

Dry Bean Fungicide Trial

Trial ID: 2021-DBF01 – R.M. of Rhineland

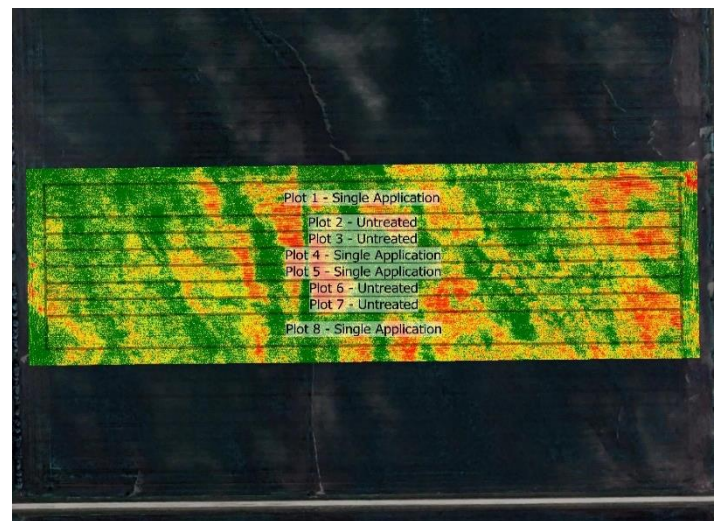
Objective: Quantify the agronomic and economic impacts of a single foliar fungicide application in dry beans

Summary: There was a high incidence of foliar and stem anthracnose throughout the trial, however, the severity was low. There was no white mould at this site. As a result of light overall disease pressure, there was no significant yield difference between pinto beans with and without a single application of Lance WDG. Due to the lack of yield response, there was a decrease in profit/ac in the treated area of the trial, equivalent to the cost of the fungicide application.

Trial Information

Treatment	Lance WDG
Application Timing	R2
Application Date	July 22
Application Rate	0.2264 kg/ac
Application Method	Broadcast
Soil Texture	Loam, Clay Loam, Very Fine Sandy Loam
Previous Crop	Barley
Seeding Date	May 27
Variety	Vibrant Pinto Bean
Seeding Rate	90 000 seeds/ac
Row Spacing	30"
Plant Stand @ R4	70 000 plants/ac
Harvest Date	September 8

Field NDVI Image August 13



Summary of Disease Risk†

Category	Rating	Explanation
Weekly total rainfall pre-flowering (up to V4)	2	0.1-0.5"
Average daily high temp. pre-flower	2	18-21°C
Humidity (%) or hours of dew on foliage	3	51-75% (< 18 hrs)
Forecasted/actual rainfall expected (V4-R4)	2	0.1-0.5"
Forecasted/actual daily high temp. (V4-R4)	1	> 28°C
Susceptible host in the rotation (dry bean or other, ex. canola, sunflower)	2	< 3 years
Susceptible hosts and/or fungal apothecia observed nearby (<2km) before flowering (R1)	2	Apothecia or hosts
Timing and amount of N fertilizer applied	1	Planting < 100 lbs/ac
Plant spacing, canopy density and microclimate conditions	1	Wide rows, low-moderate density
Varietal reaction to white mould	1	Resistant
Total Score	17	Reduced Risk

†Based on the foliar fungicide decision making worksheet for managing white mould in dry beans



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Precipitation (mm)

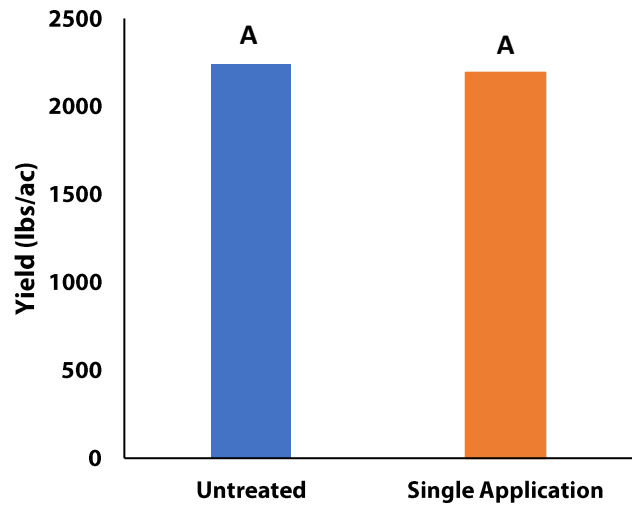
	May	Jun	Jul	Aug	Total
Rainfall	46.3	63.6	32.3	142	284
Normal	56.4	85.2	75.4	65.5	282.5
% Normal	82%	75%	43%	216%	101%

Summary of Disease Rating (R3)[†]

	Foliar Anthracnose		Stem Anthracnose		White Mould	
	UN	SGL	UN	SGL	UN	SGL
Incidence	73%	63%	85%	83%	0%	0%
Severity	0.7	0.6	n/a	n/a	0.0	0.0

[†] SGL=single application; Foliar anthracnose 0-9 rating scale, stem anthracnose (presence/absence), white mould 0 – 5 rating scale; bacterial blight present throughout the trial.

Yield by Treatment



Overall Yield & Economics

	Mean (lbs/ac)	Cost [†]	Change in Profit/ac ^{††}
Single Application	2192	\$17/ac	-\$17/ac
Untreated	2242		
Yield Difference	-50		
P-Value	0.1856		
CV	2.1%		
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.