

**Foliar fungicide efficacy on brown spot in soybeans, 2008.**

A foliar fungicide efficacy was established in a soybean field at the Agricultural Research and Development Center near Mead, NE. Soybeans were planted on 19 May 2008. Plots were 30 ft long by 10 ft (4 rows) wide. Treatments were arranged in a randomized complete block design with four replications. Foliar fungicides were applied with a hand held spray boom pressurized with CO<sub>2</sub> to 40 psi. The spray boom consisted of 6 nozzles (Teejet XR 11002) spaced 19 in apart. Each application was applied at 3.9 mph resulting in an application volume of 15 gal/A. Fungicides were applied at the R3 growth stage (beginning pod) on 31 Jul 2008 and at the R6 growth stage (full seed) on 21 Aug 2008. Brown spot was assessed on 21 Aug 2008 (3 weeks after R3 application). An insecticide was applied to the entire field including the trial area on 13 Aug 2008 for soybean aphid control. Leaf retention was assessed on 22 Sep 2008. All assessment and harvest data was collected from the center two rows of each plot. Harvest occurred on 22 Oct 2008 using a research plot harvester.

Planting occurred later than normal due to an abnormally wet spring. The trial was under a sprinkler irrigation system so moisture was adequate throughout the growing season. Temperatures were normal throughout the growing season. Brown spot severity was relatively low throughout the season. There were no differences from the control in brown spot severity 3 weeks after application. However, all Headline treatments had better leaf retention at the end of the season. No yield differences were observed. Headline + Respect produced the highest yield of all the treatments in the trial.

Table 1: Foliar fungicide efficacy on brown spot, leaf retention, and yield in soybeans.

Treatment and Rate/A	Application Timing	Brown spot Severity (%) <sup>z</sup>	Leaf Retention <sup>y</sup>	Yield (bu/A)
Non-treated Control.....	--	17.5	1.5 bc	71.4
Stratego, 10 fl oz + NIS, 0.125% V/V.....	R3	6.5	3.0 ab	69.1
Stratego, 10 fl oz + Proline, 1 fl oz.....	R3	6.5	2.3 abc	67.1
Headline 2 EC, 6 fl oz + NIS, 0.25% V/V...	R3	9.0	3.5 a	71.1
Topguard, 7 fl oz.....	R3	15.0	1.8 abc	69.2
Topguard, 14 fl oz.....	R3	10.0	2.3 abc	70.0
Topguard, 7 fl oz.....	R3, R5	16.3	1.0 c	68.8
Quadris 2 F, 6 fl oz + COC, 1% V/V.....	R3	13.8	2.3 abc	67.7
Headline 2 EC, 6 fl oz + Respect, 3.2 fl oz + NIS, 0.25% V/V.....	R3	11.3	3.5 a	75.3
Evito, 3 fl oz + COC, 1% V/V.....	R3	12.5	2.3 abc	69.6
Evito, 3 fl oz + NIS, 0.25% V/V.....	R3, R5	8.8	3.0 ab	72.7
LSD ( $\alpha=0.10$ )		NS <sup>x</sup>	0.95	NS <sup>x</sup>

<sup>z</sup> Brown spot severity was assessed in the lower half of the soybean canopy. Brown spot was assessed on the same day as the R6 application (3 weeks after R3 application).

<sup>y</sup> Leaf retention was assessed using a 1 (lowest retention) to 5 (highest retention) scale.

<sup>x</sup> NS = no significant differences between treatments.