Key Growing Tips for Propagation and the Early Part of Finishing of Poinsettias

Key New Varieties



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Misting – Frequency, Shade, Water Quality

- Early and frequent misting are important to avoid stress.
- Plenty of shade is necessary (< 1,200 fc mid-day) until callusing, to avoid over misting and to reduce heat.
- High-quality water is critical.



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Misting – Spraying CapSil®

Spray adjuvants help with water absorption Capsil[®] at 2-4 oz/100 gal is the preferred rate





Without CapSil® spray



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Slide Courtesy of Dr. James Faust, 2015

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Fungus Gnats and Shore Flies

- Good sanitation procedures with products such as KleenGrow[™], MicroBLOC[®], Greenclean[®], Green-Shield[®], Physan 20[™], Triathlon[®] BA are critical.
- Control options: Azatin[®] XL, Citation[®] insect growth regulator, Duraguard[®] ME, Gnatrol[®] WDG insecticides. Citation and Duraguard will also control the larval stage of shore flies.
- Steinernema feltiae and Hypoaspis mites are biological options that work well for many growers. Extensive trials and good working relationships with suppliers and universities are critical for their continued success.

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Light Levels

Ideal Light Intensities:

- 800–1,000 foot candles (4 5 mols/day) the first 10 12 days after stick until roots begin to form. This will provide lower temperatures, allow for reduced misting frequency to avoid the leaching of nutrients from the cuttings and results in less diseases, compared with propagation under higher light conditions.
- Increase light levels to 1,500 2,000 foot candles (8 10 mols/day) for the next 5 – 7 days to help plants acclimate to higher levels after transplant.
- Once the cuttings are well rooted (approximately after 2 2.5 weeks), the light intensity can be increased to 3,500 foot candles (15 – 18 mols/day).

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Fertilization

- Fertilization can start with 100 ppm N and K of a 15–0–15, 14–0–14 or similar fertilizers after 6-8 days, when callus is developing.
- Once the roots start to grow, the rates can be increased to 150 ppm N and K, and 2-2.5 weeks after sticking to 200 ppm N and K.
- **No phosphorus** should be in the feed, as it can very easily lead to distortions and hard growth.
- Rinse fertilizer off the leaves with clean water after feeding to avoid burn.

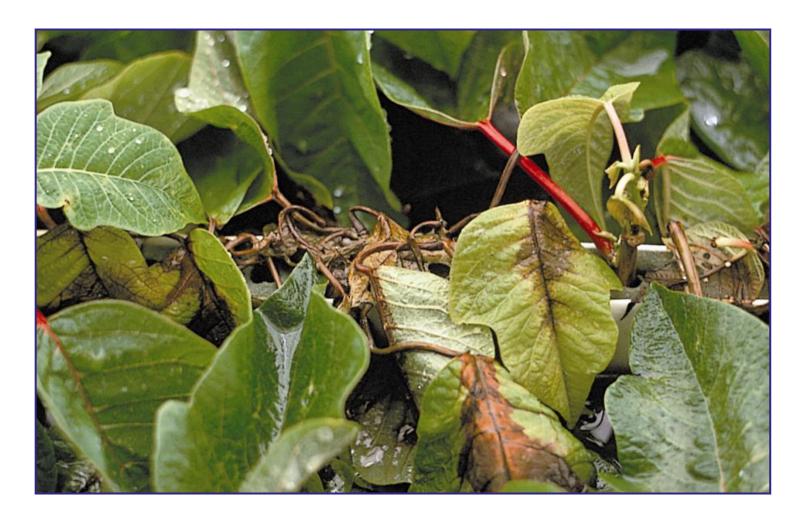
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Erwinia Symptoms

Over-misting combined with heat-stress can lead to significant losses due to *Erwinia* soft rot.



Source: Florida, Summer 2014.

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Erwinia - Prevention

- Erwinia: Erwinia causes quick meltdown usually a few days after sticking, especially if cuttings were warmed up too much. Provide high shade to cool down the propagation area and to reduce the amount of mist needed. Cuttings that arrive warm, should be placed in a cooler at 50 °F (10 °C) overnight before sticking. Remove collapsing cuttings quickly.
- KleenGrow[™] bactericide as a preventative sprench at 6 oz/100 gal helps reduce the spread of *Erwinia*. It can be applied with compatible fungicides, such as OHP[®] Chipco[®] 26019 (1 lb/100 gal) or Medallion[®] WDG fungicide (2-4 oz/100 gal), for broad spectrum pathogen prevention. KleenGrow[™] should be trialed thoroughly first, as it can burn cuttings under certain conditions.

