

Trial 34. Evaluation of foliar fungicides for controlling foliar soybean diseases in Prosper, ND - 2025SOYBEAN (*Glycine max 'AG 07XF4'*)

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The soybean variety AG07XF4 was planted in Prosper, North Dakota, in May 2025, at a rate of 140,000 seeds/acre and depth of 1.5 inches 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 5-foot alleys. The field was rainfed and grown to wheat the previous year. Soil type was a silty clay loam. 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. 13, 2025, and Sept. 9, 2025. White mold incidence and severity were recorded on Sept. 9, 2025. Yield was collected from the center two rows on Oct. 3, 2025. Rainfall during the period totaled 17.2 inches, and overall, weather conditions were 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 $\alpha=0.05$.

Disease was low across the trial, though frogeye leaf spot, Cercospora leaf blight and Septoria brown spot were present. There were no significant differences across the fungicide programs tested with respect to disease ratings or yield.

Table 34. Effect of foliar fungicides on frogeye leaf spot, Cercospora leaf blight and Septoria brown spot incidence and yield.

Treatment	Rate	Timing ^a	Mean disease incidence (%) ^b			Yield (bu/a)
			Frogeye leaf spot	Cercospora leaf blight	Septoria brown spot	
Non-Treated	-	-	1.0	1.7	0.6	51.5
Delaro Complete	8 fl oz/a	R2				
NIS	0.25% v/v	R2	1.3	2.3	0.0	56.2
Adastrio	8 fl oz/a	R2				
NIS	0.25% v/v	R2	1.3	4.0	0.3	59.0
Badge SC	1.5 PT/a	R2				
NIS	0.25% v/v	R2	1.5	2.3	0.2	57.3
Affiance	14 fl oz/a	R2				
NIS	0.25% v/v	R2	1.0	1.0	0.1	58.7
Quilt	12 fl oz/a	R2				
NIS	0.25% v/v	R2	0.7	3.3	0.5	51.5
Delaro Complete	8 fl oz/a	R5				
NIS	0.25% v/v	R5	1.3	2.7	0.4	55.6
Delaro Complete	8 fl oz/a	R2				
NIS	0.25% v/v	R2				
Delaro Complete	8 fl oz/a	R5				
NIS	0.25% v/v	R5	0.8	3.8	0.2	59.8
Quilt	12 fl oz/a	R5				
NIS	0.25% v/v	R5	1.0	4.7	0.1	47.2
Viatude	16 fl oz/a	R2				
NIS	0.25% v/v	R2	1.0	1.8	0.3	59.3
P-Value			0.86	0.36	0.84	0.17

^a Growth stage or timing at which the fungicide application was applied.^b These incidence ratings for FLS, CLB and SBS were recorded on Sept. 9, 2025.