

**SUPPRESSION OF STRETCHINESS IN POT *KALANCHOE BLOSSFELDIANA* POELLN. 'RAKO'
BY APPLICATION OF PLANT GROWTH RETARDANTS
AS RECYCLED SUBIRRIGATIONAL SUPPLY**

**Seung Jae Hwang¹, Mi Young Lee¹, Iyyakkannu Sivanesan¹,
and Byoung Ryong Jeong^{1,2*}**

¹Department of Horticulture, Division of Applied Life Science, Graduate School,
Gyeongsang National University, Jinju 660-701, South Korea

²Research Institute of Life Science, Gyeongsang National University, Jinju 660-701, South Korea

*Fax: + 82-55-757-7542, *E-mail: brjeong@gnu.ac.kr

REFERENCES

- Adriansen E., Odgaard P. (1997). Residues of paclobutrazol and uniconazole in nutrient solutions from ebb and flood irrigation of pot plants. *Scientia Horticulturae*, 69: 73-83.
- Arnon D. I. (1949). Copper enzymes in isolated chloroplasts. Polyphenoloxidase in *Beta vulgaris*. *Plant Physiology*, 24: 1-15.
- Bailey D. A., Miller W. B. (1989). Response of oriental hybrid lilies to ancymidol and uniconazole. *HortScience*, 24: 519.
- Coolbaugh R. C., Hirano S. S., West C. A. (1978). Studies on the specificity and site of action of α -cyclopropyl- α -(p-methoxyphenyl)-5-pyrimidine methyl alcohol (ancymidol), a plant growth regulator. *Plant Physiology*, 62: 571-576.
- De Hertogh A. A. (1989). *Holland Bulb Forcer's Guide*. 4th ed. International Flower-Bulb Centre, Hillegom, The Netherlands, 369 pp.
- Einert A. E. (1976). Slow-release ancymidol for poinsettias by impregnation of clay pots. *HortScience*, 11: 374-375.
- Izumi K., Yamaguchi I., Wada A., Oshio H., Takahashi N. (1984). Effects of a new plant growth retardant (E)-1-(4-chlorophenyl)-4,4-dimethyl-2-(1,2,4-triazol-1-yl)-1-penten-3-ol (S-3307) on the growth and gibberellin content of rice plants. *Plant Cell Physiology*, 25: 611-617.
- Jee S. O., Chung J. D., Park Y. K., Kim H. Y. (2000). Effects of growth retardants on the morphogenesis and GA-like substance activity of *Bletilla striata* *in vitro*. *Journal of the Korean Society for Horticultural Science*, 41: 409-414.
- Keever G. J., Foster W. J. (1991). Uniconazole suppresses bypass shoot development and alters flowering of two forcing azalea cultivars. *HortScience*, 26: 875-877.
- Kim Y. A., Lee J. S. (2002). Anatomical difference of neck tissue of cut roses as affected by bent neck and preservative solution. *Journal of the Korean Society for Horticultural Science*, 43: 221-225.
- Larson R. A. (1985). Growth regulators in floriculture. *In: J. Janick (Ed.)*. Horticultural review. Vol. 7. AVI, Westport, Conn: 399-481.
- Lee M. Y., Nam H. C., Jeong B. R. (2003). Growth and flowering of Kalanchoe 'Rako' as affected by concentration of paclobutrazol and uniconazole. *Acta Horticulturae*, 624: 287-296.
- McDaniel G. L., Graham E. T., Maleug K. R. (1990). Alteration of poinsettia stem anatomy by growth-retarding chemicals. *HortScience*, 25: 433-435.
- Million J. B., Barrett J. E., Nell T. A., Clark D. G. (1999). Inhibiting growth of flowering crops with ancymidol and paclobutrazol in subirrigation water. *HortScience*, 34: 1103-1105.
- Million J. B., Barrett J. E., Nell T. A., Clark D. G. (2002). One-time vs. continuous application of paclobutrazol in subirrigation water for the production of bedding plants. *HortScience*, 37: 345-347.
- Ranwala A. P., Legnani G., Reitmeier M., Stewart B. B., Miller W. B. (2002). Efficacy of plant growth retardants as preplant bulb dips for height control in LA and oriental hybrid lilies. *HortTechnology*, 12: 426-431.
- Reed A. N., Curry E. A., Williams M. W. (1989). Translocation of triazole growth retardants in plant tissues. *Journal of the American Society for Horticultural Science*, 114: 893-898.

- Sanderson K. C., Martin W.C., McGuire J. (1988). Comparison of paclobutrazol tablets, drenches, gels, capsules and sprays on chrysanthemum growth. *HortScience*, 23: 1008-1009.
- Starman T. W., Williams M. S. (2000). Growth retardants affect growth and flowering of scaevola. *HortScience*, 35: 36-38.
- Sterrett J. P. (1988). XE-1019: Plant response, translocation and metabolism. *Journal of Plant Growth Regulation*, 7: 19-26.
- Thetford M., Warren S. L., Blazich F. A. (1995a). Response of *Forsythia x intermedia* 'Spectabilis' to uniconazole. I. Growth; Dry-matter distribution; and mineral nutrient content, concentration, and partitioning. *Journal of the American Society for Horticultural Science*, 120: 977-982.
- Thetford M., Warren S. L., Blazich F. A., Thomas J. F. (1995b). Response of *Forsythia x intermedia* 'Spectabilis' to uniconazole. II. Leaf and stem anatomy, chlorophyll, and photosynthesis. *Journal of the American Society for Horticultural Science*, 120: 983-988.
- Wang Y. T., Gregg L. L. (1989). Uniconazole affects vegetative growth, flowering, and stem anatomy of hibiscus. *Journal of the American Society for Horticultural Science*, 114: 927-932.