



A Grower's Guide to PGRs:

Tips for Ornamentals and Vegetables

April 2016

Plant growth regulators (PGRs) are used to manage plant growth in spring production, especially when unseasonably warm temperatures encourage excessive elongation. Use of these products can yield a variety of benefits such as enhanced plant quality, improved foliage color, extended shelf life, more efficient use of production space and profitability. Non-chemical growth-management strategies include cultivar selection, pinching, plant spacing, and cultural and environmental control measures.

The chart below highlights the primary effects on plant growth created by various PGRs. Despite the science behind the use of PGRs, growers are encouraged to trial them under their growing conditions before widespread use.

Primary PGR Effects

Plant Structure/ Branching	Regulate Shoot Growth	Promote Growth
Florel	A-Rest	Fascination
Configure, RiteWay	B-Nine	
	Cycocel	
	Bonzi, Paclo Pro, Paczol	
	Sumagic	
	Topflor	

All of the listed products can be applied as foliar sprays. **Bonzi**®, **Paclo Pro**®, **Paczol**®, **Sumagic**® and **Topflor**® can also be applied as soil drenches. Compared to foliar sprays, drenches are less likely to delay bloom or reduce flower size while providing remarkable control of internode elongation. Of course, the proper rates must be used to achieve the desired performance. This information is available for many seed and vegetative annuals in the new fourth edition GGSPRO Technical Reference Guide.

Florel® lessens the need for pinching by releasing apical dominance of all nodes down the stem plus the growing tip, yielding more branches and flowers than one hand-pinch. Florel can reduce the spread of sap-transmitted viruses by eliminating the need for hand trimming. Using Florel to time crops and prevent premature blooming can also reduce thrips pressure.

Configure® and **RiteWay**® can improve lateral branching on many herbaceous perennials and woody plants.

A-Rest® is used primary on seed plugs and lilies for predictable linear responses.



Petunia Madness White, 288 plugs transplanted into 1801 pots.
Left: Two 30ppm Bonzi sprays, 7 days apart, starting 2 weeks after transplant.
Right: One 2ppm Bonzi drench 2 weeks after transplant



Snapdragon Chimes Yellow, 3 ppm Bonzi drench

B-Nine® effectively reduces internode elongation for 1-2 weeks, so multiple applications are often needed. Good coverage is required for uniform results. B-Nine is effective on a wide range of crops.

Cycocel® also functions to reduce internode elongation, especially in the early stages of crop production. Foliar sprays must be applied only to the point of glisten to prevent yellowing, which will occur where spray droplets puddle up.

Bonzi, **Paczol** and **Paclo Pro** are most effective when applied as a drench reducing internode elongation for a longer period of time with less negative impact on blooming when compared to foliar sprays. Some plants respond favorably with increased bud set. Foliar sprays must target stems, so apply at a 45-degree angle while avoiding having the spray run down the stems into the soil.

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Topflor is applied as a foliar spray or a drench application. A granular formulation is available offering an advantage to growers who irrigate container-grown crops overhead, including many perennials and semi-woody ornamentals. Some growers prefer to use the granular form on container-grown annuals as well.

Sumagic is the only PGR that can be used as a foliar spray on the following edible crops: tomato, pepper, eggplant, groundcherry, pepino and tomatillo transplants. When used as directed, Sumagic results in compact transplants with thicker stems that are less likely to be damaged during shipping, and are more appealing to consumers. The supplemental vegetable label must be in the applicator's possession at the time of application; this label can be acquired by contacting GGSPRO.

Fascination[®] combines two types of plant growth hormones. This product is labeled for Easter lilies, to reduce lower-leaf yellowing and extend blooms up to 24 days. Other uses include overcoming accidental PGR applications, safely adding height to a wide range of crops and expanding poinsettia bract expansion. Fascination can also be applied to unrooted geraniums (ivy and zonal) to reduce the onset of yellowing induced by ethylene during shipping.

Always read and follow all label directions. Products other than those mentioned here may also be safe and effective.

Featured Products

Product	Description	Item No.
A-Rest	1 qt	73-1150
B-Nine WSG	1 lb	73-12511
Bonzi	1 qt	70-1260
Configure	0.5 gal	73-1306
Cycocel	1 qt	73-1380
Fascination	0.5 gal	73-1910
Florel	1 qt	608-395
Paclor Pro	1 gal	73-1830
Paczol	1 gal	73-1850
Riteway	1 gal	73-1935
Sumagic	1 gal	73-1951
Topflor	2 ltr	73-2005