



DÜMMEN
ORANGE®

POINSETTIA

Production Guidelines

PROPAGATION

Upon receipt, open cuttings and stick immediately.

- If cuttings cannot be stuck upon arrival, store in a cooler at 50-55°F (10-13°C) with near-100% humidity. Wet the floor to maintain high humidity. Mist cuttings with water if they appear wilted or dry.

Stick cuttings with a powder rooting hormone.

Alternatively, 100 ppm KIBA can be drenched after sticking (3-4 gallon per 100 square feet); no rooting hormone necessary for callused cuttings. Some leaf curl may occur, but leaves relax within a few days. Capsil should be applied at a rate of 2-4 oz. per 100 gallons of water after sticking to reduce wilting.

Light levels should be maintained no higher than 1000 footcandles the first 1-2 days after sticking and be increased gradually as cuttings callus and root.

Misting URC should maintain a film of water on the leaves, but over-misting should be avoided. For callused cuttings, apply only enough mist to keep the leaves turgid. As soon as roots begin to form (day 3-7), stop misting except as weather demands. Root media

temperature for both URC and callused cuttings should be maintained at 73-75°F (22-24°C).

Callus formation (for URC) should be visible by day 7. Gradually reduce misting frequency as roots develop.

An early PGR application can be beneficial to vigorous varieties at this stage to avoid stretch.

Begin to fertilize as soon as roots begin to form with a 100 ppm N, no-phosphorous formulation.

Monitor for fungus gnats during propagation, especially during days 7-10. An insecticide should be applied if the presence of adults and/or larvae is observed. Application of an insecticide should be made no later than day 7 to prevent infection of the stem by larvae.

By day 15, roots should have expanded to the edge of the cell. Continue toning the crop by increasing air movement and light intensity. Misting should be discontinued except as weather demands. PGRs may be needed on vigorous varieties.

ESTABLISHMENT

If receiving rooted liners, unpack liners immediately and transplant within 48 hours. If transplanting is delayed, fertilize liners every other day with 100-200 ppm N. Rinse foliage with clear water to avoid phosphorous damage. Do not allow media to dry out as this will increase the probability of future *Pythium* infections.

Growing media should be moist at transplant. Water in liners thoroughly after transplant using 100-200 ppm N from a complete fertilizer.

Irrigation should be closely monitored during establishment.

- Young plants should never be allowed to wilt. Monitor the moisture level directly around the liner until the roots expand into the surrounding media.

Fertilize after transplant with 200-250 ppm N to charge the growing media. Rinse leaves with clear water after fertilizing to avoid phosphorous damage.

Increase light levels to 4,500 footcandles after transplant. Shading and/or misting should be used at higher light levels to avoid wilting. Full light is desirable once plants start rooting out/no longer wilt.

Temperature after transplant should be maintained between 75-85°F (24-30°C) during days and 70-75°F (21-24°C) during nights. Once liners are well-established, temperatures can be reduced to 70°F (31°C) during days and 65°F (18°C) during nights.

- Cool temperatures will slow overall growth, while high temperatures can cause heat delay, leaf edge burn and foliage distortion.

PGRs can be applied if no growth regulators were applied in propagation or to prevent lateral stretch.

- If needed, chlormequat at 500-1000 ppm may be used based on program needs. Always follow label directions.

Pinching should take place when roots reach the edge of the growing container, approximately 10-14 days after transplant or 4 to 5 weeks after direct sticking.

- In general, the number of nodes remaining should match the finish container size, i.e., 4-5 nodes for a 4" (10 cm), 5-6 nodes for a 6" (15 cm), 7-8 nodes for an 8" (19 cm). Leaving too many nodes will encourage weak, horizontal growth and is not recommended.

- Ethephon should be applied before and/or after pinching to control stem elongation and leaf expansion if plants cannot be pre-spaced within two weeks following pinching.

- Plants given a "hard" pinch, only leaving mature leaves, do not benefit from leaf removal at time of pinch.

