

TECHNICAL GUIDE

Lobelia speciosa F₁ Fan®

Flowering

Flowering Type: FastraX perennial – first year flowering plants without vernalization. Facultative long day plant. Long days with higher light intensity result in faster flowering.

Flowering Mechanism: Flowering is affected by day length. A day length >13 hours will result in flower initiation. High light intensity and warmer temperatures shorten the total crop time.

Plug Culture

Germination: Optimum conditions for seedling development, beginning on the day of sowing until radicle emergence. Expect radicle emergence in 8-12 days.

Cover: Do not cover, light is required for germination. But a light covering with vermiculite prevents the pellets from drying out.

Sowing method: 1 pellet per plug.

Media: pH 5.8-6.2. EC 0.7-1.2.

Temperature: 20-22 °C (68-72 °F) until radicle emergence. Afterwards, ensure 18-20 °C (64-68 °F) during night and day. When the roots reach the bottom of the cell, the temperature can be lowered to 16-18 °C (60-64 °F).

Moisture: Begin with a wet (4) for the first days of germination. Then alternate between a wet (4) and a moist (3).

Humidity: 80 % until radicle emergence, then reduce to 70 %. Constantly high humidity is required during this phase. Provide proper ventilation and horizontal airflow to improve oxygen levels in the media.

Light: Grow the plugs at only 10 hours of light in the tray to keep them vegetative. Provide light levels of 2,000-2,500 ft. candles (20,000-25,000 lx) which can be increased to 4,000 ft. candles (40,000 lx) before transplanting.

Fertilizer: Maintain an EC <1.2. Begin fertilizing early to improve seedling quality. Initial feeding should start at 50-100 ppm and gradually work up to 100-175 ppm at this stage.

Plug Bulking and Flower Initiation: Maintain optimal conditions during the vegetative stage from cotyledon expansion to flower initiation.

Growth Regulators: Sprays of B-Nine (daminozide) at 1,500-2,500 ppm are very effective in toning the plants and controlling growth during the plug stage.

Growing On

Media: pH 5.8-6.4. EC 1.1-1.3.

Light: After transplanting, provide 3-4 weeks of short days to get more color at the date of sale and to encourage more compact, well-branched plants. On longer days with >13 hours of light, the plants will initiate flowers.

Temperature: Maintain 16-18 °C (60-64 °F) during night and day. Once established in the final container, the temperature can be lowered to 10-15 °C (50-59 °F). Cooler temperatures support the uniformity, stability and compactness of the plants, even if the crop time increases somewhat. An outdoor production is also possible. In winter, a frost-free cultivation indoors at 3-5 °C (38-40 °F) or an outdoor cultivation with a fleece cover is possible. The plants are sensitive to strong frost temperatures.

Moisture: Alternate between moisture levels moist (3) and medium (2). Let plants dry back before re-saturating, but avoid drought stress.

Humidity: 40-60 % humidity is ideal. Providing good ventilation and horizontal airflow will help lower the humidity and dry back the media, providing oxygen to the roots.

Fertilizer: Moderate fertilization levels are required. Feed weekly with 100-200 ppm nitrogen using a complete balanced fertilizer. Avoid high ammonium and high nitrogen levels. Prevent magnesium deficiency by applying magnesium sulphate 1-2 times and in case of iron deficiency apply iron-chelate for 1-2 times.

Growth Regulators: Proper moisture and temperature management reduce the use of growth regulators. Depending on the season of cultivation, regular sprays of paclobutrazol and uniconazole can be applied. „Fan® Scarlet Compact“ grows genetically more compact and requires less to no growth regulators.

Fungicide: Apply fungicides during long periods of low light and high humidity. Sclerotinia could be an issue.

Common Diseases: Phytium, phytophthora, root rot.

Pests: Leafminer, aphids and thrips.

Post Harvest: Fertilize with potassium nitrate at 100 ppm 1-2 weeks prior to shipping.

Timing & Positioning Charts

Plug Crop Time	
288 tray	7-8 wks
Finished Crop Time (from 288 tray)	
10,5-13 cm (4-5") pots (1")	9-10 wks
15-19 cm (6-7") pots (2")	10-12 wks

*plants per pot

Moisture Codes

Saturated (5) Water is easily observed when finger is pressed on cell. Water moves freely from the top of the plug to the bottom.

Wet (4) Media looks black and is not glistening. The media feels wet to the touch but there is very little water movement.

Moist (3) Water is not easily visible. When finger is pressed on the cell there is very little movement from top to bottom.

Medium (2) Media is not black, but now looks medium brown. There is no water movement when pressed with finger.

Dry (1) Media has changed color to a very light brown and is dry to the touch.

All information in our technical guide is based on our own trials and would therefore be as guideline only. Detailed cultivation aspects vary depending on climate, location, time of year and environmental conditions. Benary expressly disclaims any responsibility for the content of such data/information and makes no representation or warranty for the cultivation of any products listed. It is recommended that growers conduct a trial of products under their own conditions.