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Sherrie Smith

SPDN
Southern Plant Diagnostic Network
Issue 21-July 20, 2015

Arkansas Plant Health Clinic Newsletter

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Oak

Although Tubakia Leaf Spot of oak, caused by *Tubakia dryina* (formerly *Actinopelte dryina*) and other *Tubakia* spp., is often confused with oak anthracnose, it is not usually as destructive a disease. Anthracnose symptoms begin in the spring. Symptoms of Tubakia become noticeable during mid-to-late summer. Small to large tan to reddish-brown round spots develop on the leaves. The small black fruiting bodies of the fungus can be seen with a hand lens. When the lesions develop on the veins, collapse of the leaf tissue occurs beyond the point of the vein necrosis. Severe infections can cause complete defoliation, although this is unusual. Fortunately, this usually occurs so late in the season that tree health is little affected. Rake up fallen leaves and dispose of them. Fungicide applications are not normally recommended. Trees that suffer from stress are more susceptible.

Oak Leaf Spot-*Tubakia dryina*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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Oak Leaf Spot-*Tubakia dryina*

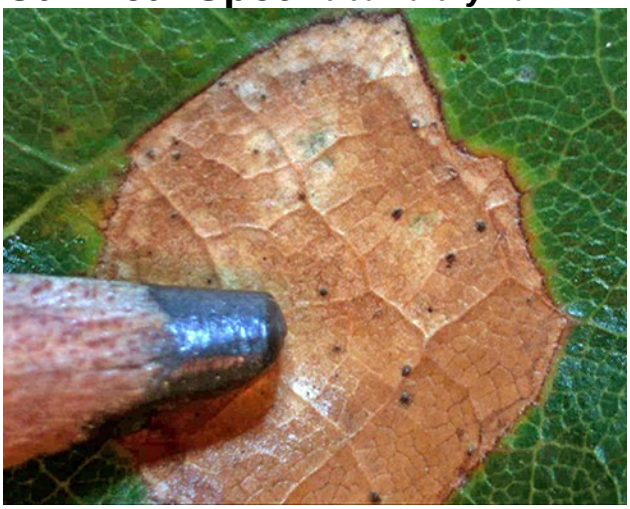

Photo by Ricky Corder, University of Arkansas Cooperative Extension

Oak Leaf Spot spore-*Tubakia dryina*

Photo by Ricky Corder, University of Arkansas Cooperative Extension

Dogwood

Dogwood Anthracnose, caused by the fungus *Discula destructiva*, is a different disease than Dogwood spot anthracnose, caused by the fungus *Elsinoe corni* discussed in a previous newsletter. Dogwood Anthracnose is favored by cool, wet spring and fall weather but can occur throughout the growing season. Symptoms begin in the lower crown and progress up the tree. Leaf lesions start as tan spots with purple rims but can rapidly enlarge to large leaf blotches. Leaves that are completely blighted don't fall off during autumn. The fruiting bodies of the fungus may be observed with a hand lens on the underside of infected leaves. Infections progress through petioles into shoots and the dead petioles may form a crook that resembles fire blight. Cankers develop, usually at leaf scar sites, girdling and killing the shoot. Cankers occurring on the trunk can eventually kill the tree. Water sprouts often form on the trunk and branches where twig and branch cankers are located. These water sprouts are extremely vulnerable to infection. In certain situations, it only takes 2 or 3 years for a badly infected tree to be killed. Fortunately, good management practices can control Dogwood Anthracnose in the landscape, but these practices must be consistently followed to protect trees for the long term since native dogwoods and neighboring trees can be sources of infection. Control measures are multi-pronged. Carefully prune out all diseased, dying, and dead twigs and limbs. Spray all plants at bud break in the spring with a systemic foliar fungicide labeled to control Dogwood Anthracnose. Examples

include fungicides containing propiconazole (Banner Maxx) or tebuconazole (Bayer Advanced Disease Control products). Good coverage of the entire tree with the spray is very important.

About two weeks after the systemic spray, apply a protectant fungicide labeled to control Dogwood Anthracnose containing chlorothalonil (Daconil products), thiophanate-methyl (Cleary's 3336), or a product containing both (Spectro 90 WDG). Again, complete coverage of the entire tree is essential. While commercial landscape companies have power sprayers that can effectively spray trees, most dogwoods are small enough to allow the use of trombone tree sprayers for homeowner use. An example is the Trombone® Model 61224 sprayer by Hudson Sprayer Company.

In addition to pruning and fungicides, avoid overhead irrigation if possible. If overhead irrigation must be used, water early in the morning so that the tree can dry out before night. It is very important that dogwoods be watered well during our hot summers to prevent drought stress which may further encourage the disease.

Since we do not currently know how widespread or damaging the disease is in the state, suspect samples should be collected and given to the local Cooperative Extension Service office for submission to the Plant Health Clinic for diagnosis.

Resistant varieties and types of dogwoods are available and should be considered for new plantings or to replace diseased trees. The Appalachian Spring series and most Kousa dogwoods are resistant.

Dogwood Anthracnose-*Discula destructiva*

Photo by Jim Robbins, University of Arkansas Cooperative Extension

Dogwood Anthracnose-*Discula destructiva*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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Pear

Fabraea Leaf Spot of pear, caused by *Fabraea maculata,* can cause extensive defoliation and subsequent yield loss in susceptible cultivars. The number of fruit buds may be reduced, and the fruit may be dwarfed, cracked, or misshapen. Twig infections may stunt young trees. The first symptom is round, purplish spots on leaves. Numerous spots may coalesce to blight larger portions of the leaf, followed by chlorosis and leaf drop. The small, black pimple-like fruiting bodies of the fungus may be observed in the center of the lesions. During wet weather, creamy masses of spores ooze from the structures. The lesions on infected fruit are larger and can cause the fruit to develop cracks and fall prematurely from the tree. New shoots develop superficial twig cankers that are another source of inoculum that season. Fabraea can be difficult to control. Good sanitation and fungicides are both necessary for success. All fallen leaves and fruit should be raked up and removed from the orchard. Fungicide sprays containing mancozeb are effective if started early.

Pear Fabraea Leaf Spot-*Fabraea maculata*

Photo by Neal Mays, 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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