

Trial 31. Evaluation of foliar fungicides for controlling foliar soybean diseases in Fargo, ND - 2025SOYBEAN (*Glycine max 'XO 1095E'*)

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The soybean variety XO 1095E was planted in Fargo, North Dakota, on May 6, 2025, at a rate of 140,000 seeds/a 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 7-foot alleys. The field was rainfed and grown to oat the previous year. Soil type was 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. Four foliar incidence and severity ratings were taken on a biweekly basis beginning on July 29, 2025. Yield was collected from the center two rows on Oct. 6, 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 $\alpha=0.05$.

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 31. 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	6.0	7.0	54.9
Delaro Complete	8 fl oz/a	R3				
NIS	0.25% v/v	R3	0.5	6.0	2.8	53.1
Adastrio	8 fl oz/a	R3				
NIS	0.25% v/v	R3	0.5	6.5	4.0	54.2
Badge SC	1.5 pt/a	R3				
NIS	0.25% v/v	R3	0.8	6.8	4.8	55.2
Affiance	14 fl oz/a	R3				
NIS	0.25% v/v	R3	0.8	6.8	4.0	52.6
Quilt	12 fl oz/a	R3				
NIS	0.25% v/v	R3	0.5	6.0	5.8	57.2
Delaro Complete	8 fl oz/a	R5				
NIS	0.25% v/v	R5	1.0	7.5	4.3	54.9
Delaro Complete	8 fl oz/a	R3				
NIS	0.25% v/v	R3				
Delaro Complete	8 fl oz/a	R5				
NIS	0.25% v/v	R5	1.0	4.7	1.7	53.8
Quilt	12 fl oz/a	R5				
NIS	0.25% v/v	R5	0.3	6.0	6.0	59.1
Viatude	16 fl oz/a	R3				
NIS	0.25% v/v	R3	0.8	7.0	3.0	55.7
P-Value			0.91	0.89	0.47	0.70

^aGrowth stage or timing at which the fungicide application was applied.^bThese incidence ratings for FLS and CLB were recorded on Sept. 9, 2025, and the mean disease incidence for SBS was recorded on Aug. 28, 2025.