

POINSETTIA
OVERVIEW
Bravo

Euphorbia pulcherrima



The Bravo series has strong roots and sturdy, thick stems that allow for an excellent chassis development. Bracts are slightly upright in habit.



STATUS	CULTIVAR	CULTIVAR CODE	RESPONSE TIME (WEEKS)	VIGOR	FLOWER COLOR
TOP PICK	Bravo Bright Red	10360	7.5	●●●○○	Bright Red
TOP PICK	Bravo Pink	10894	7.5	●●●○○	Pink
TOP PICK	Bravo White	10895	7.5	●●●○○	White

●○○○○ *Compact* ●●○○○ *Medium-compact* ●●●○○ *Medium* ●●●●○ *Medium-vigorous* ●●●●● *Vigorous*

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PROPAGATION
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STICKING

Rooting Hormone	Optional with 100 ppm 1,200-1,500 ppm Indole-3-butyric acid (IBA) applied at the base of the stem before sticking or alternatively, 100ppm Potassium Indole-3-butyric acid (K-IBA) drenched after stick. No rooting hormone necessary for callused cuttings.
Spacing	Stick and space so that the leaves of neighboring plants barely touch. Be sure that the growing tip is not covered by neighboring leaves. The space will need to be adjusting accordingly for large leaf varieties.
Misting instructions	Maintain a film of water on the leaves, but avoid over-misting. Once callus forms (day 3-7), gradually reduce mist. Capsil applied at a rate of 2-4 oz./100 gallons of water will help reduce wilt following stick. Misting at night is only necessary for the first few days.

FERTILITY

Fertilizer Rate	100 ppm N with 15-0-15 or another no-phosphorous formulation, to charge media once callus forms.
EC Range	1.0-2.0 mS/cm as measured vis SME
pH Range	5.8-6.2

TEMPERATURE

Average Soil Temp	73-75°F (22-24°C)
Average Air Temp	72-78°F (22-26°C)

IRRIGATION

Irrigation Frequency (after day 14)	Only water as weather demands.
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LIGHT

Vegetative Photoperiodic Requirements	Long Day
Supplemental	Not required
Benefits From Shade	Keep light levels below 1,000 fc (10,800 lux) until callus forms. Gradually increase light as callus and roots form. Light conditions around 4,000fc (43,000 lux) should persist thereafter.

PINCHING

No pinching is required in propagation, unless holding the liners more than 4 weeks. Then a pinch is required.

POTENTIAL DISEASES

Botrytis, Erwinia, Rhizopus

POTENTIAL PESTS

Fungus Gnat, White fly

GROWTH REGULATION

- 1000ppm B-Nine (85% Daminozide) tank mixed with 1000ppm Cycocel (11.8% chlormequat) or 1500ppm Cycocel (11.8% chlormequat) alone beginning the second or 3rd week of propagation to avoid stretch.
- One PGR application is sufficient for medium vigor varieties, but larger varieties may require 2-3 applications.

TIPS

- Stick cuttings immediately upon receipt. If immediate sticking isn't possible, place cuttings in cooler upon arrival at 50-55°F (10 –13°C) with near 100% humidity. Wet floor of cooler to maintain high humidity, mist cuttings with water if they appear wilted or dry.
- Choose a potting medium with high porosity. Saturated media during propagation can delay rooting.
- A fungicide treatment within 24 hours of stick will aid the avoidance botrytis and erwinia infection.
- Avoid air movement across the leaf surfaces, especially during the first week.
- If the cuttings look stressed during sunny days, it is better to increase shading rather than increasing misting.
- Consider using the Dümmen Orange OnTarget™ Tracking Tool (<https://ontarget.dummenorange.com/>), to aid in decisions about PGRs and temperature as your poinsettia crop grows.

POINSETTIA FINISHING **Bravo (Early Season)**

Euphorbia pulcherrima



CONTAINER SIZE	PLANTS PER POT	TRANSPLANT (week) - depends on location
4" - 4.5" (10-11cm)	1	Direct stick wk 36-39
6" (15cm)	1	32-36
8" (17cm)	2-3	29-32
10" (19cm)	3-4	27-29

FERTILITY

Fertilizer Rate	Utilize constant feeding at a rate of 100-200 ppm N with 17-5-17, 15-0-15, or other feeds with lower phosphorus.
Short Day EC Range	1.0-2.0 mS via SME
pH Range	5.8-6.2

TEMPERATURE

Day Temperature	68-78°F (20-26°C)
Night Temperature	65-70°F (18-21°C), once short days begin 65-68°F (18-20°C)

IRRIGATION

Irrigation Frequency	During the early growth phase, young plants should not be allowed to wilt. Once the plants are established, wet/dry cycles are beneficial.
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LIGHT

