



Growing Dogwood



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One of the most widely planted ornamental trees in Georgia is the flowering dogwood (*Cornus florida*). It is native to the eastern United States and can be found growing throughout Georgia. The showy part of a dogwood flower is actually bracts, which are modified leaves that turn color. The true flower parts in the center of the bracts are less showy. Dogwoods are not difficult to grow if they are located in the proper site and if healthy trees are purchased and planted properly.

Selecting Plants

Select healthy dogwoods with good form. Avoid trees with damage to the stems or trees which appear under stress. Container-grown dogwoods should have healthy white root systems which are not pot-bound.

Select bareroot and B & B (balled and burlapped) trees whose root systems have been protected from drying out by being “heeled-in” to moist sawdust or other organic materials.

Varieties

Most of the flowering dogwoods planted in Georgia are the white-bracted native form, which are grown from seed. An increasing number of vegetatively produced selections are being introduced as named varieties. These dogwoods are more expensive than those propagated from seed, but are usually well worth the added cost since they may flower at an earlier age or be more showy in flower. Some of the more popular varieties are listed in the following table:

White bracts	Pink/Red bracts
Barton	American Beauty Red
Cherokee Daybreak	Cherokee Chief
Cherokee Princess	Cherokee Sunset
Cloud 9	Junior Miss
Bay Beauty	Stokes Pink
Plena	
Weaver's White	
Welchii	
Wetch's Bay Beauty	

Planting Site

Dogwoods are adaptable to several types of soils; however, they naturally grow in moist, fertile soils high in organic matter. They are never found in poorly drained locations in the woods. Their primary demands are good soil drainage and protection from drought. Planting in poorly drained areas will usually result in the tree dying.

Best results will be obtained when dogwoods are planted in association with larger trees that provide moderate shade. In the wild the dogwood is commonly found as an understory tree growing under hardwoods and pines. Growth problems are more likely in hot, dry exposures. On the other hand, planting in dense shade will likely result in poor flowering.

Soil Preparation/Planting

Inadequate soil preparation will cause establishment problems and slow growth. Research indicates that optimal growth is achieved when a large, wide planting hole is dug and the backfill soil is well worked. Make certain the top of the root ball is level

with the soil surface. Then backfill with the same soil removed from the hole after breaking apart clods and removing stones or other debris. Place organic material on top as a mulch rather than in the planting hole as an amendment. In compacted clay soils a large planting hole with loose backfill soil is essential for proper plant establishment.

Planting Season

Container-grown plants can be planted anytime if they're watered carefully. Plant balled and burlapped (B & B) trees and bareroot trees when they are dormant (November-March).

Additional Precautions

Damage to the trunk of dogwoods by "bumping" with lawn mowers invites invasion by dogwood borers. Larvae of this insect feed underneath the bark, and can kill the tree. The most satisfactory way to protect the trunk from lawn mower damage is to drive three metal stakes into the ground about 6 inches from the trunk. Mulch the area to prevent weed and grass growth under the tree and to eliminate the need for close mowing and cultivation.

If the tree is more than 4 feet tall, it may be necessary to stake and tie it so it's held firmly in place until the roots are established, one to two growing seasons. Tie supporting wire just above the lowest scaffold branches so that the top portion of the tree can sway in the wind. This allows for sturdier trunk growth. Place wire inside a piece of old garden hose to prevent it from injuring the bark.

Mulching and Watering

Adequate water during the first two growing seasons may determine whether dogwood trees live or die. Water them thoroughly once or twice a week during dry periods. Watering too frequently, however, saturates the soil and may rot the roots. Continue to water during the dry fall months.

Most tree roots are within the top 12 inches of soil, and they extend several feet beyond the spread of the canopy. Mulching a wide area under the tree will maintain an even moisture level and will insulate the roots from winter cold and summer heat. Pine straw, pine bark or fall leaves, applied to a depth of 3 to 4 inches, provides an excellent mulch.



