# GROWERTALKS

### Culture Notes

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## The Three Ps of Poinsettias

#### Dr. P. Allen Hammer

Growing decisions made between propagation and pinching will greatly affect the poinsettia plant shipped in November and December. Attention to details is essential because mistakes in August and September cannot be corrected in later months of production.

Open cutting boxes immediately upon arrival and inspect cuttings carefully. If they appear dry, mist with clear water to help rehydrate them. Unless they arrive cool and hydrated, open the bags and place them on clean cart shelves in a 50F to 55F (10C to 12C) cooler overnight (four hours or more) with a relative humidity near 100%. The cooler floor can be moistened to help achieve the humidity. This also allows the cuttings to be stuck early in the morning when greenhouse conditions are best and the sticking crew is freshest.

#### Propagation

I recommend applying a rooting hormone to poinsettia cuttings to improve the uniformity of rooting. Stick while the mist is on, or have it begin immediately after sticking. It's very important to "tuck" leaves so all growing points receive mist. Apply Capsil to the cuttings immediately after sticking to help the cuttings recover from wilting this improves rooting speed and uniformity.

Set mist frequency and duration to maintain only a film of water on the cutting. Apply mist at night for the first few days until the cuttings have regained turgidity. Excess mist will lead to slower rooting and greater leaching of nutrients from cuttings.

Root poinsettia cuttings under a maximum of 1,000 to 2,000 f.c. of sunlight, with a root medium temperature of 70F (21C). Monitor root medium temperature with a calibrated thermometer. Heat may even be required in August. As cuttings begin to root, it's important to reduce mist frequency and duration. Apply a low rate of a complete fertilizer (100 ppm N) during propagation as soon as roots begin to form. At this time it's also important to monitor for fungus gnats and treat liners if they are present.

#### Potting

Pot up poinsettia liners as soon as they are well rooted. If purchasing rooted liners, pot them immediately upon receipt. Never hold rooted liners for more than two days. Water poinsettias with a fertilizer solution at each subsequent watering. Until the liner roots grow into the new medium, monitor watering carefully for the first week after potting, as the liner may need water before the entire pot requires it.

Acclimate plants to full sunlight as quickly as possible, while avoiding any stress to the plant during its early growth. Monitor for insects (particularly whiteflies, spider mites, fungus gnats and thrips) and diseases from the beginning of the crop.

#### Pinching

Pinching is one of the most critical operations in poinsettia production. Pinch plants when new roots reach the edge of the finished container, usually within 10 to 14 days after potting liners or four weeks after direct sticking cuttings. Pinching on time will greatly improve the uniformity of branching and improve overall plant growth. Old, stressed liners and/or delayed pinching will contribute to poor, uneven branching of even the best free-branching cultivars. A Florel application is sometimes recommended right before and after pinching. In research studies, I've never seen Florel increase branching in poinsettias. Florel can have some PGR effect and reduce the elongation of the new shoots in those cultivars showing early rapid elongation.

There's also an advantage to removing the upper leaves when the plants are soft pinched, as leaves that aren't fully developed can inhibit growth of new shoots. This can also add light to the developing shoots.

#### General guidelines

Practice excellent sanitation in every poinsettia production operation; everything touching the cutting, liner and growing plant must be clean. Remember, poinsettias should receive adequate calcium nutrition during production to build strong stems.

Poinsettias also have a higher requirement for molybdenum than other greenhouse crops. High light, adequate fertility and good temperature control are important for the early growth of the crop. Night temperatures lower than 65F to 67F (18C to 19C) during August and September will adversely affect the crop. Make sure the heating system is functioning before that first cool night. Wait until November and December to save those heating costs with the cultivars that can be cold finished. **GT** 

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