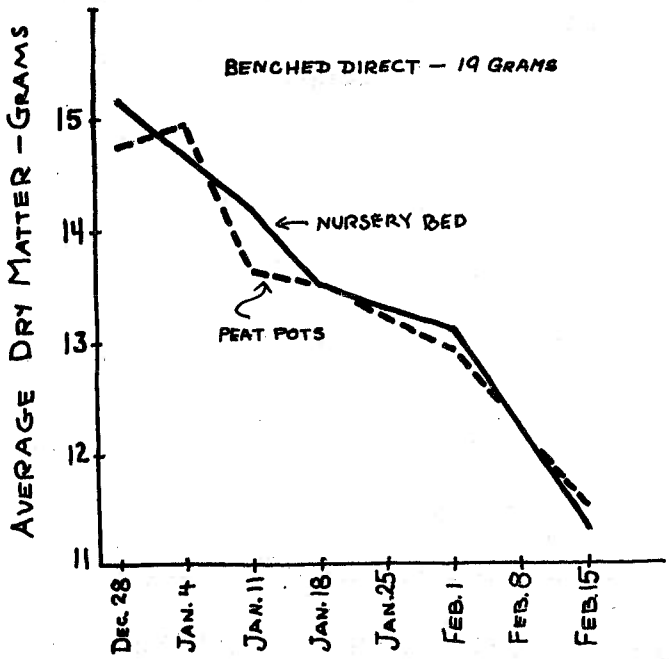
Peat Pots vs. the Nursery Bed Method for Growing Young Carnation Plants

By Kenneth L. Goldsberry

Direct benching of rooted carnation cuttings has produced excellent results, but certain market conditions require growing young plants in a smaller area until bench space is available. For several years, we have discouraged the practice of potting carnation cuttings as a means of "holding" mainly because of the overall increase in cost, possible increase in disease, and the checking which almost always results. The utilization of a nursery bed for growing young plants usually produces similar effects, especially if the plants are not transplanted after 5 to 7 weeks.

Pressed peat pots offer still another means of growing transplants, with possibly less chance for checking the plants. With this in mind, preliminary studies were started December 1, 1957, by planting rooted cuttings in three plots locations: 1) directly in a producing bench at 6 by 8" spacing, 2) in 3" peat pots setting pot to pot on a bench, and 3) in a nursery bed with 3 by 4" spacing. After 4 weeks (Dec. 28) the first transplantings were made from the nursery bed and from peat pots to the producing bench at 6 by 8" spacing. The same transplantings were made each succeeding week through February 15. Following the last planting, the plants were allowed to grow for 7 weeks before harvest April 4, for fresh and dry weight measurements. There was a gradual decrease in dry weight produced, with the plants remaining in the nursery bed or peat pots the longest being checked the most. On the average, plants held in the nursery bed or in peat pots for 11 weeks were 76 per cent as large at harvest time as those held only 4 weeks. Cuttings planted directly at 6 by 8"spacing produced 27 per cent more dry matter than cuttings transplanted after 4 weeks and 67 per cent more than cuttings held for 11 weeks in either peat pots or nursery



beds. It should be kept in mind that growth is about half the June rate during the period when this experiment was done. Checking could be expected to be much more severe in May and June for a similar period of time.

Conclusions

There seems to be no definite advantage in the use of peat pots over the nursery bed as far as growth is concerned. However the following observations were made during the course of this experiment.

1. Twenty-five per cent more plants can be grown in the same area in peat pots.
2. Plants in peat pots are easier to handle in transplanting.
3. There is less root injury to plants in peat pots.

4. Selection against disease and poor plants is facilitated.

5. The cost of the pots and filling them is considerably higher than the cost of preparing a nursery bed.

The above results were obtained during the midwinter months. A similar study for June and July is under way at present.

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Boron --

The weight in grams per inch of stem for the different levels was as follows: ½ ppm-- 1.27; 4ppm-- 1.28; and 10 ppm-- 1.24. This indicates no real decrease in quality of growth, even with 20 times normal borate in solution.

There was no apparent stunting with the higher rate of borate, however flowering was delayed slightly. At the 10 ppm level splitting was increased, color of Pink Sim was more intense, and burning of the tips of leaves and calyxes was quite evident.

At our current recommended rate of applying boron, there is little liklihood of the nutrient accumulating to excess.

Your editor,

W D Holley

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