

Successful Cutting Propagation of *Hamamelis × intermedia* ‘Arnold Promise’ and *Hamamelis mollis* ‘Brevipetala’

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Despite their relative scarcity in the American landscape, witch hazels are plants of great merit. These plants can breath life into an otherwise dreary winter garden with their showy flowers and sweet fragrance—with many cultivars featuring excellent fall foliage.

Hamamelis × intermedia ‘Arnold Promise’ and *H. mollis* ‘Brevipetala’ are two of the finest this genus has to offer. The literature about their successful propagation by cuttings is filled with both controversy and contradiction. Some sources claim this technique is easy while others say it is, if not practically impossible, certainly economically infeasible. In this paper I would like to share some of my experiences, both good and bad, in the propagation of these plants from cuttings.

Rooting Procedures for ‘Arnold Promise’ and ‘Brevipetala’. The rooting of both cultivars is extremely easy. I use semi-ripe cuttings collected in the second week of July. The cuttings are approximately 5 in. long, treated with 8,000 ppm IBA (Hormondin #3), placed under intermittent mist (5 sec/10 min), with bottom heat (76°F). Rooting medium used is a 2 peat : 1 perlite : 1 sand mix (by volume). The cuttings are stuck into 72-plug trays. Though rooting these plants from cuttings is easy, the challenge is getting them to survive and successfully grow on. Once rooted, the liners have a pronounced root sensitivity. The use of plug trays, as opposed to rooting into benches, is crucial.

Initial Failure. I had heard that the rooted cuttings must not be disturbed until after their first dormancy period. The rooted plug trays were removed from the propagation house in August and placed in our liner house where temperatures are not allowed to drop below 32°F in the winter.

I was pleased when the liners began flowering in late January. By late April the cuttings began to leaf out. The trays remained in the liner house until June when they were shifted into 3½-in. peat pots. I was disappointed when the liners refused to put on new growth—seemingly suffering from a form of suspended animation.

The following winter, the plants were placed in an unheated poly-house with the rest of the young nursery stock. That January, after having the audacity to go into bloom, every single ‘Arnold Promise’ had died—350 plants in all. Out of 350 ‘Brevipetala’ only 15 plants had survived this seemingly inexplicable die-off.

Timing is Crucial. After this crushing disappointment I became determined not to see this happen to my next batch of cuttings that were now sitting in the liner house.

I began asking a lot of questions. After talking to a few people like Jack Alexander of the Arnold Arboretum and Wayne Mezitt of Weston Nurseries it seemed the common belief is that the liners must be shifted directly after bud-break, long before the cuttings fully leaf out.

On April 24th the leaves on my second crop were between 1/8 and 1/4 in. long. The plugs were shifted into plastic quart pots using a bark mulch/sand mix; each were given 6 g of slow release fertilizer. With a certain degree of paranoia after our initial failure, we potted these with extreme care—making sure the plugs remained intact. The fact that our cuttings are rooted into plug trays, as opposed to into a bench and lifted bare root, mitigates the risk of transplanting shock. After shifting into quart pots, the plants proceeded to put on a good 5 to 8 in. of top growth during the summer. The roots now hold a good root ball and seem to be beyond this initial root sensitivity.

I must admit that these are only one-year-old plants and that more research is needed to determine how long this root sensitivity actually lasts. I am told by some growers that I should not shift these quarts until bud break next year, while others, like Ken Twombly of Twombly Nurseries, who raises over 10 cultivars on their own roots, say that these are now stable plants ready for either planting out or shifting up.

If cutting propagation of these *Hamamelis* species proves to be commercially viable, then a more time-efficient method of production exists. Grafted *Hamamelis* are not only slower to produce but also have a propensity towards suckering. If cuttings are left undisturbed for their first dormancy, strict attention paid to leaf development the following spring, and care exercised when shifting, then successful cutting propagation of these witch hazels is possible.