



TEXAS A&M FOREST SERVICE

What's Wrong With My Tree?

My leaves have spots on them!

Many things can cause spots or discoloration on the leaves of your tree. Some are no threat at all while others may be symptoms of a more serious problem. The majority of leaf spots are caused by fungi, others are caused by bacteria. Leaf spots on trees are very common and generally do not require spraying. Leaf spot diseases may result in some defoliation of a plant. An established plant can tolerate almost complete defoliation if it happens late in the season or in occasional, non-consecutive years.

Tubakia (Actinopelte) leaf spot

Tubakia leaf spot, formerly known as Actinopelte leaf spot, is a common late-season leaf disease of oaks. All species of oak appear to be susceptible to the disease, but oaks in the red oak group (such as Shumard and Texas red oak) appear to be most susceptible. People often confuse symptoms of Tubakia leaf spot with those of oak anthracnose. However anthracnose tends to develop earlier, in the cooler part of the growing season, while Tubakia leaf spot tends to develop later, during the warmer summer months. In most cases Tubakia leaf spot is a cosmetic disease. The disease will make a tree look a little ragged, but will not kill the tree.



Tubakia (Actinopelte) leaf spot



Anthracnose

Anthracnose

Anthracnose generally infects the leaf veins and causes death of the vein and surrounding tissue. The disease does not cause the death of the host but may reduce growth over successive seasons of complete defoliation. Affected plants may have the appearance of being sun-scorched. Sunken cankers containing fungal spores develop on infected twigs of some trees, such as sycamore. Sanitation and pruning infected branches are possible treatment strategies as are fungicide applications. Fungicides must be applied before spotting occurs.

References and photo credit: Missouri Botanic Gardens, Cornell University, Wisconsin Cooperative Extension Service, Colorado State University Extension

Bacterial Leaf Scorch

Bacterial leaf scorch (BLS) is a systemic disease caused by the bacterium *Xylella fastidiosa*, which invades the xylem (water and nutrient conducting tissues) of susceptible trees. It can affect elm, oak, sycamore, mulberry, sweetgum, and other tree species. Xylem-feeding leafhoppers and spittlebugs spread the bacterium from tree to tree. Transmission between trees through root grafts has also been reported. There is no cure for this disease; it is chronic and potentially fatal. The first noticeable symptom is premature browning of leaves in mid-summer. Symptoms worsen throughout late summer and fall. Leaf margins turn brown, beginning with the older leaves and moving outward, spreading to leaves toward the branch tip. In most, but not all infected trees, browned, dead areas of the leaf are separated from green tissue by a narrow yellow border.



Bacterial Leaf Scorch



Fire Blight

Fire Blight

Fire blight is a bacterial disease that can kill branches and entire plants especially those in the rose family. Symptoms include dead branches, water-soaked blossoms, light brown to blackened leaves, discolored bark, black "shepherd's crook" twigs, and dried fruits. Fire blight bacteria can be spread by insects, splashing rain or contaminated pruning tools. Management includes planting resistant varieties, sanitation, pruning and preventive chemical sprays.

Powdery Mildew

Powdery mildew is caused by a fungus and appears as a light gray powdery substance on the leaf surface. The disease is considered more unsightly than harmful. Death of the plant is very uncommon. As the disease progresses, leaves may be dwarfed, curl, turn yellow, and drop off. Flowers may be deformed. Fruit crops may be reduced, with the fruit misshapen and covered with powdery patches. Sanitation and pruning infected branches are possible treatment strategies as are fungicide applications. There are also some resistant plant varieties which could be planted.



Powdery Mildew

Herbicide Damage

Herbicide damage can be very hard to diagnose because symptoms often varied. Lab tests of plant tissue and/or soil while the chemical is still present can be done but are expensive. A pattern of damage in the landscape may be your best clue. Generally you will see damage on multiple species of plants. General symptoms can include curling or cupped leaves, stunted growth, discolored leaves, or leaves with dead spots. The same herbicide may cause different symptoms on different plant species.



Herbicide damage