Flowering Photoperiodic Requirements	Long Day 13+ hours (vegetative phase), Short Day (flower initiation)
Photoperiodic Instructions	Beginning in mid September, a minimum of 12 hours of darkness is required until flower color is visible. (utilize
Supplemental	Optional on cloudy/overcast days
Benefits From Shade?	No, strong growth will be promoted with light levels of 4,500 fc (48,000 lux)

PINCHING

- Pinch when roots reach the edge of the growing container (approximately 10-14 days after transplanting or direct stick). The number of remaining nodes should match the finish container (4-5 nodes for a 4" (10cm) container, 5-6 nodes for a 6" (15cm) container, 7-8 nodes for an 8" (19cm) container, etc.
- Ethephon should be applied before and/or after pinching to control stem elongation and leaf expansion if plants cannot be pre-spaced within 2 weeks following pinch.
- Leaf removal at pinch can be beneficial to maximize light penetration.

POTENTIAL DISEASES

Botrytis, Alternaria, Thielaviopsis, Fusarium, Powdery Mildew, Pythium, Rhizoctonia, Erwinia

POTENTIAL PESTS

Fungus gnats, white flies, spider mites, thrips, mealy bugs

GROWTH REGULATION

- Can be applied following transplant if no growth regulators were applied in propagation. 500–1000ppm Cycocel (11.8% chlormequat) may be used based on program needs. Follow label instructions.
- Utilize positive DIF to increase stem elongation
- Utilize negative DIF to slow stem elongation
- Fascination/Fresco (GA₄A₇, 6-BA) can be applied during the vegetative growth stage to achieve final plant height specifications. Spray applications can cause significant bract re-greening when applied during early bract development. Follow label instructions.

TIPS

- Consider using the Dümmen Orange OnTarget™ Tracking Tool (<https://ontarget.dummenorange.com/>), to aid in decisions about PGRs and temperature as your poinsettia crop grows.
- If you can read a newspaper during short days, it's not dark enough. Streetlights, moonlight, etc. should be taken into account to reduce the chance of short day interruption.
- Pot tight spacing can encourage a V-shaped habit until leaves begin to overlap. Once leaf overlap occurs, ensure plants are adequately spaced to promote a strong healthy crop. Proper spacing accommodates plants touching slightly when full grown. For 6" pots a minimum of 10"x12" spacing, for 8" pots a minimum of 16"x16" spacing, for 10" pots a minimum of 20"x20" spacing.
- Night temperatures above 70°F (21°C) will result in heat delay which will postpone the listed response time.
- Fluffing bracts can be achieved with an application of 1-5ppm Fascination/Fresco (GA₄A₇, 6-BA) at the "fish lips" stage of cyathia development. Adequately wetting the bract is essential to obtain a uniform response, an addition of 6-10 oz. Capsil per 100 gallons of solution can aid in coverage.

POINSETTIA FEATURES AND BENEFITS

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ON TARGET TRACKING TOOL

- Use the Dümmen Orange OnTarget™ Tracking Tool (<https://ontarget.dummenorange.com/>) to schedule and graphically track your poinsettia crop. This tool will assist your decisions about plant growth regulators and temperature so your crop finishes on time and at the right spec.

SERIES SPECIFIC TIPS

- Capable of finishing cold.

CARE AND HANDLING

- Recommended temperature during transport from the greenhouse to the store: 50-57°F (10-14°C)
- Use sleeves for transport. The sleeves should extend 4-8cm (2-3") above the tips of the bracts to provide enough protection.
- Ideally poinsettia should not be sleeved for more than 24 hours
- Poinsettia should not be displayed in their sleeves.

CONSUMER CARE

- Water only when the potting media feels dry to the touch, allow excess water to drain away not trap in the pot cover.
- Maintain a temperature of 65-70°F (18-21°C).
- Poinsettia will perform best indoors with high light conditions.
- Keep away from drafty windows, doors, and heating vents.

HISTORY

- The poinsettia is a contemporary symbol of Christmas in many parts of the world. It is a native plant in Mexico and was cultivated by Aztecs for red dye, medicinal preparations and the latex. Because of its brilliant red color, the flower was a symbol of purity. Poinsettias were introduced in the US in 1825 by Joel Robert Poinsett (US Ambassador in Mexico).
- Poinsettia is a member of the botanical family Euphorbiae. All the species of this genus are characterized by a single female flower without petals or sepals surrounded by individual male flowers enclosed in a cup shaped structure called cyathium (the cyathia make up the yellow middle of the "flower"). The showy red (colored) portion most commonly referred to as the flower, consists of modified leaves called bracts.
- Today's breeding and production efforts focus on market traits like consumer appeal, recognition, and long shelf life. Large, showy bracts, clean colors, good branching, unique colors, and diverse forms are all highly valued traits.

