

Iris Leaf Spot

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Iris leaf spot (also called *Heterosporium* leaf spot) is the most common disease of iris in Virginia. It is caused by the fungus *Cladosporium iridis* (syn. *Heterosporium iridis*). Leaf spotting is most conspicuous on the upper half of the leaf following bloom. Although this pathogen is most common on bulbous iris, it can also cause severe damage to rhizomatous iris, and has also been reported on *Gladiolus*, *Freesia* and *Narcissus* species.

Symptoms

Symptoms first appear near leaf tips of iris as small, tan spots with water-soaked margins. After bloom, the spots lose their water-soaked margins, enlarge rapidly and become more conspicuous as oval, tan lesions, often with a reddish brown margin and a yellow halo (Fig. 1). As spots enlarge, they coalesce, causing death of the leaf from the tip back (Fig. 2). Spores of the fungus may be visible as a grayish, fuzzy growth in the centers of the spots (Fig. 3). Although the pathogen does not infect bulbs or rhizomes directly, premature leaf loss may weaken the plant over time and reduce bloom.



Fig 1. Oval leaf spots with watersoaked margins, caused by the iris leaf spot pathogen. (Photo by M. A. Hansen)



Fig. 2. Leaf tip dieback and spots with reddish brown margins caused by the fungus *Cladosporium iridis*. (Photo by M. A. Hansen)

Disease Cycle

Cladosporium iridis overwinters on dead iris leaves. Spores spread from old plant debris to young leaves where they cause new infections in the spring. Several generations of spores are produced on lesions as leaves mature. These spores are splashed by rain or irrigation water to healthy leaf tissue during the growing season, causing new infections. Spore germination can occur at a wide temperature range (50-77°C or 10-25°C) with an optimum temperature near 68°C (20°C). Multiple cycles of infection may occur in one growing season.



Fig. 3. Dark spores of the fungus *Cladosporium iridis* developing within a leaf spot on iris. (Photo by E. Bush)

Control

Cultural Control

Because inoculum for spring infections comes from old, infected leaves left from the previous growing season, it is important to remove old leaf debris in the

fall to reduce overwintering of the pathogen. Bagging and removing or burying all old leaves in the fall will frequently provide adequate disease control.

Resistance

Iris germanica, the commonly grown German bearded iris, is more susceptible to iris leaf spot than non-bearded cultivars. Siberian iris (*Iris siberica*) has good resistance to the disease.

Chemical Control

Under conditions favorable for disease, a preventative fungicide spray program may be necessary for adequate control. Application of a registered fungicide should begin when leaves are 4-6 inches high and be repeated at 7-10-day intervals or according to label recommendations. Because iris leaves are waxy, it may be helpful to add a commercial spreader-sticker to the spray tank to aid in wetting the foliage. Refer to the current Virginia Pest Management Guide for Home Grounds and Animals (VCE publication 456-018, <https://pubs.ext.vt.edu/456/456-018/456-018.html>) for details on recommended fungicides and information on the proper use of pesticides.