

Interspecific Begonia Bionic™

Culture Guide

F1 Begonia x hybrida

Product form: Seed

Containers: Pints, Quarts, Gallons, Hanging Baskets

Habit: Upright

Garden Specifications

Garden Height: 20–24" (50–60 cm) tall

Garden Width: 24–28" (50–60 cm) wide

Exposure: Full shade to full sun

USDA zone: 11

AHS zone: 12–1

Product use: Containers, Hanging Baskets, Landscapes, Patio Pots, Combos

Germination

Stages 1 & 2

Germination time: 6–8 days

Media temp: 72–78 °F (22–26 °C)

Chamber: Optional

Light: Required for germination

Seed cover: No

Moisture level: 5 - SATURATED: Soil is dark brown and shiny, free water is present at the surface of the soil, water drips freely from the bottom of the tray, and trays are heavy with a visible bend in the middle.

Rec. tray size: 288-cell tray

Seeds per cell: 1

Young Plant Production

Stage 3 & 4

Temperature

Day: 68–70 °F (20–21 °C)

Night: 68–70 °F (20–21 °C)

Average daily temperature: 68–70 °F (20–21 °C)

Lighting

Day extension lighting: Not necessary

Light intensity: 3,500–4,500 foot candles (700–900 micro mols)

Day length response: Day neutral

Daily light integral (DLI): 12–14 mols/day

Media pH: 5.5–5.9

Media EC: SME 0.5 to 0.75 mS/cm

Fertilizer: 75–125 ppm N

Moisture level: Media should be allowed to dry between irrigations. Alternate between moisture level 3 and 4.

3 - MOIST: Soil is brown in color, strongly squeezing the soil will extract a few drops of water, and trays are light with no visible bend.

4 - WET: Soil is dark brown but not shiny, no free water is seen at the surface of the soil, when pressed or squeezed water drips easily, and trays are heavy with a visible bend in the middle.



Bionic™ Bronze Leaf Rose

Pinching: No

Plant growth regulators (PGRs): Usually not necessary in plug production. If needed to tone or hold plugs, Bionic™ begonia responds well to sprays of Cycocel® at 300 ppm, B-Nine® WSG at 2,500 ppm, or A-Rest® at 3 ppm.

Plug grow time: 6–7 weeks in a 288-cell tray

Comments: Avoid overwatering to help prevent excess algae growth and to promote root growth into the media. If germinating on the bench, it is helpful to cover trays with ReeMay® or similar to help retain humidity and reduce irrigation frequency. When irrigating, use low pressure/volume nozzles/breakers to avoid moving seeds around in the cell. If the daily light integral (DLI) is less than 12 mols/day, adding supplemental HID light will promote a more uniform crop.

Finishing

Temperature

Day: 70–72 °F (21–22 °C)

Night: 66–68 °F (19–20 °C)

Average daily temperature: 68 °F (20 °C)

Lighting

Day extension lighting: Not necessary

Light intensity: 4,000–6,000 foot candles (800–1,200 micro mols)

Day length response: Day neutral

Daily light integral (DLI): 12–14 mols/day

Transplanting: Transplant directly into the finished container. Place the rooting media slightly below the level of media in the container. Make sure that the root ball is covered and that the plug is situated in the center of the pot.

Media pH: 5.5–5.9

Media EC: SME EC: 1.5–2.1 mS/cm, PourThru EC: 2.3–3.2 mS/cm

Fertilizer: 125–175 ppm N

Pinching: No. Pinching is not recommended or needed.

Plant growth regulators (PGRs): For pint or quart production, a Bonzi® drench at 0.1 to 0.25 ppm about half way through the finishing cycle will provide excellent control of leaf and plant size. Bonzi® sprays are not recommended as they will reduce flower size. For pints to 10" hanging baskets, sprays of B-Nine® WSG at 2,500 ppm or B-Nine® WSG/Cycocel® tank mixes at 1,500 ppm B-Nine® WSG/300 ppm Cycocel® are effective in reducing leaf size and stem elongation. PGRs are usually not required for containers larger than 10" hanging baskets. Plant growth can be best controlled through proper moisture, feed, and temperature management.

Tech tip: It is recommended to avoid high ammonium fertilizers since these fertilizers promote soft, leafy growth and may delay flowering.



Try Chrysal Alesco®, a postharvest foliar spray, to protect ethylene sensitive crops during shipping and retail.

Moisture level: Media should be allowed to dry between irrigations.

Alternate between moisture level 2 and 4.

2 - MEDIUM: Soil is light brown in color, no water can be extracted from soil, and soil will crumble apart.

4 - WET: Soil is dark brown but not shiny, no free water is seen at the surface of the soil, when pressed or squeezed water drips easily, and trays are heavy with a visible bend in the middle.

Common pests: Aphids, Thrips

Common diseases: Botrytis

Scheduling

SIZE	CROP TIME	PLANTS PER POT
1.0 pint (4 inch)	7–8 weeks	1 ppp
1.0 quart (4.5 to 5 inch)	7–8 weeks	1 ppp
1.25 to 2.5 quart (5.5 to 6.5 inch, trade gallon)	8–9 weeks	1 ppp
3.0 quart to 2.0 gallon (7.5 to 10 inch)	8–9 weeks	2–3 ppp
1.5 gallon hanging basket (10 inch basket)	8–9 weeks	3 ppp
2.0 gallon hanging basket (12 inch basket)	9–10 weeks	3–4 ppp
2.0 gallon hanging basket (12 inch basket)	9–10 weeks	4 ppp

Estimated finish crop time is from transplant of a 288-cell tray and finished at an average daily temperature (ADT) of 68 °F (20 °C).

Example crop schedule for a 1.0 quart

WEEKS FROM TRANSPLANT	DESCRIPTION
4 weeks	Drench with Bonzi® at 0.1–0.25 ppm
8 weeks	Ready to ship

Bionic™ Bronze Leaf Red



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