

Managing Cercospora Leaf Blight and Purple Seed Stain

Cercospora leaf blight can result in premature defoliation and infected seeds can have reduced germination and vigor.

What to Consider

Humid or wet conditions and warm temperatures (75 to 80°F) favor the development of *Cercospora* leaf blight.¹ In addition to warm and wet conditions, poor drainage, high plant densities, and poor air circulation also favor the development of *Cercospora* leaf blight. The fungus can overwinter on infected residue and seed.

Symptoms

Symptoms appear around the time of seed set and include dark red, orange, or bronze colored leaves in the upper canopy, which have a leathery appearance (Figure 1). Very small, dark lesions develop on or near major leaf veins and on petioles. Infected seeds will have a purple stain ranging from tiny purplish marks to blotches covering most of the seed (Figure 2).

The potential for the disease to reduce yields ranges from very low to substantial depending on the timing of disease onset, the speed of development, and environmental conditions. Planting infected seed the following year can result in reduced germination, emergence, and vigor.²

Management Options

Fungicide applications can help manage the disease during the growing season and should be based on disease severity and timing. Applications for late-season diseases are generally made between growth stages R3 and R5 (pod development stages).³

Fungicide applications after plants reach full maturity or after the R6 growth stage are generally not recommended. Crop rotation and tillage, which can help reduce disease inoculum, and the use of certified seed are cultural controls that should be considered when developing plans for the next growing season.



Figure 1. Upper leaves of *Cercospora* infected plants turn red, orange, or bronze in color and have a leathery appearance.



Figure 2. *Cercospora* infected seeds can result in purple seed stain.

Sources:

¹ Cercospora leaf blight. 2014. Soybean Research & Information Initiative. North Central Soybean Research Program. <http://www.soybeanresearchinfo.com>.

² Yang, X.B. 2004. Soybean *Cercospora* diseases show up. Integrated Crop Management. IC-492(17). Iowa State University. <http://www.ipm.iastate.edu/ipm/icm/2004/7-26-2004/cercospora.html>.

³ Hershman, D.E. 2009. Cercospora leaf blight in Kentucky. Plant Pathology Fact Sheet. PPFs-AG-S-20. University of Kentucky.

Web sources verified 8/17/2018. 150814104521

Performance may vary, from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields.

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