



Frogeye Leaf Spot

Written by: Madeline Henrickson and Dr. Alyssa K. Betts

October 2025

Pest Background

- Caused by the fungus *Cercospora sojina*.
- Occurrence and severity of this disease varies across the region.
- Resistance to Group 11 (QoI) fungicides has been widely documented.

Identification

- Symptoms are not usually visible until after flowering and are first seen in the upper canopy.
- Leaf symptoms include small, irregular to circular lesions with red to brown borders (Fig 1).
- The center of older lesions may become gray to light brown and sporulation may be visible on the underside of the leaf (Fig 2).
- Lesions can coalesce leading to premature defoliation.



Fig 1: Lesions from frogeye leaf spot in soybean. Photo by Dr. Alyssa Betts



Fig 2: Gray sporulation (conidia) on the underside of a soybean leaf. Photo by Dr. Alyssa Betts

Management

- This fungus survives in soybean residue, infected seed, and can spread by airborne spores.
- Varieties with resistance are available.
- Rotation to non-host crops such as corn or small grains can reduce pathogen survival.
- Foliar fungicides can be applied at the R3 to R5 growth stages following the label.
- QoI fungicide resistance has been documented in the region. Using products with two or more active ingredients from multiple fungicide FRAC classes will be more likely to effectively control disease.

References

- Crop Protection Network (2022, Jan 25). Frogeye leaf spot of Soybean. Retrieved from: <https://cropprotectionnetwork.org/encyclopedia/frogeye-leaf-spot-of-soybean> Zhang, G., Allen, T.W., Bond, J.P., Fakhoury, A.M., Dorrance, A.E., Weber, L., Faske, T.R., Giesler, L.J., Hershman, D.E., Kennedy, B.S. and Neves, D.L., 2018. Widespread occurrence of quinone outside inhibitor fungicide-resistant isolates of *Cercospora sojina*, causal agent of frogeye leaf spot of soybean, in the United States. *Plant Health Progress*, 19(4), pp.295- 302.

This information is brought to you by the University of Delaware Cooperative Extension, a service of the UD College of Agriculture and Natural Resources — a land-grant institution. This institution is an equal opportunity provider.