

## Propagating from the Keyboard

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### INTRODUCTION

We spend a lot of time and effort trying to keep everyone informed as to what is happening on the nursery. Try as we might, the lack of communication among divisions was creating problems that at times were frustrating. In an effort to improve this communication gap we developed a series of computer programs that have helped us in streamlining our production at Lancaster Farms. Our computer system is an Intel based PC using a UNIX operating system with programs written in Microsoft® Basic.

**Developing a Computer Program for Propagation.** The following discussion is a description of our simple propagation program. The first step is setting up a logical set of **standard assumptions**:

- 1) Number of pots/trays per house or m<sup>2</sup> (ft<sup>2</sup>).
- 2) Production area.
- 3) Ingredients and their proportions used in standard mixes.
- 4) Rooting hormones used and their concentrations.
- 5) Production week calendar scheduling.

I cannot overemphasize the importance of establishment of these standards. Take your time in setting up the standards you need in your operation. Once established, they become the building blocks upon which everything is dependent.

**Creation of a Propagation Work Order.** The necessary coordination is done between the sales, propagation, and production divisions to decide what plants we want to propagate for the coming season. Once the cultivars and quantities of plants have been decided upon, the propagation manager creates a **Propagation Work Order**.

**Decisions in the Propagation Work Order Process.** Decisions are made and entered into the Propagation Work Order for the following:

#### **Top Information: (Parameters for the Entire Work Order)**

- 1) Order is assigned a number.
- 2) Scheduled production week.
- 3) Hormone type and concentration.
- 4) Size of pot, tray, and flats that will be used.
- 5) Propagation medium (substrate) that will be used.

**Plant Species and Cultivar Information.** (Maximum per order is 16 lines).

- 1) Plant species.
- 2) Quantity needed.
- 3) Number of cuttings per pot.
- 4) Total number of cuttings, which is computed if multiple cuttings are to be stuck per pot.

When all plants are entered into the Propagation Work Order, then a print-out

is generated showing the above information as well as a listing of materials (production space, pots, mix ingredients, etc.) needed for the successful completion of the work order.

Once a Propagation Work Order is entered into the system, then we use this information to help in planning not only materials needed during a production week, but also in determining labor requirements during a given production weekly period.

**Reporting Cutting Units Stuck in the Propagation Work Order.** Immediately after the cuttings have been taken and stuck, then the propagation manager enters into the Propagation Work Order the actual number of cuttings that were made and the sticking date is recorded. Shortages are noted and if necessary, a new order is created.

**Completed Propagation Order.** The final step in the process is an evaluation of the cuttings after rooting. The propagation manager makes a physical count of the cuttings that rooted and the numbers are recorded. This completed propagation order is then used by the production division so that they can plan the potting and production needs of the rooted liners from propagation, etc.

## **SUMMARY**

The production computer program developed for our propagation division has helped us to be better managers and has forced us to keep records that in the past were never made or were lost in some unfilled notebook. We have virtually eliminated the scenario of “ready-to-make-so-in-so-cuttings”, when in reality we could not because of the lack of preordered supplies or available greenhouse space. The type of program we use is very simple and I urge you to consider using your computer for things other than just routine office needs.