

Brown Patch in St. Augustine Grass

What It Is

Brown patch, also known as Large patch, is a fungal disease (*Rhizoctonia solani*) that can infect both cool-season and warm-season grasses in North Texas. Symptoms on St. Augustine include circular or irregular brown patches, typically in the cooler months when evening temperatures are consistently below 68 degrees, daytime temperatures are between 75 and 85 degrees, and wet conditions.

Diagnosis

To help you diagnose if your St. Augustine is suffering from Brown patch disease, look for yellow leaves at the edges of the patches. The leaf sheath will rot, so the leaf blade will separate easily from the runner with a gentle tug (Jo). Send a sample to the Texas Plant Disease Diagnostic Lab for a certain diagnosis using the form found at this link:

<https://plantclinic.tamu.edu/files/2010/10/Plant-Disease-Diagnosis-Form-D-1178.pdf>.

Control & Management

Your St. Augustine may recover from a light brown patch infection as temperatures rise in the late spring or early summer. Extensively damaged areas may need to be resodded in the spring.



Rhizoctonia damping-off, blight and rot (Rhizoctonia solani), Megan Kennelly, Kansas State University, Bugwood.org

The disease develops more in the following conditions:

- Applying fertilizer in late fall
- Poor drainage
- Watering too frequently
- Mowing lower than 2" to 3" high
- Heavy thatch

Prevention is Key

Brown patch is difficult to get rid of so preventing the disease is critical. The first step to preventing brown patch is to eliminate any of the conditions that promote the development of the disease:

- Improve drainage in areas where the soil stays wet. A thin top dressing of compost applied in early spring will help drainage. If the soil is bare, amend it with 3" of expanded shale and turn it in or till it in 6" to 8". Apply 3" of compost on top of that (Welsh). Redirect downspouts and check irrigation system zone settings to avoid overwatering poorly drained areas.
- Aerate the soil to decrease thatch.
- Water only in the morning to allow the leaves to dry during the day. Water only when needed.
- Fertilize with a high nitrogen fertilizer 6 weeks before the first frost, which is typically mid-March in North Texas. Reapply fertilizer 3 weeks after the grass greens up in late spring.
- Set the mower blade height to 2" to 3".

Fungicide effectiveness is limited once symptoms have appeared. It must be applied before or right after the first symptoms appear in October or November. This publication from Texas A&M AgriLife Extension lists fungicides registered for control of brown patch: How to Diagnose and Manage Large Patch Disease in Warm-Season Turfgrass (<https://cdn-ext.agnet.tamu.edu/wp-content/uploads/2018/10/E-633-how-to-diagnose-and-manage-large-patch-disease-in-warm-season-turfgrass.pdf>). As always, carefully read and follow the cautions and instructions on the product label.

Sources & Resources

Jo, Ph.D., Young-Ki. "Brown Patch." plantdiseasehandbook.tamu.edu, Texas AgriLife Extension, Texas Plant Disease Handbook, 31 May 2013, plantdiseasehandbook.tamu.edu/landscaping/lawn-turf/sorted-by-names-of-diseases/brown-patch/.

"D1178 – General Diagnostic Form and Instructions." plantclinic.tamu.edu, Texas AgriLife Extension, Texas Plant Disease Diagnostic Lab, 1 Jun. 2017, plantclinic.tamu.edu/forms/d1178/.

Jo, Ph.D., Young-Ki. "How to Diagnose and Manage Large Patch Disease in Warm-Season Turfgrass." <https://cdn-ext.agnet.tamu.edu/>

Texas A&M AgriLife Extension Service, 1 Feb. 2013, cdn-ext.agnet.tamu.edu/wp-content/uploads/2018/10/E-633-how-to-diagnose-and-manage-large-patch-disease-in-warm-season-turfgrass.pdf.

Welsh, Ph.D., Douglas F. "Expanded Shale - A new Possibility for Amending Clay Soils." aggie-horticulture.tamu.edu/, Tamu.edu, 1 Nov. 2003, aggie-horticulture.tamu.edu/newsletters/hortupdate/hortupdate_archives/2003/nov03/Expdshale.html.