

Possible Causes of Bract Necrosis, Bract Edge Burn

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In recent years poinsettia growers have observed and, in fact, suffered serious crop damage from bract edge burn.

This problem appears just when the grower thinks the crop is "made"—late November and early December. The marginal burn symptoms first appear on the tips of the bracts and advance quickly along the margins towards the base of the bract. The lower bracts or heavily shaded bracts are most severely affected. Bract necrosis is more severe on closely spaced crops in both glass and double poly houses.

According to Canadian researchers, the cultivars 'Lilo' or 'Pink and White Annette Hegg' exhibited very little necrosis in the 1990 crop.

Our Canadian colleagues did an extensive survey, including media and foliar analysis, to determine the cause(s) of this problem. Based on their observations and test results, they suggest procedures to reduce bract necrosis:

1. Ensure that the medium growing the poinsettia crop has adequate calcium levels. Growers tend to formulate media low in calcium.
2. Apply more calcium nitrate beginning mid-October to ensure adequate calcium during the early stages of bract development.
3. Shade the crop (light shade) during high-light periods when bract expansion is occurring to minimize large fluctuations in transpiration rates.
4. Maintain relative humidities of 85% to 90% at night to reduce transpiration and increase the movement of calcium into the developing bracts.

5. Avoid using large negative DIF wherever possible, especially at bract development. In reality 0 to (-2) DIF is proportionately more effective than (-4) DIF. Start using DIF earlier in the production cycle so that a strong DIF treatment is not required in late October or early November.
6. Control the whiteflies early in the season to avoid excessive use of pesticides late in the crop.

Follow these suggestions if bract necrosis was a problem on past poinsettia crops.

Reference

Hughes, J. and etal. 1991. *More thoughts on the bract necrosis, bract edge burn of Christmas 1990*. Grower Notes: May 1991: 1-5. Ministry of Agriculture and Food, Ontario, Canada.