

Brown Patch Disease of Lawns

Introduction

The beauty of a lawn can be quickly destroyed by brown patch (*Rhizoctonia* species), a serious fungal disease that can affect all South Carolina lawn grasses. It can develop rapidly when temperatures are warm (75 to 90 °F) and humid, especially on cool-season grasses (fescue, ryegrass, bluegrass and bentgrass). It can also occur on these grasses during warmer periods of the winter months. Warm-season grasses (St. Augustinegrass, zoysiagrass, Bermudagrass and centipedegrass) most commonly are affected by brown patch (also called large patch) during the early spring and late fall.

Symptoms

Symptoms of brown patch may vary greatly with the type of grass and soil conditions. The disease usually causes thinned patches of light brown grass that are roughly circular in shape. These areas range in diameter from a few inches to several feet. Often the center of the patch will recover, resulting in a doughnut-shaped pattern.

When disease conditions are favorable, large areas of the lawn may be uniformly thinned and eventually killed with no circular patch being evident. This type of pattern is commonly seen on infected St. Augustinegrass grown in shady, moist locations.

Close inspection of cool-season grass blades reveals small, irregular, tan leaf spots with dark-brown borders. Bentgrass may not show individual lesions, but leaves will turn brown and shrivel. Infected warm-season grasses rarely have leaf spots but instead have rotted leaf sheaths near the soil surface.

Grasses Commonly Affected

All types of lawn grasses grown in South Carolina can be affected by brown patch. There are no turfgrass species entirely resistant to brown patch currently available. Brown patch is the most common and important disease of tall fescue in the Southeast. In most cases affected areas are able to recover, but tall fescue lawns less than a year old can be completely killed.

Prevention & Treatment

The best way to prevent brown patch in the home lawn is by following good lawn care practices. This is much easier and less expensive than the use of fungicides and can be very effective.

- Avoid high rates of nitrogen fertilizer on cool season grasses in the late spring and summer. Avoid high nitrogen rates on warm season grasses in mid to late fall. The brown patch fungus readily attacks the lush growth of grass which nitrogen promotes.
- Irrigate grass only when needed and to a depth of 4 to 6 inches. Water early in the morning. This disease can spread fast when free moisture is present.
- Avoid spreading the disease to other areas. Remove clippings if the weather is warm and moist to prevent spread to other areas during mowing.
- Keep lawns mowed on a regular basis to the proper height for the grass species you are growing. Prevent excessive thatch buildup.
- Provide good drainage for both surface and subsurface areas

Fungicides can be difficult to rely upon for controlling brown patch in the home lawn but regular applications can vastly improve appearance. A good "rule of thumb" to follow on either cool- or warm-season grasses is to initiate fungicide sprays when night time low temperatures reach 70 °F. Stop applications when night time lows are forecast to be below 70 °F for five consecutive days. Typically,

applications are made at 14-day intervals. If disease is severe enough to warrant chemical control, select one of the following fungicides listed in Table 1. It may help in control to alternate fungicides used with subsequent applications to prevent a buildup of resistance to a fungicide. Slightly better control may be obtained by a liquid fungicide application rather than by granular application.

Table 1. Chemicals for Control of Brown Patch

Fungicides	Examples of Brands	Form of Product
Propiconazole	Ferti-lome Liquid Systemic Fungicide	Concentrate
	Bonide Infuse Fungicide	Wettable Powder
Mancozeb	Green Light Spectrum Mancozeb Fungicide	Wettable Powder
PCNB	Hi Yield Terraclor Granular Fungicide	Granules
Triadimefon	Bonide Fung-onil Lawn Disease Control	Granules
	Greenlight Fung-Away;	Concentrate or Ready-To-Spray
	Hi Yield Lawn Fungicide	Granules
	Bayer Advanced Lawn Fungus Control	Granules
Myclobutanil	Spectracide Immunox	Granules & Concentrate
	Ferti-lome F-Stop Lawn Fungicide	Granules
	Green Light Fung-Away	Granules
Flutolanil*	ProStar	Wettable Powder
Fenarimol*	Rubigan	Concentrate
Azoxystrobin*	Heritage	Wettable Powder
*Due to product cost and for accurate application, homeowners may want to hire a licensed landscaper to apply products containing these fungicides.		

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