

VEGETATIVE PROPAGATION OF *CORNUS FLORIDA* CULTIVARS

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Abstract. Most flowering dogwood, *Cornus florida*, produced in Florida nurseries are grown from seeds. While few cultivars have been selected for the state, the advantages of these selections make them well worth growing. The vegetative propagation of these selections and the stimulation of new growth using extended daylengths is discussed.

Cornus florida, the flowering dogwood, is one of the most popular flowering trees in North Florida and with proper varietal selection it has good potential in Central Florida. Currently most dogwoods grown in the state are propagated from seed obtained from local or out-of-state sources. Most dogwood cultivars available on the market today are selections from areas well north of Florida and when they are brought into the state their performance is disappointing both in their growth and flowering.

Over the past ten years we have evaluated several trees at our nursery, some of which were selected by other people and some our own selections. We evaluate them for consistent flowering, flower size and number, age of flowering and also for vigor and disease resistance. Several trees have been disappointing but a few others show some promise. The tree that we like the most is an old selection named 'Weaver.' It is a tree that was selected by the late Harold Hume in the early 1940's in the Gainesville area and is supposedly named for a member of the University of Florida faculty. It was introduced into the nursery trade by the Glen St. Mary Nursery in Baker County and the Holmes Nursery in Hillsborough County. 'Weaver' is a very vigorous tree. It flowers at an early age and has large numbers of good sized blooms. It is also less prone to leaf spotting diseases than other selections. An old tree in Ft. Meade, Florida has reportedly grown well and flowered regularly for years which should indicate that the 'Weaver' dogwood has good potential well into Central Florida.

Historically dogwood cultivars have been propagated either by grafting or more commonly by budding; however, the time required for these procedures and the lack of skilled grafters or budders in our nursery industry prob-

ably accounts at least in part for the lack of available cultivars. We have found *C. florida* to be relatively easy to root and believe more attention should be paid to this method of propagation.

We take terminal cuttings from our trees just as the first flush of the season hardens up. A good gauge of when the wood is ready is when the terminal will remain erect after the cutting is taken. Cuttings will root at an earlier stage; however, if the terminal bends over during propagation the result is a crooked tree. We remove all but the top four leaves from the 6 to 8 inch cuttings and treat them with a quick dip of 5000 ppm KIBA. These cuttings are then bunch stuck in benches of pure perlite on about 2 inch spacing. We have a fog system in our greenhouse; however, a standard misting system will work equally well. After the cuttings are stuck, they are drenched with a combination of Subdue and Benlate and this treatment is repeated every two weeks. About three to four weeks after sticking the cuttings, we begin looking for root initiation. As soon as a fairly good number of cuttings are either calloused or rooted we remove all from the bench and grade them into three groups: those that are well-rooted, others that are either well-calloused or lightly rooted and those showing no rooting activity. The first two groups are potted into 2¼" rose pots and kept separate but still left in the fog. The third group is restuck in the perlite. Every few weeks we repeat this procedure until it is obvious that no more cuttings will be rooting. As soon as a group of cuttings is well rooted in the individual pots they are moved to another greenhouse to harden off. During this hardening off, the cuttings are artificially lighted from sunset until midnight. This extra light induces new growth on the cuttings and eliminates the loss of rooted cuttings that can be common on some deciduous plants due to depleted food resources. As soon as the plants have flushed out they are potted up into one gallon containers and moved to standard outdoor, unshaded growing beds where they are overwintered. Under good conditions this procedure normally results in a cutting success rate of approximately 75-80%.

Using these procedures we have been able to consistently produce uniform crops of dogwoods and have eliminated the high cull rate due to genetic variability experienced when we grew seedling trees.