



Arkansas Plant Health Clinic Newsletter

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Dogwood

A sample of dogwood has been confirmed with Dogwood anthracnose in Arkansas by our Clinic and by Dr. Mark Windham, a well-known authority on the disease. This is the first confirmation of this potentially serious disease in our state, although it is possible that it has been present here for some time, as it is widespread in neighboring states.

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, while 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 that are not managed may provide yearly supplies of the fungus:

1. Carefully prune out all diseased, dying, and dead twigs and limbs.
2. Spray all plants with a systemic foliar fungicide labeled to control dogwood anthracnose (examples include fungicides containing propiconazole (Banner Maxx) or tebuconazole (Bayer Advanced Disease Control Products) at bud break in the spring. Good coverage of the entire tree with the spray is very important.
3. About two weeks after the systemic spray, apply a protectant fungicide labeled to control dogwood anthracnose containing chlorothalonil (like Daconil products), thiophanate-methyl (Cleary's 3336 for example) or a product containing both like 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



Sherrie Smith

allow the use of trombone tree sprayers for homeowner use. An example is the Trombone® Model 61224 sprayer by Hudson Sprayer Company <http://www.hdhudson.com/consumer-catalog.html#61224>

4. In addition to pruning and fungicides, avoid overhead irrigation if possible. If overhead irrigation must be used, water in the early 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.
5. 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.
6. Resistant varieties and types of dogwoods are available and should be considered for new plantings or to replace diseased trees. Refer to the following chart for resistant cultivars.

<i>Cornus florida</i>	<i>Cornus Kousa</i>	<i>Cornus florida x kousa</i>
Appalachian Spring	Big Apple	Aurora
	China Girl	Celestial
	Elizabeth Lustgarten	Constellation
	Gay Head	Ruth Ellen
	Greensleeves	Star Dust
	Julian Milky Way	Stellar Pink
	Steeple	
	Temple Jewel	

Dogwood Anthracnose-*Discula destructiva*

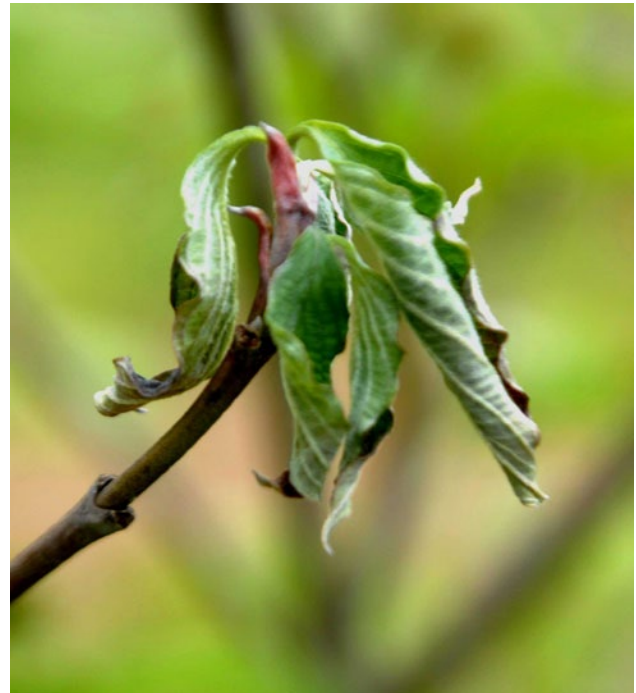


Photo by Jim Robbins, University of Arkansas Cooperative Extension



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Dogwood Anthracnose-*Discula destructiva*



Photo by Robert L. Anderson, USDA Forest Service, Bugwood.org

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Dogwood Anthracnose-*Discula destructiva*



Joseph O'Brien, USDA Forest Service, Bugwood.org

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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