

Trial 33. Evaluation of foliar fungicides for controlling foliar soybean diseases in Oakes, ND (Dryland) - 2025

SOYBEAN (Glycine max 'XO 1095E')

H. R. Becton, G. Dusek and R.W. Webster

The soybean variety XO1095E was planted May 7, 2025, in Oakes, North Dakota, 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 5-foot alleys. The field was rainfed and grown to corn the previous year. Soil type was a Barnes-Svea loam with a 0%-3% slope. 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 July 24, 2025, Aug. 13, 2025, and Aug. 22, 2025. Yield was collected from the center two rows on Oct. 1, 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 $\alpha=0.05$.

No differences were observed between treatments for their effect on frogeye leaf spot and Cercospora leaf blight incidence. Disease pressure was very low across the whole trial.

Table 33. 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 | |
| Non-Treated | - | - | 0.08 | 0.05 | 62.3 |
| Delaro Complete | 8 fl oz/a | R3 | | | |
| NIS | 0.25% v/v | R3 | 0.03 | 0.08 | 63.1 |
| Adastrio | 8 fl oz/a | R3 | | | |
| NIS | 0.25% v/v | R3 | 0.00 | 0.03 | 60.3 |
| Badge SC | 1.5 PT/a | R3 | | | |
| NIS | 0.25% v/v | R3 | 0.50 | 0.25 | 65.0 |
| Affiance | 14 fl oz/a | R3 | | | |
| NIS | 0.25% v/v | R3 | 0.05 | 0.50 | 62.8 |
| Quilt | 12 fl oz/a | R3 | | | |
| NIS | 0.25% v/v | R3 | 0.05 | 1.25 | 59.7 |
| Delaro Complete | 8 fl oz/a | R5 | | | |
| NIS | 0.25% v/v | R5 | 0.00 | 0.03 | 66.8 |
| 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 | 0.00 | 0.03 | 63.4 |
| Quilt | 12 fl oz/a | R5 | | | |
| NIS | 0.25% v/v | R5 | 0.30 | 0.00 | 65.4 |
| Viatude | 16 fl oz/a | R3 | | | |
| NIS | 0.25% v/v | R3 | 0.05 | 0.30 | 61.2 |
| P-Value | | | 0.09 | 0.61 | 0.33 |

^aGrowth stage or timing at which the fungicide application was applied.^bThese incidence ratings for FLS and CLB were recorded on Aug. 22, 2025.