

# RECENT PUBLICATIONS ON GROWTH REGULATION AND CUT-FLOWER KEEPING

Baker, J.E., C.Y. Wang and D.E. Terlizzi. 1985. Delay of senescence in carnations by Pyrazon, Phenidone analogues and Tiron. HortScience. 20:121-122.

All treatments in this study, including the control, contained 2% sucrose, 0.02% 8HQC and 0.02 M citric acid. *Pyrazon* (5-amino-4-chloro-2-phenyl-3(2H)-pyridazonone), *BW 755* (C(3-amino-1-(m(trifluoromethyl)-phenyl)-2-pyrazoline), and monophenylbutazone (4-butyl-1-phenyl-3, 5-pyrazolidinedione) at 0.1 mM concentration increased the base life of cut carnations by 48% to 85% compared to the controls. *Tiron* (1,2-dihydroxybenzene-3, 5-disulfonate) also increases vase life at 0.1 and 0.01 mM. These increases were additive to the beneficial effects of the control preservative solution.

South American flowers from a local wholesaler were untreated. They were re-cut and placed in quart jars with the basic preservative solution, adjusted to pH 4.6 with the cit-

Effect of pyrazon, phenidone analogs and AOA on vase life of carnations.

Treatment	Vase Life (days)
Control (+acetone)	9.0 (all treatments with 0.5%
Control (-acetone)	9.3 except "-acetone")
Pyrazon	16.6
Phenidone	17.0
BW 755C	13.3
MPB (monophenylbutazone)	16.4
AOA (aminooxyacetic acid)	17.1
AOA+pyrazon	18.1
AOA+phenidone	18.4
AOA+BW 755C	18.0
AOA + MPB	16.5

### Effect of Tiron on vase life of carnations

Treatment	Vase Life (days)			
	Expt. 1	Expt. 2	Expt. 3	Expt. 4
Control	9.4	10.4	9.8	9.8
Tiron, 1.0 mM	11.0	15.0	12.7	12.9
Tiron, 0.2 mM	12.5	14.7	13.5	13.6
Tiron, 0.01 mM	12.5	13.9	14.8	13.7

ric acid buffer and potassium hydroxide. Solutions made up from deionized water. Treatments consisted of 5 flowers, replicated once.

Note: M = mole, mM = millimole

The concentration in mM times the molecular weight of the chemical will give the grams necessary to dissolve in one liter.

Gorin, N. et al. 1985. Quality measurements of carnation treatment solutions in relation to flower silver distribution and longevity. J. Amer. Soc. Hort. Sci. 110:117-123.

Various silver containing solutions were evaluated for their effectiveness in extending the life of cut carnations by simple chemical tests. Effective solutions formed an immediate white or yellow precipitate when 3.0 ml of the solution reacted with 0.15 ml of 2.0 M  $\frac{1}{2}$  potassium iodide, whereas no precipitate formed when reacted with 0.15 ml of 2.0 M sodium chloride solution. With no precipitate, there was insufficient silver to extend flower life. No silver was detected in a combined stem and leaf sample or in the flower head. A precipitate with both KI and NaCl showed the wrong formulation to extend life.

STS solution is unstable. It must be used fresh before degradation occurs. Stored commercial or laboratory-formulated solutions develop a precipitate, sulfurous odor and a black color on the inside walls of the container.

Agnew, N.H., M.D. Albrecht and R.K. Kimmins. 1985. Reducing corolla abscission of *Streptocarpus*  $\times$  *hybridus* under simulated shipping conditions with silver thiosulfate. HortScience. 20:118-119.

STS applied as foliar sprays one and four weeks prior to shipping reduced corolla abscission. Spray concentrations of 0.5, 1.0 and 2.0 mM were all effective. Sprays 24 hours prior to shipping caused necrotic lesions on flowers and foliage. The 4-week spray preconditioned the flowers to a 24-hour spray, preventing injurious effects and decreasing corolla abscission by 47%. STS foliar sprays at 0.5 mM and 1.0 mM, applied one week prior to shipping, prevented all corolla abscission after simulated shipping.

Semeniuk, P. and R.J. Griesbach. 1985. Bud applications of BA induces branching of a non-branching poinsettia. HortScience. 20:120-121.

Applications of 6-benzylamino purine (BA) suspended in lanoline at concentrations of 1, 5, 25 and 50 mg/l effectively induced either initiation of bud growth or the development of lateral branches in nonpinched, non-branching 'Ruff and Reddy' poinsettia. No lateral branches developed on nonpinched controls.

Henry, R.J. 1985. BA induces lateral branching of *Peperomia obtusifolia*. HortScience. 20:115-116.

A single foliar spray of N<sup>6</sup>-benzyladenine at 250, 500 or 1000 mg/l resulted in compact plants with an increased number lateral branches.