

Home-made, jerry-rigged, indoor fog propagating set-up

by JOSEPH W. HICKMAN

My ancient lean-to greenhouse was obviously going to be practically full of orchids this last early fall, and I wanted to stick some summer cuttings, a mixed bag, to be followed by magnolias and hollies. The really fine arrangements of commercial nurserymen, universities, etc., are not sensible for my limited needs, even if not too expensive.

Here is my substitute solution, with all materials available locally except a heating cable, on which more later. This rig is a compromise in almost every way, but so far seems to be working out. I constructed a box of 1 x 4" redwood, outside dimensions 18 x 32", leaving cracks in the bottom for drainage. At Wal-Mart [a chain of discount general goods stores in the United States] I acquired a two gallon cold water humidifier, about 13 x 15 x 5", and two timers, one for hours, one for half hours. Then I obtained six pieces of 1/2" thin-wall PVC pipe 12" long, three pieces 15" long, and 12 "U" shaped plastic brackets. The 12" pipes were placed, upright, inside the box at ends and the center, each loosely secured with two of the "U" brackets. The three 15" pieces completed the top cross pieces, held in place with six 90 degree 1/2" PVC elbows. Clear plastic was then stapled along "back" side — the end away from where the "fogger" was to be placed — and then folded over the frame. The humidifier was placed at

one end, elevated about 2 1/2" so the emission nozzle would project over the side of the box and plugged into the half hour timer. Overhead lights, one Gro-Lux, one cool white (only had one Gro-Lux) were plugged into the one hour timer at opposite ends.

Where did the box go? Why, in the front room, of course, in a plant cart, although a basement would be ideal. My wife goms around with ceramics, and I do not mind. I gom around with plants, and she does not mind.

A friend who sells and deals in so-called mobile homes kindly sawed two 10 foot, three inch diameter thin-wall PVC pipes into six inch sections, and these are my containers for my perlite and peat moss mix — heavy on the perlite. I run the lights 18 hours and the fogger one half hour about the time the lights go on, and a half hour after being off for four hours. (Trial and error quite quickly determined this to be about right for me; excess water indicates medium much too moist. This proved to be quite easy to adjust. The cuttings told me, too.

Many of my initial mixed cuttings did root, many did not. For the most part the cuttings attempted are considered on the difficult side, no dwelling on that here — I am aware that Ye Olde Editor would remind me with that BIG EDITING PENCIL that this is a MAGNOLIA Journal.

My plant cart is equipped with plastic trays, to catch excess moisture, and at first I overwatered. I got under way late in the season, but a few magnolias did well (Now to carry through the winter.).

Among the compromises, for bottom heat, I made do with a plastic cable — 12 foot, with built in thermostat by Gro-Quick (\$9.75) — advertised by Hummert's as for duffers, not pros (see below). It was also touted to "keep soil temperatures at about 72°F", which it may or may not do — even so this is not considered optimum for magnolias. In order to accommodate the cable, I had to elevate the box with three strips of lath. All things considered I do find this cable adequate and the price was a consideration.

I learned some things even during construction. Leaving the upright plastic pipes a bit loose with the "U" clamps aids in inserting the elbows and cross pipes and in removing them. The PVC frame is not glued. I used brass screws throughout, for box and clamps. The plastic water container for the humidifier-fogger breathes in algae. When a nice rich green color very generally appears, I fill with Physan 20 solution (Clorox will do) and warm water. Let it rest a while then rinse out under shower. Any long handled brush will get corners. This is not frequently necessary.

When my 3" open-end PVC "pots" were first sawed, it took a good scrubbing to remove the adhering plastic fragments, but that was only one time and an old fashioned scrub brush did the job. A dishwasher cleans them nicely now. My wife gave me an empty instant tea jar

which almost exactly fits the interior of this thin-wall pipe. Stood on the lid, the "pot" pushed down, the entire contents are available to the hand with all roots intact. I really think I like these things; the roots of some deciduous azaleas (there I go again) were four to five inches deep. It is obvious that evaporation from them is minimal, so I find a fluffy, porous medium practical and fairly frequent fungicide essential. Many other types of containers for individual cuttings exist for sale or can readily be devised. Weak fertilizing is also a must, but that is really another subject.

I did not want cuttings to undergo any more stress than necessary, so I kept the plastic covering rather snug over fogger nozzle at first; this is not required very long. As soon as the cuttings have "settled down" that end of the plastic can be maneuvered to allow more and more ventilation. (When I raise the end and a puff of warm, good smelling air escapes I feel all is well — a distinct advantage, this propagating in one's front room.)

I surmise that not all homesteads are so fortunately situated with a plant cart in the front room, but this "rig," or something similar, could, with some hardship it is true, be situated in almost any other location. If in a basement, drainage would be no concern. This is intended only as a hint to the amateur, like me, who would like to propagate a modest number of cuttings; no doubt it is subject to unlimited variations and improvements. I believe that the box size arrived at is happily about optimum for the 2 gallon fogger. This needs to

be filled only about every fourth day. It can look after itself while I go to a Magnolia Society meeting.

By the way, I am growing-on quite a few magnolia understocks in 4 x 14" square black plastic containers. There are open-ended, tapered somewhat, and a square of copper screen wire will snap into the bottom with some security. I like the copper wire. The roots hit it quickly, and it does air-prune. Nurseryman and member Richard Schock of Boonville, North Carolina introduced me to these, and I finally found some in Indianapolis. Nine of them exactly fill a plastic milk carton container. I wanted to bud or graft a bunch of these understocks this past summer, but feared that the apparent crowding would diminish trunk size of the seedlings. Not so; they reached almost pencil diameter by August and September. I found an old broken piece of sewer tile that would hold the tapered bottom quite firmly and sat in the shade to whittle and tie.

A. H. Hummert Seed Company is located at 2746 Chouteau Avenue, St. Louis, Missouri 63103 (314-771-0646). They are an old firm principally dealing wholesale in horticultural supplies. Please do not think I am advertising for them; I have simply had an account with them since 1908, or thereabouts, it seems. They do have a retail outlet at their address, and the quoted price of the cable with thermostat was probably wholesale. The Gro-Quick brand is likely available from your own supplier; if not, the 12' cable, designed for approximately 3 square feet, is given the catalog number — on page 303 of the 1990

catalog — 65-5502. There would be a handling charge of \$3.00 for an order of less than \$25.00 together with shipping.

I hope that this may be of some aid to someone toying with the idea of doing just a bit of home propagating. If someone has improving suggestions, please kindly pass them on to me. I did discover one genuine dividend: I had some rhododendron seed from Ferris Miller at Chollipo from the seed counter. I took a half gallon yogurt container and cut holes for drainage, stuffed with packed sphagnum, squeezed as dry as possible, and sprinkled the seed on top. I put it in fogger near the nozzle. I did not water while they remained there some three months other than very weak fertilizer once or twice. Germination was rapid, as was growth, amazing to me. Will do magnolia seed under nearly similar situation about Christmas or New Years.

I grew weary of seeing at our meetings and reading of the really splendid propagating advances, wishing that I could approach them. The successes have been very adequate for a duffer. To the extent that I have had to improvise, again, a "deep pit", which isn't, for winter protection. This is another, even less expensive, jerry-rig; if reasonable survival next spring, will report. If not, there is always the compost pile.

As this is written, I am a few days short of being able to go to Bernheim Forest and environs. I have a distinct impression that I may be able to return with some out of season (possibly) *M. grandiflora* cuttings.... Good growing everyone. ■