

## DOGWOOD ANTHRACNOSE

Dogwood anthracnose (leaf blotch), caused by the fungus *Gloeosporium*, has become a common disease in recent years on native western flowering dogwood trees (*Cornus nuttallii*) in western Washington. We first observed the disease in 1976 on a sample sent to us from Clark County (Vancouver area). In 1977, the disease was found further north in Cowlitz and Thurston Counties (Kelso and Olympia areas).

In 1978, many of the native dogwoods in Pierce and King counties (Tacoma and Seattle areas) were reported to be infected. Pesticide applicators have estimated at least 60% of these trees in the Seattle area were showing symptoms of the disease in 1978.

To our knowledge, there is only one brief reference to this disease published: *Gloeosporium corni* was described as causing a leaf spot on gray dogwood in Wisconsin (1952, The American Naturalist 48(3), pg. 756). A closely related fungus, *Elsinoë corni* (*Sphaceloma*), causes "spot anthracnose" on flowering dogwood, and could be confused with this disease.

The disease generally appears from late May to early July, and is most active at that time, but can be active during moist weather anytime in the growing season.

It is most commonly a problem on western flowering dogwood, but has been found to a very limited extent on other ornamental dogwoods.

The most common symptom is large, brown, irregularly-shaped blotches on the leaves ( Fig. 1 ). The margins of these blotches are usually well defined, and dark grayish-green, purple, or brown. Sometimes the margins are indefinite.

Fig. 1. Anthracnose on dogwood.  
Note the irregularly -shaped  
blotches on the leaves.

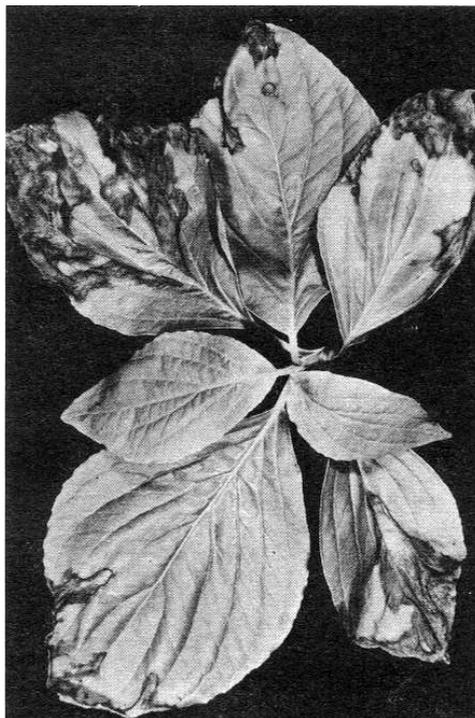




Figure 2. Tiny dots are often present in the blotch or spot. These are the fruiting bodies of the fungus, and contain the microscopic spores which spread the disease from leaf to leaf and tree to tree. Sometimes these dots are closely associated with the leaf veins.

Often the diseased area will be located at or near the tip of the leaf, and roughly centered on the midvein. The blotch often spreads down the midvein, giving a wedge-shaped appearance to the diseased area (Fig. 2). The blotch may be composed of both lighter and darker areas. Occasionally, infected leaves have brown spots about 1 to 5 mm (1/16 to 1/4 inch) in diameter, instead of blotches. The margins of the spots are often dark brown to purple. The spots may appear on any part of the leaf. Spots and blotches may appear on the same leaf (Fig. 1 ). Infected leaves commonly drop prematurely, leaving the tree partially or totally defoliated.

Twigs are also attacked by this fungus. At first the affected twigs have sunken tan to brown spots with purple borders. These eventually enlarge to girdle the twig, resulting in twig dieback. These symptoms are less common than those on the leaves.

No chemical controls can be recommended for use in controlling this disease on dogwood trees.

Since the fungus can probably survive the winter on the fallen leaves, rake up and destroy them during the growing season and in the fall. Destroy them by burning, or by placing them in the garbage, or in some other suitable way. Do not compost them. When possible, infected twigs should also be pruned out and destroyed. Raking and pruning should eliminate much of the fungus, but will probably give only partial control because many spores can remain on the tree, and be blown in from other infected trees.

Many native dogwoods are growing in natural situations where it may be impractical or impossible to rake up the leaves and to prune.

It should be remembered that diseases are as much a part of these natural areas as are dogwoods, and that the diseases will be worse in some years than in others.

Weather patterns are very important in influencing disease cycles. Prolonged dry weather will tend to slow down or stop the disease spread. When springs and summers are moist, especially for several years in a row, the disease will become worse and spread, possibly causing some significant damage. However, under normal conditions, it is unlikely that serious damage will be done to the tree, even though it may not be pleasing to look at.

*For information about other diseases of Dogwood, please see the June-July 1978 issue of the Ornamentals Northwest newsletter, pages 7-9...2(3):7-9).*

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