

GROWERTALKS

Columns

2/26/2016

Incorporating PGRs into Our Biological Growing Process

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There's a saying, "You are never too old to learn," and I've always found that to be very true. As I strive for "perfection" while growing each crop, some things just don't work out the way you feel they ought to. Even with a vision of what the end crop ought to be, there can be obstacles along the way and you need to reach out to other professionals to seek advice.

My in-house learning process of growing perennial cuttings and working with PGRs has presented challenges. There's a wealth of knowledge out there regarding recommendations for many types of PGRs to use on various crops, but making something work in your growing environment for your crops is what matters.

As mentioned in previous articles, keeping flowers off young perennial plugs is a bonus. Reverting plant material to a vegetative state is one of the benefits of Florel. When considering the problems thrips can cause in the production cycle, no flowers equals less pollen, so less food for thrips. However, with regard to worker safety, which we're very serious about in our operation, the use of Florel with its long REI poses some difficulties. Ideally, we want to minimize employee exposure to the product's active ingredient, ethephon, especially in our propagation department, but delaying the application for even a few weeks doesn't achieve the desired result.

The PGR Configure, with a shorter REI, is much easier to work with, but has a different plant growth response. This chemical promotes very desirable basal branching—more in some varieties than others. My plan was to produce cuttings with extra breaks and then use Florel to remove the flowers later in the growing cycle where longer REIs wouldn't be such an issue with the workforce. Unfortunately, applying Florel at this stage wasn't successful with flower removal, so I felt it was time to reach out for advice to the expert, Peter Konjoian, whom I've known for many years.

I've had good success in the past with Florel on other ornamental crops; he was happy to have a reinforcing discussion with me relating to the chemical's mode of action with reference to cutting production. The result of

this was that I needed to apply Florel at the earliest possible stage in the crop's life because, once flower buds are formed, they're harder to remove the later you apply the PGR. It's always good to go back to basics and start at the beginning. Young cuttings need to be nurtured in the correct manner and, obviously, there's a shorter production reaction time than with a finished crop.

With some extra employee education and minor adjustments to the crop layout process in our operation, we've begun to achieve the necessary results. So what does all this mean? Cuttings with no flowers and extra breaks are just what our customers want. As spring is just around the corner, we're also our own customer, as we produce a lot of in-house cuttings for our field-grown, bareroot production. These are biologically grown cuttings with:

- RootShield Plus white root systems
- A good population of Hypoaspis and Atheta BCAs
- Weekly nematode application for fungus gnat and thrips control
- No flowers
- Multiple breaks

These are just what next year's perennial stock wants as a starting point. We intend to repeat our field banker plant experiment in some areas again this year, so clean starting material is a big benefit here, also.

I experimented with Configure and Florel in a few field-grown crops last season and have started to see some exciting benefits. Also, having recently attended an online PGR webinar, I learned that applications of Configure after transplanting can result in a considerable increase in breaks and, consequently, plant fullness. With Configure, there's a tremendous difference in response between cultivars and even varieties within a cultivar. Will field applications of Configure work to our advantage? As we sell a lot of liners and dormant one-year bare rootstock, any increase in plant density can only lead to happier customers. Speed of throughput for the finished grower is important, so whether it's from a good, full cutting or a dense bareroot crown, it's in everyone's interest that learning how to use these two PGRs to maximum benefit is achieved in as short a time as possible. **GT**

Roger McGaughey, head grower at Pioneer Gardens in Deerfield, Massachusetts, was educated in Northern Ireland and England and has 40 years experience as a grower.