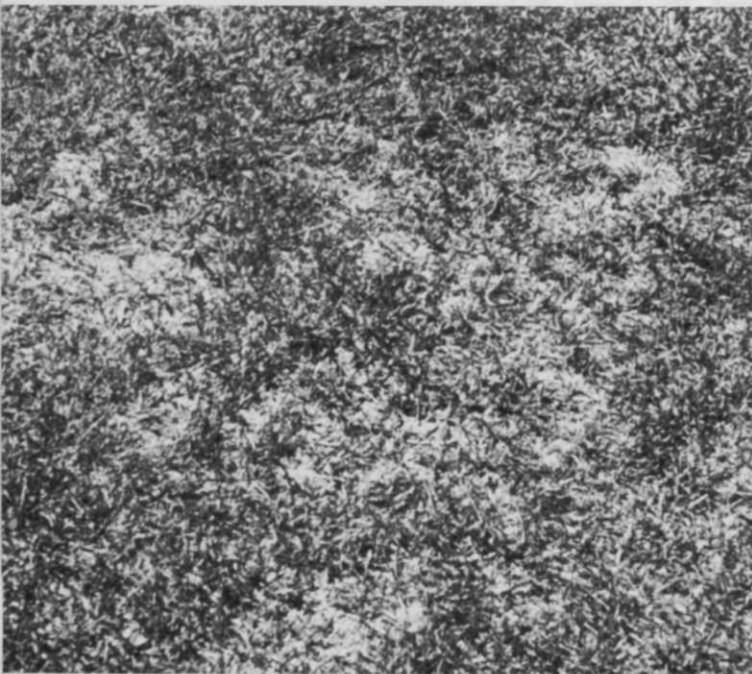


# HELMINTHOSPORIUM DISEASES FEATURED AT CONFERENCE

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Symptoms are in two phases, leaf spot in cool seasons (above) and melting out in warmer weather (below).



*Helminthosporium* leaf, crown, and root diseases are among the most common and serious diseases of all cool season turfgrass species. This disease complex is caused by several species of *Helminthosporium* fungi, including *H. vagans*, *H. sorokinianum*, *H. giganteum* (zonate eyespot), and *H. dictysides* (*Helminthosporium* blight). Generally, *Helminthosporium vagans* causes the most serious damage to cool season turfs such as Kentucky bluegrass, but *H. sorokinianum* (summer leaf spot) can also cause severe problems.

Leaf spot severity is determined principally by the turfgrass species or cultivar grown, length of favorable conditions for disease infection and development, and cultural practices utilized. Leaf spot symptoms are generally considered to be expressed by one of two phases. During cool, moist periods (i.e. spring and fall) the leaf spot stage is most evident. While, later when warmer weather conditions prevail, symptoms are expressed by general thinning or melting-out of the turf. The melting-out phase can appear as large irregularly-shaped patches that look like turf suffering from heat, drought stress or both. It should be pointed out that correct identification of the disease problem is extremely important. Usually leaf spot symptoms, crown and root discoloration, are associated with the melting-out phase. If these symptoms are not present, then the turf manager should carefully examine the site for other potential pests that may cause similar effects on the turf such as billbug, sod webworm, or white grubs.

In January, 1980, a Symposium on "*Helminthosporium* leaf spot" was held in conjunction with the 18th Nebraska Turfgrass Conference. The following papers give a contemporary view of the leaf spot problem in turf by discussing disease development and symptom expression, disease management, and development of resistant cultivars. These papers offer the reader an insight into aspects that enhance and discourage leaf spot development; factors that influence the typical disease symptom expression; cultural practices that enhance or suppress disease infestation; and the difficulties involved in selecting and breeding leaf spot resistant cultivars. Turf managers should realize that resistant cultivars are not readily accessible, but that their development takes a considerable expenditure of time and money.

The reader should also be aware that many aspects discussed in the following papers, regarding leaf spot, are also relevant to other turfgrass disease problems in terms of their development, management and manipulation through cultivar improvement.

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