

Selection and Care of Dogwoods

Introduction

The most popular spring flowering tree in Alabama is the flowering dogwood (*Cornus florida*). The flowering dogwood is native to the eastern half of the United States. It is a deciduous tree that can grow 15 to 30 feet in height and is generally wider than it is tall. The dogwood is cold hardy to 15 degrees Fahrenheit, so it is well adapted to the entire state of Alabama.

Bracts and Flowers

The dogwood adds natural beauty to the landscape year-round. In the spring, the dogwood's main attraction is its showy bracts. The bracts are commonly mistaken for the flower, but they are actually modified leaves that encircle the true flowers. The true flowers of the dogwood are small greenish-yellow flowers that bloom shortly after the bracts open in the spring. Commonly, both bracts and flowers are referred to together as the flower. The dogwood begins blooming in late March in the southern portion of Alabama and 2 to 3 weeks later in the northern areas of the state. The bloom duration can last from 2 to 4 weeks.

The flower size of the dogwood ranges from 3 to 6 inches across. Flower color of the native dogwood is a creamy white. A naturally occurring variety of the native dogwood, *Cornus florida rubra*, has pink blooms. Many cultivated varieties have been produced from native dogwoods. These range in color from white, to pink, to red.

Foliage

Besides the grand floral display in the spring, the dogwood produces a luxuriant light-green foliage. The light-green spring foliage turns to a rich green that furnishes light shade in the long, hot days of summer. In autumn, the leaves turn red or reddish purple. The duration of fall color depends on the cultivar but can range from early September to mid-January. The dogwood's fall color from year to year is consistent, but intensity will vary with environmental conditions.

Accompanying this fall foliage are red fruit. These red drupes are $\frac{1}{3}$ inch long and are usually in a cluster of three to five. The fruit are devoured by many different species of birds.

To round out its year of beauty, the dogwood's gray-black checkered bark is proudly shown in the winter.

Uses in the Landscape

Dogwoods are versatile in the landscape. They can be used in a grouping or alone. Dogwoods can serve as a corner planting if spaced well away from the house. They also may be used as a backdrop for azaleas or other spring-flowering shrubs. Since they thrive in partial shade, they can be used as an understory tree, especially under the canopy of larger pine trees. The uses of dogwood are almost limitless, but careful consideration is important for the survival of the tree.

Site Selection

The dogwood will grow in a wide variety of climates and soils. Make sure the chosen site is well drained but does not get extremely dry. Dogwoods also prefer soils that are high in organic matter. The optimal pH range of the soil is from 5.2 to 6.0. If you are not sure of your soil pH, call your county Extension agent for information on how to submit a soil sample for analysis.

A site should provide partial shade. Trees planted in partial shade generally perform better than those planted in full sun or deep shade. Trees planted in full sun are smaller and more densely branched, with profuse blooms. However, a full-sun location can be a stressful site for your tree. Full-sun exposure makes the tree more susceptible to the dogwood borer, one of the main causes of death of dogwoods in the landscape. Dogwoods planted in full sun must have an adequate supply of water. Plant dogwood trees in northern or eastern exposures to protect them from the late afternoon sun.

Transplanting

Buy nursery-grown trees rather than transplanting trees from the wild. Nursery-grown trees are root-pruned and grown in prepared soil, which gives the tree a more dense root system that is better suited to withstand stresses of transplanting. Also, selected cultivars offer early blooming with longer and more prolific flowers.

Nursery-grown trees can be purchased container-grown, balled and burlapped (B & B), or bare-root. Purchase only trees that are healthy and well maintained by the nursery. Avoid trees with suckers, weeds, sunken places, or scarred bark on the trunk. Also, look for small holes at the base of the tree, indicating the presence of borers. Such trees are not likely to survive long even in the best site.

Proper planting techniques will encourage root growth, which will result in a more healthy, vigorous tree. Techniques for planting your dogwood depend on how the tree was grown and harvested.

