PROPAGATING PINK DOGWOODS FROM ROOTED CUTTINGS

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One of the finest ornamental trees available to us for landscaping is the dogwood. The dogwood with its large flowers in the spring, glossy green foliage in the summer, bright red berries and spectacular color changes of the foliage in the fall, and interesting horizontal branch formations for the winter make this small tree enhancing to most every landscape. In my opinion there is no other ornamental tree that can equal this year round beauty.

Propagation of the shrub forms and some tree forms of the genus *Cornus* is easily done by seed, layering, and cuttings. However, cultivars of the species, *Cornus florida*, are more difficult. Cultivars of *C. florida* until now, have been propagated mostly by grafting and budding with some success by cuttings.

This paper today will be on propagating the cultivar *C. florida* 'Rubra' commercially from rooted cuttings.

Before any cuttings are taken in June and July the propagation medium is prepared by mixing perlite and peat (60:40), and wetting until it is thoroughly moist. The medium is then leveled off in the bed to 6″ and pressed firmly with a board similar to a mason's trowel. This is important because a loose medium will give poor results.

Once the bench is prepared the workers gather the cuttings by taking 6 to 8″ of new growth and placing them in a poly bag to prevent desiccation. In the workshop the cuttings are spread on the concrete floor and covered with wet burlap. This procedure must be done in as short a time as possible to prevent wilting of the soft cuttings.

The cuttings are next brought to the work bench 2 or 3 bushels at a time where they are stripped of all leaves except the last two pair at the top of the cutting. The remaining leaves are then cut in half [cutting the leaves allows you to get more plants in the bed; do not overcrowd]. The cuttings are trimmed to about 6 to 7″ long. Wounding is not necessary.

The cuttings are dipped into Hormodin No. 2 powder, pegged into the medium, watered in, and automatically misted from then on. For those who do not have an automatic mist control a 5 second mist every 6 minutes is a good setting on your time clock.

In 6 to 8 weeks, the cuttings should be rooted. They are now removed from the propagating bench, potted in 2¼″ clay pots

using the same mixture of perlite and peat as a potting mix and placed back under mist. This is very important. The reason for placing them back under mist is to get some new root growth in the pot Once you have obtained new root growth, no matter how little, shut off the mist and allow the rooted cutting to go dormant.

After the plants have become dormant they are placed side by side in a pit house (6′ in the ground). Sand is spread over the tops of the pots then washed in so that the pots are covered to a depth of ½″ above the top. The pit house is unheated and in colder areas it may be a good idea to loosely cover the cuttings with 4″ of marsh hay. On days when the winter temperature is above freezing the pit house is aired for one hour or more and the pots are checked to see if they need watering. I would say that not more than 2 waterings per winter are necessary unless you have very dry conditions. You are better off to have them a little on the dry side. Frost will occasionally occur on very cold nights to a depth of ¼″ in the sand which does not seem to be harmful to the cuttings. I believe this dormant period with a slight frost is most important if the cuttings are to break in the spring.

The cuttings are left in the pit house until June. By this time new growth has started. At this time they are planted outdoors in soil beds 6 to 8″ apart. After planting they are watered, treated with Ronstar herbicide, mulched with shredded bark, and covered with 50% lath shade.

The shade is kept over the plants until the following summer and then removed. After one growing season in the bed the dogwood should grow to a height of 2½/3′, and 3/4½′ if they are kept in the beds for two years.

JOE CESARINI: Have you tried rooting hardwood cuttings?

LEN SAVELLA: No. Why should we when they root so easily as softwood cuttings?

JOE CESARINI: Because hardwood cuttings are much cheaper to produce than any other type of cutting.

VOICE: What is your percent rootings?

LEN SAVELLA: 100%.

MARY BARDOL: Do you remove the terminal bud?

LEN SAVELLA: No.

JIM SINGER: What was the hormone you used?

LEN SAVELLA: Hormodin No. 2.

ELWIN ORTON: A number of people feel that rooted cuttings of *Cornus florida* 'Rubra' are unusually susceptible to winter injury for a number of years after transplanting out into the

field. What has your experience been?

LEN SAVELLA: We have been growing pink dogwoods this way for 18 years and have never had any problems

PETER VERMEULEN: I notice you are using clay pots and not plastic. Do you have any comments?

LEN SAVELLA: I find that if I put them in plastic pots they dry out faster. They stay wetter in clay pots under the sand and need only 1 or 2 waterings during the winter.

MICHAEL DIRR: Have you tried *Cornus kousa*?

LEN SAVELLA: Yes They work equally well under this same conditions.

PROPAGATION AND GROWTH OF FRASER FIR

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Fraser fir (*Abies fraseri*) is a handsome forest tree localized to high elevations (>4000 ft.) of Virginia, West Virginia, Tennessee, and North Carolina. Its name was given in honor of Fraser who introduced it into England in 1811. The Fraser fir is very closely related to the balsam fir. (*A. balsamea*) and probably originated as a relic community of the balsam fir following glacial retreat (1)

The differences between the balsam fir and the Fraser fir are subtle. The botanical separation is based primarily upon differences in the cone structure Under close observation the Fraser fir appears to have greater needle density, better color, and more wax on the buds and leaves. It is these qualities that make it a highly prized Christmas tree species. The Fraser fir also begins growth later in the spring which makes it less likely to be injured by frost. These attributes make Fraser fir a highly prized Christmas tree species which will command higher prices than good quality pine or spruce. The annual harvest of Fraser fir Christmas trees now exceeds $10,000,000. Demand for the trees greatly exceeds the supply and there is much interest in increased production in North Carolina, and Virginia.

The hindrance to increased Fraser fir Christmas tree production is the lack of planting stock. Seedling growth is slow and 5 years are usually required to produce a suitable field transplant. There is insufficient information on the proper methods for seed-