

Poinsettia bract and stem splitting

Allen C. Botacchi

Cooperative Extension Educator Commercial Horticulture

Poinsettia splitting is a physiological problem which occurs most frequently under certain cultural and environmental conditions. Splitting manifests itself in two ways; 1) if it occurs early in the growing cycle, it resembles a manual pinch after which shoots develop, 2) if it occurs later in the growing cycle, the flower splits and the peduncles elongate, giving the effect of a larger, but not attractive flower. Occasionally fewer than normal cyathia and bracts are formed, making the plants unsalable. Splitting, a problem with the cultivar Paul Mikkelsen, has also been observed on the more recent introductions.

Conditions determined to favor splitting include:

1. Cuttings taken from long stems evidently are more likely to split than those taken from short stems. This problem is thought to be similar to the "Crown bud" formation from old chrysanthemum stock plants.
2. Cuttings propagated before August 1st.
3. Cuttings harvested from stems with 20-30 leaves formed before the start of short days.
4. Pinching. Single stem plants may split and pinched plants may not when propagated at the same time.
5. Low temperatures, 60°F or lower, day or night.
6. Marginal lighting or long days caused by stray light in late September to early October.
7. Overcast weather conditions which may create an alternating short day, long day, and short day sequence.
8. Cuttings which may have been shaded by other foliage on the stock plant.

Recommendations to reduce or avoid splitting include:

1. Light stock plants four hours each night until May 15th.
2. Cuttings propagated before August 1st should be grown as a pinched crop.
3. Pinch stock plants regularly until propagation time.
4. Discard cuttings shaded by other stock plant shoots or leaves.
5. Use supplementary night light up to September 15th to keep stock plant stems vegetative.

6. After September 15th, make sure that no stray light from adjacent mum lights, street lights, or variable weather conditions are affecting the crop. Shade 5 p.m. to 8 a.m. to insure short days if a stray light condition exists.

7. Light crop until September 25th, followed by natural short days. This may affect your production schedule.

Editor's Note—this author has seen an increased tendency for splitting in recent years.

References:

Freeman, R. N. 1987. *Poinsettia splitting*. Long Island Horticulture News. Aug: 3.

Hartley, D. E. 1986. *Poinsettia pointers from the Paul Ecke ranch*. BPI News. Vol XVII No. 7:4-5.

Tayama, H. K. et al. 1988. *Tips on growing poinsettias*. Ohio Cooperative Extension Service Bulletin FP-764: 1-58.

Tjia, B. et al. 1982. *Commercial poinsettia production in Florida*. Florida Cooperative Extension, IFAS, SP27: 1-60.