

A Lesson in Juvenility

Tom McCloud

Appalachian Nurseries, Box 87, Waynesboro, Pennsylvania 17268 U.S.A.

The important factor of juvenility in the role of plant propagation is well documented in no less than 45 papers to this Society alone. As propagators, we should be using this knowledge to our advantage in all types of propagation, especially vegetatively by cuttings. It is, along with temperature, light, and moisture one of the basic considerations when rooting cuttings. However, since it is not as easy to define and measure as the other factors, the amount or degree of juvenility is sometimes passed over lightly or forgotten entirely. Indeed, its importance in rooting plants does vary widely from genus to genus to the point of not being considered at all. However, not giving juvenility proper consideration can mean the difference between great success or total failure when rooting some plants. Our experience at Appalachian Nurseries with *Aesculus parviflora*, bottlebrush buckeye, is the example I want to relate to you today. In the past, we have tried softwood cuttings, root cuttings, and seeds in an effort to keep up with demand for this great native plant. We were having little and certainly not acceptable success with all of the above methods. Further reading about rooting *Aesculus* revealed nearly all writers emphasizing the use of cutting from young plants or juvenile growth. Since all of our sources of cuttings were from large mature stands, cuttings from young plants were not available. We did have a few of our own large stock plants (7 to 8 ft) with stems ranging in diameter from ½ inch to 2 inches, which finally in desperation we cut to the ground late in Fall 1997. The next spring we were rewarded with a full, thick stool bed of young shoots 12 to 18 inches tall by late May. These we turned into cuttings 10 to 12 inches in length and direct stuck in 3-inch pots filled with composted pine bark and shredded styrene. We used Woods/Dip & Grow at the 1 to 9 rate. The cuttings rooted 80% under mist in a greenhouse in 6 to 8 weeks. Plants were salable the following spring. We repeated the procedure this past spring with cuttings from the same stool block. Rooting was not as good this year at 50% to 60%; however, we attributed those lower percentages to factors other than reduced juvenility. The **TAKE HOME MESSAGE** is this: **ALWAYS** consider age of stock plants and juvenility when selecting a source of cuttings. Don't hesitate to rejuvenate old stock plants or stool beds. This, of course, is nothing new, just basic classic information of which we need to be reminded once again.