Trial 15. Evaluation of fungicide seed treatments for controlling Phytophthora root rot in Fargo, ND - 2025

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The soybean variety DSR-0920E was planted on May 6, 2025, in Fargo, North Dakota at a rate of 140,000 seed/a and depth of 1.5 inches in bedded single rows spaced 30 inches apart. At planting, 200 grams of millet infested with *Phytophthora sojae* was applied in-furrow. 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 it was fallow the previous season with a fall cover crop. Soil type was a silty clay. Standard practices were used to manage weeds and fertility. Mixing compatibility issues and phytotoxicity were not observed during the trial. On June 18, 2025, five plants were arbitrarily selected from each plot, from which plant height, fresh weight and dry weight were recorded. 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 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.

No significant differences were observed among treatments for stand counts, plant heights, fresh and dry weights, or yield. However, the plots treated with CruiserMaxx + Terrasym yielded an average of 7 bu/a greater than the non-treated plots.

Table 15. Effect of seed treatments on stand counts, seedling height, seedling mass and yield when inoculated with *Phytophthora sojae*.

Treatment	Rate	Stand Count (plants/a)[a]	Plant Height (cm)	Dry Weight (g)	Yield (bu/a)[b]
Non-treated	-	79,279	14.6	6.0	39.3
Cruiser Maxx	1.38 fl oz/cwt	91,912	14.8	6.3	40.0
Cruiser Maxx Trianum-P	1.38 fl oz/cwt 0.5 fl oz/cwt	84,506	14.2	5.0	40.2
Cruiser Maxx Terrasym 401	1.38 fl oz/cwt 0.5 fl oz/cwt	90,169	14.8	6.1	46.2
Trianum-P	0.5 fl oz/cwt	88,862	15.0	6.7	42.8
Terrasym 401	0.5 fl oz/cwt	88,427	14.3	6.6	43.7
P-Value		0.39	0.93	0.42	0.60

[a] Stand counts were recorded at VC growth stage.
[b] Yield was adjusted to 13% moisture and calculated in bushels per acre (bu/a) and collected on Oct. 6, 2025.