

Do's and Don'ts of Early Poinsettia Production

By John Erwin

INTRODUCTION:

It is critical that you produce a strong, well branched plant with sufficient time to develop branches or laterals prior to flower initiation if you want a high quality poinsettia crop. The two main problems last year in Minnesota poinsettia production were:

- 1) Not allowing enough time prior to flower initiation resulting in poorly branched poinsettias and/or small bracts.
- 2) Stem breakage.

This articles will address these two problems, as well as, other potential pitfalls in poinsettia production.

TIMING:

A 6" pinched poinsettia should have 3-4 unfolded leaves per lateral on September 10 for most cultivars. To achieve this, pinch poinsettias 3-4 weeks prior to September 10 (between August 13 and 20). To achieve adequate rooting prior to pinching, plant rooted cuttings 2-3 weeks prior to pinching (July 23). For many of you, this means planting your crop 1 week earlier. This makes sense since most of the new cultivars are initiating flowers earlier and schedules need to be 'backed up'!

SHOOT BREAKAGE:

Recent research by Jim Faust

during the last 2 years that clearly showed that stem/branch breakage is associated with the stock plant growing environment. Stock plants that were grown under warm and low light conditions produced cuttings produced finished plants that had a higher incidence of stem breakage than those grown under cooler and brighter conditions.

Therefore, purchase cuttings from a supplier that you know has stock plant production in a cooled environment with high light (2,000-3,000 footcandles) or that is producing cuttings outside. Some of the best cuttings still come from the southern California area. Some of the worst cuttings come from the, Northeast, Southeast and Midwest greenhouses where greenhouses get hot in June and July and light reduction curtains are pulled resulting in a dark, warm environment.

OTHER CONSIDERATIONS:

- 1) Maintain rooted cutting and finished plant growing environment light intensity between 1,500-3,000 footcandles.
- 2) Do not starve cuttings! Feed cuttings early well with a fertilizer that contains calcium (often calcium nitrate).
- 3) Day temperatures should not exceed 80-84°F.
- 4) Do not crowd cuttings. Early crowding results in early internode elongation that produces 'floppy' stems that may

not be able to support a large bract.

- 5) Apply growth retardants early! Use frequent, lower concentrations rather than few stronger concentrations. Some of the new tank mixes (500 ppm Cycocel + 500 ppm B-9, or 750 ppm of each) work very well in Minnesota.
- 6) Remember that the rate that you apply a growth retardant decreases as the season progresses. DIF and daylength both decrease as we move into fall. As a result, there will naturally be less stem elongation and plants will grow out of a growth retardant application more slowly.
- 7) Early pest control. Fungus gnat larvae can feed on young roots and provide a site of entry for *Pythium* and/or *Rhizoctonia* infestation. Detect fungus gnat larvae by placing the cut end of a raw potato on the media surface at the end of the day and checking the following morning for the presence of fungus gnat larvae.
- 8) Early whitefly control. The most effective means of whitefly control is Marathon application. A plant must have a healthy root system to take up Marathon. Marathon is easily leached, try not to water to leaching for 2-3 days after a Marathon application.

"Late stem breakage is associated with the environment stock plants are grown under. Hot and low light environments increase later stem breakage."

