

## Straight Line Sticking

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### QUALITY

Quality is the characteristic that makes a nursery profitable. If we have quality people producing a quality product and provide quality service, our business is assured of success. The start of quality in the nursery is the propagation department. The purpose of this paper is to share with you the simple method we use to begin our quest for quality.

### MATERIALS AND SUPPLIES

**Medium:** 1-yd pine bark + 1-yd perlite + 6 lb lime + 1 1/2 lb Micro-Max (for azaleas 2 × the perlite)

**Mixer:** Bouldin & Lawson Twister II Mixer

**Pots:** Multi-cavity tray 18, 24 and 36 pots/uncut tray TLC Polyform, Inc., Phone 612-542-2240

**Filler:** Bouldin & Lawson Model 134 Mini-Flat Filler

**Hopper:** Salvaged State Highway Department salt spreader

**Conveyor:** 12 1/2 ft × 12 in wide with 10-in. belt, 1 HP (110 volt, 20 amps) variable speed reversing motor EZ-FLOW Conveyor, Phone 201-842-4964.

### METHODS AND PROCEDURES

Cuttings are collected, cut to size, and grouped together into hand-size bundles using a rubber band. We then treat with K-IBA and store until needed in a walk-in cooler.

The flat filler and supply hopper are set up at the front door of the greenhouse. The drive conveyor section is attached directly to the flat filler. On this section we install six quick-connect trays for holding the cuttings. Ten additional conveyor sections are hooked together and placed on the ground. Plug into the electrical system, and you are ready to go.

The system requires the following labor:

- 1—Mixing soil and moving conveyors
- 1—Filling flats
- 6—Sticking cuttings
- 1—Supplying cuttings to sticking crew
- 1—Unloading conveyor with finished cuttings

New trays are placed on the flat-filler conveyor and filled with the rooting medium, which exits directly onto the drive conveyor section. The sticking crew is divided, half standing or sitting, on each side of the conveyor. Bundles of cuttings are placed in trays in front of each person sticking the cuttings. Each person inserts the required number of cuttings into each cavity of the rooting tray as it passes. The tray then proceeds down the conveyor system, is unloaded and placed on the ground where the rooting process begins.

## DISCUSSION

### *Advantages of the system*

1) The rooting medium is the same in every cell of every tray. Consistent volume and compaction of the rooting medium is a tremendous advantage for the rooting process. Moisture, air and other variables are more easily managed

2) The system is fast. A 10-member crew can stick 15,000 cuttings per hour on a consistent basis.

3) The sticking crew is not exhausted at the end of the day Tired? Yes, but not exhausted.

### *Disadvantages of the system.*

1) The rooting medium must be uniform with no large chunks, the sticking process is going so fast the sticking crew doesn't have time to coax a cutting into the rooting medium.

2) The EZ-FLOW conveyors are temperamental at times They must be set up with care to assure that they are in absolute alignment.

3) The system has an economy of scale. If you have less than 500 cuttings, it's almost as easy to set the trays in the house and stick the cuttings on your hands and knees

## SUMMARY

I am convinced that the benefits of "Straight Line Sticking" far outweigh the disadvantages Economical plants can be produced starting us on the road to our ultimate quest for quality.