

Utilizing PGR Best Practices, Part 2

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Success usually starts with a well-developed plan.

And this is true in plant growth. As discussed in the first article of this series (July 2016 issue), growers must set their growth management plans to fit the plants/cultivars they're planting to successfully produce the crop. In turn, growers also have to be prepared to make decisions to tweak programs in response to changing conditions and market timings.

As companies like Fine Americas, Inc. research and develop industry-leading plant growth regulators, growers also continue to count on PGRs as a helpful tool in their plant development arsenals. Fine Americas is bringing these helpful perspectives to GrowerTalks and this month's article, the second of three featured in GrowerTalks, will focus on PGR use in annual crops and the dos and don'ts of PGR use to avoid costly overdoses in plants.

PGR applications in annuals

Erik Runkle, Michigan State University

One of the most important decisions for annual growers using PGRs is to decide what product to apply and at what concentration.

Sprays still are the most common application method for many growers and paclobutrazol (as found in Piccolo or Piccolo 10 XC) has become the PGR product of choice. This product is well-suited for bedding plants with moderate to vigorous growth, especially during the first two-thirds of the crop cycle. When determining what rate to use, consider the crop's vigor, the size of the plant and its container, the degree of growth suppression desired, and the growing conditions.

During periods of sunny, warm weather, a higher rate typically is needed than during cool, cloudy weather. Therefore, selecting a PGR rate requires consideration of many different factors at once. Over time, growers often develop an instinct of what rate to apply. When in doubt, growers should use lower rates, as they can always come back with another application later. Applying too much PGRs can excessively stunt plants and delay flowering.

While it's always best to avoid an overdose of a PGR, the grower needs to know what to do if one does occur.

Overcoming PGR overdoses

Brian Whipker, North Carolina State University

Plant responses to PGRs can vary greatly among species and cultivars. When an excessive amount of a gibberellin-inhibiting (growth-controlling) PGR is applied, this may result in overregulation of growth. Luckily, when circumstances like this occur, there's an option available to correct the situation.

The answer lies in the use of growth-promoting PGRs that contain both gibberellins (GA) and benzyladenine (6-BA), such as Fresco or a similar product.

A foliar spray of between 1 ppm (0.2 ml per gal.) to 3 ppm (0.6 ml per gal.) can be applied to stimulate growth. If the desired effects of expanding leaves and a slight stem elongation aren't observed within five days, then a second application can be made. Growers should use caution, as over-application due to high rates or too many foliar sprays can stimulate excessive stretch. To overcome this, another application of a gibberellin-inhibiting PGR will be required.

In conclusion

With annuals, as well as with other ornamental plants, growers should have a plan in place for the plant variety/cultivar they're growing. Even with a well-executed plan, a PGR overdose may occur. Knowing how to handle an overdose of a growth-controlling PGR can get the program back on track and avoid loss. When making applications of PGRs, growers should always read and follow label directions for the product(s) they're applying.

Remember to watch for the next issue of GrowerTalks for the last in this series of three articles for more helpful insights and advice from leading university researchers concerning the use of PGRs. **GT**

For additional information on PGRs, contact your local Fine Americas sales representative or visit www.fine-americas.com.

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