

still think that rooting dogwoods is practical and believe that within 2 or 3 years we will be producing all of our dogwoods from cuttings.

DOGWOOD LINER TO FINISHED PLANT

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As the speakers before me have attested, there are different ways to produce white and pink dogwood liners. Once at the liner stage, there are different ways to produce the finished plant. At Ingleside Plantation Nurseries we line out about 5,000 pinks and 10,000 whites each year, which are handled just alike.

We try to plant our dogwood liners around March 15 while they are still dormant. The best size liner is at least 12 inches in height, but not taller than 24 inches. Planting is done with a "homemade" one-row planter. Dogwood liners are planted in rows which are 6 feet wide. Plants are spaced either 18 or 24 inches apart within the row, 18 inches if they are to be grown for larger lining out stock, 24 inches if they will be sold as 4/5, 5/6 and 6/8 foot trees. Liners which are planted 18 inches apart are grown for two or three years until they are 4/5, 5/6 and 6/8 feet. Then they are dug bareroot and transplanted in 10 or 20 feet rows during December, January or February. Dogwoods in 10 feet rows are spaced 3 to 4 feet apart, yielding trees for B&B digging which are slender 6/8's, 8/10's and 10/12's. Liners in 20 foot rows are planted 4 to 5 feet apart. They yield the same height trees, but they have broader heads.

Cultivation begins in the spring as soon as it is feasible and continues into late fall when the ground gets too wet. We try to cultivate all dogwoods once every week. One row cultivators are used until the trees get too tall for the tractor to go over. We then use Ford 3000's, which are 48 inches wide and can go between the rows using discs, rakes or rotavators. Cultivation helps control weeds between the rows and also, we think, helps make moisture available to the plant. Our observations seem to indicate that keeping the soil worked improves rain penetration, and under dry conditions brings more moisture into the root zone. Although dogwood will not tolerate "wet feet", irrigation is important. We use portable 6-inch pipe with Rainbird sprinklers.

We fertilize in the early spring with 16-8-8 or 20-10-10 at 500 pounds per acre. In the early fall we fertilize again using 5-10-10 at 500 pounds per acre.

We attempt to control weeds with granular Casaron and liquid Lasso. Casaron 4G is applied at 150 lbs. per acre between November 15 and February 15, when temperature is below 50°F. Lasso is used throughout the summer every 4 to 6 weeks at 4 quarts per acre. Occasionally Paraquat is mixed with Lasso at the rate of one quart per acre.

We spray for dogwood borers in the early spring, using Lindane 20% E.C. mixed at the rate of 3 pints per 100 gallons of water. We start spraying in early May with three applications 2 to 3 weeks apart.

We do not dig any B/B dogwoods until after a heavy frost, around the latter part of October. Dogwoods can be safely dug both B/B and bareroot after November until buds break in the spring around the middle of April. B/B dogwoods are dug both by machine and by hand. We use a Jiffy Baller to dig 12, 14, and 16 inch sizes. Balls 18 inches and larger are dug by hand and drum-laced. Plants dug in the field are placed on pallets and handled with a forklift until they are loaded for shipment.

DOGWOOD DISEASES

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Disease may be an important factor in the production of salable flowering dogwood (*Cornus florida* L.). Recently several different virus diseases have been reported by various researchers, but little is known about their impact on the production of dogwood. Historically, fungus diseases of the foliage, twigs, roots and trunks have been considered important. These diseases occur frequently under certain environmental conditions of excess rainfall and low temperatures. More recently a fungus root rot and trunk canker of undetermined cause have assumed important positions in the commercial production of dogwood.

Foliage Diseases. Foliage diseases reported on *C. florida* have included leaf spots, blights, mildews, and viruses.

Ascochyta leaf spot, caused by *Ascochyta cornicola* Sacc., was first reported in 1942 by Hepting at Biltmore, North Carolina (7). Leaf spotting begins as early as mid-June, being characterized as round or slightly irregular areas, ranging in size from 1.5 to 6.5 mm in diameter. Tiny black puntiform spore masses form on gray to tan centers, surrounded by a somewhat prominent border of brown to red (7).