

Gardening Basics

Brown Patch in Zoysia Grass

Brown patch, also known as Large patch, is a fungal disease (*Rhizoctonia* spp.) is the most common and damaging disease of warm and cool-season grasses. Warm-season grasses most commonly affected are centipedegrass, zoysiagrass, and St. Augustinegrass. Bermudagrass is not as severely damaged. Its rapid growth allows Bermuda to recover more quickly. Brown/Large patch is most active in late fall in spring.

The symptoms appear as thin patches of light brown grass in rough circular shapes. Sometimes the center recovers giving the diseased area a donut-shaped appearance.

To help you diagnose if your zoysiagrass is suffering from brown/large 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. For a certain diagnosis send a sample to the Texas Plant Disease Diagnostic Lab using the form found at this link: <https://plantclinic.tamu.edu/files/2010/10/Plant-Disease-Diagnosis-Form-D-1178.pdf>.

Prevention & Control

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

Brown/large 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. Redirect downspouts and check irrigation system zone settings to avoid overwatering poorly drained areas.
- Aerate the soil to decrease thatch.
- Water in the early morning to allow the leaf blades to dry during the day. And, water only when needed.
- Avoid applying high nitrogen fertilizer in mid-to-late fall or early spring before the lawn fully greens up. Have your soil tested and apply fertilizer according to the recommendations. Click this link for step-by-step directions for having a soil test done: <https://dcmga.com/north-texas-gardening/community-gardening/soil-testing/>
- Mow in the morning, after the dew has dried, and set the mower blade height to 2" to 3". Avoid spreading the disease to other areas. In warm, moist weather, remove the clippings and mow the diseased areas last.

Fungicide treatments of warm-season grasses in the fall are especially important for best disease control. The first application should be made in October and repeated 2 to 4 weeks later. Reapply in April. Fungicides with these active ingredients are most effective: Azoxystrobin (with Propiconazole), Pyraclostrobin (with Trifluoromethylpyridinylpyrazole), or Fluoxastrobin.

This publication from Texas A&M AgriLife Extension lists fungicides registered for control of brown/large 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.

Your zoysiagrass 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.

Learn more about brown/large patch at these weblinks:

“How to Diagnose and Manage Large Patch Disease in Warm-Season Turfgrass”, Texas A&M AgriLife, <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>

“Brown Patch Disease of Lawns - Introduction”, Texas A&M AgriLife Extension Education in Bexar County, <https://bexar-tx.tamu.edu/homehort/archives-of-weekly-articles-davids-plant-of-the-week/brown-patch-disease-of-lawns-introduction/>

“Brown Patch & Large Patch Diseases of Lawns”, Clemson Cooperative Extension <https://hgic.clemson.edu/factsheet/brown-patch-large-patch-diseases-of-lawns/>