Cultured-Indexed Geraniums

James W. Boodley
Department of Floriculture
Cornell University

How fast will a cultured-indexed geranium cutting make a salable flowering plant? This was the question asked the students in the floriculture production course at Cornell. To find out, the group propagated terminal cuttings of 11 varieties of cultured-indexed geraniums. The varieties were: Olympic Red, Dark Red Irene, Penny, Better Times, Springfield White, Genie, Radio Red, Wendy Ann, Improved Picardy, Ricard and Irene.

Three-inch, terminal cuttings were propagated March 7, 1962. The cuttings were taken from stock plants that had been grown at a 60°F constant temperature. The cuttings were dusted with a mixture of 9 parts Hormodin #1 and 1 part fermate prior to sticking in mixtures of 50% peat moss and 50% perlite by volume and 50% perlite and 50% vermiculite by volume. Standard size greenhouse flats were used to hold the media. The cuttings were then placed under low pressure-intermittent mist that operated 10 seconds ever 2½ minutes from 8 am to 5 pm.

The cuttings were removed from the propagation area March 21, two weeks after sticking. Generally, rooting was better in the perlite and vermiculite combination than in the peat and perlite. Although many cuttings were only callused they were all potted to 3½-inch, pressed sawdust (Testwood) pots on March 21.

The soil mixture was 9 parts soil, 6 parts german sphagnum peat moss, 4 parts horticultural grade perlite and 2 parts sand. This was amended with 20% superphosphate at 2 ounces per bushel plus 10-10-10 at 1 ounce per bushel.

After potting the plants were placed in a 50°F night temperature, 60°F day temperature greenhouse. Space limitations prevented placing the plants in a 60°-70° greenhouse where growth would have been even greater than was obtained.

The plants were spaced 7 per square foot and watered with tap water the first week they were in the greenhouse. After this period the plants received ½ pound of 17-17-17 per 100 gallons of water at each watering. Flowers were kept pruned from the plants until April 23 at which time the plants were allowed to bloom.

RESULTS

From Figure 1 the amount of growth made in two months from propagating is evident. All of the varieties except Penny had flowers in bloom. Some varieties had a flower open and other buds showing color on the same

(*continued on page 3*)

(*continued from page 1*)

plant. The variety Wendy Ann produced the smallest amount of growth. Although many of the cuttings were only callused at potting time, out of 227 propagated only one cutting was lost. Had these plants been grown at 60°F night temperatures much more growth and flowering would have been obtained.

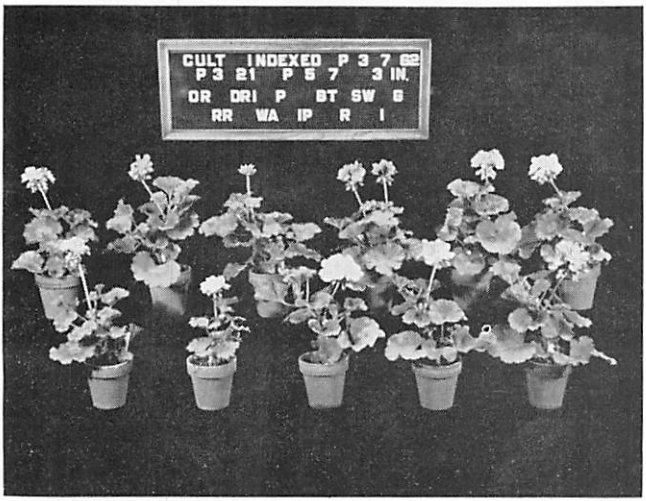

Figure 1. Cultured-indexed geraniums. Propagated March 7, 1962, potted March 21, photographed May 7. Top row, left to right: Olympic Red, Dark Red Irene, Penny, Better Times, Springfield White, Genie. Bottom row, left to right: Radio Red, Wendy Ann, Improved Picardy, Ricard and Irene.

SUMMARY

Eleven varieties of cultured-indexed geraniums propagated March 7 under intermittent mist and potted to 3½-inch pots March 21, had flowers in bloom May 7. The plants were grown at 50°-60°F night and day temperatures. One week after potting fertilizing with ½ pound of 17-17-17 per 100 gallons of water at every watering was started. The majority of the plants grown were salable for Mother's Day.

Although the results of this class demonstration were not spectacular it would certainly seem that cultured-indexed geraniums have a marked advantage over uncultured stock. Rooting and growth were both rapid even when the plants were grown at 50°F night temperatures. The use of intermittent mist resulted in no disease occurring as is the normal case when uncultured cuttings are rooted in this manner.