

Kansas Soybean Commission
Mid-Year Research Report
Figures and Tables

Table 1. Practical control strategies for soybean diseases.

SDS	Select tolerant varieties; Selected seed treatments
<i>Fusarium</i> diseases*	Plant during conditions that promote rapid seedling development; Plant at the correct depth; Commercial seed treatments.
Charcoal rot	Moisture conservation via lower plant populations, no-till, weed control, irrigation; Plant later-maturing varieties.
Phytophthora root rot	Host resistance** & tolerance; Improved drainage; Seed treatments for the seedling blight phase of the disease.

*Includes seedling diseases & root rots caused by a range of *Fusarium* spp.; **Via *rps1k* & *rps1c* genes.

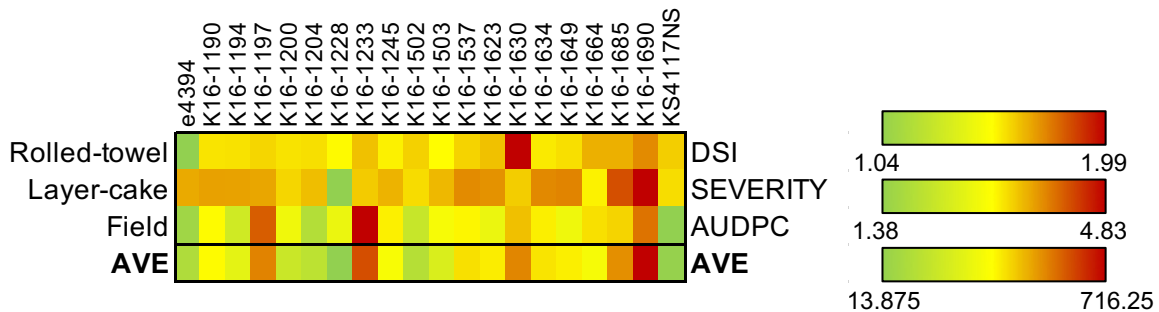


Figure 1. Comparison of pathogenicity assays for SDS for a selected subset of KS entries.

		Azoxy.	Pyracl.	Picoxy.
FP	0001	19.7	0.9	4.4
	0003	13.5	1.1	5.4
	0004	16.6	0.8	12.3
	0059	24.1	1.0	5.5
	0141	21.9	1.2	4.5
	0165	21.1	1.3	44.6
FV	Mont-1	24.1	9.1	8.8

Figure 2. EC50 values for *Fusarium proliferatum* (FP) and *F. virguliforme* (FV) against azoxystrobin, pyraclostrobin, and picoxystrobin.

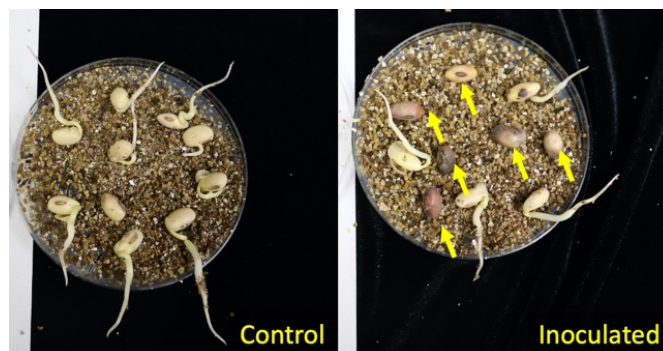


Figure 3. Control (left) and *M. phaseolina*-inoculated (right) seeds of a charcoal rot-susceptible soybean genotype. **Note:** Discolored, ungerminated seed and shorter hypocotyls in the inoculated treatment.