

Common Problems In Poinsettia Production



“Make sure that you pinch poinsettias early enough to unfold 3-4 leaves on the lateral shoots by the date of flower initiation.”



Calcium Deficiency:

New cultivars have difficulty taking up calcium. High temperature combined and/or high humidity can decrease calcium uptake. In addition, high levels of ammonium, magnesium and/or potassium can also reduce calcium uptake.

Solutions:

- 1) Use fertilizers that contain calcium.
- 2) Spray calcium nitrate on foliage till wet (0.8-1.9 pounds calcium nitrate per 100 gallons of water (1.3-2.6 ounces per 10 gallons)) from the 3rd week of September to the 3-4th week of October.

Root Rot: Root rot is a common problem when fungicides are not regularly used. Root rot is an infestation of either/both *Pythium* and *Rhizoctonia*. These pathogens are water fungi; i. e. wet conditions promote their proliferation. Heavy soils, soluble salts burn and/or fungus gnat infestation increase the incidence of root rot. *Pythium* attacks from the roots up. *Rhizoctonia* attacks from where the stem touches the media up and down the stem/roots.

Solutions:

- 1) Do not keep media wet.
- 2) Apply fungicides for control of both *Pythium* and *Rhizoctonia* every 3-4 weeks.
- 3) Cycle fungicides

Pythium Control

Subdue (1/2 ounce/100 gallons)

Early Flower Initiation:

Lateral shoots that have few leaves (<3) will have reduced leaf and bract size. Lateral shoots must have 3-4 leaves (>1”) or more when lateral shoots initiate flowers. Most current poinsettias initiate flowers from September 10-15th.

Solutions:

- 1) Pinch plants no later than three weeks prior to flower initiation.
- 2) Maintain plant temperatures of 68oF. This may mean that air temperatures have to be increased to 72oF on cloudy days.

Bract Expansion:

Bracts can often be too small. Leaves that will become bracts expand during the last 2 weeks of October. Leaf/bract expansion increases as temperature increases to about 74oF.

Solutions:

- 1) Some of the best quality bracts are produced when poinsettias are grown at constant 68oF during the last 2 weeks of October and the first week of November.

Bract Coloring:

Bract color can be dull. Red pigmentation in bracts increases as light intensity increases and as average temperature decreases.

- 1) Decrease temperature the last 2 weeks of production (beginning of November) to 58-62oF.
- 2) Grow plants with as much light as possible during the end of October and

Inadequate Nutrition:

Poinsettias are a high feed requiring crop. Poinsettias are commonly underfed early in development and are overfed late in development. This results in insufficient leaf/bract size and reduced postharvest life.

Solutions:

Feed poinsettias with 400-600 ppm nitrogen and potassium the first fertilization (second watering). Reduce levels to 300-400 ppm until recommended media levels are achieved. Use ammonium based fertilizers during August (20-10-20), ammonium plus nitrate based nitrogen (15-5-15 Cal Mag) during September, and nitrate based fertilizer (15-0-

15) during October.

Lateral Shoot Break-

age: Lateral shoots can break off the mother shoot on the bench or when plants are moved.

Solution:

1) This phenomenon is due to the environment that stock plants are grown under. In particular, the higher the temperature and the lower the light that stock plants are grown under, the more lateral shoot breakage will occur. Therefore, purchase stock plants from a source where stock plants are grown in a cooler and well-lighted environment. In particular, try to purchase cuttings from a

California propagator.
2) Ring plants to support lateral shoots.

Insufficient Lateral

shoot Number: Insufficient lateral shoot number typically results from insufficient leaf number below the pinch, and/or excessively high day temperatures during cutting production resulting in few axillary buds in the leaf axils.

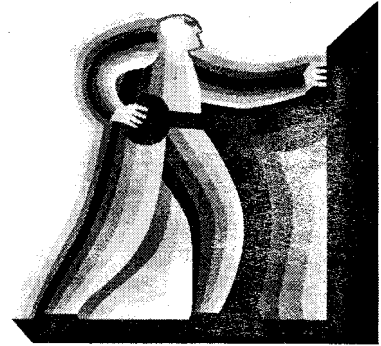
Solution

1) Make sure that there are 20% more leaves left after the pinch than lateral shoot number that is desired.
2) Purchase cuttings from a propagator that has good day temperature control. Inspect cuttings when they arrive

to ensure that they have axillary buds in the leaf axils.

Call If You Have Any Questions:

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“Remember to use fertilizers that contain calcium nitrate or spray plants weekly with calcium nitrate during October.”