

Leaf Spot and Melting Out of Turf

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Leaf spot and melting out are two different turf diseases with similar symptoms. This NebGuide discusses how to identify and manage these diseases.

Introduction

Leaf spot and melting out are two different turf diseases that have similar symptoms. They both primarily affect Kentucky bluegrass, perennial ryegrass, and tall fescue, and occur in the cooler spring and late summer months. Creeping bentgrass can also be affected but not as often. The disease is most active on stressed or poorly managed turf (*Figures 1 and 2*). The best way to control these diseases is to manage turf properly and to use cultural practices that help prevent their establishment. Fungicides may be used early in the season as a preventive measure. Once the disease has reached the melting out stage, turf may continue to decline after fungicide application but spread will be limited. The following information describes the diseases and how to identify and manage them.

Cause, Hosts, and Occurrence

Causes: *Bipolaris* and *Drechslera* spp. (formerly known as *Helminthosporium* spp.)

Primary Hosts: Kentucky bluegrass, perennial ryegrass, and tall fescue

Occurrence: April-June; September-October



Figure 1. Turf will appear off-color from a distance and thinning will result from leaf spot and/or melting out.



Figure 2. Individual leaf blades with purple/brown lesions from leaf spot (Photo courtesy of B. Bockus, Bugwood.org)

Key Symptoms

- Round to oval leaf spots with buff-colored centers surrounded by a dark margin.
- Yellowing or off-color diffuse pattern of affected turf.
- Symptoms can resemble gray leaf spot on perennial ryegrass.
- Melting out symptoms will appear as a reddish brown rotting of the leaf sheaths and crowns.
- Symptoms on bentgrass greens range from a smoky-gray to reddish cast to yellowing, blighting, and thinning of the turf.

Cultural/Maintenance Practices

- Use resistant cultivars when available.
- Provide sufficient nitrogen to maintain moderate growth rate through the season but avoid excess nitrogen, particularly in early spring. Slow release products are preferred.
- Irrigate to maintain plant vigor and avoid drought stress.
- Irrigate in the early morning to minimize leaf wetness.
- Raise mowing height during July and August.
- Aerify in May and/or September to control thatch buildup.
- Collect clippings when disease is active.

Table I. Fungicides for Control of Leaf Spot and Melting Out¹

<i>Fungicide</i>	<i>Fungicide Class</i>	<i>Interval (days)</i>	<i>Efficacy²</i>	<i>Product Names</i>
Azoxystrobin	Strobilurin	14-21	3+	Heritage [®]
Captan	Phthalimide	7-10	L	Captan
Chlorothalonil	Chloronitrile	7-10	2+	Daconil Ultrex ^{®3}
Copper hydroxide + mancozeb	Inorganic + dithiocarbamate	7-14	L	Junction [™]
Fludioxonil	Phenylpyrrole	14-21	3+	Medallion [®]
Fluoxastrobin	Strobilurin	14-21	L	Disarm [®]
Hydrogen Dioxide		7	L	ZeroTol [®]
Iprodione	Dicarboximide	14-28	4	Chipco [®] 26GT ³
Mancozeb	Dithiocarbamate	7-14	3+	Fore ^{®3}
Mineral Oil	Not Classified	7-21	L	Civitas [™]
Myclobutanil	DMI4	14	1	Eagle [®]
PCNB	AH4	21-28	2	Cleary's PCNB ³
Polyoxin D	Polyoxin	7-14	L	Endorse [®]
Propiconazole	DMI	14	2	Banner [®] Maxx ^{®3}
Pyraclostrobin	Strobilurin	14-28	3	Insignia [®]
Thiophanate-Methyl	MBC ⁴	7-14	2	Cleary's 3336 ^{®3}
Trifloxystrobin	Strobilurin	14-28	2+	Compass [®]
Triticonazole	DMI	14-28	L	Trinity [®]
Vinclozolin	Dicarboximide	14-28	3.5	Curalan ^{®3}

¹Fungicide active ingredients, class, and efficacy ratings for products labeled for the control of leaf spot and melting out. 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. AH = Aromatic Hydrocarbons, MBC = Methyl Benzimidazole Carbamate.

Fungicide Program

On professionally managed turf with a history of leaf spot, a preventive fungicide program from mid-April through early June may be effective. A curative application can be used but should be applied at the early stages of disease development. Once the disease has developed to the melting out stage, a curative application will limit spread of disease but not cure infected plants. Fungicide use on home lawns is rarely recommended for this disease.

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

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

This publication has been peer reviewed.

Disclaimer

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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