

INTEGRATED CROP MANAGEMENT

Gray leaf spot development

Gray leaf spot has become more evident during the past 2 weeks, primarily in eastern Iowa. Lower leaves in some fields have numerous well-developed lesions. So far, ear leaves in most hybrid fields are free of disease or have a few small lesions. Current hybrids are generally less susceptible than they were a few years ago. During the past few years, few hybrid fields in Iowa have had gray leaf spot levels that would warrant a fungicide application. Criteria for fungicide applications in hybrids have relied on presilking disease levels. The corn crop is well past silking, but I have not seen any fields that I feel would have met these criteria.

Inbreds, however, have more severe disease and some have been or should have been treated with a fungicide (see the [June 24, 2002, *Integrated Crop Management* newsletter \[1\]](#)). Applications are still possible with the short preharvest interval for Quadris, but the optimal timing is past for most situations. In some inbreds, a late-season outbreak of northern leaf spot or gray leaf spot may warrant an application during late August, but such an application would be unusual.



Severe gray leaf spot on the ear leaf of a susceptible inbred.

[Enlarge \[2\]](#)



Gray leaf spot development on a susceptible hybrid.

[Enlarge \[3\]](#)



Typical gray leaf spot lesions on an inbred.

[Enlarge \[4\]](#)

Disease severity at the dough stage (R4) is the best predictor of yield loss, although losses

are variable, depending on the hybrid and site conditions. If the disease has killed more than 10 percent of the ear leaf by the dough stage, yield loss occurs and a more resistant hybrid is needed the next time corn is planted in the field. Rotation and tillage options also should be considered in that situation. For more information on gray leaf spot management, see Iowa State University Extension publication IPM 49, *Corn Gray Leaf Spot*.

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Source URL:

<http://www.ipm.iastate.edu/ipm/icm//ipm/icm/2002/8-19-2002/grayleafspot.html>

Links:

[1] <http://www.ipm.iastate.edu/ipm/icm/2002/6-24-2002/cornleafdis.html>

[2] http://www.ent.iastate.edu/imagegal/plantpath/corn/grayleafspot/grayleafspot_earleaf.html

[3] <http://www.ent.iastate.edu/imagegal/plantpath/corn/grayleafspot/grayleafspotohybrid.html>

[4] <http://www.ent.iastate.edu/imagegal/plantpath/corn/grayleafspot/grayleafspotinbred.html>

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