Container-Grown Trees

Planting container-grown trees can be done year-round. Optimal planting time is in the fall because it allows enough time for the roots to become well established before the summer heat. Dig the hole at least two to three times wider than the root ball. This will promote more uniform and rapid root establishment in the soil surrounding the root ball. It is not necessary for you to dig any deeper than the root ball. Your tree should be planted no deeper than it was grown in the nursery. In most cases, it is better to place your dogwood slightly above grade. That is, the hole should be dug slightly shallower than the height of the root ball (Figure 1).

Gently massage the root ball with your hand to loosen roots and expose them to the native soil. This will encourage better root formation and prevent roots circling in the hole. Refill the hole with the same unamended soil that was taken from the hole. A mixture of one-third organic matter such as peat moss or compost to two-thirds of soil may be helpful, but in other tree species it does not appear to be necessary. Gently firm the soil around

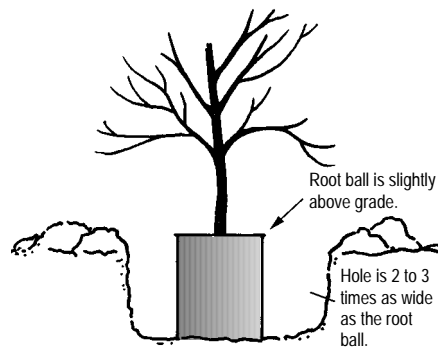


Figure 1. Proper planting of your tree

the root ball, and water thoroughly. Build a berm around the planting hole with the remaining back-fill soil if the tree is on a slope or planted in sandy soil (Figure 2). This will direct water to the root zone within the hole. Water once more to ensure that the soil is well settled.

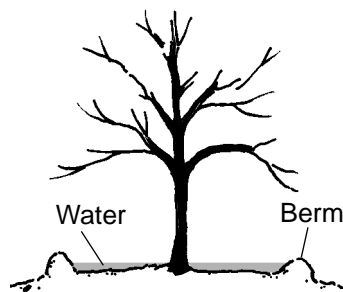


Figure 2. Build a berm around the tree, using the remaining soil.

Balled and Burlapped Trees

Balled and burlapped (B & B) trees should be planted when they are dormant from November to March. Planting procedures are very similar to those for planting a container-grown tree. However, there are some unique planting practices required for B & B trees. Cut all ties and fold back the burlap into the bottom of the hole. Be sure the burlap is covered by soil because exposed burlap can wick water away from the root ball. Handle the tree by the root ball instead of the stem to prevent cracking the ball and the fragile roots. Avoid dropping the root ball, which can crack the root ball and roots as well as compact the soil in the root ball.

Bare-Root Trees

Bare-root trees are generally less available in retail garden centers than container or B & B plants are and are not commonly used except by landscape companies. Bare-root trees must be planted immediately or moist soil or organic matter put around the roots to prevent the roots from drying out. A bare-root tree should be planted while dormant.

Dig the same wide, shallow hole recommended for B & B or container plants. Prune any damaged or diseased roots before placing the tree into the hole. Shovel part of the soil back into the hole so that when the tree is placed into the hole it sits slightly above the original growing line. Next, refill the hole with the remaining soil. The final step is to water the tree thoroughly.

Transplanting from the Wild

Transplanting dogwoods from the wild can be difficult, and the survival rate is usually low. If you choose to transplant from the wild, do so while the tree is dormant. The tree should be small, generally 1 inch or less in diameter. Ideally, before transplanting, root-prune the tree 1 year before moving it. To root-prune, insert a sharp spade in the soil to cut the roots at the point 2 to 3 inches from where the tree will later be dug (Figure 3).

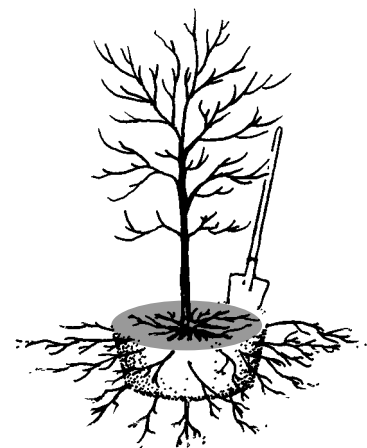


Figure 3. Root-prune the tree 1 year before moving it from a natural area.

