

SOYBEAN (*Glycine max*, Shillenger 393.ROD,RR)
Soybean rust (*Phakospora pachyrizi*)

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Fungicide Trial for Control of Asian Soybean Rust, 2007.

This test was conducted at the University of Delaware Research and Education Center near Georgetown, DE. The test was conventionally planted Jun 4 at a rate of 150,000 seeds/A in an Ingleside sandy loam soil. Each plot consisted of eight 15 in. rows, 30 ft long. Plots were arranged in a randomized complete block design with six replications. Fungicide applications were made on 7 Aug at R3 growth stage with a CO₂ back pack sprayer, 9 ft boom equipped with Tee-Jet DG 8002-VS nozzles applying 20 gal/A at 52 psi. A foliar health rating was made at late R6 and no differences could be detected visually between treatments. There was some Septoria brown spot present at the time the evaluation was made. A maturity rating was made 27 Sep at R7 to see if any of the fungicide treatments would delay maturity, which has been observed with strobilurin fungicides applied at R3. The harvest stem rating was made 15 Oct prior to harvest and rated the amount of discolored stems and pods caused by anthracnose and Phomopsis pod and stem blight. Soybean rust did not occur in DE in 2007. Thirty feet of the middle six rows of each plot were combine-harvested on 17 Oct and yields adjusted to 13% moisture. Seed samples were collected at harvest to determine if there were any differences in the occurrence and severity of seed diseases, but the seed quality was excellent for all treatments.

The entire season was very dry. The plot area was irrigated as needed to maintain growth and maximize yields. Weather was not favorable for foliar or seed disease development in this test. There were no significant differences in yield. All the strobilurin fungicides (Headline, Quadris, Evito) caused a delay in maturity compared to the control plots. Punch, a triazole fungicide, did not delay maturity. All the fungicides provided significantly better control of stem discoloration compared to the control. No phytotoxicity was observed for any of the treatments.

Treatment and rate/A	% Mature Pods	Harvest stem rating ^a	Yield (bu/A)
Punch 400 EC 4 fl oz	52.5 a ^b	3.2 b	75.6
Punch 400EC 3 fl oz + Headline EC 4.5 fl oz	36.1 b	2.0 a	73.8
Headline EC 6 fl oz + 0.125% NIS	36.1 b	2.2 a	71.8
Quadris SC 6.2 fl oz + 1% COC	32.1 b	3.3 b	73.7
Evito 480SC 5.7 fl oz + 0.25% NIS	36.2 b	2.2 a	74.9
Control	51.7 a	5.8 c	73.6
LSD (<i>P</i> =.05)	12.69	0.53	NS ^c

^a Harvest stem rating. Southern Soybean Disease Workers (0-9) 0= no disease, 9= severely infected

^b Means followed by the same letter are not significantly different (Fisher's Protected LSD, *P*=0.05).

^c NS= not significantly different