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Fertilizer – Phosphorus Leading to Distortions

- Fertilizers without Phosphorus should be used in propagation, and when feeding overhead in the early stages of production.
- Fertilizer solution should be rinsed off quickly after irrigation.



Source: Colorado, Summer 2014.

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Fertilizer – Phosphorus Effect

Phosphorus Effect in Propagation and after Transplanting





Normal leaves: Rinsed off after each fertilization in propagation

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Hard, small leaves: Not rinsed off after fertilization in propagation



Fertilizer Leaf Burn

Overhead fertilization from July through October should be avoided. If applied overhead, fertilizer solution should be rinsed off immediately after fertilization, to avoid leaf edge burn.



Source: Colorado, Summer 2012.

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Effects of Heat Stress (Jul-Sep)

- If media temperatures are above 85 °F (30 °C), roots fail to work properly and can die, which results in plant stress and opportunity for disease infection (*Pythium sp., Rhizoctonia sp.*)
- Water is not able to flow through the plant sufficiently, resulting in poor transpiration and stunted plants.
- When leaf temperatures rise, foliage can become distorted and leathery, especially on certain varieties that are more sensitive than others.
- **Control**: Extra shade, misting of foliage, and irrigation in the middle of the afternoon are best to help reduce heat load.





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Early Season Height Control - using Florel®

- Florel[®] sprays are a substitute for other plant growth regulator (PGR) applications. These sprays
 keep internodes short and the branching uniform. The plants always grow out of the Florel[®] growth
 regulator effect after a few weeks.
- The spray rate is 500 ppm. For the best effect, uniform spray coverage is critical. It should be combined with 2-4 ounces of CapSil[®] and sprayed early in the morning to ensure prolonged wetness on the foliage.
- 1st Spray: 5-7 days before pinching, when the roots are firmly established in the pot, and the plants start to grow.
- 2nd Spray: 5-7 days after pinching ("Florel[®] Sandwich").
- 3rd Spray: can be applied if needed 1-2 weeks after 2nd spray depending on the vigor of the plant and the variety.
- The use of Florel[®] should be discontinued before Sept 15th to prevent flower delay, height reduction, and reduced bract sizes.
- Florel[®] is a very cost-effective PGR.

¹³ Solution of the value of the following: Plant of the following: Plant of the following: Plant Value of the following: Plant



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Candy[™] Bubblegum

- Early-medium timing, 8 weeks, Nov.15 22.
- Attractive hot pink bract color.
- Large, rounded, smooth bracts.
- Upright V-shaped habit new breeding and not a "sport" of older genetics.
- Medium-vigorous growth rate. Very good for 8 inch and 10 inch pots.
- Not recommended for the far south because of heat delay.
- Very good alternative to Polly's Pink from Dümmen Orange.



Candy[™] Bubblegum

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Serena[™] Red



- Early-medium timing, 8 weeks, Nov 15 22.
- Attractive bright red color against dark green foliage.
- Large, smooth bracts.
- Very strong stems and a distinct, V-shaped habit.
- Medium-vigorous variety that is best suited for 6 – 10 inch pots.
- One of the best new varieties for heat tolerance in southern climates.
- Performed well with no heat delay in Miami, FL in 2019.
- Flowers a week later than our other heat-tolerant varieties like Orion[™] Early Red, Robyn[™] Red, or Mars[™] Early Red.
- LTO Award winner for excellent shelf life.





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Gemma[™] Red

- Medium timing, 8.5 weeks, Nov. 21 28.
- It looks somewhat like Mirage[™], but later flowering and more vigorous.
- It has nice rich-red bract color and deep, dark green foliage.
- Distinct attractive cyathia.
- Sturdy V-shaped habit-resistant to "necking" at the end of production.
- Medium vigor; it's best for 4 inch to 6.5 inch, but can be used for 8 inch and 10 inch with adequate production time.
- Good for all climates except the deep south.



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Draco[™] Red

- Mid-late timing, 9 weeks, Nov. 25 Dec. 2.
- It looks like an improved Prestige variety, with much more color on top, a stronger true deep red color, and larger bracts than Prestige.
- Especially large, vibrant-red bracts and dark green foliage.
- Sturdy V-shaped habit and very good stem strength.
- Medium vigor; it works in all pot sizes.
- Good for all climates except the deep south, where it's very late and will heat delay.



Draco[™] Red

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