



Soybean Starter Fertilizer Trial

Trial ID: 2025-SP01 – R.M. of Pembina

Objective: Quantify the agronomic and economic impacts of a single liquid phosphorus starter fertilizer application vs. none for soybean production.

Summary: Foliar plant samples were analyzed for phosphorus content (%) and were similar between treatments. There was no significant yield difference between soybeans with and without Alpine G22® starter fertilizer. As a result, in the treated area of the trial, there was a loss in profit/ac equivalent to the cost of the product. Note: Alpine G22® has a guaranteed nutritional analysis of 6-22-2 (N-P-K) and plant available phosphate (P_2O_5) equal to 0.621 pounds per litre applied.

Trial Information

Treatments	Untreated vs. 19 L/ac Alpine G22® (6-22-2)
Application Method	With the Seed, In-Furrow
Soil Texture	Clay Loam
Previous Crop	Oats
Tillage	Zero Tillage
Seeding Date	5/12/2025
Variety	DKB006-80
Seeding Rate	168,000 seeds/ac
Row Spacing	15 in.
Plant Stand @ R2	147,000 plants/ac

NDVI Field Image August 14



Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	70	45.1	87.1	52.6	254.8
Normal	75.62	90.59	75.6	61.72	303.53
% Norm	93%	50%	115%	85%	84%

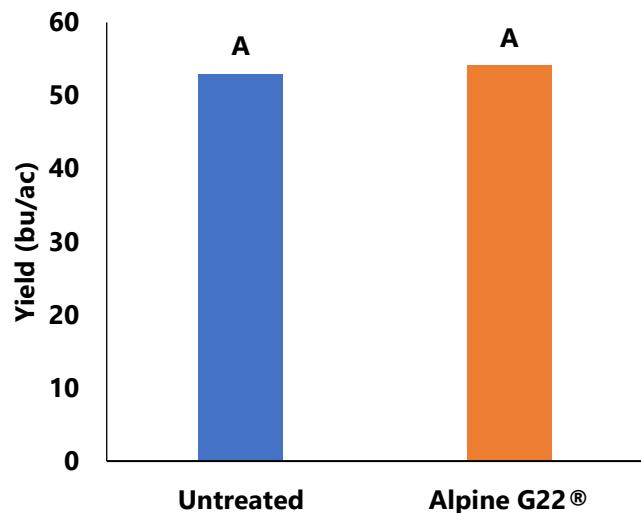
Foliar Nutrient Content †

	Phosphorus (%)‡‡
Treated	0.46 A
Untreated	0.43 A

† Foliar samples were taken from the newest unfurled trifoliolate at R3 and were sent for analysis.

‡‡ The sufficiency range for phosphorus in soybeans is 0.26 – 0.5% (AgVise Laboratories). Averages followed by different letters are significantly different at 95% confidence level ($p < 0.05$)

Yield by Treatment





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Overall Yield & Economics

	Mean (bu/ac)	Cost †	Change in Profit ‡‡
Untreated	52.93		
Alpine G22®	54.13	\$30.40/ac	-\$30.40/ac
Difference	1.2		
P-Value	0.229		
CV	1.6%		
Significance	No		

† Based on producer's costs for the starter fertilizer product.

‡‡ Yields were not significantly different, therefore there is no increased income to offset the cost of the starter fertilizer.