

Anthracnose Diseases of Common Landscape Trees

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Introduction

Anthracnose diseases of common landscape trees are caused by a specialized group of fungi including *Colletotrichum* sp., *Kabatiella* sp., *Elsinoe* and *Apiognomonina* sp.

Flowering dogwood, American sycamore, green ash and various maples are the most common landscape trees that fall victim to infection by one of the anthracnose fungi (Figures 1 and 2). The severity of infection and leaf losses depend on favorable temperature and moisture in the area.

Damage

Anthracnose diseases on most shade and forest trees usually affect the aboveground portions of the plant, primarily stems and/or leaves. After the fungus gains entry into the leaves or stems, death of the surrounding tissue often develops quickly. If relative humidity or moisture is high, then twig dieback, blight, cankers and defoliation often result. Thus,

anthracnose diseases are most devastating during the spring when rainfall is common and temperatures are cool (60° to 65° F). Long periods of cloudy or overcast skies greatly increase these diseases.

Disease Cycle

The anthracnose fungi typically overwinter on infected twigs and leaves. Dead leaves, which are not shed from the tree during the fall, can also be important sources of infection during the following season. Spores of the anthracnose fungi are produced in a specialized fruiting body called an acervulus. These spores are often responsible for disease spread during the spring and early summer and are usually spread by wind and water.

Management

Selective pruning is one of the most effective tools in reducing the anthracnose diseases. Twigs exhibiting symptoms of dieback should be pruned and destroyed. Pruning is most effective when done during the

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Figure 1. Foliar symptoms of anthracnose on American sycamore



Figure 2. Anthracnose leaf lesions on maple

dormant season, when the fungal organisms are least active. Pruning cuts should be made 4 to 6 inches below the area where dead and living tissues meet on the stems or twigs. The dead wood (canker) is important to the survival of the fungus from one season to the next. Since the anthracnose fungi may survive on dead leaf tissue, leaves should be raked and burned or hauled away, if burning is not allowed.

Trees and shrubs considered to be “high value” specimens can be sprayed with a fungicide. The best time to apply a protectant-type fungicide is in the spring, just before buds break. Multiple applications will usually be required if the tree is to remain relatively disease free. Complete coverage and timing of applications is important for chemical control to be effective. Waiting until after leaf emergence may be too late to protect the leaves during the season. Fungicides containing the active ingredients chlorothalonil, thiophanate-methyl or propiconazole are effective against the group of anthracnose fungi on many landscape trees. Spraying taller trees may

not be feasible for homeowners, so a professional applicator may be considered. Read and follow label directions for fungicides when considering their use.

Landscape trees and shrubs should be watered and fertilized properly, based on a recent soil test, to maximize vigor. In many instances, a stressed plant is often more susceptible to anthracnose and other diseases. Promoting good plant growth is an integral part of disease management. Contact your local county Extension office for information about collecting and submitting a soil sample for analysis.

The key to effectively managing anthracnose diseases on landscape trees is early detection and identification. The Plant Health Clinic at Fayetteville offers timely and accurate disease diagnosis on a wide variety of row crop and horticultural plants. Correct disease identification is the single most important first step in designing an effective control program. Early and accurate disease diagnosis helps make timely and effective control measures a reality.