

Lawn Disease Identification Guide

syngenta®



Brown Patch

Rhizoctonia solani



Recommended Fungicide:



Additional Options:
Heritage® G fungicide

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:

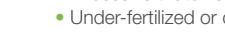
- Occurs on all cool-season turf species.
- Develops when night temperatures are consistently above 60°F combined with extended periods of leaf wetness.
- Poor soil drainage, over-irrigation and over- or under-fertilization may enhance the disease.

Fairy Ring

Pyricularia grisea



Recommended Fungicide:



Additional Options:
Headway® G fungicide
Heritage G fungicide

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.

Gray Leaf Spot

Pyricularia grisea



Recommended Fungicide:



Additional Options:
Headway G fungicide
Velista® fungicide

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.

Leaf Spot/Melting-Out

Drechslera spp. and/or Bipolaris spp.



Recommended Fungicide:



Additional Options:
Heritage G fungicide
Velista® fungicide



Tools to Help You Grow

Like a lawn, your business needs the right tools to grow and thrive. Syngenta can provide free marketing materials to help educate your customers about certain lawn pests and the services you may offer.

Order yours at
GrowWithSyngenta.com



Save More with Multipaks

Multipaks are available all year and offer savings over individual product purchases for broad-spectrum disease control and plant growth regulation.

Learn more at GreenCastOnline.com/TurfMultipaks

Call 1-866-SYNGENTA (796-4368) to contact the Syngenta Customer Center and learn more about these products.

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Dollar Spot

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



Recommended Fungicide:



Additional Options:
Headway G fungicide

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:

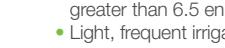
- Develops when night temperatures are consistently above 55°F combined with leaf wetness or high humidity.
- Favored by warm days, cool nights and heavy dews.
- Infects areas with low levels of nitrogen.
- More severe in dry soils.

Summer Patch

Magnaportheopsis poae



Recommended Fungicide:



Additional Options:
Headway G fungicide

Symptoms:

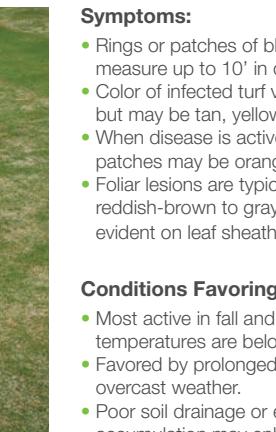
- Appears as spots, rings or patches from 2" to 1.5' in diameter.
- Affected turf initially appears yellow, wilted and/or slowly growing.
- Affected turf eventually turns tan to straw-colored and collapses to the ground, leaving sunken depressions in the turf strand.
- Outer edge of patches may appear 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.

Large Patch

Rhizoctonia solani



Recommended Fungicide:



Additional Options:
Heritage G fungicide
Headway G fungicide

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.

Microdochium Patch (Pink Snow Mold)

Microdochium niveale



Recommended Fungicide:



Additional Options:
Heritage G fungicide
Headway G fungicide

Digital Tools Put You Ahead of Pests

Syngenta offers several digital tools to help you identify target pests and stay ahead of their development.



Dollar Spot Alerts



Soil Temperature Alerts



Growing Degree Day Alerts



Cooling Degree Day Alerts



Turf Growth Alerts



Sign up for alerts at
GreenCastOnline.com/AgronomicAlerts

Necrotic Ring Spot *Ophiostoma korrae*

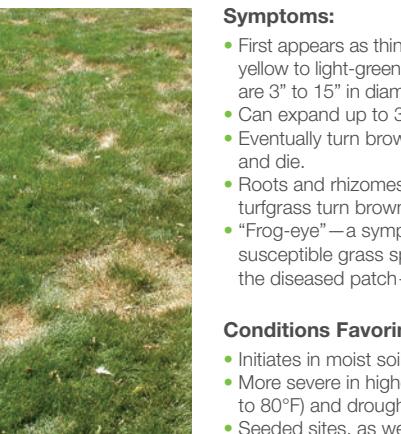


Photo courtesy of N. Tisserat

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 (of 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.

