



Dogwood Anthracnose

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Anthrachnose caused by the fungus *Discula destructiva* is a potentially fatal disease of dogwood. All varieties of the native flowering dogwood (*Cornus florida* and *C. nuttallii*) are susceptible. The disease usually starts on lower leaves and progresses into twigs and branches. Infected trees are severely weakened so that secondary canker and root rot diseases infect and kill the tree.

Infection by *Discula* usually occurs during cool rainy periods in the spring. The fungus is spread by rain splashing spores. Dogwood anthracnose is found from Massachusetts to Georgia (Figure 1).

SYMPTOMS

Often the first symptoms of *Discula destructiva* anthracnose are spots on lower leaves and flower bracts (Figure 2). Spots are tan to brown and may have purple rings around them. Small spots, also having these symptoms may be caused by the fungus *Elsinoe corni*. If the infection is *Discula*, leaf tissue will also be killed along the veins or entire leaves will be killed. Those leaves, which succumb, to infection during the summer will persist after normal leaf drop.

Dogwood Anthracnose - 1996

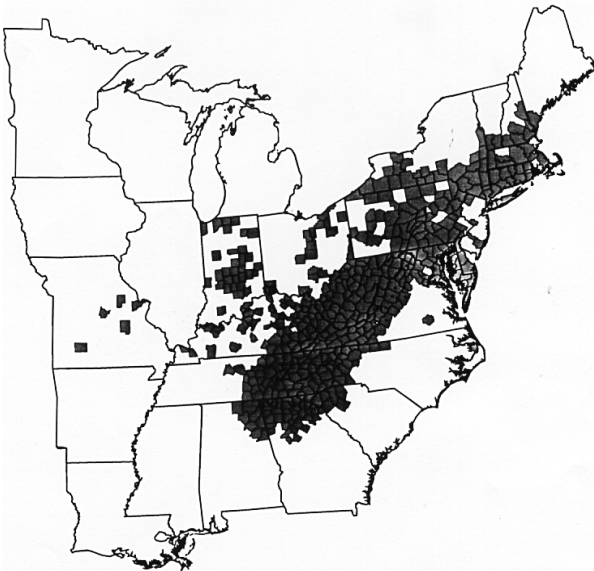


Figure 1. *Distribution of Dogwood Anthracnose*

The infection will also spread from the leaves to the twig resulting in cankers and twig dieback. Epicormic branches (water sprouts) are more susceptible to the fungus, thus dieback is more rapid. The resulting canker can girdle and kill the branch.

The speed at which the disease progresses in the tree is dependent on weather, tree health, and treatments. With weather favorable to the disease and no treatments, most infected trees are killed within 3 to 6 years.

Vigorous dogwoods are able to withstand disease infection much better than weak trees. To keep trees vigorous they should be mulched, watered, fertilized and pruned.

Mulch should be applied from the trunk to the dripline at a depth of 2-4 inches. Avoid mulching directly against the trunk. Wood chips are one of the best mulch materials.

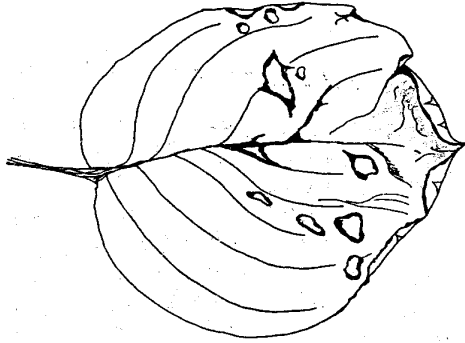


Figure 2. Early symptoms of dogwood *Discula* anthracnose.

Other materials, which can be used, include bark, pine needles and leaf compost. Mulching will also avoid wounds from lawn mowers and string trimmers on the lower trunk. These wounds predispose to the dogwood borer.

Trees should be irrigated during dry periods in the spring and summer. Avoid sprinklers, which wets the leaves. Instead use a soaker hose, drip or microsprinkler system. Complete fertilizers containing high levels of nitrogen, improve tree vitality and reduce disease.

Pruning out highly susceptible epicormic branches will reduce cankers on major stems and branches. Overstory trees may also need to be pruned or thinned to improve drying conditions on the dogwood.

Once a tree is infected, all of the above recommendations should be followed as well as the additional treatments of sanitation pruning and fungicide sprays. Branches or twigs which are cankered or have leaves

attached should be pruned back to a healthy branch. This sanitation pruning should be done in the winter. The infected wood and leaves should promptly be removed from the property to reduce inoculum potential.

Fungicides will reduce new infections but will not stop existing disease. Treatments should be applied three or four times at 14-day intervals starting at budbreak. Additional treatments may be required at monthly intervals during the summer if wet weather persists.

When planting new dogwoods in areas with anthracnose, avoid planting in dense shade. Dogwoods ideally should be planted to receive full morning sun and afternoon shade. In full sun dogwoods are more susceptible to dogwood borer. This pest should be monitored visually and with pheromone traps when needed, and treated before borers cause problems. The summer flowering Korean dogwood (*Cornus kousa*) is resistant to the disease and may be substituted in many cases.

Table 1. Some good choices in areas where dogwood anthracnose is a problem.

Variety	Resistance to Anthracnose	Resistance to Powdery Mildew
Steeple	Resistant	Moderate
Stardust	Moderate	Susceptible
Stellar Pink	Moderate	Susceptible
Milky Way	Moderate	High
Milky Way	Moderate	High
Select		
Celestial	Moderate	High
Gay Head	Moderate	High
Constellation	Moderate	High
Julian	Moderate	High
Temple Jewel	Moderate	High
Ruth Ellen	Slight	High
China girl	Slight	High
Big Apple	Slight	Susceptible
Greesleeves	Slight	Susceptible
Cloud Nine	None	Susceptible
Autumn rose	Susceptible	Resistant