

Algal Leaf Spot of Magnolia

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Introduction

This foliar disease occurs primarily in the southeastern states where it may be a common sight on southern magnolia (*Magnolia grandiflora*) and common camellia (*Camellia japonica*) growing in humid, warm weather climates (Figure 1). Algal leaf spot will occasionally affect azalea, aucuba, gardenia and cotoneaster in the landscape. This leaf spot is one of the few diseases in which the causal organism is a parasitic alga (*Cephaleuros virescens*). The disease is sometimes referred to as “green scurf” based on the overall appearance of the algae on plant surfaces. Even though this algal disease is most often seen on the leaves of several landscape plants, it will occasionally infect twigs. In Arkansas, it has been observed on twigs (Figure 2) of blackberry (*Rubus* sp).

Symptoms

Growth of the algae is mostly superficial and appears as raised blotches or patches ranging in diameter up to ½ inch on leaves. Leaf spots appear initially as a grayish green, brown or orange-like color (Figure 3). Spots develop a velvety, cushion-like appearance on the plant surface as a result of the algal colony. Plant tissues often shrivel and die beneath the spots. 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 plants.



Figure 1. Algal leaf spot of camellia.



Figure 2. Algal spot on blackberry stems.



Figure 3. Gray-green algal colony on magnolia leaf.

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Disease Cycle

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. Frequent rainfall in conjunction with warm, windy conditions serves to spread the spores of the algae. Colony growth usually begins in the summer and becomes evident in the fall. The algae may survive adverse environmental conditions on infected leaves and twigs. The algal body can also survive on spotted leaves that fall to the ground. The survival ability of the organism enables the disease to occur year after year.

Management

On plants with a low level of infection, merely removing spotted leaves from the plant or raking fallen leaves is useful. Algal colonies may survive adverse environmental conditions on fallen leaves, so

simply raking and destroying these leaves will minimize the chances of it reoccurring the next season. Since frequent rainfall and wet conditions favor disease development, selective pruning of surrounding plants will encourage dry leaves by improving air movement between and among plants. Homeowners should promote maximum plant vigor with appropriate fertilization based on a recent soil test.

Chemical control can be effective by using fungicidal sprays containing copper materials such as copper hydroxide. Some copper-containing materials may cause plant injury if applied improperly. Complete coverage of the plant is essential for maximum effectiveness. Spraying larger trees may not be feasible or cost effective for the homeowner. Always read and follow label directions for proper application. Contact your local county Extension office for additional information about this and other plant diseases.

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