Recommended Fungicide:



Additional Options:
Heritage G fungicide

Powdery Mildew *Erysiphe graminis*



Photo courtesy of Pete Dernoden, Ph.D.

Recommended Fungicide:



Additional Options:
Headway G fungicide
Velista fungicide

Pythium Blight

Pythium aphanidermatum, other *Pythium* species

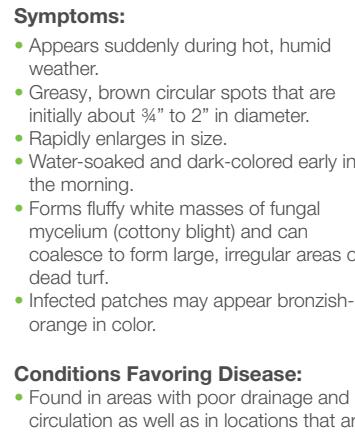


Photo courtesy of N. Tisserat

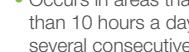
Symptoms:

- Appears suddenly during hot, humid weather.
- Greasy, brown circular spots that are initially about 3/4" 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 bronzish-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.

Recommended Fungicide:



Additional Options:
Heritage G fungicide
Subdue Maxx fungicide

Red Thread and Pink Patch

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

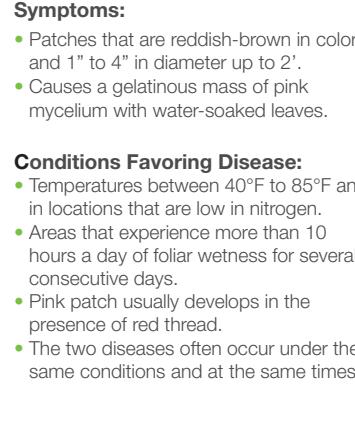


Photo courtesy of Pete Dernoden, Ph.D.

Recommended Fungicide:



Additional Options:
Headway G fungicide
Velista fungicide

Rusts: Crown, Leaf, Stem and Stripe

Crown—*Puccinia coronata*

Leaf—*Uromyces dactylidis*

Stem (Black)—*Puccinia graminis*

Stripe (Yellow)—*Puccinia striiformis*



Photo courtesy of N. Tisserat

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.
- Infected patches may appear bronzish-orange in color.

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.

Recommended Fungicide:



Additional Options:
Headway G fungicide

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.

Also available:

Acelepryn® insecticide
Tenacity® herbicide
Barricade® herbicide
Primo Maxx® plant growth regulator

To learn more visit
GreenCastOnline.com/SmallPacks



Learn more at:
GreenCastOnline.com/LawnBestPractices

Small Packs Solutions

The control you need in the size you want.



Small packaging sizes of select professional lawn products provide the control you need for jobs of all sizes.

- Only order what you need
- Expand your services
- Increase revenue and stay competitive

Featured Product



0.8 oz./1,000 ft.² covers 5,000 ft.²

0.4 oz./1,000 ft.² covers 10,000 ft.²



- Controls more than 25 soil-borne and foliar turf diseases.
- Protects turf from diseases like leaf spot, brown patch, gray leaf spot and more for up to 28 days.
- Systemically moves through the plant to protect new growth.

Also available:

Acelepryn® insecticide
Tenacity® herbicide
Barricade® herbicide
Primo Maxx® plant growth regulator

Syngenta Lawn Fungicide Portfolio



Fungicide

GROUP 3 PROPICONAZOLE
GROUP 11 AZOXYSTROBIN



Fungicide

• 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.



Fungicide

GROUP 11 AZOXYSTROBIN



Fungicide

- 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.



Fungicide

GROUP 4 MEFENOXAM

- 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.



Fungicide

- Broad-spectrum SDHI that protects against brown patch, large patch, fairy ring and spring dead spot.
- Can be used with Heritage brand fungicides for exceptional summer patch control.
- The water-dispersible granular (WDG) formulation allows for easy mixing and application.