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 centipedegrass and many ryegrasses.

The fungus causes irregular gray or dirty-yellow spots with brown, purple, or water-soaked borders on leaf blades. Spots may be covered with gray mold in warm, humid weather. Lesions also may occur on stems and spikes. A yellow halo or general chlorosis may occur around or near some spots. Usually you notice the disease first in shaded areas that stay moist longer than other areas. (See Extension Information Sheet 1670 *The Plant Doctor: Watering and Plant Disease*.) In areas of heavy disease development, the grass may have a burned or scorched appearance resulting from death or spotting of the leaf blades.

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 $6. (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.

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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.
- Repeated applications of fungicides will probably be needed to control this disease effectively during warm, wet periods. The best fungicide available for homeowners uses the active ingredient myclobutanil. Myclobutanil is used in several fungicides, including Green Light Fung-Away Systemic Lawn Fungicide, Monterey Lawn Fungicide, and many Spectracide Immunox products. Follow the label directions.

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