

The Plant Doctor

Gray Leaf Spot of St. Augustinegrass



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Common during
July to August in St. Augustinegrass; late fall to spring in ryegrasses.

Weather

Warm or hot days with cool nights and prolonged dews.

Turf types affected

Mostly St. Augustinegrass, but also affects ryegrasses.

Quick symptoms

Irregular gray or dirty-yellow spots with brown, purple, or water-soaked borders on leaf blades.

Gray leaf spot of St. Augustinegrass is a disease caused by a fungus that is common during extended periods of hot, humid weather. Newly sprigged, sodded, or rapidly growing grass is more susceptible than well-established grass. Although primarily a disease of St. Augustinegrass, it also attacks centipede grass and many ryegrasses.

The fungus primarily infects leaf blades but may also infest stems and spikes. The infection produces gray or dirty-yellow spots with brown or purple borders. A water-soaked border will be seen during high moisture periods around actively growing spots. The general area around some spots may turn chlorotic (yellow), or much of the leaf blade may have a yellow cast.

The disease is first seen in many areas that stay moist for extended periods, such as deeply shaded areas under trees and along fences on the east side of the property. In these and other heavily infected areas, the grass will take on a scorched or burned appearance from the disease.

The fungus thrives and the disease is most noticeable when air temperatures are 70–85°F, but it can reproduce and increase at cooler temperatures. For spores to germinate and infect the turf, they need 16 hours of free moisture on the leaf surface. Germinated spores penetrate the plant either directly or through the stomates (natural openings in the leaf). Infection occurs about eight hours after spore germination. High humidity and extended free leaf moisture for more than 24 hours are necessary for an epidemic.

The fungus overwinters on infected plants and plant residue and as spores. Wind carries the spores to new infection sites, as do splashed rain, irrigation water, and animals. Too much nitrogen fertilization can worsen disease on certain types of St. Augustinegrass (see Information Sheet 1668 *The Plant Doctor: Plant Disease and Fertilization*). This disease usually doesn't kill an entire lawn.

You can have the disease professionally diagnosed and receive a full report and recommendation for only \$8. (See M1230 *Plant Disease and Nematode Diagnostic Services*.) Collect a four-by-four-inch sample, including two inches of soil and roots, from the edge of the disease area where it fades to the healthy turf. Wrap the sample in dry newspaper, place it in a plastic bag, box it, and send the box to 190 Bost North, Room 9, Mississippi State, MS 39762-9612. Make the check payable to Mississippi State University. Results are usually available within three to seven days of receiving the sample.

Management

- Avoid too much nitrogen fertilization (water-soluble nitrogen) during summer wet periods.
- Water properly so foliage doesn't stay wet for extended periods. You can drag a hose or bamboo switch to knock the water off the plants, shortening the dew period and killing the infection process. See MSU Extension Information Sheet 1670 *The Plant Doctor: Watering and Plant Disease*.
- Repeated application of fungicides will be needed to control this disease effectively during warm, wet periods. Fungicides available for residential use and with the best efficacy for this disease are:
 - Thiophanate-methyl (FRAC group 1), sold as:
 - ◆ Bonide Infuse Lawn & Landscape Granules
 - ◆ Scotts Lawn Fungus Control (granules)
- If you have a large area to protect, or you are worried about burns caused by the other two materials, ask your garden center to order (from BWI or John Deere, for example) a granular formulation of azoxystrobin (Heritage G). Heritage G can be purchased and used by residential owners (it is not a restricted-use fungicide, nor is it only for professional use), although professionals do often use it. Because mainly professionals use this product, it is not generally carried by garden stores and must be ordered. It comes in 30-pound bags, and you should apply 2–4 pounds of the product per 1,000 square feet.

If possible, alternate the use of these two types of fungicides. Use the azoxystrobin when the disease is moving fast.

The information given here is for educational purposes only. References to commercial products, trade names, or suppliers are made with the understanding that no endorsement is implied and that no discrimination against other products or suppliers is intended. Always read and follow current label directions of any pesticide you use.

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