

photo). The entire area was graded to drain to the center with a small ditch to a natural drain. It was covered with crushed rock and the containers and plants were then set in place.

The system was then operated until water ran out from the bottom of the containers. After several trials, it appeared that five minutes were sufficient. The nozzles put out .4 inch per hour, so each container received two gallons of water per irrigation. One valve served 648 containers and the other, 720 containers. If each valve is operated for five minutes, a total of 1368 containers can be irrigated in 10 minutes.

Sand traps or filters should be installed to prevent nozzle stoppage. The adhesive used to cement the nine  $\frac{1}{8}$  inch tubes into the 1" plastic cap may plug the tubes. Be sure they are open before trying.

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## SATURDAY AFTERNOON SESSION

MODERATOR: George C. Dobbins

### PRODUCTION AND RECORDS

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In the 1962 Twelfth Annual Meeting of the International Plant Propagators' Society — Eastern Region, Mr. George Oki spoke on, "Systems and Mechanization in a Container Nursery." Also he briefly mentioned Oki Nursery's record keeping system. Since then, we have had many inquiries from nurserymen from different states about our production record keeping system.

One of the questions asked by nurserymen is as follows: What form does Oki Nursery use to anticipate varieties to grow? We at Oki Nursery use the *Annual Production Schedule*. In this form we have information such as:

1. Variety
2. Method of Propagation
3. Approximate per cent of rooting or germination
4. Approximate amount to cut or seed
5. Best month to cut or plant seeds
6. Alternate month to cut or plant seeds

Another common question asked is how do we determine when to make the cuttings, plant the liners, and plant the gal-

lons? We use our *Crop Projection Sheet* in which for each variety the sales date and quantity needed is first determined; then we work back to determine the liner planting date and the cutting or seeding date.

Some of the other forms used in the production department are as follows:

#### *Cutting Schedule List*

The cutting schedule list is used by the propagator as a reminder and a check list as to what season or month the cutting should be taken. Information on this sheet is as follows:

1. Season or month
2. Variety
3. Amount needed
4. Approximate amount to cut
5. Total amount cut

#### *Seeding Schedule List*

This form is used as a reminder and a check list to proper timing of seed planting. The time of seed planting is normally determined by the harvesting date of the seed. As a general rule, best germination of seeds is obtained by planting fresh harvested seeds. Items included are:

1. Variety
2. Scheduled sowing months
3. Number of flats to sow
4. Treatments

#### *Propagation by Cuttings*

This form is used to record daily activities of our cutting department as to date, what varieties were cut and also quantities that were processed.

#### *Individual Variety Record for Cuttings*

This form is used to keep the history of each plant variety. Information gathered on this form is as follows:

1. Botanical Name
2. Cuttings  
Date  
Amount  
Location
3. Liners  
Date  
Amount  
Location
4. Canning  
Date  
Amount  
Location
5. Source of Wood
6. Treatment of Cuttings

7. Growth Regulator
8. Type of media used
9. Percentage rooted
10. Per cent take
11. Miscellaneous remarks

#### *Individual Variety Record for Seeds*

The form used for seeds is almost identical to the form used for cuttings.

At the end of each season all the individual variety records are reviewed and analyzed as to variety; rooting or germination cycle, rooting or germination per cent, growth regulator or seed treatment, media used, misting or no misting, and miscellaneous remarks.

This information is compared with previous years' performance of each variety and at this time the best known method is determined and used for the following season's Annual Production Schedule.

Our IBM accounting department plays an important role in providing our production department with information such as customer, time of sale, variety, size and quantity. This comes under the heading of *Sales Analysis Data*.

We at Oki Nursery have found that the only logical way to improve our efficiency and reduce our cost of production is to keep *comprehensive written records*.

SUMMARY

