Propagation at May Nursery©

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INTRODUCTION

I have a crew of 12 women who collect and stick their own cuttings. They can do 18,000-40,000 a day depending upon the taxon. We go out first thing in the morning while there is either dew on the plants or just the coolness of the morning has the cuttings in a fresh state. We stop cutting and harvesting and come into an air-conditioned propagation room by 10:00 AM. We have to be careful that the moisture level does not get too low since the air conditioning removes the moisture from the air. We keep the temperature at 22 °C (72 °F). As we take the cuttings, they are brought in every 20–30 min, watered down, and placed on a screened rack. We do not dip them in a fungicide because we have a weekly spray program for the propagation area. If cuttings are from clean, healthy plants, a fungicidal dip is not necessary.

We place newspapers on the table where the cuttings are prepared, then throw away the paper at the end of the day. This is done so that if by chance a cutting has a disease problem, it will not be carried over into the next day's cuttings. Each bag has the employee's name on it, and each employee is assigned a number. As they stick their cuttings, they place a tag with their number in the area they are sticking. We do this for quality control; if there is a problem, we know who stuck those cuttings and can make corrections. This is also good for success, so you can share with other workers what the particular employee did for their results.

As they are sticking an area, they put sandwich baggies over the sprinkler nearest them so they can stick cuttings without having to stop the misters in adjacent areas; thus, the cuttings stuck the previous day will not dry out.

We use Research Organics to supply the 10,000 ppm IBA solution to which water is added to dilute the solution to fit the concentrations needed for cuttings we are sticking that day. I try to stick plants that use the same concentration of auxin and root in the same time frame.

We use trays with 36 or 64 inserts depending on the size of the cuttings. These trays are thrown away after use. We place the trays either on raised pipe benches in houses or on 0.3 × 1.6-m (1 × 6-ft) boards in the shade for drainage and aeration. The same women, who do the propagating fill their own trays. They divide into two groups — six fill and six place the propagation trays into their location.

The mix we use is perlite and aged bark (2 : 3, v/v). This is mixed in a 6 yd^3 Davis Mixer. We add 6 $kg \cdot m^{-3}$ (15 lb/yd^3) of 18N-6P-8K Nutricote Type 360, 2.4 $kg \cdot m^3$ (4 lb/yd^3) each of Epson salts ($MgSO_4$) and limestone, and 0.15 $kg \cdot m^{-3}$ (0.25 lb/yd^3) of Subdue. We use this formula with all plant species, except azaleas, which does not have lime incorporated.

We use a spinner-type nozzle for mist, which does well for the rooting process and growing stage. We are in the city limits of Havana, Florida, so we use city water for the propagation area. We also have a well tied into the propagation area in case the city's pressure drops below 60 pounds of pressure. We have a natural-gas-operated generator that automatically cuts on should we lose power. A 24-h time clock is

hooked up to a Phytotronics (http://www.phytotronics.com) mist controller. It comes on 2 h after sunrise and cuts off 1 h to 30 min before sunset, depending upon the time of year. The first 2–3 days after sticking, the mist comes on every 4 min in the morning, and in the afternoon it comes on for every 2 min for 10 sec. After that, it comes on every 8 min for 10 sec until rooting starts to occur. After that, the hardening off process begins. The cuttings are pruned during preparation for sticking and at least once or twice before potting. Every 6 weeks, we put out a granular herbicide and there is a weekly fungicide and insecticide application. All houses and shades are covered with 30% shade cloth.