Fertilizing

Any general purpose fertilizer, such as 16-4-8 or 12-4-8, can be used. Many recently planted trees are killed by heavy fertilization. Do not over-fertilize young trees in an effort to accelerate growth. On small trees 12 to 24 inches tall, apply one level tablespoonful in March and July. A newly-planted dogwood 6 feet tall requires about $\frac{1}{4}$ cup (4 tablespoons) of a 12-4-8 or 16-4-8 fertilizer in March and again in July. Evenly broadcast the fertilizer on the soil surface covering a radius 2 feet from the trunk.

For established trees, $\frac{1}{2}$ pound (1 cup) of a 12-4-8 or 16-4-8 per inch of trunk diameter (4 feet above ground level) in March and again in July is adequate. For an 8 to 10 percent nitrogen source, increase the rate by one-third. Apply one-third of the fertilizer beyond the dripline of the foliage since the roots of established trees extend into this area. **Do not concentrate the fertilizer in an area near the trunk.**

For older trees with trunk diameters more than 8 inches (4 feet above ground level), these rates can be reduced since accelerated growth is usually not desired.

Nursery-grown dogwoods have better root systems than trees collected from the woods. However, you can successfully transplant young trees from the wild. First, never dig wild plants without the property owner's knowledge and permission. Tag desirable trees during the growing season to help you find them during the dormant season (January - February), which is the proper time to transplant. Select trees fewer than 3 feet tall and try to dig as many fibrous roots as possible. Protect the roots at all times to keep them moist until the tree is planted. Follow soil preparation and planting guidelines previously outlined.

Pests

The most common insect pest on established dogwood trees is the dogwood borer. The larvae of the borer lives in the cambial area and can kill branches or entire trees. They enter trees through the bark. The best prevention is to avoid damage to the bark with equipment such as lawn mowers or weed eaters.

Dogwood anthracnose is the disease that can cause tree decline and mortality. It has been confirmed in northern Georgia. It initially shows up as leaf spots and stem cankers. It is often confused with the more common Spot Anthracnose that occurs as reddish-purple spots on flower bracts and leaves. If you suspect your tree of having the disease, contact your county extension agent for positive identification.

Flowering

All dogwoods are potential flower producers; however, trees grown from seed vary in the age at which they begin flowering. Fast growers will usually be delayed in beginning the flowering cycle. Those that produce an abundance of flowers and follow up with a heavy berry crop will likely produce a small number of flowers the next year. Also, trees located in heavy shade tend to produce fewer flowers than those in full sun. Flower buds are quite evident in September; therefore, it is possible to predict the number of flowers that will be produced the next spring.

Growing from Seed

Dogwoods can be grown easily from seeds collected from native trees. Collect seed in late October in South Georgia and in November in the northern half of the state. Soak the seed in water for one or two days to soften the pulp. Remove the external pulp by hand or by rubbing the seed against a fine wire screen. Non-viable seed will float to the top during soaking. Plant seed immediately in a well-prepared seedbed, pot or flat containing well drained media such as one part peat to one part sand. Seed can also be stored in moist (not wet) peat moss (one-half seed, one-half peat moss) in the refrigerator at 35 degrees to 40 degrees until spring. Plant the seed approximately $\frac{1}{2}$ inch deep and 1 inch apart. Space rows approximately 6 inches apart. Mulch the seedbed **lightly** with pine straw, pine bark or compost to keep it moist. Place screening over the beds to eliminate digging by rodents.

Seedlings are quite weak when they first emerge in the spring and it is important to water them gently twice a week if rainfall does not occur. Keep them watered throughout the summer and fall.

Fertilization will be necessary to achieve maximum growth and strong stems. A general purpose fertilizer, such as 16-4-8, 12-4-8 or 10-10-10, may be used at the rate of one **level** teaspoon per square foot of bed area. Scatter the fertilizer on the surface and water in. Repeat applications each six weeks until early September should result in maximum growth.

Seedlings can then be transplanted to their permanent location during the first or second winter. Take care to dig as many roots as possible and to prevent the feeder roots from becoming dry during the transplanting process.

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