

Nodulation Rating ǂ

	Nodulation Rating
Solubor	3.9 A
Untreated	3.8 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 12 ǂ

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

[Additional On-Farm Network Research Reports]

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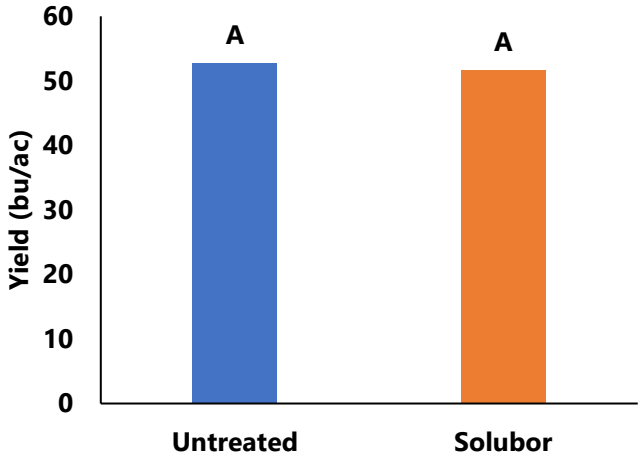
Yield by Treatment



Overall Yield & Economics

	Mean (bu/ac)	Cost ǂ	Change in Profit ǂ ǂ
Solubor	51.7	$2.00/ac	-$2.00/ac
Untreated	52.8		
Yield Difference	-1.1		
P-Value	0.1891		
CV	2.2%		
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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