Foliar Diseases

Trial 29. Evaluation of foliar fungicides for controlling foliar soybean diseases in Fargo, ND - 2025

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The soybean variety PFS 2207E was planted in Fargo, North Dakota, on May 6, 2025, at a rate of 140,000 seeds/a and depth of 1.5 in. in bedded single rows spaced 30 inches apart. Plots were four rows by 20 feet. Treatments were replicated four times and designed in a randomized complete block. Blocks were separated by 7-foot alleys. The field was rainfed and grown to oat the previous year. Soil type was a silty clay. Standard practices were used to manage weeds and nutrition. Fungicides were applied at 20 gal/A at 40 psi using four XR TeeJet 8002VS flat-fan nozzles spaced at 20 inches apart. Mixing compatibility issues and phytotoxicity were not observed during the trial. Foliar incidence and severity ratings were taken on Aug. 28, 2025. Yield was collected from the center two rows on Oct. 4, 2025. Rainfall during the period totaled 16.24 inches, and overall, weather conditions were moderately conducive to disease development. Analysis was conducted using SAS 9.4 PROC GLIMMIX to determine the effects of treatments on disease and yield. Means separations followed Fisher's Protected LSD at α=0.05.

While frogeye leaf spot, Cercospora leaf blight and Septoria brown spot were present, incidence remained low throughout the season. There is historically low disease pressure from these pathogens at this location. As such, there were no significant differences observed among treatments for foliar disease incidence or yield.

Table 29. Effect of seed treatments and foliar fungicides on soybean foliar disease incidence and yield.

			Mean disease incidence (%)[b]			
Treatment	**Rate**	**Timing[a]**	**Frogeye leaf spot**	**Cercospora leaf blight**	**Septoria brown spot**	**Yield (bu/a)**
Non-Treated	-	-	0.8	0.0	2.3	57.5
Cruiser Maxx APX	4.18 fl oz/cwt	SDTR[c]				
Saltro	2.3 fl oz/cwt	SDTR				
Delaro Complete	8 fl oz/a	R1				
NIS	0.25% v/v	R1				
Delaro Complete	8 fl oz/a	R3				
NIS	0.25% v/v	R3	0.3	0.3	0.5	60.4
Cruiser Maxx APX	4.18 fl oz/cwt	SDTR				
Saltro	2.3 fl oz/cwt	SDTR				
Delaro Complete	8 fl oz/a	R3				
NIS	0.25% v/v	R3	0.3	0.3	0.8	59.0
Cruiser Maxx APX	4.18 fl oz/cwt	SDTR				
Saltro	2.3 fl oz/cwt	SDTR	1.0	0.3	2.7	60.2
Delaro Complete	8 fl oz/a	R1				
NIS	0.25% v/v	R1				
Delaro Complete	8 fl oz/a	R3				
NIS	0.25% v/v	R3	0.0	0.0	1.0	53.9
Delaro Complete	8 fl oz/a	R3				
NIS	0.25% v/v	R3	0.3	0.0	4.0	60.6
Cruiser Maxx APX	4.18 fl oz/cwt	SDTR				
Saltro	2.3 fl oz/cwt	SDTR				
Delaro Complete	8 fl oz/a	50% risk[d]				
NIS	0.25% v/v	50% risk	0.5	0.0	1.5	58.8
Delaro Complete	8 fl oz/a	50% risk				
NIS	0.25% v/v	50% risk	0.5	0.0	3.8	57.4
P-Value			0.24	0.53	0.45	0.43

[a] Growth stage or timing at which the fungicide application was applied.
[b] These incidence ratings were recorded on Aug. 28, 2025.
[c] SDTR = seed treatment.
[d] Fungicide applications were guided by predictive models for frogeye leaf spot disease risk.