

Culture Guide

FLOWERING

Photoperiod Response: Day neutral plant; flowering is not influenced by day length.

Flowering Mechanism: Temperature and light accumulation dependent – increasing the average daily temperature shortens time to flower.

PLUG CULTURE

The timing approximations are based on optimal culture recommendations below:

GERMINATION STAGE 1 (Approximately day 1 – 8)

Tray size: 105 to 288 cell size plug tray. One seed per cell.

Cover: Seed cover is optional. Seeds can be covered lightly with coarse-grade vermiculite to maintain moisture levels and humidity around the seed.

Light: Light is not required for germination.

Temperature: Day and night: 70 – 75°F (21 – 24°C).

Moisture: Saturated (level 5) for days 1 – 8 or until radicle emergence.

Relative humidity: 95 – 100% from the time seed is sown until radicle emergence takes place, root has penetrated media and there is some cotyledon development. Expect radicle emergence in 6 – 8 days.

Media: pH 6.0 – 6.4. EC 0.5 – 0.7 mS/cm (saturated media extract)

GERMINATION STAGE 2 (Approximately day 9 – 17)

Light: 1,500 – 2,500 foot candles (16,000 – 27,000 lux; 300 – 500 micro mols/m²). DLI (Daily Light Integral): 4 – 8 mols/day.

F1 IMPATIENS HAWKERI

Temperature: Day and night: 70 – 75°F (21 – 24°C). Ensure soil temperature does not decrease below 70°F.

Moisture: After radical emergence, alternate media between wet (level 4) and moist (level 3).

Relative Humidity: Lower relative humidity to 40%. Provide horizontal airflow to aid in the drying of media through evapotranspiration.

Media: pH 6.0 – 6.4. EC 0.5 – 0.7 mS/cm (saturated media extract)

Fertilizers: 50 – 70 ppm Nitrogen. Begin fertilizing with nitrate-based fertilizers when cotyledons become visible.

PLUG BULKING (Approximately day 18 – 35)

The time necessary for the shoots to proportionally fill the plug and for the roots to develop throughout the media. Plug time will vary based on growing environment and culture.

Light: 2,500 – 4,000 foot candles (26,900 – 43,000 lux; 500 – 800 micro mols/m²). DLI: 8 – 14 mols/day. Provide supplemental lighting if the DLI is less than 10 mols/day.

Temperature: 70 – 80°F (21 – 27°C). Monitor soil temperature and maintain at 70°F

Relative humidity: 40 – 50%

Moisture: Alternate between moisture levels wet (4) and medium (2). Allow media to dry back to level (2) before re-saturating to level (4). Never allow plants to wilt especially under high light levels.

Media: pH 6.0 – 6.4. EC 0.8 – 1.2 mS/cm (saturated media extract). Monitor EC and leach with clear water if necessary.

Fertilizer: 100 – 125 ppm Nitrogen. Use nitrate-based fertilizers (13-2-13, 15-5-15, 17-5-17) to prevent stretching and for toning plugs.

Plant Growth Regulators: Generally not required during plug production unless growing under low-light conditions or if using fertilizers with high ammonium or phosphorous. If needed, apply B-Nine® (daminozide) at 1,500 – 3,000 ppm. Bonzi® (paclobutrazol) sprays at 1 – 4 ppm are also effective. ©2013 Syngenta. Important: Always read and follow label instructions. Some products may not be registered for sale or use in all states or counties. Please check with your state or local Extension Service to ensure registration status. Scimitar GC is a Restricted Use Pesticide. Some or all of the varieties may be protected under one or more of the following: Plant Variety Protection, U.S. Plant Patents, Utility Patents, and/or Plant Breeders' Rights and may not be propagated or reproduced without authorization. B-Nine® is a registered trademark of Chemtura Corporation.



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GROWING ON

The timing approximations are based on optimal culture recommendations below:

TRANSPLANT TO FINISH (Approximately day 35 – 105)

Container size: packs, 4 inch (10 cm), quarts (12 cm), 6 inch (15 cm), gallons, baskets

Plugs per Container: See table.

Light: 2,500 – 4,500 foot candles (26,900 – 48,400 lux; 500 – 900 micro mols/m²). DLI: 10 – 16 mols/day. If light intensity exceeds 4,500 foot candles, shading is required to prevent flower bud abortion, small flower size and leaf scorch. Flower delay or lack of flowering can occur if the crop is grown under light levels less than 2,500 foot candles. Provide supplemental lighting if the DLI is less than 10 mols/day. New Guinea impatiens are not photoperiodic.

