

# EFFECTS OF GROWTH RETARDANTS ON GROWTH AND FLOWERING OF 'RINGO' AND 'SOONER RED' GERANIUMS

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Adapted by

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This project was designed to study the effects of CCC (chlormequat, cycocel) and A-Rest (ancymidol), applied in various concentrations of spray and drench at different stages of maturity, on the growth and earliness of flowering of the seed geranium cultivars 'Ringo' and 'Sooner Red.'

Both varieties were sown 12/20/77. 'Ringo' was transplanted 1/9/78 and 'Sooner Red' 1/18/78. All plants were grown in 4-inch plastic pots with a 1 soil:1 peat:1 perlite medium in a greenhouse regime of 62°F N.T. with 10-15°F higher D.T. All treatments contained ten plants of each cultivar. Spray treatments of Cycocel or A-Rest were made at the 4-5 true leaf stage. They were applied twice, one week apart, at about 1.5 milliliters per plant (5.4 fluid oz./100 plants) to thoroughly moisten plants, but not to the drip stage.

Drench treatments were made only once, with 42 milliliters of solution/pot, at the same growth stage. Data collected on 4/14/78 indicated that 'Ringo,' which is naturally compact and early flowering, did not benefit significantly from any treatment used. 'Sooner Red' flowered 8 days earlier, and was more compact when treated with a 63 mg CCC drench, 200 ppm A-Rest spray, or .125 mg A-Rest drench. The 1:80 Cycocel spray (1500 ppm) normally recommended did not produce a desirable response.

The cost benefit to be derived from using the materials on 'Sooner Red' must be carefully weighed. Treatment costs were: 63 mg Cycocel

drench--0.91¢, 0.125 mg A-Rest drench--01.25¢, and 200 ppm A-Rest spray--6.2¢ per plant (two applications). If smaller containers are used, and the plants are close together, both cultivars would probably benefit from a growth regulator.

Growth retardants applied to taller growing seed geraniums can: 1. Induce earlier flowering (depending upon cultivar), timing and type of application; 2. Produce darker green leaves and darker leaf zonation; and 3. Reduce plant height.

Although neither growth retardant has "label approval" for use on geraniums at this time, these growth regulators can be a valuable tool in the production of seed geraniums.

#### REFERENCE

*Ferrante, P. and J. G. Seeley. 1979. Effects of Growth Retardants on Growth and Flowering of 'Ringo' and 'Sooner Red' Geraniums. B. P. News August: 4-6.*