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Flowers & Nur. Report
STABY - OSU

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TABLE 2. Average Mildew Severity Rating (All Varieties).

| | |
|---|-----|
| A. No treatment | 3.2 |
| B. Benomyl 50% 2 lb/1000 sq ft | 1.4 |
| C. Benomyl 50% 4 lb/1000 sq ft | 0.2 |
| D. Dimethirimol 12.5% 35 fl oz/1000 sq ft | 3.2 |
| E. Dimethirimol 12.5% 70 fl oz/1000 sq ft | 3.7 |

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CARNATION BUD OPENING

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In the past few years there has been some interest in cutting carnations at an early stage of flowering. If done successfully, this could reduce shipping costs substantially by permitting more cut flowers to be packed per carton. In our experiment we compared several solutions for opening carnation buds and evaluated total flower life.

Peterson's New Improved Pink Sim carnations were cut on January 9, 1970, with 1/2 to 3/4 of petals extended beyond the calyx indentation. Petals were vertical, with no flare, averaging 1/2 to 3/4 inch in cross section diameter at the tips. Stems were recut to 24 inch lengths and 10 stems placed in each treatment of 1 quart of solution.

The conditioning room temperature was 75 F - 80 F, constantly lighted with fluorescent lights and ventilated with an exhaust fan in the ceiling. The relative humidity was about 45 percent.

In some of the treatments distilled water was compared with tap water (Colorado

River) and the pH of the solutions was recorded at the start of the experiment.

The buds appeared to be "sleepy" in all treatments during the opening process. The opening of a majority of the blooms took 4 to 5 days. They were rated on the fourth day as follows: 0 = tight bud, 1 = 1/4 opened, 2 = 1/2 opened, and 3 = flower opened to normal commercial harvest stage. A treatment of 10 stems would, therefore, be rated at 30 if all opened on the fourth day. Everbloom[®], Floralife[®], Petalife[®], and FM Regular (liquid) were the only treatments in which all flowers opened fully on the fifth day. In the daily evaluation of the flowers' status those in the Everbloom[®], Floralife[®], and Petalife[®] treatments seemed to have lost the "sleepy" appearance when they opened. The flowers in other treatments kept their "sleepy" look.

Everbloom[®] was rated the best overall treatment. The flowers fully expanded to a recurved position and were larger than those under any other treatment, measur-

Besemer 70

Besemer '70

ing 3 1/2 to 4 inches in diameter. Floraf-life® was a close second, Petalife® third, and FM® Regular fourth. All the other treatments were little better or as good as the control treatment (tap water only).

Results are reported in table 1.

The flowers used in this test were harvested after 10 to 12 days of bright, clear, dry days and cold clear nights before the

January 9, 1970 cutting date. Flowers harvested under such conditions often curl at the petals' edges. Most growers refer to this condition as "sleepy." Its occurrence has already been mentioned. Other tests after this one lead the author to feel that the buds for this experiment were a bit tight and that a bud with slight petal flair (1-1 1/2 inches in diameter across the top of the petals) would be a more favorable stage for opening.

TABLE 1.

| Treatment | | pH | Bud Opening Rating on 4th Day | Average Days Fresh Flower Life From Harvest ^{1/} |
|------------------------------|------------------------------|-----|-------------------------------|---|
| Everbloom® | 12 g/quart-tap water | 5.0 | 27 | 14.6 |
| Floralife® | 20 g/quart-tap water | 4.5 | 27 | 15.3 |
| Petalife® | 20 g/quart-tap water | 3.5 | 26 | 15.8 |
| Oxaline citrate | 100 ppm-tap water | 6.8 | 23 | 7.8 |
| Oxaline citrate | 100 ppm-distilled water | 4.3 | 17 | 6.4 |
| Oxaline citrate | 200 ppm-tap water | 6.2 | 18 | 7.8 |
| Oxaline citrate | 200 ppm-distilled water | 4.2 | 24 | 6.6 |
| FM® Regular (liquid) | 1 oz/gallon-tap water | 6.7 | 16 | 9.3 |
| FM® Powder (Growers Special) | 5 g/gallon-tap water | 6.4 | 20 | 8.4 |
| FM Budmagic® | 1 oz/gallon-tap water | 6.9 | 27 | 11.0 |
| Oxaline citrate | 100 ppm + 2% sugar-tap water | 6.7 | 25 | 5.3 |
| Tap water only | | 8.1 | 25 | 5.5 |
| | pH of distilled water | 6.4 | -- | --- |

^{1/} Include 4 to 5 days of bud opening period.

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