NEW GUINEA IMPATIENS GROWTH REGULATOR STUDY

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OBJECTIVE: To compare height control of different growth regulator treatments on New Guinea Impatiens, cultivar 'Caligo'.

SCHEDULE:

3/28	Rooted cuttings potted in 4" plastic pots
4/25	Growth regulators applied as sprays
5/10	Second application of growth regulator applied to Treatment 2.
6/03	Height data collected

TREATMENTS:

1. Control with no growth regulator applied.
2. B-Nine at 5,000 ppm + Cyclocel at 2,500 ppm, applied twice.
3. Bonzi at 20 ppm
4. Bonzi at 40 ppm
5. Sumagic at 5 ppm
6. Sumagic at 10 ppm

DATA COLLECTED: Plant height from pot rim to top of plant.

EXPERIMENTAL DESIGN: Plants were randomly assigned to a growth regulator treatment with five plants being sprayed with each treatment. After the growth regulator was applied, the plants were randomly assigned to a location on the bench to negate any possible affects of bench location on plant growth.

GROWING MEDIA:

The growing media used in the study consisted of topsoil, peat, and perlite (1:2:2 by volume) and amended with (on a cubic yard basis): 1.5# ammonia nitrate, 1# potassium nitrate, 1# magnesium sulfate, 8# agricultural limestone and 2 oz fritted trace elements. The plants were irrigated with a constant feed of 200 ppm nitrogen and potassium, with phosphorus at 47 ppm being supplied via phosphoric acid added to the irrigation water to adjust pH.

COMMENTS:

The plants treated with the no growth regulator (control), the two applications of B-Nine + Cyclocel, and Bonzi at 20 ppm all had the same average height of 14.7 cm (5.8 inches) and all were marketable. The application of Bonzi at 40 ppm offered moderate control of plant height at 12.1 cm (4.8 inches). The two Sumagic treatments of 5 and 10 ppm significantly

reduced plant height and flower size, with plant heights of 9.8 cm (3.9 inches) and 9.6 cm (3.8 inches), respectively. The reduced height with the Sumagic treated plants made them too small to be marketable.

Bonzi at the rate of 40 ppm appears to be the optimal treatment to use for reducing height of Caligo New Guinea Impatiens. Lower rates of Bonzi at 20 ppm and treatments with two applications of B-Nine + Cyclocel offered no significant reduction of height compared to the control. All rates of Sumagic drastically reduced plant height to the extent that the plants were unmarketable. Further Sumagic rate studies may determine the lower optimal rate to use.

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