

# Dry Bean Fungicide Trial

**Trial ID: 2025-DBF01 – R.M. of Rhineland**

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

**Summary:** The pre-spray check (Summary of Disease Risk) indicated a reduced disease risk. White mould was prevalent at the site, but incidence (% of plants infected) and severity (0–5 scale) ratings were similar between treatments. There were no significant yield differences between dry beans with a single fungicide application, a single fungicide plus single biological fungicide tank mix application and those without. As a result, profit/ac in the treated area of the trial decreased by the cost of fungicide and biological fungicide application.

## Trial Information

<b>Treatment</b>	Untreated vs. Proline® GOLD vs. Proline® GOLD+ Serenade OPTI® (biological fungicide)
<b>Application Timing</b>	R2
<b>Application Date</b>	07/16/2025
<b>Application Rate</b>	0.3L/ac Proline® GOLD 37.5g/ac Serenade OPTI®
<b>Application Method</b>	Broadcast
<b>Soil Texture</b>	Fine Sandy Loam
<b>Previous Crop</b>	Corn
<b>Seeding Date</b>	5/28/2025
<b>Variety</b>	Pinto Bean - Windbreaker
<b>Seeding Rate</b>	98,383 seeds/ac
<b>Row Spacing</b>	30 in.
<b>Plant Stand @ R6</b>	75,444 plants/ac
<b>Harvest Date</b>	9/27/2025

## Precipitation (mm)

	May	June	July	Aug	Total
<b>Rainfall</b>	52.8	31.3	113.3	42.1	239.5
<b>Normal</b>	71.22	98.68	70.86	65.57	306.33
<b>% Norm</b>	74%	32%	160%	64%	78%

## Summary of Disease Ratings†

	Bacterial Blight	White Mould	
	Incidence	Incidence	Severity
<b>Untreated</b>	60%	30%	0.6
<b>Proline Gold</b>	67%	33%	0.5
<b>Proline Gold + Serenade OPTI</b>	83%	10%	0.1

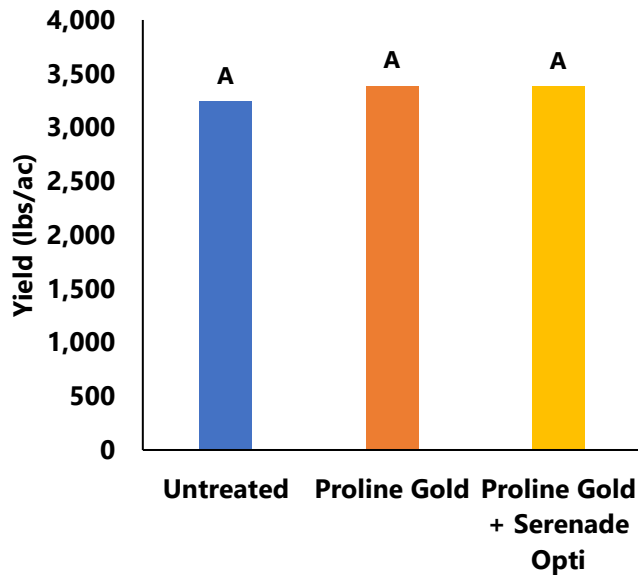
† Incidence = percent of plants infected; Severity = Average rating on a 0–5 scale where 0 = no apparent symptoms and 5 = death of plants caused by massive mycelial growth

## Summary of Disease Risk

Risk Factor	Score
Weather Conditions Before flowering	6/12
Weather Expected During Flowering	4/8
Agronomic Considerations (rotation, canopy thickness, etc.)	9/17
<b>Risk Assessment</b>	<b>19/37</b>
	<b>Reduced Risk</b>

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### Yield by Treatment



### Field NDVI Image August 14



### Overall Yield & Economics

	Mean (lbs/ac)	Cost †	Change in Profit ††
Untreated	3238		
Proline GOLD	3382	\$27/ac	-\$27/ac
Proline GOLD + Serenade OPTI	3379	\$40.45/ac	-\$40.45/ac
P-Value	0.1780		
CV	3.2%		
Significance	No	Economic	No

† Estimated cost; represents product only, does not include application cost.

†† Because yields were not significantly different, there is no increased income to offset the cost of the fungicide. Profit/ac declines by the cost of the fungicide application.