

Plant Diseases

Azalea Leaf and Flower Gall

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Leaf and flower galls are commonly found on many flowering woody hosts, most often on azalea and camellia. This disease occurs on plants in the Ericaceae or heath family, as well as on some species in the Empetraceae, Lauraceae, Symplocaceae and Theaceae families; including andromeda, arbutus, azalea, blueberry, camellia, huckleberry, Labrador tea, leatherleaf (*Chamaedaphne calyculata*), leucothoe, kalmia (mountain laurel) and rhododendron. Azalea leaf and flower gall, caused by the fungus *Exobasidium vaccinii* can occur on woody ornamentals growing outdoors in landscape plantings and in greenhouses. Disease is more common on plants growing in humid, sheltered areas with little air movement. This allows leaves and flowers to stay wet for long periods of time and favors infection and spread of the disease. After new leaf buds are infected in the spring, leaves and flowers develop fleshy, pale green or whitish galls (swellings) which, while unsightly, usually don't cause severe damage.

Symptoms

Leaf galls are the most common symptom of this disease but galls may form on stems, flowers and seed pods. Frequently only part of a leaf will be infected and form a gall, while the

remainder of the leaf appears normal. The galled part eventually becomes thickened and fleshy or leatherlike.

In early stages of the disease, the galls are pale green, pink or white. Later, during humid weather, the galls are covered with a white, velvety bloom (powdery surface). Then they shrivel, turn brown and become hard.



Figure 1. Leaf galls on azalea leaves.



Disease Cycle

The fungus which causes leaf and flower gall is believed to overwinter as spores (fungal seeds) on bark, in bud scales and in old galls. Infection occurs in the spring as new buds open. Leaves, flowers and stems are infected when the tissue is young and tender. Older, mature leaves are not susceptible to disease infection.

Leaf and flower gall is more severe during moist, cool weather, and on plants growing in heavy shade with poor air circulation and slow drying conditions. Moisture on tender plant tissue favors disease infection.

The galls form after infection. The white bloom which occurs on the surface of galls during humid weather contains spores which are spread by air currents, splashing water or insects. Spores remain on the plant until conditions again favor plant infection, usually the next spring when plant tissues are tender.

Disease Control

Leaf and flower gall is relatively harmless to landscape plants, except for the unsightly nature of the galls. Non-chemical control methods are usually sufficient for control of this

disease. This includes purchasing high quality plants from reputable sources. Inspect plants to be sure they don't have galls on them. If galls are present on a few already established plants, remove galls by picking them off and destroy them as soon as they are seen. Galls left on the plants or on the ground near the plants may serve as a source of infection next year. Ensure good air circulation around and within the plants so the foliage dries rapidly. Plant new beds with adequate spacing between plants so the landscape area will not become crowded as the shrubs mature. Existing thick plantings may require pruning or removal of some plants to allow good air circulation.

It is not usually necessary to use fungicides to control leaf and flower gall. If the disease becomes severe or if the planting is extremely valuable, a fungicide may be used along with the non-chemical methods of control. Dithane or Fore fungicide should be applied beginning at bud break in the spring, and repeating sprays at 7 - 14 day intervals thereafter until the tissue has matured. Once galls become visible, fungicide treatments should be delayed until the following spring.

Precautionary Statement

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store, or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label.

Disclaimer Statement

Pesticides recommended in this publication were registered for the prescribed uses when printed. Pesticide registrations are continuously being reviewed. Should registration of a recommended pesticide be cancelled, it would no longer be recommended by The University of Tennessee. Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others which may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product.

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