Temperature: Day: 70 – 85°F (21 – 29°C); Night: 65 – 70°F (18 – 21°C). For shorter finishing times, maintain a minimum average daily temperature (ADT) of

70°F (21°C). Florific can be grown at lower temperatures (55 – 60°F), but crop time is significantly longer.

Moisture: Alternate moisture levels between wet (level 4) and moist (level 2). Media should be kept slightly moist, but never saturated. Over watering

will cause soft growth, plant stretch and lack of flowering. Leaf scorch and edge burn can occur if plants are allowed to dry down severely under high

light conditions.

Relative humidity: 40 – 50%.

Media: pH 6.0 – 6.4. EC 1.0 – 1.5 mS/cm (saturated media extract). Monitor EC and leach with clear water if necessary.

Fertilizer: 100 – 150 ppm Nitrogen. Use nitrate-based fertilizers (13-2-13, 15-5-15, 17-5-17). Adjust fertilizer concentration based on EC levels. Leach with clear water every 1 – 2 weeks to avoid high salts. Symptoms of high media salts include leaves with bronzing on surface, edges rolling under, cupping downwards, or burnt tips.

Pinching: Not recommended.

Plant Growth Regulators (PGRs): Generally not required unless finishing in 4-inch or smaller containers or if growing under light levels less than 8 mols/day. For larger containers, PGRs are often not necessary when growing under appropriate conditions and with proper irrigation practices. If growth control is required, one or two foliar sprays of Bonzi (paclobutrazol) at 1 – 3 ppm are effective.

DISEASES, PESTS AND CONTROLS

Common Diseases: Botrytis, Pythium, Rhizoctonia, Tomato spotted wilt virus (TSWV), Impatiens necrotic spot virus (INSV). Florific New Guinea impatiens are highly resistant to Impatiens downy mildew. Common Pests: Fungus gnats, Spider mites, Thrips

Recommended Fungicides: Daconil®, Heritage®, Subdue Maxx®

Recommended Insecticides: Avid®, Citation®, Flagship®, Scimitar® GC Recommended Bioline™ Biological Control Agents: Target Pest Biological Control Agent Fungus gnats Exhibitline™ sf, Hypoline™ m, Staphyline™ Spider mites Amblyline™ cal, Anderline™ aa, Phytoline™ Thrips Amblyline cu, Swirskiline™ as, Exhibitline sf, Hypoline m, Oriline™ i, Thripline™



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SCHEDULING

Plug time: 288-cell trays: 5 – 6 weeks; 128-cell trays: 6 – 7 weeks when grown at an average daily temperature (ADT) of 73°F (23°C) and a DLI of 10 – 15 mols/day. Finish time from transplant: Timing will vary depending on plug size, container size, and growing environment. At an ADT of 70°F (21°C) and under a DLI of 12 – 15 mols/day: 8 – 9 weeks from transplant of 288 cell plugs (5 weeks old) to finish in jumbo packs or 4-inch pots. See table.

Total crop time: Under a DLI of 12 – 15 mols/day: 13 – 14 weeks for packs and 4-inch pots at an ADT of 70°F (21°C) and 12 – 13 weeks at an ADT of 75°F (24°C).

Container Size Plugs per pot

Finish crop time from transplant of 288-cell trays at different ADTs (weeks)*

	65°F (18°C)	70°F (21°C)	75°F (24°C)
Large Packs 1 plug	11-12 weeks	8-9	7-8
4 – 6 inch (10 – 15 cm) 1	11-12	8-9	7-8
Gallons 1-2 plugs	12-13	9-10	8-9
Baskets 3-5 plugs	12-13	9-10	8-9

*Finish time assumes a 5-week old 288 plug and a DLI of 12 – 15 mols/day.

GARDEN SPECIFICATIONS

Light: Partial shade to full shade

Garden Height: 8 – 12 inches

Spacing: Space plants 12 inches apart in well-drained garden soil

Ref: June 16, 2014

http://www.syngentaflowers.com/country/us/en/seeds/GrowingGuidelinesLib/Florific_Culture_Guide_FINAL.pdf



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