

Propagation of *Amelanchier* by Softwood Cuttings

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INTRODUCTION

In the nursery market place, *Amelanchier* has become very popular, thus increasing its demand. For years seed propagated *Amelanchier* was available for lining-out stock. In recent years selections and cultivars with superior landscape characteristics have been made. This creates a need for clonal propagation. The two methods most widely used are micropropagation and softwood cuttings.

LaPorte County Nursery propagates the following *Amelanchier* taxa by softwood cuttings: *A. xlamarckii*, *A. xgrandiflora* 'Cole's Select', *A. xgrandiflora* 'Princess Diana', and *A. laevis*.

MATERIALS AND METHODS

Plant Material. Softwood tip cuttings are taken from field or stockplants in the early part of June. The timing may vary due to the climatic conditions of that year. Cuttings are cut 4 to 8 inches in length. The bottom leaves are removed so there is 2 inches of stem to place in the rooting medium. A two-node cutting may also be used instead of tip cuttings. Cuttings are bundled with a rubber band to hold them together. Keeping the cuttings cool seems to be helpful in reducing stem burning.

Bundles of cuttings are completely dipped in a Green-Shield[®] solution. This soapy solution acts as a disinfectant for sanitation. Allow the cutting bundles to partly dry before dipping in a hormone solution. Cuttings are dipped for 10 sec in Woods rooting hormone at 2500 ppm IBA. Moisture is maintained on the cuttings at all times prior to sticking.

Medium. The medium consists of a peat and perlite mix (1 : 1, v/v). All parts are blended thoroughly and run through a shredder.

Propagation House. The polyhouses that the cuttings are placed in are covered with double-layer poly with the outer layer being white. Ventilation fans for cooling are in each house. The floor is fabric covered with 1 inch of pea gravel underneath. The house is sprayed with Green Shield[®] before the cuttings are stuck.

Cuttings are directly stuck into 2 $\frac{3}{8}$ -inch Anderson band pots. The pots are on the floor and placed pot to pot.

Mist is overhead using Eddie mist nozzles. A Phytotronics controller and a 24-h clock control misting. Mist goes on at 6:00 am and shuts off at 8:00 pm No bottom heat is provided.

Post Rooting. Root initials begin to appear in 3 to 4 weeks. On an average year a 75% to 85% rooting is obtained. Once rooting has occurred and mist is off, the tip will continue to grow. All cuttings are overwintered in polyhouses, provided with minimum heat.