

Project Summary for Iowa Soybean Research Center

Time of disease onset as an early indicator of soybean resistance to SDS

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In recent studies, my research group has found that time of SDS foliar symptom onset, i.e. the time when the first SDS foliar symptoms are observed, is strongly correlated with late season SDS severity and soybean yield. These results were obtained from single soybean genotypes planted in commercial and research fields, but suggest that management practices that delay disease onset should be most effective at protecting soybean yield. I am interested in testing if time of SDS onset can be a useful measure for early screening of soybean genotypes for resistance against SDS. I would monitor SDS progress over time in soybean genotypes with varying levels of resistance and determine the correlation between resistance and time of foliar disease onset. This work could include assessments of root rot progress in plants grown in infested soil or could focus on soybean resistance to *F. virguliforme* toxins if plants are grown fungal culture filtrates.

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