

Impact of various PGRs on shelf life of herbaceous ornamentals grown in pots.

Ornamental Protocol Number: 06-014

Objective: determine whether certain PGR materials increase the shelf-life of certain flowering, potted ornamentals

Experimental Design:

Plot Size: Must be adequate to reflect actual use conditions.

Replicates: Minimum of 8 replications of 4 different varieties of crop species

Application Instructions: Foliar spray applications (sprenc) using 2 – 3 quarts solution per 100 sq ft. Maintain plants in greenhouse for 1 - 2 days. Then place them in boxes and keep in darkness for 48 hours to simulate shipping. Then place plants into conditions simulating a typical retail display facility (20°C 12 hours of fluorescent light, with watering as necessary). Evaluations will be made prior to simulated shipping, immediately after, and 7, 14, and 21 days after simulated shipping or until suitable relevant data cannot be collected, but no longer than 21 days.

Target Plant Species: Geranium, tulip, poinsettia, impatiens

Use Site: Greenhouse/Field Container

Evaluations: Flower number, visual quality on a scale of 0 to 10 (with 0 being unsaleable and 10 being highly attractive), and phytotoxicity (with 0 being no phytotoxicity and 10 being plant death). Please include photos of examples of untreated plants and any treated plants exhibiting responses to treatments.

If different application methods or evaluations are made, please clearly specify differences in final report and explain how they enhanced results.

Recordkeeping: Keep detailed records of weather conditions including temperature and precipitation, soil-type or soil-less media, application equipment, application volume per acre, irrigation, pot/liner size, plant height & width, and plant growth stage at application and data collection dates. Because plants will be kept under fluorescent lights during part of the experiment, please measure light levels under these lights immediately after the simulated shipping period and include these readings in the final report.

Treatments:

Product	Priority Level	Rate	Special Instructions	Contact Information to obtain materials and any needed adjuvants
Fascination (BA, GA), Valent OR Fresco (GA + BA), Fine	A	21 ml/gal (100 ppm)	Single application when plants have at least one open flower or inflorescence	Valent, Joe Chamberlin, 770-985-0303, jcham@valent.com Fine Americas, Kevin Forney, 661-588-7137, kevinf@fine-americas.com
Exilis Plus (BA), Fine OR MaxCel (BA), Valent	B	18 ml/gal (100 ppm)	Single application when plants have at least one open flower or inflorescence	Fine Americas, Kevin Forney, 661-588-7137, kevinf@fine-americas.com Valent, Joe Chamberlin, 770-985-0303, jcham@valent.com
ProVide (GA 4&7), Valent OR NovaGib (GA 4&7), Fine	B	1 g/liter (100 ppm) OR 38 ml/gal (100 ppm)	Single application when plants have at least one open flower or inflorescence	Valent, Joe Chamberlin, 770-985-0303, jcham@valent.com Fine Americas, Kevin Forney, 661-588-7137, kevinf@fine-americas.com
Standards for ethylene sensitive plants (Select one)				
MCP	Standard	1 ppm	Applied as gas overnight at room temperature	
Silver thiosulfate	Standard			

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Untreated		--	--	

Reports:

Reports must include:

Results summary (no more than one page)

Summary table with appropriate statistical analyses

Experimental design and materials and methods

Appendices: raw data and recordkeeping information as listed above

If pictures were taken, please include them.

A report submitted electronically is preferred but not required. If the report is provided electronically, the basic report can be sent in MS Word or WordPerfect, the recordkeeping information as pdf or other electronic documents, and the raw data in MS Excel or other suitable program such as ARM.

Please direct questions to: Cristi Palmer, IR-4 HQ, Rutgers University, 681 US Hwy 1 S, North Brunswick, NJ 08902-3390, Phone 732-932-9575 x629, palmer@aesop.rutgers.edu **OR** Ely Vea, 308 Aston Forest Lane, Crownsville, MD 21032, Phone & FAX#: 410-923-4880, E-mail: evvea@comcast.net.

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Revised By: CLP