PROPAGATION OF DOGWOOD BY HARDWOOD CUTTINGS

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One of my first attempts at rooting *Cornus florida* cuttings came when a large supply of potential cuttings were available from moving a 12-year-old plant of *C.f.* 'Waltham'. The cuttings were divided into three lots: large, 8-10" long; medium, 6-8" long; and small, 3-4" long, on February 26, 1971. Two hormone treatments, 0.8% IBA in talc and 0.8% IBA + 5% benomyl, plus an untreated check, were used. None of the check cuttings rooted while 50, 60, and 90% of large, medium, and small cuttings treated with 0.8% IBA rooted. With 0.8% IBA + 5% Benomyl results were 50, 10 and 20% for large, medium, and small cuttings. Small cuttings treated with 0.8% IBA gave the highest percentage rooting, but larger cuttings produced a heavier root system. There was no apparent advantage of using Benomyl with the IBA.

With the encouragement of being able to root up to 90%, the next attempt to root hardwood cuttings of *C.f.* 'Waltham' was on March 6, 1974 when cuttings from the plants produced in 1971 were available. In this trial we compared rooting in a flat *vs* rooting in individual tubes. The average rooting percentage in the flats was 17% while rooting in the tubes was 20%. It proved difficult to extract the cuttings from the tubes to evaluate rooting without damaging the roots. Check cuttings rooted 15%, while 0.8% IBA in talc and 10% Dip N'Grow (DAG)-treated cuttings rooted 19% on the average. Dip N'Grow contains 1% 3-indolebutyric acid, 0.5% a-naphthaleneacetic acid, 0.1% dichlone, 0.0175% boron, 20% dimethylsulfoxide, and 78% alcohol and deionized water. The best treatment was soaking the base of the cuttings in 200 ppm Ethrel (2-chloroethylphosphonic acid) for 72 hours before treating with 0.8% IBA in talc or 10% DAG, as 40% of the cuttings rooted. The Ethrel solution was changed every 24 hours.

The 1975 trial was primarily a cultivar screening trial. IBA in talc at 0.8% was used immediately or after soaking the base of the cuttings in water or 200 ppm Ethrel for 48 hours. The water and Ethrel solutions were changed after 24 hours. The results of this trial are shown in Table 1.

Table 1. Rooting percentage of *Cornus* cultivars treated with 0.8% IBA and rooted in perlite. Cuttings inserted 2/13/75. Results recorded 5/21/75.

Cultivar	Pre-Hormone Treatment		
	None	Water 48 Hr. Soak	Ethrel 48 Hr. Soak
Cornus florida			
'Cherokee Chief'	50%	10%	0%
'Cherokee Princess'	0	0	20
'Cloud 9'	0	0	0
'Fastigiata'	0	0	0
'Hillenmeyer White'	20	0	20
'Pygmy'	20	0	0
'Plena'	10	0	0
'Rainbow'	0	0	10
'Rubra'	10	0	0
'Salicifolia'	0	0	0
'Springtime'	0	0	0
'Waltham'	0	20	30
'Welchii'	0	0	0
C. alba 'Westonbirt'	40	80	90
C. kousa A	20	0	0
C. kousa B	0	0	0
C. mas	40	0	0
C. nuttalli 'Corigo Giant'	0	0	0
C. n. 'Goldspot'	0	0	0
C. 'Eddy's White Wonder'	0	0	0

Results are so variable at this time that we can't recommend hardwood cuttings for propagation of *Cornus*; however, they have been used to a limited extent at Iufer Nursery and Beaver Creek Nursery in Oregon. Since all propagation attempts to date have been in perlite other media, such as peat-perlite should be tried before dropping this method.

Hardwood cuttings take little space in the propagation bench, are done at a relatively quiet propagation period, and are ready to plant into a growing container the first year.