

Lawn Disease Identification Guide



Brown Patch

Rhizoctonia solani



Symptoms:

- Patches of blighted turf, tan-to-brown color and up to 3' in diameter.
- Irregularly shaped lesions on foliage, tan with a thin, dark-brown border.
- Mycelium may be present during very wet or humid weather.

Conditions Favoring Disease:

- Occurs on all cool-season turf species.
- Develops when night temperatures are consistently above 60°F combined with extended periods of leaf wetness.
- Poor soil drainage, over-irrigation and over- or under-fertilization may enhance the disease.

Recommended Fungicide:



Additional Options:
Heritage® G fungicide

Dollar Spot

Cool-season grasses — *Clarireedia jacksonii*
Warm-season grasses — *Clarireedia monteithiana*



Symptoms:

- White-to tan-spots or patches from 2-6" in diameter.
- Foliar lesions are white-to-tan with a brown to reddish-brown border, often hourglass shaped and extend the full width of a leaf blade.
- White, fluffy mycelium may be present during very humid conditions.

Conditions Favoring Disease:

- Develops when night temperatures are consistently above 55°F combined with leaf wetness or high humidity.
- Favored by warm days, cool nights and heavy dews.
- Infects areas with low levels of nitrogen.
- More severe in dry soils.

Recommended Fungicide:



Additional Options:
Headway G fungicide

Fairy Ring



Symptoms:

- Initially appears in late spring to summer as rings of darker green or more rapidly growing turf.
- Infested soil may become water-repellent, leading to turf decline during periods of heat or drought.
- Mushrooms or puffballs may form during periods of warm, wet weather.
- Distinct mushroom odor often present in the soil profile.
- Rings expand outward over time and may exceed 10' in diameter.

Conditions Favoring Disease:

- Caused by many different mushroom-forming fungi, which may be encouraged by different conditions.
- Warm, wet conditions from late spring through summer.
- Excessive thatch accumulation.
- Under-fertilized or drought-stressed turf.

Recommended Fungicide:



Additional Options:
Headway® G fungicide
Heritage G fungicide

Summer Patch

Magnaportheopsis poae



Symptoms:

- Appears as spots, rings or patches from 2" to 1.5' in diameter.
- Affected turf initially appears yellow, wilted and/or slowly growing.
- Affected turf eventually turns tan to straw-colored and collapses to the ground, leaving sunken depressions in the turf strand.
- Outer edge of patches may appear bronze to yellow-orange when active infection is occurring.
- Roots, rhizomes and crowns are dark and rotten.

Conditions Favoring Disease:

- Above-ground symptoms appear during times of heat and/or drought stress.
- Excessive thatch accumulation, soil compaction, poor drainage, and soil pH greater than 6.5 enhance the disease.
- Light, frequent irrigation and low mowing heights increase turf susceptibility to summer patch.
- Root infection begins in spring when soil temperatures reach 65°F and continues through summer.

Recommended Fungicide:



Additional Options:
Headway G fungicide

Gray Leaf Spot

Pyricularia grisea



Symptoms:

- Initially appears as tan leaf spots with purple to dark-brown border.
- Leaf spots turn gray and fuzzy when canopy is wet or very humid.
- Leaf spots expand and coalesce to form irregularly shaped lesions followed by blighting of entire leaves.
- Severely affects strands collapse in irregular or widespread patterns.
- Symptoms from a distance may resemble *Pythium* blight or drought stress.

Conditions Favoring Disease:

- Develops when temperatures are greater than 80°F combined with wet or humid conditions.
- In cool-season grasses, outbreaks are most common from mid-summer to early fall.
- On warm-season grasses, outbreaks occur from late spring through fall during hot, humid weather.
- Long periods of leaf wetness favor spore production and infection.
- Newly established turfgrasses are most prone to severe damage.
- High mowing heights and excessive nitrogen fertilization may enhance the disease.

Recommended Fungicide:



Additional Options:
Headway G fungicide

Large Patch

Rhizoctonia solani



Symptoms:

- Rings or patches of blighted turfgrass that measure up to 10' in diameter.
- Color of infected turf varies by turf species but may be tan, yellow or reddish-brown.
- When disease is active, the outer edge of patches may be orange to red.
- Foliar lesions are typically absent, but reddish-brown to gray lesions may be evident on leaf sheaths.

Conditions Favoring Disease:

- Most active in fall and spring when soil temperatures are below 70°F.
- Favored by prolonged periods of wet, overcast weather.
- Poor soil drainage or excessive thatch accumulation may enhance the disease.

Recommended Fungicide:



Additional Options:
Heritage G fungicide
Headway G fungicide

Leaf Spot/Melting-Out

Drechslera spp. and/or *Bipolaris* spp.



Symptoms:

- Purplish-brown to black spots with tan centers on the leaf blade and sheath.
- Lower leaves of infected plants become shriveled and blighted.
- Severely affects strands collapse in irregular or widespread patterns.
- Typically follows the appearance of leaf spots on cool-season turfgrasses.

Conditions Favoring Disease:

- Temperatures between 40°F and 80°F.
- Areas with 10 hours a day of foliar wetness for several consecutive days.
- High amounts of nitrogen and a low mowing height.

Recommended Fungicide:



Additional Options:
Heritage G fungicide
Velista® fungicide

Microdochium Patch (Pink Snow Mold)

Microdochium nivale



Symptoms:

- Yellow, tan, or salmon-colored, water-soaked patches that measure 1" to 8" or more in diameter.
- Pale pink around the edges.
- Spores are produced in white or salmon-colored sporodochia that are found on the dead tissue.
- Blighting can occur in streaks from spores tracking on the equipment wheels.

