

Propagation of *Corylus avellana* 'Contorta' from Root Suckers

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Propagation at Greenbrier Nurseries is primarily devoted to the grafting of unusual Japanese maples. Each year we do about 20,000 units of *Acer palmatum*, as well as hard and softwood cuttings of many rare and unusual woody ornamentals. After grafting *Corylus avellana* 'Contorta' for two years, we found it to be a never ending battle to keep suckers off the young plants. Softwood propagation proved difficult, and plants that did root showed poor root development and were difficult to overwinter the first year. One thing that we did notice, however, was that the rooted plants that we had in production in 3-gal containers showed a tendency to produce suckers the second year. Our annual sales on *C. avellana* 'Contorta' are only about 500 plants per year, so we felt it feasible to develop a system to produce enough suckers to meet our production needs. This system is quite primitive when compared to our bottom-heated greenhouses and outdoor mist systems, but seems to be an adequate and underused way to produce limited quantities of harder-to-root plants that have suckering problems when grafted.

In the early spring (about March 1st in West Virginia) we take our mother plants and cut them back to about 4 in. from the ground. These plants are planted in a bed that contains our potting mixture. This gives the plants a loose soil to produce suckers, and also makes it easier to dig the newly produced plants. After they are cut off they are fertilized with a ½ cup of Woodace fertilizer (3-to 4-month top dress special). The plants are watered liberally all through the growing season. This seems to lead to the development of more shoots. In the summer drought of 1991, we were able to produce far less plants than the previous year under wetter conditions. As shoots begin to emerge, we prune the exiting tip back to promote the growth of the suckers. We see more suckering in early July than any other time of the year. The plants are fertilized again in early October and allowed to go dormant.

In mid-February, the mother plants are removed from the bed and bare-rooted. This allows us to easily remove the sucker with a generous root system attached. Usually we get four to six new plants from each mother plant but have removed as many as eleven plants from one mother plant. The young plants are then potted into 1-gal containers and placed in a poly house where they can be induced to break bud. These plants are usually sold in mid-June as a 1-gal product. Many of these plants will grade out as large as 24 in. tall. We also pot about 200 plants into 3-gal containers. These plants usually show suckers in the pot the second year. We have also removed these young plants from the containers and cut the suckers loose from the root systems in order to obtain additional plants. The mother plants are then planted back into the bed and cared for until the next year.

The advantage of propagating *C. avellana* 'Contorta' by root cuttings is that the homeowner doesn't have to battle the suckers from the understock of a grafted plant. Other plants that this might prove a viable propagation method for in a small nursery are the wonderful cultivars of witch hazel (*Hamamelis*). These plants present many of the same propagation and cultural problems as *C. avellana* 'Contorta'.