Algal Leaf Spot of Magnolia and Camellia

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By: Stephen Vann

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Cooperative Extension Service

Diagnosis

This leaf spot can be a common sight on southern magnolia and camellia growing in the southern states during humid, hot weather conditions. Frequent rainfall serves to spread spores of the parasitic algae (*Cephaleuros virescens*) that cause this spot. This disease has also been called "green scurf," based on the overall appearance of this algae growing on plant surfaces. This leaf spot disease is one of the few diseases in which the causal organism is an alga. These algae will also parasitize azalea, aucuba, gardenia, and cotoneaster grown in southern climates. The algal body produces a spore stage that has the ability to swim in a film of water on plant surfaces before settling in and producing additional colonies on the plant. This disease often affects plants with somewhat leathery leaves, such as the southern magnolia, camellia, and gardenia. Even though this algal disease is most often seen on the leaves of several landscape plants, it will occasionally infect twigs also. The algae may survive adverse environmental conditions on spotted leaves and twigs that remain on the plant and on leaves that have fallen to the ground. The survival ability of this algal organism enables the disease to occur year after year.

Symptoms

Growth of the algae is mostly superficial and appears as raised blotches or patches ranging in diameter up to 1/2 inch on leaves. The leaf spot appears initially as a pale green or grayish area that eventually turns an orange-brown to reddish color. Spots develop a velvety, cushion-like appearance on the plant surface. Severe infection may lead to some localized leaf yellowing and premature leaf drop. The disease is most severe and damaging on slow-growing or weakened shrubs and trees. Weakened landscape plants often become susceptible to many other diseases that do not normally attack vigorously growing and healthy plants.

Prescription

For urban landscape plants, good sanitation is a helpful practice. On plants with a low level of infection, merely removing spotted leaves from the plant and raking fallen leaves is useful. Since the algal colonies may survive adverse environmental conditions on fallen leaves, removal of this material will minimize the chances of its reoccurring the next season. Where permitted, burning of infected leaves is effective; otherwise, discard leaves with other landscape trash.

Since frequent rainfall and wet conditions favor disease development, selective pruning of surrounding plants will encourage leaf dryness by improving air movement between and among shrubs and trees. Dry plant surfaces develop fewer disease problems. By promoting plant vigor with appropriate fertilization and irrigation practices, many diseases can be prevented.

Chemical control can be effective by using fungicidal sprays containing copper materials, such as copper hydroxide. Complete coverage of the plant is important. Sprays may be used to protect plant surfaces from infection but will need to be applied with the onset of wet weather. Read and follow

label directions for application. Under some environmental conditions, copper- containing materials may result in plant injury.

BYLINE: Stephen Vann is an associate professor and Extension urban plant pathologist with the University of Arkansas, Cooperative Extension Service.