

Friday's Feature

By

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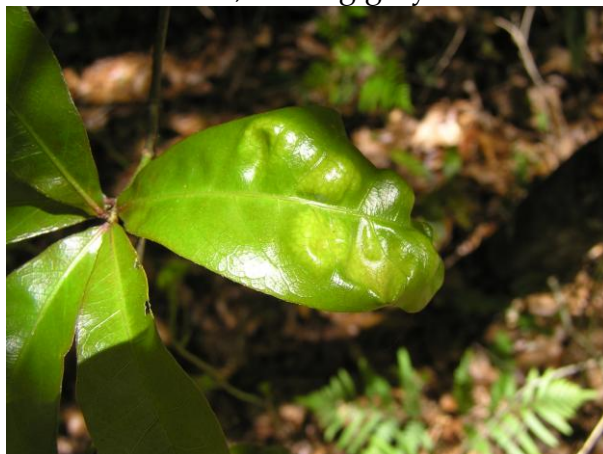
May 5, 2009

### Spotlight on leaf spot diseases

Plant diseases can significantly affect the aesthetic quality of many plants in the landscape. Interestingly, the weather greatly influences disease development on plants. When environmental factors favor the host plant, disease is unlikely. When environmental factors favor the pathogen, diseases are more likely to occur. High moisture and wind are two factors that favor the spread of plant pathogens and the incidents of diseases.

Foliar diseases were almost nonexistent during 2007 in the Florida Panhandle, because of the drought. But, the rainy spring of 2009 has increased the occurrence of several foliar diseases including oak leaf blister and Entomosporium leaf spot on Indian hawthorn. While these diseases are common problems, they appear to be wide spread this year.

Oak leaf blister is a common leaf disease among oaks in Florida and is caused by a fungus. Although infected trees may have unsightly leaves, serious damage is uncommon. The fungus which causes leaf blister attacks only the leaves, and does no damage to other parts of the tree. Spores of the pathogen infect young oak leaves. As the pathogen develops within the leaf, it causes a disruption of normal development of the leaf cells. The infected tissues appear swollen and lighter in color. Severe infections can cause the leaf to curl or twist. Over time the infected tissues die, leaving gray-brown areas scattered within the given leaf.



Leaf blisters first appear on the underside of leaves as small, slightly depressed gray areas. Over time the infection causes the leaf to become deformed, forming a blister. The blisters can grow to be 1/3 inch or larger

and can be seen on both sides of the leaf. There may be several blisters on a leaf. If blisters occur near the edge, leaf curl may result. Oak leaf blister is not usually noticed until many leaves have become heavily blistered or excessive leaf fall occurs. Any oak can be infected; however, live oak, water oak, and laurel oak are the preferred hosts.

Because oak leaf blister does not seriously affect the overall health of the tree, chemical control measures are usually not recommended. Just be sure to collect and dispose of the leaves as they drop to reduce the chance of the disease the following spring.

Entomosporium leaf spot is a common fungal disease on Indian hawthorn. Dark leaf spots with purple borders occur, causing distortion of new growth. The centers of older spots are often grey and may disintegrate. Infected leaves may drop from the plant.



New growth flushes are most susceptible. The optimum temperature for disease development is between 59 and 77 degrees F. Nine to 12 hours of leaf wetness or high humidity is required for new infections to develop.

To reduce the severity of the disease, avoid overhead irrigation, especially in the evening or night. Avoid tight plant spacing, which limits air circulation. Maintain a low fertility level to reduce new growth and pick up and dispose of infected leaves.

Fungicides may be necessary for disease management, rotating systemic and protectant type fungicides. Some recommended fungicides include chlorothalonil (Ortho® Max™ Garden Disease Control), myclobutanil (Spectricide® Immunox Multi-Purpose Fungicide) and thiophanate-methyl (Green Light Systemic Fungicide).

The best thing to do is avoid the problem by planting resistant cultivars. Resistant cultivars include: Olivia, Indian Princess, Janice, Eleanor Tabor and Dwarf Yedda. Moderately resistant cultivars include: Jack Evans, Snow White, Majestic Beauty, Rosalinda, Clara and Bay Breeze. Since it is often difficult to distinguish between cultivars, make sure you buy them from a reputable dealer that labels all cultivars clearly.

Theresa Friday is the Residential Horticulture Extension Agent for Santa Rosa County. The use of trade names, if used in this article, is solely for the purpose of providing specific information. It is not a guarantee, warranty, or endorsement of the product name(s) and does not signify that they are approved to the exclusion of others.

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