e-GRO Alert


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Pansy PGR Overdose

Fall pansies are started during the heat of the summer and to avoid excessive growth, plant growth regulators are needed. While a little is good, too much can result in stunted growth.

Figure 1. Dark green foliage and leaf crinkling is a common result of PGR overdose observed on pansies. (Photo: Patrick Veazie)

Controlling fall pansy growth can be a challenge regarding high temperatures promoting plant growth resulting in stretched plants that are not optimal for shipment. There are a variety of non-chemical and chemical controls that growers can utilize to prevent plant growth. One chemical control that growers commonly use to control plant growth is PGRs. These chemicals can be applied in a variety of methods ranging from foliar spray

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applications to substrate drenches. One concern that growers should be aware of is species sensitivity. Certain species such as pansy and begonia should be closely monitored when applying PGRs due to their increased sensitivity compared to other floriculture species.

Recently when visiting a grower, we observed dark green crinkled foliage and stunted plants (Fig. 1) and some plants exhibiting flowering delay compared to later crops (Fig. 2). When speaking to the grower paclobutrazol was applied as a substrate drench to try and slow the plant growth to achieve the target the ship date. Growers should consult culture sheets or reference published rates when determining a PGR program due to the varying sensitivity of floriculture species. Other paclobutrazol highly sensitive species include begonia and vinca and growers should closely monitor chemical type and rate for these species.

Ways to avoid PGR overdose:

① Review culture guides- check plant or cultivar-specific culture guides for PGR recommendations or warnings for sensitivity.

② Optimal application conditions- PGR application conditions can greatly impact plant uptake. For best spray conditions applying when temperatures are cool, low relative humidity, and cloudy will result in the lowest overdose possibilities.

③ Avoid applications to stressed plants- PGR effects will generally be enhanced if plants are stressed at the time of application.

④ Avoid excessive irrigations following application- for drench applications, avoid heavy irrigations after application, and avoid overhead watering after spray applications are made.

⑤ Utilize non-chemical methods of growth control such as utilizing a lower phosphorus rate to reduce internode stretch.

Excess plant growth can be problematic with fall pansies. Dialing in the rate will help avoid PGR overdose situations.

Figure 2. Flower delay is a common result of PGR overdose in cases where plants may outgrow the PGR application, however, at high rates flowering may be inhibited beyond the marketable period. (Photo: Patrick Veazie)

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