

ask? us

About PGRs



**By
Joyce Latimer**
PGR — Perennials
jlatime@vt.edu

Joyce Latimer is professor and extension specialist for greenhouse crops in the Department of Horticulture, Virginia Tech University, Blacksburg, Va. Jim Barrett is professor of floriculture at the University of Florida, Gainesville, Fla., and GPN's consulting editor.

**By
Jim Barrett**
PGR — Annuals
jbarrett@ufl.edu



Q What are the advantages of PGR use on herbaceous perennials?

A The obvious advantages include smaller plants on the bench and the shipping cart, which reduces per-plant production and shipping costs. You should run your own cost-benefit numbers, but PGR purchase and application costs are typically significantly outweighed by the savings in production and shipping costs.

PGRs also provide a buffer in your shipping and sales windows by slowing plant growth, especially beneficial when bad weather delays product sales. They improve plant quality by increasing the chlorophyll concentration, making plants appear greener. They also have been documented to improve stem-shear strength in some crops, which means less plant breakage. In addition, PGRs improve plants' stress tolerance, even if there are no significant growth reductions in the plants. This makes the plants more resistant to damage during shipping and handling and more resistant to stresses at retail such as drought or high temperatures.

The bottom line on PGRs use is that it reduces plant shrinkage, the profit stealer we've been harping on lately. But there's one more thing. Many of our perennials are tall, gangly plants. Customers perceive a plant to be of higher quality when its size is proportional to its container. By reducing plant height and improving its proportionality, we make these perennials more saleable. As always, use appropriate rates to control growth without excessive carryover to the landscape. We do want those customers to return!

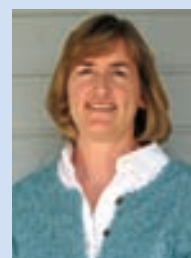
Q What is the best way to control cleome?

A There are some very nice seed and vegetative cleome varieties available that can rapidly produce large, colorful garden displays. In production, cleome can have a very short crop time, but they can grow so fast that height control can be a problem if they have to be held for some time either in production or at retail.

Cleome can be grown either pinched or unpinched. If the liners or plugs are a little tall, it is best to pinch about a week after planting. Then, the most important thing is to apply a plant growth regulator one to two weeks after planting or pinching. This slows the plants down before they are too tall and reduces the amount of control needed as the flowers expand. Depending on temperature, container size and the amount of control desired, a second PGR is often needed two to three weeks later.

The PGR application can be either as a spray or a drench. For sprays, a tank mix of daminozide and chlormequat works better than a paclobutrazol spray. However, a paclobutrazol drench gives longer control than a spray of daminozide and chlormequat. If you prefer sprays, then two tank-mix sprays will work well. For more control at the end of the crop, make the second application a drench. For the sprays, we use a high rate at 2,500-ppm daminozide and 1,500-ppm chlormequat. The paclobutrazol drench rates are between 2 and 10 ppm, depending on variety and how much control is desired. The most important thing is to make that early PGR application.

Do you have a question for our panel of experts? Send your disease, pest or growth-control questions to the appropriate person, and look for the answer in an upcoming issue of GPN.



Colleen Warfield
Diseases
cywarfield@ucdavis.edu



Jim Bethke
Insects
jabethke@ucdavis.edu