

Poinsettia Growth Regulation after Flower Induction

Regulating plant growth after flower induction is important because it gives the grower more control over timing and plant size for retail. Plants can easily become overgrown and/or grow too quickly before they're ready to ship. Growers should know which products and appropriate rates to use for different production stages. Use the tips below as a guide for plant growth regulator use on poinsettias.

MICRO BONZI® DRENCHES

Bonzi® (paclobutrazol) plant growth regulator drenches can be used when plants are taller or growing faster than desired and Cycocel® (Chlormequat chloride) plant growth regulator spray applications are not providing adequate growth control. Bonzi® drenches applied early to mid-season (late September through October) at a low rate provide additional growth control without delaying color development, distorting bracts, or significantly reducing the bract size. Recommended drench rates after flower initiation and prior to 50% color are 0.05 to 0.1 ppm. The 0.1 ppm rate is used on vigorous growing varieties and when moderate growth control is desired. The 0.05 ppm rate is used on medium vigorous growing varieties or when the growth rate needs to be slowed down slightly. Keep the total accumulated amount (from several drenches) to a maximum of 0.25 ppm until bracts are at least 50% colored (three colored bract leaves per bract) to prevent delaying color development and reducing bract size. It is critical that the drench volumes are consistent from pot to pot. A good starting volume is about 1 fl. oz./1 inch pot diameter.

Make sure to trial the Bonzi® drenches to determine the best rate to apply for your growing conditions. These drenches are mainly recommended for varieties with large bracts (like Early Orion™ Red or Toro™ Red poinsettia). Always keep some untreated control plants of similar size to provide a measure of the treatment's growth regulating effect.

Do not use any Cycocel® or B-Nine® WSG plant growth regulator combination sprays after flower induction, as they will very negatively influence bract size. Also, sprays of Florel® plant growth regulator after flower induction will delay flower development.



Mid-season Bonzi® micro drenches, i.e., in the above picture at 0.1 ppm applied on September 26, 2011, is a great tool to reduce growth without affecting bract size. The photo was captured on October 4, 2011.

FINAL BONZI® DRENCHES FOR LATE-SEASON GROWTH CONTROL

Final Bonzi® drenches can be applied starting about 3 weeks before finishing (up to 4 weeks in the South) and when there are at least three fully colored leaves per bract. In the North, drench at 0.5–1 ppm, and in the South drench at 1–2 ppm. If the effect is not strong enough, the treatment can be repeated starting about 3 weeks before finishing (up to 4 weeks in the South). Plants must be watered the day prior and Bonzi® should be applied to moderately moist pots. It is also important to keep drench volumes consistent from pot to pot to ensure a consistent effect throughout the crop.



Late season Bonzi® drenches that are applied too early (earlier than three weeks before finishing) can lead to significantly reduced bract size.

FASCINATION® SPRAYS TO INCREASE PLANT HEIGHT

Fascination® (gibberellic acid) plant growth regulator sprays at 2–3 ppm are recommended to achieve a moderate increase in stem elongation if the crop is tracking below the target height. The maximum growth happens about 2 weeks after application; 2–4 inches of growth are possible within that time frame. Early sprays (up to mid-October and beginning of color development) make a better, finished product. It is critical that plants have a good root system and are well fertilized. Late sprays lead to upward cupping of bracts and some undesirable internodes stretch.

If plants color too slowly, spray Fascination® at 3 ppm at 10 days before shipping for more even and quicker bract coloration. Conduct small trials in good years before large scale applications to have the needed experience when the crisis hits. Generally, more vigorous varieties have more of a growth response from the application versus compact varieties.



Effects of Fascination® sprays at 2 ppm on Mars™ Pink at different times during production.

Left to right: Control, October 30, November 6, November 13, 2011.

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