When digging up the tree, dig a root ball that is a minimum of 12 inches in diameter for each inch caliper of tree measured 6 inches above the ground. After root-pruning, do not disturb the tree for 1 year. This will allow feeder roots to develop close to the tree, enabling the tree to get a better start when it is moved. When ready to move the tree from the wild, dig the tree slightly beyond where it was root-pruned. Place burlap around the root ball to prevent the loss of any soil from the ball. Pin the burlap so it fits snugly around the root ball. Planting procedures are then the same as for B & B trees.

Maintenance after Transplanting

Maintaining your dogwood after planting is essential for the survival of your tree. Container and bare-root trees should be staked if they are planted in a high-traffic or windy area (Figure 4). Also, water and mulch dogwoods to promote a healthy tree. Check for disease and insects throughout the year. Do not prune or fertilize until the second year. Remove all support stakes and ties after the first year.

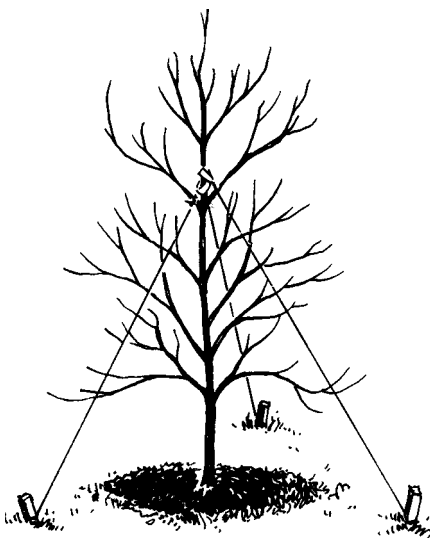


Figure 4. Brace dogwoods larger than 6 to 8 feet high with guys to prevent damage by wind. Stakes may also be used.

General Maintenance Practices

Watering

Watering adequately during the first two growing seasons is important to the survival of the tree. Water newly planted dogwoods once or twice a week during the summer and fall. Watering during the winter is rarely necessary. When you water, thoroughly soak the root-zone area and beyond. After the first growing season, water provided by rainfall should be adequate unless there is a period of drought.

Fertilizing

Little if any fertilizer is needed during the first growing season. Too much nitrogen fertilizer at an early age can result in stunted root growth and possible injury to the tree. If fertilizing a newly planted tree, apply less than 1/4 of a cup of 12-4-8 or similar analysis granular fertilizer per tree. Fertilize established trees twice a year, in February and mid-June. An application of 3 ounces of nitrogen per 100 square feet of ground area surrounding the tree each time you fertilize should be sufficient. If a fertilizer with 12 percent nitrogen is used, 25 ounces will be needed to supply 3 ounces of nitrogen. When applying fertilizer, scatter it evenly within the 100-square-foot area surrounding the tree. Be sure to water after fertilizing.

Mulching

Mulching is very important. A 3- to 4-inch mulch layer around the tree conserves soil moisture, modifies soil temperature, reduces competition from weeds and grass, and makes the landscape more attractive. A mulched area also acts as buffer zone between the lawn and the tree trunk, preventing careless mower

or trimmer damage to the trunk. Pinestraw, pinebark, or leaves are good mulches to use around dogwoods. Add more mulch as needed as the mulch layer diminishes.

Pruning

Correct pruning makes trees more attractive and healthier. Dogwoods seldom need much pruning; however, it is necessary to remove dead and injured branches, suckers, and diseased or insect-infested parts. Figure 5 shows which parts of the tree to prune.