- A softer pinch, leaving immature leaves, results in the development of large "flag" leaves. Removal of these immature leaves improves uniformity of lateral shoot development, as immature leaves contribute to apical dominance until the leaf is mature.

VEGETATIVE GROWTH

Focus should be on vegetative growth once plants have recovered from pinch to ensure that plant is on target to finish according to specifications. High light from pinch to start of short days promotes strong stems at time of ship.

Pot-tight spacing can encourage V-shaped habit on some cultivars, but is not needed on naturally V-shaped habits. Plants should be spaced once leaves begin to overlap.

Pot size	Minimum spacing	Ample Spacing
6" (15 cm)	10x12"	14x14"
8" (19 cm)	16x16"	24x24"
10" (22 cm)	20x20"	30x36"

Fertilizer is recommended at a constant feed of 100-200 ppm N from a balanced formulation, including minor nutrients.

- Molybdenum and calcium are particularly important.
- pH should be maintained between 5.8-6.2.
- EC should be maintained between 1.0-1.5.
- Weekly calcium foliar sprays from calcium chloride encourage strong growth, prevent leaf edge burn, and prevent bract edge burn. A small portion of the crop should be tested 3-4 days prior to spraying entire crop.
- To increase stem elongation, increase phosphorous rate by approximately 10 ppm.
- If feeding less than 200 ppm N, add micronutrients as needed to deliver 1 ppm iron, 0.5 ppm manganese, 0.5 ppm zinc, 0.25 ppm copper, 0.25 ppm boron and 0.1 ppm molybdenum.

Temperatures should be maintained between 68-78°F (20-26°C) during the day and 65-70°F (18-21°C) during the night. Temperatures can be manipulated to regulate growth:

- Utilize positive DIF to increase stem elongation.
- Utilize negative DIF to slow stem elongation.

Chemical PGRs such as Gibberellin A₄A₇ 6-BA (Fascination/Fresco) can be applied during the vegetative growth stage to achieve final plant height specifications.

• Sprays can cause significant bract regreening when applied just before and during early bract development. Bract regreening is much less likely to occur with drenches.

• Ensure thorough application and drench along with 200-250 ppm N from a 20-10-20 formulation.

• For each additional 1 ppm of GA₄A₇ 6-BA applied, an additional 1-2" of stem elongation can be expected. Labels allow for the following application types:

Product	Spray	Drench
Fascination®	✓	
Fresco®	✓	✓
Typy®	✓	

• To slow growth, apply paclobutrazol drench at 0.25-2 ppm prior to flower initiation. Alternatively, a tank mix of 1000-2000 ppm daminozide and 500-1000 ppm chlormequat can be applied before or after flower initiation.

Common pests & diseases include whitefly, fungus gnats, mites, *Pythium*, *Phytophthora*, *Rhizoctonia*, and powdery mildew. Proactive IPM practices should be utilized.

FLOWER INITIATION

In general, most early-season cultivars initiate approximately September 10-15, while most mid- and late-season cultivars initiate approximately September 25.

• Temperatures below 65°F (18°C) in September encourage flower initiation, while night temperatures above 70°F (21°C) delay initiation.

Shading may be utilized to create artificial short days and initiate early flowering. Shade cloth should not allow more than 0.5 footcandles of light to penetrate the cloth.

• Crops should be shaded for a minimum of 12 hours to initiate flowering.

- Be aware of light pollution sources that can negatively affect flower induction, including security lights, street lights and/or nearby traffic.
- If light pollution is a problem, continue shading until bracts have reached 25-50% color.

Fluffing bracts can be achieved with an application of GA₄A₇ 6-BA (Fascination/Fresco) at a rate of 1-5 ppm at the "fish lips" stage of cyathia development.

• Adequately wetting the bract is essential to obtain a uniform response. Typically, this will be 6-10 oz. of Capsil per 100 gallons of spray solution.

• Temperatures must be above 65°F (18°C), with best results at temperatures between 68-70°F (20-21°C).





Dümmen Orange, North America
250 South High Street, Suite 650
Columbus, OH 43215
(614) 850-9551
Info.NA@DummenOrange.com

DummenOrange.com