area of growing land which can be utilized very intensively with field soil as the rooting medium. Cutting storage right in the beds using mulch or simple tent structures of opaque poly also reduces the need for more elaborate cold storage facilities or greenhouse space. Undisturbed cuttings can put on strong growth through early fall, storing carbohydrate reserves to enable them to overwinter well and provides strong transplants the following spring.

Cultivars, such as those in *Prunus* and *Philadelphus,* which do not root well consistently under mist, do incredibly well in the "Burlap Cloud" system with reliable takes and regrowth.

SUMMARY

I encourage growers to look into this simple but effective method of softwood cutting propagation and not to dismiss it due to its basic approach. Elaborate facilities are not always the answer to increases in production. Time has proven this method to be an effective basis of production at Woodland Nurseries and has proven a valuable adjunct to other propagation systems used at Sheridan Nurseries.

LITERATURE CITED

1. Hancock, L. 1953. Shrubs from softwood cuttings. *Proc. Inter. Plant Prop. Soc.* 3:151–164.

CORNUS FLORIDA AND *CORNUS* 'EDDIE'S WHITE WONDER'—SOILS, ROOTSTOCKS, AND PROPAGATION FOR SHADE TREE PRODUCTION

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One of the most beautiful trees that can trace its "roots" to British Columbia is the 'Eddie's White Wonder' dogwood. The tree was bred and introduced by Mr. Henry M. Eddie, a pioneering nurseryman in British Columbia. Mr. Eddie grew mostly fruit trees and roses, subsequently supplying most of the fruit trees for the Okanagan orchards of B.C. in the late 20's and 30's.

During his life in Canada, one of his major interests was the breeding of dogwoods. His goal was to combine the best qualities of two dogwoods: *Cornus nuttalli* (Pacific flowering dogwood) and *Cornus florida* (Eastern flowering dogwood). He hoped to produce a

plant having the fine flowering size of *C. nuttallii* and the autumn color of *C. florida*. A number of promising crosses were developed, some of which had weeping habits. In 1948, the Fraser and Vedder rivers overflowed wiping out most of his potential hybrids. Fortunately, one cross between *C. florida* and *C. nuttallii* was so promising that it was cloned and lined out at his Richmond farm. Had it not been for this we would not have had *C.* 'Eddie's White Wonder' today.

To describe this plant we could say it is upright with slightly pendulous branching and with dark green foliage with fiery autumn colors. It has a heavy profusion of pure white flowers about 2 weeks after *C. nuttallii*. Dogwood leaf blotch, a fungal disease causing blotching and decay of the leaves and flowers has affected the native species in recent years. However, *C.* 'Eddie's White Wonder' shows a lower susceptibility to the disease.

My father and grandfather started growing this cultivar in the late 50's, early 60's. All the growing was done in the open ground and even today we don't grow any plants in containers. I would like to discuss three things that were learned the hard way as they relate to *C. florida* and *C.* 'Eddie's White Wonder'.

Soil Selection. Any *C. florida* or *C. nuttallii* grown in soil require that soil to be well-drained especially in winter during the heavier rains. The soil may be a clay loam or a sandy loam but the key thing is that it be well-drained. This previous spring (1988), during prolonged rainfall, some of our young budded plants succumbed even though they had only a little surface water for more than 48 hours. I mention this seemingly obvious point because it is essential for the practical propagator.

Rootstocks. In the first decade of growing 'Eddie's White Wonder' we had a good supplier of *C. florida* rootstocks without realizing the importance of fibrous roots to dogwood seedling survival. When this first supplier went out of business, we purchased seedlings from other sources. These seedlings had tap roots with only a small amount of fiber on the side of the tap root. After planting, these seedlings were not vigorous enough to "bud" well. The bark would not slip and bud life was poor. Growth during the following years was also poor. Eventually we found our problem and a number of good suppliers who were able to develop the fibrous roots that were necessary for *C. florida* survival.

Secondly, avoid storage of *Cornus* seedlings in the cooler. When we receive our *Cornus* seedlings in spring we dip the roots into a mud slurry and heel them into a clay field. Perhaps having them heeled into sawdust beds would work just as well. Since we adopted this practice, the plants seem to "jump" into leaf better after planting.

Propagation. Bruce Macdonald writes about grafting *C. florida* under glass in January or February using a side veneer graft.

Our experience has been with budding. We have tried T-budding and chip budding with rubber ties and with plastic ties. The best results have come with regular T-budding and tieing in with plastic ties, leaving an opening for the leaf petiole and bud to "breathe". Chip budding has not been successful for us but perhaps our timing has not been right for chip-budded dogwoods.

Rootstocks that have been planted in May are budded in late August or early September. We like to wait as long as possible in order to give the scionwood a chance to mature. Any scionwood that has too much flex to it or is too pulpy is rejected.

In the morning, scionwood is collected from 2 yr trees. Leaves are removed and the scionwood is wrapped in wet newspaper to maintain freshness. The grafter cuts a 1-in. T-cut near the base of the rootstock and opens the bark by slipping the knife under the bark. The scion is formed by cutting a shallow 1-in. section under the bud, ensuring that a small sliver of wood remains under the bud. This is slipped into the T-cut. Clear plastic chip budding tape is used to tie the bud in, leaving only the bud exposed while covering the rest of the wound. The union should be complete in one month, after which the plastic tie is cut.

The following March the top of the budded plant is cut off just above the bud and the new shoot is tied onto a straight cane to ensure a straight stem. Side branches are pruned off the following winter while allowing the top to continue through, producing a well-branched 2 year tree.

This method has worked fairly well for us during the last few years producing results of 90 to 95% bud "take".