Conditions Favoring Disease:

- Favors temperatures of less than 60°F.
- More severe where snow has fallen on unfrozen soil or in cold, rainy weather.

Recommended Fungicide:



Additional Options:
Headway G fungicide



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Necrotic Ring Spot

Ophiosphaerella korrae



Photo courtesy of N. Tisserat

Recommended Fungicide:



Additional Options:

Heritage G fungicide

Symptoms:

- First appears as thinned yellow to light-green circular patches that are 3" to 15" in diameter.
- Can expand up to 3' in diameter.
- Eventually turn brown or straw-colored and die.
- Roots and rhizomes of the affected turfgrass turn brown to black.
- "Frog-eye"—a symptom where less susceptible grass species survive inside the diseased patch—can also occur.

Conditions Favoring Disease:

- Initiates in moist soil.
- More severe in higher temperatures (up to 80°F) and drought conditions.
- Seeded sites, as well as sodded sites in newly cleared woodlands, are susceptible.
- Found in areas with compacted soil and that are high in nitrogen during the spring and summer.

Powdery Mildew

Erysiphe graminis



Photo courtesy of Pete Dernoeden, Ph.D.

Recommended Fungicide:



Additional Options:

Headway G fungicide

Symptoms:

- First appears on the leaves as individual tufts of fine, white mycelium.
- The tufts enlarge and coalesce, causing the leaves to have a grayish-white or powdery appearance.
- Severely infected turf turns yellow, then tan and brown in color.
- Stressed turf that is severely infected can die.
- Severely infected turf, especially in shaded areas, can become thinned.

Conditions Favoring Disease:

- Favored by humid, cloudy weather with temperatures between 60°F and 72°F.
- Occurs in areas under stress.
- Low light and high humidity.
- Common in areas with poor air circulation, but does not require a film of water to infect turf.

Pythium Blight

Pythium aphanidermatum, other *Pythium* species



Recommended Fungicide:



Additional Options:

Heritage G fungicide
Subdue Maxx® fungicide

Symptoms:

- Appears suddenly during hot, humid weather.
- Greasy, brown circular spots that are initially about ¾" to 2" in diameter.
- Rapidly enlarges in size.
- Water-soaked and dark-colored early in the morning.
- Forms fluffy white masses of fungal mycelium (cottony blight) and can coalesce to form large, irregular areas of dead turf.
- Infected patches may appear bronzy-orange in color.

Conditions Favoring Disease:

- Found in areas with poor drainage and air circulation as well as in locations that are high in salinity or nitrogen.
- Favors night temperatures of over 68°F.
- Occurs in areas that experience more than 10 hours a day of foliar wetness for several consecutive days.

Red Thread and Pink Patch

Red thread—*Laetisaria fuciformis*
Pink patch—*Limonomyces roseipellis*



Recommended Fungicide:



Additional Options:

Headway G fungicide
Velista fungicide

Symptoms:

- Patches that are reddish-brown in color and 1" to 4" in diameter up to 2'.
- Causes a gelatinous mass of pink mycelium with water-soaked leaves.

Conditions Favoring Disease:

- Temperatures between 40°F to 85°F and in locations that are low in nitrogen.
- Areas that experience more than 10 hours a day of foliar wetness for several consecutive days.
- Pink patch usually develops in the presence of red thread.
- The two diseases often occur under the same conditions and at the same times.

Rusts: Crown, Leaf, Stem and Stripe

Crown—*Puccinia coronata*
Leaf—*Uromyces dactylidis*
Stem (Black)—*Puccinia graminis*
Stripe (Yellow)—*Puccinia striiformis*



Recommended Fungicide:



Additional Options:

Headway G fungicide

Symptoms:

- Light yellow flecks initially on the leaf blades and sheaths.
- Flecks enlarge, elongate and turn yellow.
- Infected areas rise above the epidermis and then rupture, releasing spores that are yellowish-orange to reddish-brown.
- Severe infections can cause shoots to turn yellowish to reddish-brown and slow in growth.
- Turf may appear thin as individual shoots die.

Conditions Favoring Disease:

- Typically occur in early spring through fall, depending on the location of the turf.
- Favors low-light areas.
- Depending on the species, rusts favor temperatures between 65°F and 86°F.
- Severe rust infections occur on slow-growing turfgrass, particularly those with low nitrogen levels and/or plant water stress.

Tips to Help Your Customers

- ✓ Minimize the amount of shade.
- ✓ Improve soil drainage.
- ✓ Use an adequate level of nitrogen, particularly in the spring and early summer.
- ✓ Increase the height of cut and mow at regular intervals.
- ✓ Irrigate turf deeply and as infrequently as possible to avoid drought stress.
- ✓ Apply contact and/or penetrant fungicides on a preventive basis.
- ✓ Reduce thatch by vertical cutting.
- ✓ Core aerify.
- ✓ Lightly fertilize turf in early spring to encourage new growth.

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GROUP 11 AZOXYSTROBIN



- Combines the effectiveness of a spray with the convenience of a granular with a highly water-soluble carrier for quick uptake.
- Offers broad-spectrum control against major turf diseases including spring dead spot, large patch and brown patch.



GROUP 11 AZOXYSTROBIN



- Protects turf from diseases like leaf spot, brown patch, gray leaf spot and more for up to 28 days.
- Can be used with Velista for exceptional summer patch control.



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- Industry standard for *Pythium* control at an economic cost.
- Mixes clear in water and won't settle out in tank or clog filters.
- Leading-edge Maxx formulation technology.



GROUP 7 PENTHIOPYRAD

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- Can be used with Heritage brand fungicides for exceptional summer patch control.
- The water-dispersible granular (WDG) formulation allows for easy mixing and application.