

The Plight of Flowering Dogwood

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Powdery mildew on flowering dogwood. Image credit: John Hartman, University of Kentucky, Bugwood.org

Historically, nothing said spring had arrived any better than a flowering dogwood tree. It remains a favored tree in southern landscapes. Sometimes you may see an occasional dogwood in bloom in the local pine forests. However, it is very rare to see one in bloom in the north Florida landscape. While Dogwood Anthracnose, a fungal disease affecting dogwoods in the higher elevations along the Appalachian Mountains is often blamed, it is not the cause for dogwood decline in our part of northeast Florida.

The decline of dogwood in our area is more than likely a combination of the narrow site requirements necessary for dogwoods to thrive, climate, and powdery mildew. First, dogwoods have always had a narrow set of site conditions that they needed to flourish. Northeast Florida is the southernmost extent of their natural range and to grow well they need moist but well drained acidic soil, along with the cooling dappled shade provided by taller but not overpowering trees. Often these trees were tall pines that provided the right amount of filtered sun, and slightly cooler soil conditions that dogwoods needed. Slowly over time the climate has warmed slightly, and many newer landscapes do not have the room for stands of tall pine trees.

Powdery Mildew

The other factor affecting both native and cultivated dogwoods is powdery mildew. Powdery mildew has been documented as a disease of dogwoods as far

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back as 1887 but it was considered rare until around 1994, when powdery mildew appeared as a major pest throughout the southeast on native, landscape and nursery grown trees.

The symptoms of powdery mildew on leaves are easy to see. The symptoms start out as spots or patches of whitish powdery growth, usually on the leaves. These spots quickly enlarge, turning into a dusty white or gray coating. The symptoms usually appear as minor blemishes as the leaves emerge in the spring. As the season progresses the damage becomes more evident as the leaves appear scorched with brown margins.

While fungicides are effective for powdery mildew when applied at the first incidence of symptoms. It is difficult apply the fungicide into the canopy of the trees. There are very few pesticide applicators that have the equipment necessary to apply the fungicide safely and at a reasonable cost as the fungicides need to be applied at regular intervals. The best bet for the reintroduction of flowering dogwood is the breeding of resistant varieties. In more temperate climates not too far north, landscapers are having a lot of success with breeding Kousa dogwood x Flowering dogwood hybrids that have proved very resistant to powdery mildew. Unfortunately, Kousa dogwoods, and their hybrids have not done well in our climate. The best hope we have is that resistant flowering dogwood cultivars will be developed for our area. Three that may be worth a try are 'Appalachian Joy', 'Appalachian Mist', and 'Appalachian Snow'. The only drawback to these highly resistant varieties is that they were developed in Tennessee and may not acclimate to our warmer humid summers.

Hopefully new breeding programs will once again supply resistant dogwood cultivars that one day we will be able to incorporate back into our landscapes.

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