



Arkansas Plant Health Clinic Newsletter

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Camellia

Camellia Leaf Gall, caused by the fungus *Exobasidium camelliae*, attacks newly emerging shoots and leaves in the spring. Although Leaf Galls occur more commonly on sasanqua varieties of Camellia, the disease can also appear on *Camellia japonica*. Leaves become enlarged, abnormally thickened, and fleshy. The tissue turns from green to white to pink. Eventually the galls rupture on the undersides of the leaves, revealing a grayish white spore mass. Eventually the galls become brown and hard. This is not a difficult disease to control. Remove and destroy young galls before the lower leaf surfaces turn white. Rake up and remove fallen leaves. Avoid overhead watering. Humid, moist, shady conditions in the spring favor gall formation. Chemical controls must be applied before infection occurs. Start sprays at budbreak and continue through the first of June at 7- to 14-day intervals. Homeowners may use Spectracide Immunox; or Ferti-Lome Liquid Systemic Fungicide; or Ortho Max Garden Disease Control; or Ferti-Lome Liquid Fungicide; or Garden Tech Daconil Fungicide Conc.; or Green Light Fung-Away Fungicide; or Bonide Fung-onil Multipurpose Fungicide; or Green Light Systemic Fungicide; or Ferti-Lome

Halt Systemic; or Ortho Rose Pride Rose & Shrub Disease Control; or Bio Advanced Garden-Disease Control for Roses, Flowers, and Shrubs. Once new growth hardens, it is no longer susceptible.

Camellia Leaf Gall-*Exobasidium camelliae*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Camellia Leaf Gall (ruptured epidermis)-*Exobasidium camelliae*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

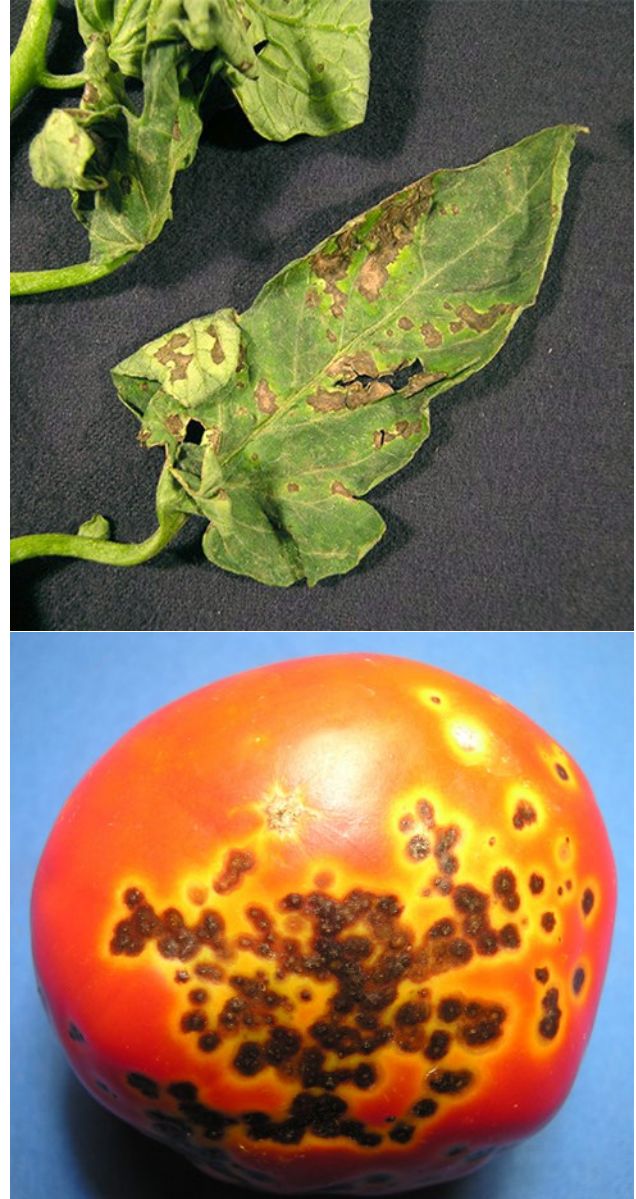
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Tomato

