



syngenta®flowers

Begonia Grace™

Culture Guide

Botanical name: *Begonia x hybrida*

Product form: Vegetative

Containers: Quarts, Gallons, Hanging Baskets

Habit: Semi-Trailing

Garden Specifications

Garden Height: 10–12" (25–30 cm) tall

Garden Width: 14–16" (36–41 cm) wide

Exposure: Part sun

USDA zone: 9

AHS zone: 9–1

Product use: Containers, Hanging Baskets, Patio Pots

Propagation of Unrooted Cuttings

Root emergence: 7 days

Rooting hormone: Not Recommended

Bottom heat temp.: 72–75 °F (22–24 °C) for the first three weeks. After roots are well developed, temperatures can be lowered to hold and tone the cuttings.

Misting: Mist schedules vary depending on light and temperature conditions. Apply just enough moisture to rehydrate the cuttings and keep them from wilting. Cuttings should be hydrated and in a non-wilted stage within 24 hours after sticking. Cuttings that continue to wilt heavily after 24 hours will callus unevenly and will be delayed in rooting. CapSil® (spray adjuvant) can be sprayed on the cuttings at a rate of 2–4 oz/100 gal within 1–2 days after sticking to help in rehydration of the cuttings. Misting should be significantly reduced after 3–4 days and after cuttings become fully hydrated.

Rec. tray size: 105-cell (30 mm) or larger

Propagation timing: 4–5 weeks for a 105-cell plug; add more rooting time for significantly larger plug sizes.

Temperature

Day: 72–74 °F (22–23 °C)

Night: 72–74 °F (22–23 °C)

Lighting

Day extension lighting: Necessary to 14 hours

Light intensity: 1,000–1,200 foot candles (200–250 micro mols) for the first two weeks after sticking or until root development occurs. Light levels can be increased up to

3,000 foot candles (600 micro mols) as rooting increases and the cutting matures.

Day length response: Facultative long day

Daily light integral: 4–6 mols/day for the first two weeks after sticking or until root development occurs. DLI can be increased to greater than 8 mols/day after root formation.

Media pH: 5.6–6.0

Media EC: SME EC: 0.9–1.3 mS/cm, PourThru EC: 1.4–2.0 mS/cm

Fertilizer: Begin fertilization at 100 ppm nitrogen when roots become visible. Rates can be increased up to 150 ppm nitrogen after roots become well developed. Use primarily Cal-Mag® Plus (calcium nitrate + magnesium nitrate) fertilizers in propagation to prevent unwanted stretch.

Pinching: Recommended

Plant growth regulators (PGRs): PGRs are not usually required in propagation. However, if needed Grace Begonias respond well to sprays of B-Nine® WSG at 2,500 ppm or Cycocel® at 300 ppm.

Finishing

Temperature

Day: 68–70 °F (20–21 °C)

Night: 62–64 °F (17–18 °C)

Average daily temperature: 66–68 °F (19–20 °C)

Lighting

Day extension lighting: Necessary to 14 hours

Light intensity: 4,000–6,000 foot candles

Day length response: Facultative long day

Daily light integral: 10–12 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 slightly above the media and that the cutting is situated in the center of the pot. Important—point leaves to the outside of the container for best flower presentation.

Media pH: 5.8–6.2

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

Fertilizer: 125–175 ppm N

Pinching: Yes, an additional pinch is recommended after transplanting.

Plant growth regulators (PGRs): PGRs are not usually required. However, if needed Grace Begonias during finishing respond well to sprays of B-Nine® WSG at 2,500 ppm or Cycocel® at 300–500 ppm.

Tech tip: To prevent tuber formation you must provide at least 14 hours of light and you must not let temperatures fall below 55 °F (13 °C). Short days and/or cool temperatures will drastically stunt growth.



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: Thrips

Common diseases: Botrytis, Tosspovirus (INSV and TSWV)

Scheduling

Size	Crop Time	Plants Per Pot
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
1.5 gallon hanging basket (10 inch basket)	10–11 weeks	3 ppp
2.0 gallon hanging basket (12 inch basket)	12–13 weeks	3 ppp

Estimated finish crop time is from transplant of a 105-cell tray and finished at an average daily temperature (ADT) of 68 °F (20 °C).

Example crop schedule for a 1.5 gallon hanging basket

Weeks From Transplant	Description
1 week	Ensure day length is at least 14 hours and temperatures are above 62 °F (17 °C)
2 weeks	Pinch if not done in liner
7 weeks	Apply PGRs if needed; later applications may reduce flower size



Grace™ Dark Red

syngenta flowers

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