



syngenta flowers

Begonia Interspecific Tophat™

Culture Guide

Botanical name: *Begonia x hybrida*

Product form: Seed

Containers: Packs, Pints, Quarts, Gallons, Hanging Baskets

Habit: Mounded

Garden Specifications

Garden Height: 16–20" (40–50 cm) tall

Garden Width: 16–20" (40–50 cm) wide

Exposure: Full Sun to Shade

USDA zone: 11

AHS zone: 12–1

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

Germination

Stages 1 & 2

Germination time: 6–9 days

Media temp: 72–78 °F (22–26 °C)

Chamber: Yes, encouraged to improve humidity levels around seed.

Light: Beneficial for germination

Seed cover: No

Moisture level: Level 5 from days 1–11. Day 12 reduce moisture level to 4 until day 21.

Rec. tray size: 288-cell tray

Seed per cell: 1

Tips for Successful Germination

1. Group Tophat Begonias separately from other interspecific Begonias because they may require up to 2–3 more days to germinate.
2. Apply enough irrigation at the time of sowing to soften and dissolve the seed pellet.
3. During germination, keep humidity as close to 100% as possible.
4. Provide high-quality light or supplemental lighting as soon as seedlings are removed from the chamber, especially if your germination chamber does not have lights.

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: 12–20 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.

Pinching: No

Plant growth regulators (PGRs): Usually not necessary in plug production. If needed to tone/hold plugs Tophat 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: 7–8 weeks in a 288-cell tray

Tech Tip: 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: 66–68 °F (19–20 °C)

Night: 64–66 °F (18–19 °C)

Average daily temperature: 66 °F (19 °C)

Lighting

Day extension lighting: Not Necessary

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

Day length response: Day Neutral

Daily light integral: 12–20 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

Plant growth regulators (PGRs): Once plugs have established in the finish container a B-Nine spray at 2,500 to 5,000 ppm is recommended for 1 quart or larger size containers. A Bonzi® drench of 0.25 ppm or sprays of 5–10 ppm are recommended for 306 packs. **See our PGR Guide for 306 Pack Production of Tophat for more information.** Cool finish temperatures and high DLI maximize flower size and help control excessive leaf expansion.

Tech tip: It is best 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.

Common pests: Aphids, Thrips

Common diseases: Botrytis

Scheduling

Size	Crop Time	Plants Per Pot
Large Packs	4–5 weeks	1 ppp
1.0 pint	4–5 weeks	1 ppp
1.0 quart	4–5 weeks	1 ppp
1.25 to 2.5 quart	5–6 weeks	1 ppp
1.5 gallon hanging basket	6–7 weeks	3 ppp

Estimated finish crop time is from transplant of a 288-cell tray and finished at an average daily temperature (ADT) of 66 °F (19 °C).

Example crop schedule for a large pack

Week	Description
1	Sow into 288-cell tray or similar plug tray.
2	Maintain 72–78 °F (22–26 °C) throughout plug production.
6	PGR spray of B-Nine® or A-Rest®, if needed, to tone plugs.
8	Transplant one plug per cell and finish at 66 °F (18 °C) ADT and minimum DLI of 12–15 mols/day.
9–10	Apply 0.25 ppm Bonzi® drench.
12–13	Finish.

For best results, check out the **Tophat Begonia Seed Germination Guide** on our website:



Tophat™ Rose Bicolor

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