

Controlling Height of Hydrangeas With Growth Retardants

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Treatment of hydrangea plants with the growth retardant B-Nine is a promising method for saving production costs. The shorter plants do not have to be staked, and blooms are often more beautiful than untreated plants.

TWO HYDRANGEA varieties, Strafford and Rose Supreme, were grown from Oregon cuttings at the University of California, Los Angeles, during the summer growing season of 1963. On August 12, all plants were hand-pinchd to two good pairs of leaves per stem, after which they broke and grew vigorously. On September 16, they were moved out-of-doors, and on October 23, the growth retardants Cycocel and B-Nine were applied as sprays—each in two concentrations, 2,000 ppm and 4,000 ppm—to six plants in each treatment, with six plants of each variety untreated for controls.

Cycocel was not effective in decreasing either the length of the forced stems or the overall height of the plants. B-Nine, on the other hand, proved effective: the shorter plants were more handsome specimens than the untreated plants (see photographs) and indicate the possibility of a considerable saving in production costs because they can be marketed without staking. Although the number of inflorescences per plant was somewhat reduced by the higher (4,000 ppm) B-Nine treatment, the inflorescence weight per plant (which should be a fair measure of showiness) was not reduced (see table).

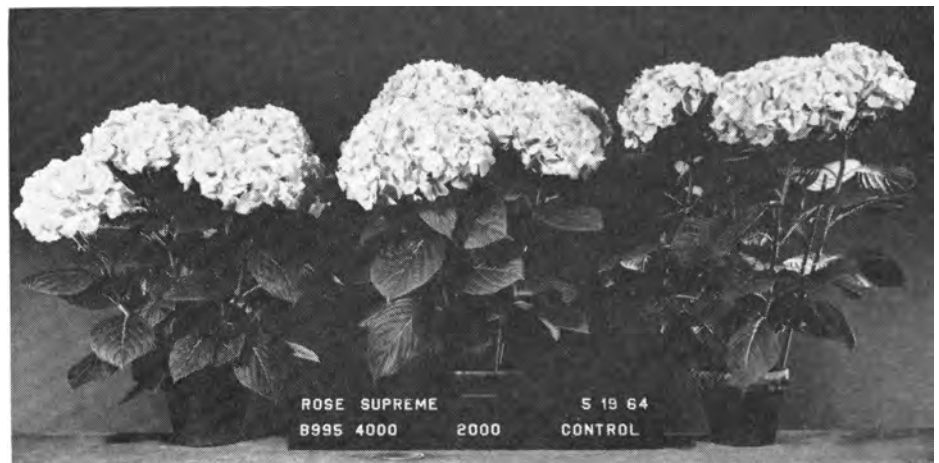
Commercial growers who may want to try the B-Nine treatment should be aware of the onset of dormancy, since it differs from area to area. Timing is a vital part of the treatment. The spray must be applied *after* the current season growth has finished and *flower bud formation has started*.

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GROWTH AND FLOWERING DATA (AVERAGES) FOR HYDRANGEAS TREATED WITH AND WITHOUT GROWTH RETARDANT SPRAYS

| Variety | Retardant | Concentration* | Length of new shoots | Inflorescences per plant | Fresh weight per inflorescence | Weight of inflorescences per plant |
|--------------|-----------|----------------|----------------------|--------------------------|--------------------------------|------------------------------------|
| | | | cm | number | gm | gm |
| Strafford | None | | 41.4 | 6.5 | 23.8 | 155 |
| | Cycocel | 2000 | 40.9 | 5.7 | 33.7 | 192 |
| | Cycocel | 4000 | 38.5 | 5.9 | 29.6 | 175 |
| | B-Nine | 2000 | 28.0 | 5.7 | 26.7 | 153 |
| | B-Nine | 4000 | 15.5 | 5.3 | 30.7 | 163 |
| Rose Supreme | None | | 40.0 | 5.1 | 33.9 | 173 |
| | Cycocel | 2000 | 38.2 | 6.1 | 24.8 | 151 |
| | Cycocel | 4000 | 40.3 | 5.8 | 31.0 | 175 |
| | B-Nine | 2000 | 30.8 | 5.8 | 30.0 | 174 |
| | B-Nine | 4000 | 20.1 | 4.6 | 40.5 | 186 |

*Concentration refers to active ingredient in the spray solution.



Effects of B-Nine growth retardant in shortening hydrangea plants are shown in photos of Rose Supreme, above, and Strafford variety, below. Plants to left had been treated with B-Nine at a concentration of 4,000 ppm; and center plants at 2,000 ppm—as compared with untreated check plants to right.

