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Azalea Leaf and Flower Gall

Stephen Vann
Assistant Professor - Extension Urban Plant Pathologist

Introduction

Sometimes called leaf and flower gall, this fungus disease can be a troublesome problem for azalea and camellia enthusiasts across the Southeastern United States. This disfiguring disease is caused by the fungus *Exobasidium vaccinii*. Blueberry and rhododendron are also affected by this fungus, but to a lesser degree. A closely related fungus causes the disease on C*amellia sasanqua*. In Arkansas, the disease is usually considered nothing more than a cosmetic disease to these common landscape ornamentals. This disease is seldom seen in sunny and dry landscapes. It can, however, be an alarming disease in the greenhouse under high humidity conditions and in outdoor plantings during wet seasons. Some species and cultivars of azalea are more susceptible than others. The Indica group of azaleas is particularly susceptible to infection.

Symptoms

The most obvious indication of the disease is the development of swollen green fleshy portions (Figure 1) or thickenings of plant tissues. Diseased leaves may be up to four times as wide and long as normal leaves. Leaves often become very thick and succulent. These swellings develop primarily on leaves but can occur occasionally on the flower buds and twigs. Young leaves tend to be more susceptible than older ones. The fungus produces bladder-like swellings or galls that may be of various sizes and shapes. Leaves often become thickened or spongy. The galls often retain their green or pink color depending on the cultivar, but more often become covered with the white growth of the fungus (Figure 2). Older galls become brown and hard with age. Galls often become dry and fall to the ground. The fungus produces thick and spongy leaf tissue on *Camellia* (Figure 3). Lower leaves and shaded portions of the shrub tend to develop more galls. This is due to poor air circulation in these areas.

Figure 1. Young gall tissue on azalea.

Figure 2. Mature leaf galls with white layer on azalea.

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Figure 3. White, spongy leaf swelling on *Camellia* sp.

Disease Cycle

The fungus overwinters as microscopic spores. Spores of the fungus which are produced on the whitish growth on the surface of the galls are deposited on flowers and leaf buds where new infections are initiated the following spring when flower and leaf buds are emerging. Cool, wet weather favors spore release and subsequent disease outbreaks. High humidity and wet leaves provide an ideal environment for infections to occur. Susceptible plants growing in poorly aerated soils are more prone to infection than those growing in well-aerated soil conditions.

Management

Good sanitation practices are very important in disease management. If only a few plants are affected, homeowners should pick off galls or prune affected leaves and twigs from the plant before galls or tissues turn white. This is effective in preventing new infections during the following spring. By pruning shrubs and nearby vegetation, leaf wetness will be reduced by promoting good air circulation and light penetration within the plant canopy. This will reduce the chances of infection and subsequent disease onset.

Since azalea cultivars vary in their susceptibility to leaf and flower gall, homeowners should select resistant cultivars when establishing an azalea planting in the landscape.

Fungicides are seldom necessary to control this disease in the home landscape. For large commercial plantings, fungicide applications in conjunction with cultural practices may be necessary to prevent or reduce disease severity. Fungicides applied after the appearance of the galls have little or no effect in controlling the current disease activity. Fungicide timing is critical for optimum effectiveness. Fungicide choices for leaf and flower gall include those that contain mancozeb, triadimefon or myclobutanil. If fungicides are to be an integral factor in disease management, growers should consider an application just before and then again just after leaf emergence in the spring to protect new plant growth from infection. Always read and follow label instructions for proper application rates and intervals.

A laboratory evaluation by the Plant Health Clinic may be necessary to diagnose leaf gall in the landscape. If you need additional information about this and other azalea diseases, contact your local county Extension office.

DR. STEPHEN VANN is assistant professor - Extension urban plant pathologist, University of Arkansas Division of Agriculture, Little Rock.

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