

Gray Leaf Spot of Turf

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Gray leaf spot can occur in turf in late summer. This NebGuide describes the disease and how to identify and manage it.

Introduction

Gray leaf spot is a disease that usually occurs in late summer during periods of hot and humid weather. The disease affects large areas of perennial ryegrass or tall fescue (*Figure 1*). It is most common in golf course fairways and roughs or athletic fields. It can be especially severe in newly seeded stands of perennial ryegrass or tall fescue. The potential for disease development can be reduced by implementing several cultural practices. Fungicides are also effective in controlling this disease. The following information describes the disease and how to identify and manage it.

Cause, Hosts, and Occurrence

Cause: *Pyricularia grisea* (*Figure 2*)

Primary Hosts: Perennial ryegrass and tall fescue

Occurrence: August-September

Favorable conditions: Extended periods of warm (70-95°F) weather during August; extended periods of leaf wetness (14 hours required to initiate disease development).



Figure 2. Microscopic view of *Pyricularia grisea* conidia. (Photo courtesy of P. Bachi, Bugwood.org)

Key Symptoms

- Rapid dying of taller turf during warm, humid weather in August.
- Presence of twisted leaves that resemble a fish hook.
- Water-soaked lesions on leaf blades.
- Blighted leaves appear matted and greasy.
- Under conditions of moisture or high humidity, leaves will turn gray and be fuzzy with heavy sporulation.
- Can be confused with *Pythium* blight.

Cultural/Maintenance Practices

- Use resistant cultivars.
- Mow turf using the “1/3 rule” to avoid stress and collect clippings when disease is active.
- Avoid late afternoon or nighttime irrigation; water in early morning.
- Avoid stress of any kind that will favor disease development. Do not apply herbicides or growth regulators during warm, humid weather.

Fungicide Program

Fungicides for gray leaf spot management are presented in *Table I*. Product examples are provided for each active ingredient, but not all products are listed. Commercial product labels will have a section that provides a list of active ingredients.



Figure 1. Gray leaf spot on perennial ryegrass. (Photo courtesy of D. Settle, Bugwood.org)

Table I. Fungicides for Control of Gray Leaf Spot in Turf¹

<i>Fungicide</i>	<i>Fungicide Class</i>	<i>Interval (Days)</i>	<i>Efficacy²</i>	<i>Product Names</i>
Azoxystrobin	Strobilurin	14-21	4	Heritage [®]
Chlorothalonil	Chloronitrile	7-10	2+	Daconil Ultrex ^{®3}
Fluoxastrobin	Strobilurin	14-28	L	Disarm [®]
Mancozeb	Dithiocarbamate	14	2	Fore [®]
Mancozeb + chlorothalonil	Dithiocarbamate + Chloronitrile	14	3	Fore [®] Rainshield [®] + Daconil Ultrex [®]
Metconazole	DMI ⁴	14	2	Tourney [®]
Mineral oil	Not Classified	7-21	2	Civitas [™]
Myclobutanil + mancozeb	DMI + dithiocarbamate	14	3	MANhandle [®]
Polyoxin D	Polyoxin	7-14	1	Endorse [®]
Propiconazole	DMI	14	2	Banner [®] Maxx ^{®3}
Propiconazole + chlorothalonil	DMI + chloronitrile	14	3	Banner [®] Maxx [®] + Daconil Ultrex [®]
Pyraclostrobin	Strobilurin	14-28	4	Insignia [®]
Tebuconazole	DMI	28	L	Torque [™]
Thiophanate-methyl	MBC ⁴	7-14	4	Cleary's 3336 ^{®3}
Triadimefon	DMI	14	2	Bayleton [®] 50
Triadimefon + chlorothalonil	DMI + chloronitrile	14	3	Bayleton [®] 50 + Daconil Ultrex [®]
Trifloxystrobin	Strobilurin	14-21	3+	Compass [®]

¹Fungicide active ingredients, class, and efficacy ratings for products labeled for the control of gray leaf spot. Table adapted from P. Vincelli and D.W. Williams, Chemical Control of Turfgrass Diseases 2011, University of Kentucky Cooperative Extension Service.

²Rating system: 4 = consistently good control; 3 = good to excellent control; 2 = fair to good control; 1 = control is inconsistent but performs well in some instances; L = limited published data on effectiveness; + = intermediate between two efficacy categories.

³Other products with the same active ingredient may be available.

⁴DMI fungicides are demethylation inhibitors and are otherwise known as Triazole fungicides. MBC = Methyl Benzimidazole Carbamate.

While the active ingredient may be in combination with others, users should look for a specific active ingredient with or without other chemistry modes of action.

A preventive fungicide program is recommended for new seedlings or overseeded areas of perennial ryegrass in areas with a history of gray leaf spot.

Fungicides listed represent the best information available. Read and follow all product label directions for mixing and application.

This publication has been peer reviewed.

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Reference to commercial products or trade names is made with the understanding that no discrimination is intended of those not mentioned and no endorsement by University of Nebraska–Lincoln Extension is implied for those mentioned.

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