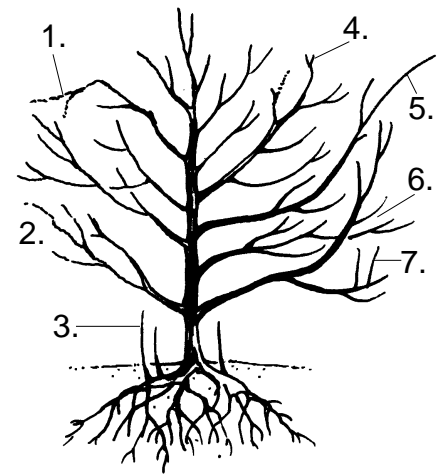


Figure 5. 1. Damaged spots—Always remove broken limbs; they look ragged and invite disease. 2. Deadwood—Lop off all dead and dying branches. Besides being unsightly themselves, they also clutter up the tree's outline. 3. Suckers—Cut all suckers from the base of a tree. They are ugly and absorb growing energy. 4. Diseased Branches—Remove limbs showing sickly growths or discolored bark to keep disease from spreading. 5. Long Branches—Prune off the ends of branches that stick out too far and unbalance the tree's outline. 6. Crossing branches—Besides spoiling a tree's shape, shoots that cross rub off one another's bark. 7. Weak Twigs—Remove twigs that are too puny to grow well to help open the tree to sunlight and air.

Prune large branches from dogwoods during the dormant season. When pruning a large branch (two or more inches in diameter), make three cuts (Figure 6). Make the first cut under the branch about 6 to 12 inches from the trunk. The cut should only go one-third of the way through the branch. Make the second cut 1 inch beyond the first cut. Cut completely through to remove the branch. Make the third cut at the swollen branch collar to remove the remaining stub. Pruning sealers or wound dressings are of no benefit to the tree.

Insects and Diseases

Dogwoods can be severely damaged or killed by insects and diseases. Routinely check for pests throughout the year. Insects and diseases should be correctly identified and controlled with the proper method. Seek help from your county Extension agent or local nursery personnel for proper pest identification and control.

Some common insects on dogwoods are the dogwood borer, twig borer, and club gall. Diseases on dogwoods include powdery mildew, anthracnose, crown gall, and trunk canker. For further information on diseases and control recommendations, refer to Extension Circular ANR-551, "Dogwood Diseases in Alabama." Remember, pesticides can be dangerous if improperly used. Always follow the directions carefully and consider all precautions indicated on the label.

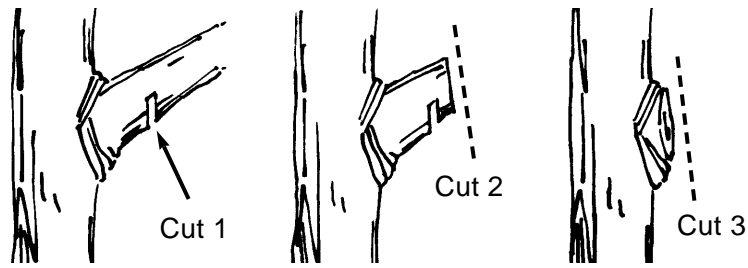


Figure 6. The three-cut pruning method for removing large branches prevents the branch from tearing down the trunk.

Summary

The attractiveness of the dogwood explains why it is one of the most popular trees used in the landscape. Selecting a good site and using proper planting and maintenance methods will help the dogwood add beauty to your landscape for many years. If you have further questions about dogwoods, call your county Extension agent.

Varieties and Cultivars

There are over 100 varieties and cultivars of dogwoods grown in the United States, 20 to 30 of which are commonly grown in the Southeast. Auburn University has ongoing dogwood evaluation trials to help landscape professionals and homeowners make informed selections of dogwoods for Alabama. The following list is a selection of some of the most common varieties and cultivars in the trade.

Varieties

Cornus florida

Height: 20 to 30 feet
 Width: 20 to 30 feet
 Flower color: White
 Growth rate: Moderate
 Spring foliage: Light green
 Summer foliage: Dark green
 Fall foliage: Red-red purple

Cornus florida rubra

Height: 20 to 25 feet
 Width: 20 to 25 feet
 Flower color: Pink
 Growth rate: Moderate
 Spring foliage: Light green
 Summer foliage: Dark green
 Fall foliage: Red-red purple

Cultivars

Cornus florida 'Cherokee Chief'

Trade name: Cherokee Chief
 Height: 15 feet
 Width: 15 feet
 Flower color: Red
 Growth rate: Moderate
 Spring foliage: Yellow green
 Summer foliage: Green
 Fall foliage: Bronze
 Remarks: Blooms are a rich ruby red; new growth reddish. Moderately resistant to powdery mildew.

