

Garden Bad Guys – Anthracnose

By Nanette Londeree

It's not quite spring, though before you know it, trees and shrubs will be busting out all over with fresh, new life. It's one of the most exciting times of the year for the gardener – seeing all that lush new growth.....unless you start seeing spots.....unwanted spots. If you come across small tan, brown, black, or tarlike spots on the new leaves of elm, oak or sycamore, red, sometimes brown to purple spots on the leaves of roses, black-red sunken cankers or spots developing on infected bean pods, reddish brown to brown lesions that turn a pale tan color on Kentucky bluegrass or similar symptoms on a very wide variety of plants, you may have found anthracnose.

This disease, with pseudonyms like bud, leaf, shoot or twig blight, Purple Spotting, Spot Anthracnose or Shot-Hole fungus, foliar blight and a host of other descriptive names, is a result of infection from a broad group of fungi including *Apiognomonia*, *Colletotrichum*, *Cryptocline*, *Discula*, *Gloeosporium*, *Glomerella*, *Gnomonia*, *Marssonina*, *Mycosphaerella*, *Sphaceloma* and *Stegophora* species. It infects a wide range of plants – trees, shrubs, vegetables, fruit and vine crops, and turf grasses.



Symptoms of the disease vary with the type of plant, time of year and weather conditions. In addition to spots, you may observe irregular dead leaf areas on species of ash trees, lesions along major leaf veins in sycamore trees, or coalescing lesions across or between leaf veins, on leaf margins, and most often at leaf tips on avocado. Some trees produce cankers on twigs, branches and the trunk that result in girdling and dieback.



The specific symptoms depend on the host plant. In general, new growth is affected. If leaves are very young when infected, they may become curled and distorted with only a portion of each leaf dying. Twigs and branches also may be attacked and killed, resulting in a tree with crooked branches. Mature leaves on many host plants are resistant to infection, but can fall prey to the disease when conditions are favorable. Heavily infected leaves on trees fall prematurely throughout the growing season, and sometimes trees are completely defoliated. Serious harm to trees and shrubs most often results from either extensive or repeated infections.

Like many fungal diseases, the reproductive portion, the spores, are spread by air currents, splashing water from rain, sprinklers or walking through wet plants, to the newly expanding leaves and stems where they germinate. In our mild climate, the disease is more prevalent during cool moist spring conditions when deciduous plants are leafing out, or succulent new growth is present. Some evergreen trees such as Chinese elm (*Ulmus parvifolia*), can be infected year-round. On some turf grasses, it appears when the plants are under heat and drought stress.

The first step in effective management of this disease is to plant resistant varieties.

Space plants to maximize sunlight and air circulation – it helps dry foliage faster. Next, good general garden sanitation is important, as the fungus over winters in old lesions on leaves and in infected twigs. Prune away affected parts, preferably in fall and winter and dispose of them in the trash; don't add them to the compost pile. The use of any type of fungicide to reduce infection is dependent on the host plant, so investigation to determine the appropriate product, timing and method of application would be required. Complete coverage of very large, tall trees is difficult to achieve; spraying is not very efficient and may not be justified or feasible.

Photos of anthracnose lesions (top) and spots (bottom) courtesy of UC IPM website