

'Helminthosporium' Leaf Spot¹

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Pathogen(s): *Bipolaris*, *Drechslera* and *Exserohilum* spp. (previously classified as *Helminthosporium* fungi)

Turfgrasses Affected: All warm-season turfgrasses, but it is usually most serious on bermudagrass. Different species of these fungal pathogens affect different species of turfgrass.

Occurrence: These diseases occur most frequently on bermudagrass and include a group of fungi that are active over a wide range of temperatures. At any given time of the year, at least one species within this fungal group can be isolated. Thus, diseases caused by these fungi can occur at any time of year. However, as a general rule, the leaf spot disease occurs during mild, wet periods in fall through winter. Again, these diseases occur most frequently on bermudagrass.

Symptoms/Signs: Leaf spot symptoms tend to vary with each pathogen/host pair from very small (pinhead size), solid brown to purple colored lesions or spots to expanded lesions with bleached centers that girdle the leaf blade (Figure 1). Severely infected leaves turn purple or reddish brown in color, giving

the turf an overall purple cast. Severely infected leaves will eventually wither and dry to a light tan color. Distinct patches or patterns to the disease are usually not obvious. "Melting-out" occurs under severe infections as turf areas thin and die. Lesions on stolons are dark purple to black.



Figure 1. Example of 'Helminthosporium' Leaf Spot symptoms on bermudagrass. Credits: G. W. Simone

Cultural Controls: Avoid excess nitrogen during potential disease development periods. The nitrogen level must be balanced with potassium; a ratio of 1:2 (N:K) is recommended. In areas that are affected routinely by this disease, increase the

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potassium level before the disease normally occurs. Use slow-release potassium sources or apply quick-release potassium sources more frequently.

Overuse of certain herbicides (MPlateP, 2,4-D and dicamba) has been shown to enhance Helminthosporium disease development on cool-season grasses. Note if there is a correlation between disease outbreaks and the use of certain pesticides. If a correlation is determined, then avoid using that particular pesticide or treat preventively for Helminthosporium disease prior to the use of that pesticide.

Chemical Controls: Azoxystrobin, fludioxonil, mancozeb, myclobutanil, PCNB, propiconazole, trifloxystrobin.

Mancozeb can be applied to a residential lawn only by a professional pesticide applicator. Chlorothalonil and vinclozolin cannot be applied to a residential lawn, but it can be applied to turfgrass in a business or industrial landscape.

Refer to "Turfgrass Disease Management" section of the *Florida Lawn Handbook* for explanation of cultural and chemical controls.