Cornus florida 'Cherokee Princess'

Trade name: Cherokee Princess
 Height: 15 feet
 Width: 15 feet
 Flower color: White
 Growth rate: Slow
 Spring foliage: Yellow green
 Summer foliage: Green
 Fall foliage: Red
 Remarks: Heavy white blooms, larger than average. Variable resistance to powdery mildew.

Cornus florida 'Cloud 9' or 'Barton's White'
Trade name: Cloud 9 or Barton's White
Height: 15 feet
Width: 15 feet
Flower color: White
Growth rate: Slow
Spring foliage: Yellow green
Summer foliage: Green
Fall foliage: Red purple
Remarks: These two cultivars were found to be the same based on DNA tests, although powdery mildew appears less severe in Barton's White in recent trials. Prolific white flowers at a young age.

Cornus florida 'Cherokee Daybreak'
Trade name: Cherokee Daybreak
Height: 25 feet
Width: 20 feet
Flower color: White
Growth rate: Moderate
Spring foliage: Light green
Summer foliage: Variegated
Fall foliage: Pink to deep red
Remarks: A variegated cultivar with bright green and creamy white summer foliage. White blooms in spring. Moderately resistant to powdery mildew.

Cornus florida 'First Lady'
Trade name: First Lady
Height: 25 feet
Width: 25 feet
Flower color: White
Growth rate: Slow
Spring foliage: Light green
Summer foliage: Variegated
Fall foliage: Maroon
Remarks: Large white blooms in spring. Leaves are tricolor with yellows and dark and light greens. Susceptible to powdery mildew.

Cornus florida 'Mystery'
Trade name: Mystery
Height: 14 feet
Width: 12 feet
Flower color: White
Growth rate: Slow
Spring foliage: Yellow green
Summer foliage: Green
Fall foliage: Red purple
Remarks: An early flowering cultivar

Cornus florida 'Purple Glory'
Trade name: Purple Glory
Height: 15 feet
Width: 12 feet
Flower color: Red
Growth rate: Slow
Spring foliage: Red green
Summer foliage: Purple
Fall foliage: Red purple
Remarks: This cultivar has red blooms with purple foliage. Susceptible to powdery mildew.

Cornus florida 'Cherokee Sunset'
Trade name: Cherokee Sunset
Height: 25 feet
Width: 20 feet
Flowers: Purplish red
Growth rate: Moderate
Spring foliage: Red purple
Summer foliage: Variegated
Fall foliage: Red purple
Remarks: An improved red-flowering, variegated-leafed variety with distinctive green and yellow summer foliage leaf margins. Reportedly resistant to anthracnose.

Other selected cultivars

Cornus florida 'Cherokee Brave': A relatively new cultivar selected for its red bracts and vigorous growth. Resistant to powdery mildew.

Cornus florida 'Fragrant Cloud': This cultivar has white flowers and is slightly fragrant. It is very similar to the cultivars 'Barton's White' and 'Cloud 9.' Moderate powdery mildew resistance.

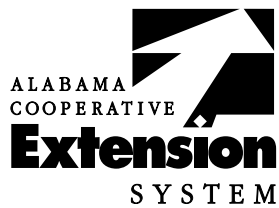
Cornus florida 'Junior Miss': The 'Junior Miss' is a large flowering form, with the outer portions of the bract pink grading to whitish in the center. Susceptible to powdery mildew.

Cornus florida 'Pendula': This is a weeping form with white bracts.

Cornus florida 'Reddy': An attractive dogwood with red leaves and bracts.

Cornus florida 'Welch's Bay Beauty': This is white double-form with flowers like a gardenia. It has seven sets of whorled bracts, 4 to 5 inches in diameter. It grows to 20 feet. Susceptible to powdery mildew.

In addition to the *Cornus florida* varieties and cultivars, you may want to consider the Chinese dogwood (*Cornus kousa*) or one of the more recent Rutger hybrids to extend the dogwood blooming season.



ANR-1077

J. David Williams, *Extension Horticulturist*, Associate Professor, **Ken Tilt**, *Extension Horticulturist*, Professor, and **Carlton Davidson**, former student, all in Horticulture at Auburn University

For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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