We are barely into tomato growing season and are already receiving samples with problems. Bacterial diseases of tomato and pepper are found wherever these crops are grown. Tomato Bacterial Spot is caused by various xanthomonad bacteria. All of them were once called *Xanthomonas campestris* pv. *vesicatoria* and divided into four groups (A, B, C, and D), but now they have been taxonomically reclassified into four different species: *X. euvesicatoria*, *X. vesicatoria*, *X. perforans*, and *X. gardneri*. *Xanthomonas vesicatoria* is the one that also affects peppers. Lesions are generally brown and circular on the leaves, stems, and fruit spurs. The spots are water soaked during wet or rainy periods. During dry periods, the center of the lesions on leaves may fall out, giving a tattered appearance. Fruit lesions begin as tiny, raised blisters. They reach 1/4 inch (6 mm) in diameter as they age, becoming brown and scab-like. A developing lesion may have a faint to prominent halo that eventually disappears. The pathogen survives in seed, crop debris, and volunteers. Control measures consist of crop rotation, using clean transplants, seed treatments, elimination of cull piles near production areas, and the timely application of bactericides when necessary. Strict attention to sanitation in greenhouse settings is critical. Kocide is labeled for bacterial diseases on tomatoes in Arkansas.

Tomato Bacterial Spot - *Xanthomonas vesicatoria*



Photos by Sherrie Smith, University of Arkansas Cooperative Extension



Pepper Bacterial Spot - *Xanthomonas vesicatoria*



Photo by Sherrie Smith, University of Arkansas
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Azalea

Scales are sucking insects that insert a needle-like mouthpart into plant tissue and remove plant juices. Heavy infestations can cause stunting, reduced vigor, and sometimes dieback of plants. The most common scale insect found on Azalea is the Azalea Bark Scale, *Eriococcus azaleae*. Adult female bark scales have red bodies covered with whitish waxy threads that give the insect a wooly or felted appearance. The eggs are red and hidden beneath the female's body. Mature females are immobile and are often found feeding in the forks of branches and twigs. Immature scales are called crawlers and are mobile for a while. As the insects feed on the contents of plant cells, they excrete a sugary substance called honeydew. This coats leaves and branches. Sooty mold

fungi take advantage of the plentiful food source and grow on the honeydew, causing the tissue to become covered with black mold. Below are recommendations from the University of Arkansas Cooperative Extension publication FSA-7086 about Bark Scale.

[The University of Arkansas Extension PDF Article about Bark Scale:](https://www.uaex.uada.edu/publications/PDF/rsa-7086.pdf)

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- For heavily infested plants, wash the trunk and reachable limbs with a soft brush and mild solution of dishwashing soap. This will remove many of the female scales and egg masses and make insecticide control more effective. Also, washing will remove much of the black mold that builds up on the bark on infested trees. Horticultural oil has not yet been shown to be effective against this insect; however, a winter application of dormant oil to the bark and crotches of the plants where scales shelter may be beneficial. Be sure to use sufficient volume to allow for penetration behind loose bark and into cracks and crevices. Winter is an especially good time to treat for scales because a higher (winter) application rate can be used without damaging the plant. Thorough coverage of the tree is especially important when treating with oil.

- Application of systemic neonicotinoid insecticides as a drench applied to the root zone has shown the most promise in tests to date. Imidacloprid (Merit® or Bio Advanced™ Garden Tree and Shrub Insect Control), thiamethoxam (Meridian®), and dinotefuran



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(Greenlight Tree and Shrub Insect Control with Safari) have shown best control when applied between May and July. When drenching the soil with a systemic insecticide, allow several weeks for the product to be distributed throughout the plant. Acetamiprid and clothianidin, which are neonicotinoids too, have also demonstrated good control.

Azalea Bark Scale-*Eriococcus azaleae*



Photo by Clyde Fenton, University of Arkansas Cooperative Extension

Azalea Bark Scale with egg mass-*Eriococcus azaleae*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

This bulletin from the Cooperative Extension Plant Health Clinic (Plant Disease Clinic) is an electronic update about diseases and other problems observed in our lab each month. Input from everybody interested in plants is welcome and appreciated.

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