



Flowering Dogwood *Cornus florida*

Alex X. Niemiera, Professor, School of Plant and Environmental Sciences, Virginia Tech

Summary:

Foliage: About 4 inches long; deciduous

Height: About 20 feet

Spread: About 20 feet or wider

Shape: Flat-topped tree with horizontal branches; lower tiers of branches tend to droop

Main features: Flowering dogwood is an exceedingly beautiful small tree due to its large white "flowers" (actually showy parts are bracts; April/May), horizontal branching habit, bright red clusters of fruit, maroon fall foliage color, and blocky bark (often likened to alligator hide). The true flower is actually the yellowish cluster of flower parts that lies in the center of four showy bracts; bracts (either white or pink) are actually modified leaves. This species is an understory species (grows in the shade of taller trees in a forest), hence it is shade tolerant.

Unfortunately, this species is susceptible to an exotic and lethal fungal disease called *Discula destructiva* (also called anthracnose); see <http://pubs.ext.vt.edu/450/450-611/450-611.html> for disease details and control. Prior to the discovery of *Discula destructiva* in the US (1978), the main cultural recommendation of flowering dogwood was to plant trees in part shade (to mimic its natural environment). However, since the lethal fungal disease has killed at least 50% of the native flowering dogwood population, current planting recommendations are to plant trees in a full sun site with good air flow (conditions which minimize fungal infection). Dogwoods are subject to several other pests such as borers, cankers, spot anthracnose (different than the *Discula* form of anthracnose) and powdery mildew. Stressed trees tend to be much more susceptible to diseases, thus one should irrigate flowering dogwoods during drought periods; this is especially important when trees are in their establishment phase, i.e., first few years after being transplanted. The base of flowering dogwood trees are commonly the victim of lawn mower and string trimmer damage. This bark damage stresses the tree and makes it more vulnerable to insect and disease attack compared to non-stressed trees. One should have a mulch ring around trees to avoid injuring the trunk; do not pile mulch on the trunk since this keeps the bark wet and fosters disease organisms and insect infestations. Compared to other tree species, flowering dogwood trees characteristically have a relatively low transplant success. To overcome this phenomenon, purchase healthy trees and irrigate during droughts in the establishment phase.

Plant Needs:

Zone: 5 to 9; origin of cultivar (or seed) is important since a cultivar that originated in the south may not be hardy in zone 5.

Light: Full sun

Moisture: Moist to average

Soil type: Well-drained soil with ample organic matter

pH range: Acid

Functions:

Flowering dogwood is useful as a specimen plant, in groupings, or anywhere a small deciduous tree is appropriate. Plant this species in front of a dark background, such as dark leaved conifers or broad leaved evergreens, to enhance the white bract display.

Care:

Plants need to be irrigated during drought, especially in the first few years after transplanting. Mulching around the tree (instead of turf adjacent to trunk) will minimize the potential for lawn mower and string trimmer injury.

Additional Information:

There are more than 100 cultivars of flowering dogwood that vary in bract characteristics (e.g., bract color and size, single vs. double, bract density, and timing of flowering), leaf characteristics (variegation, fall color), plant size and vigor, form, and disease resistance (i.e., *Discula*, spot anthracnose, canker, powdery mildew). Bracts are either white or pink (ranging from light pink to red; var. *rubra*). For a thorough description of flowering dogwood cultivars, consult the *Manual of Woody Landscape Plants* by Michael A. Dirr, 6th edition, 2009, Stipes Publishing L.L.C. and *Dogwoods* by Paul Cappiello and Don Shadow, 2005, Timber Press Inc. A very few of the notable cultivars are: 'Appalachian Spring' resistant to *Discula*
'Cherokee Princess' broad-spreading large plant with large white bracts (5 inch diameter); highly rated
'Cloud 9' slow-growing plant with heavy white bract production; highly rated
var. *rubra* Cherokee Sunset™ deep pink bracts and yellow-margined leaves

