



Bada[®], Varsity[™], Eureka[™], Bayou[™], Braveheart[®], Volumia[™]

BEGONIA SEMPERFLORENS

Minimum Germination Rate: Bada, Volumia 90%, Varsity, Eureka, Bayou, Braveheart 85%

Seed Product Form: Pelleted, raw (Bayou pelleted only)

FLOWERING

Time frame when plants are receptive to flower initiation: Days 28 – 35; 4 – 6 leaves present.

Flowering Type: Day-neutral plant – will flower regardless of daylength.

Specific Flowering Mechanism: Light intensity will trigger flowering. Warm temperatures encourage flower development.

PLUG CULTURE

Germination: Optimum conditions for seedling development that begins the day the crop is sown until cotyledon expansion.

Expect radicle emergence in 6 – 8 days.

Cover: No covering over the seed is required.

Media: • pH: 5.5 – 5.8

• EC: <1

Light: Light is not necessary for germination. If utilizing a chamber, providing a light source of 10 – 100 foot candles (100 – 1,000 lux) will improve germination and reduce stretch compared to seed germinated in the dark.

Temperature: 72° – 78°F (22° – 26°C) day and night from day 1 – 11.

Moisture: Level saturated (5), from days 1 – 11. Beginning day 12, reduce moisture level to wet (4), until day 15. Afterward, begin alternating between moisture level wet (4) and moist (3).

Humidity: 100% until day 10.

Dehumidify: On day 11, lower humidity level to 40%. Provide horizontal airflow to aid in drying down the media through evapotranspiration, allowing better penetration of oxygen to the roots.

Fertilizers: Maintain EC at <1. Fertigation water should not be greater than an EC of 0.5.

Plug Bulking/Flower Initiation: Optimum conditions during the vegetative period, beginning at cotyledon expansion, needed for the root to reach the edge of the plug cell AND to make the plant receptive to flower initiation.

Media: • pH: 5.5 – 5.8

• EC: 1.25 – 1.5

Light: Provide 3,500 – 4,500 foot candles (12 – 20 total mols or 35,000 – 45,000 lux) to hasten flower induction. Supplemental lighting under low light conditions at 350 – 450 foot candles (35,000 – 45,000 lux) will enhance shoot and root growth.

Temperature: 68° – 70°F (20° – 21°C) night and day.

Moisture: Alternate between moisture levels wet (4) and moist (3). Allow media to approach level (3) before re-saturating to level (4). Watch for excess algae growth. Using R/O (Reverse Osmosis) water will help reduce algae levels.

Fertilizers: Under high light conditions, apply an ammonium-based feed (17-5-17) at 50 – 100 ppm nitrogen. Under low light conditions, apply a calcium-based feed (14-4-14 or 14-2-14) at 50 – 100 ppm nitrogen.

Growth Regulators: Control growth with light, temperature, moisture and fertilizer levels.

Fungicides: Scout for Botrytis in plug growth stages. If needed, apply fungicides according to label directions.

GROWING ON

Transplant Ready: 8 weeks from a '288' plug tray.

Finsh Bulking/Flower Initiation: Optimum conditions during the vegetative period, beginning at transplant, needed for the root to reach the edge of the container AND to make the plant receptive to flower initiation.

Note: These suggestions are only guidelines and may have to be altered to meet individual grower's needs. Check all chemical labels to verify registration for use in your region.

Media: • pH: 5.5 – 5.8

• EC: 1.5 – 1.75

Light: Provide 3,500 – 4,500 foot candles (12 – 20 total mols or 35,000 – 45,000 lux) to hasten flower induction. Supplemental lighting under low light conditions at 350 – 450 foot candles (35,000 – 45,000 lux) will enhance shoot and root growth.

Temperature: 68° – 70°F (20° – 21°C) nights, 64° – 67° (18° – 19°C) days for 14 days or until roots have reached the bottom of the container. Then temperatures may be lowered to 62° – 65°F (16° – 18°C) day and night.

Average Daily Temperature (ADT): 67°F (19°C)

Moisture: Alternate between moisture levels wet (4) and medium (2). Allow soil to reach level (3) before re-saturating to (4).

Humidity: 40% – 70%. Provide horizontal airflow to aid in drying down the media through evapotranspiration, allowing better penetration of oxygen to the roots.

Fertilizers: Feed at 100 – 150 ppm nitrogen. Under high light conditions, apply an ammonium-based feed (17-5-17). Under low light conditions, apply a calcium-based feed (14-4-14). Under high light and long or extended days, an ammonium-based feed (20-10-20) is preferred. Watch for low calcium and magnesium levels, which may result in stunted, chlorotic plants with marginal leaf burn.

Growth Regulators: It is best to control growth through moisture, feed and temperature management. If needed, spray Cycocel (chlormequat chloride) two weeks after transplant at 500 – 1,000 ppm. Also responds to B-Nine (daminozide), A-Rest (ancymidol), or B-Nine/Cycocel tank mix.

TECHNIQUES TO ENHANCE POST HARVEST QUALITY

When to Treat: 1 – 2 weeks prior to finish or shipping.

Fertilizer: Potassium nitrate drench at 100 ppm nitrogen.

Common Diseases: Botrytis (apply preventative fungicides when long periods of low sunshine and high humidity occur)

Common Pests: Aphids, Thrips

PRODUCT USE	GARDEN SPECIFICATIONS
Packs, pots, containers, mass plantings, beds, hanging baskets	Light: Partial shade to full sun USDA Hardiness Zone: 11 AHS Heat Zone: 12 – 1

	Garden Height	Garden Width
Bada	8 – 10" (20 – 25 cm)	6 – 8" (15 – 20 cm)
Varsity	8 – 10" (20 – 25 cm)	6 – 8" (15 – 20 cm)
Eureka	9 – 12" (24 – 30 cm)	7 – 9" (15 – 20 cm)
Bayou	14 – 16" (35 – 40 cm)	10 – 12" (25 – 30 cm)
Braveheart	14 – 16" (35 – 40 cm)	10 – 12" (25 – 30 cm)
Volumia	12 – 14" (30 – 35 cm)	12 – 14" (30 – 35 cm)

BEGONIA SCHEDULING IN WEEKS

	Bada	Varsity	Eureka	Bayou	Braveheart	Volumia
Total crop time	11 – 13	12 – 14	13 – 15	12 – 14	12 – 14	12 – 14
'288' plug crop time	8	7 – 8	7 – 8	8	7 – 8	7 – 8
Transplant to finish crop time						
Packs	4 – 5	4 – 5	5 – 6	4 – 5	Not recommended	4 – 5
4" crop	5 – 6	5 – 6	6 – 7	5 – 6	5 – 6	5 – 6
6" crop*	5 – 7	5 – 7	6 – 8	5 – 7	5 – 7	5 – 7
10" Hanging basket	7 – 8	7 – 8	8 – 9	N/A	7 – 8	7 – 8

*Depending on the number of plugs transplanted into pot.