

TECHNICAL GUIDE

Lavandula angustifolia Chill-Out

Flowering

Flowering Type: FastraX perennial – first year flowering plants without vernalization. Facultative long day plant. Long days above 12 hours and high irradiance will promote flowering.

Flowering Mechanism: Flowering is affected by day-length, irradiance and temperature.

Plug Culture

Germination: Optimum conditions for seedling development, beginning on the day of sowing until radicle emergence. Expect radicle emergence in 7-10 days.

Sowing method: 3-6 seeds per plug, depending on the tray size.

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

Cover: Cover the seeds, darkness is required for germination.

Temperature: 20-22 °C (68-72 °F) until radicle emergence. The temperature can be lowered approximately on day 5 to 18-20 °C (64-68 °F). Once cotyledons have fully expanded, reduce the temperature further to 16-18 °C (60-64 °F) and keep this temperature until the plants are ready to transplant.

Moisture: Begin with wet (4) media for the first few days. Then begin to reduce the moisture level to moist (3) for the next 4-5 days until radicle emergence. Once the cotyledons have expanded, reduce further to medium (2) and stay at this level.

Humidity: 95-100 % until day 10; then reduce to 40-60 %. Reducing the humidity will help to prevent the seedlings from stretching. Provide proper ventilation and horizontal airflow to improve oxygen levels in the media.

Light: Light is not required for germination.

Plug Bulking and Flower Initiation: Optimum conditions during the vegetative stage from cotyledon expansion to flower initiation. This stage is when the seedlings root to the edge of the plug and reach the 3-5 true leaf stage where flower initiation occurs.

Media: pH 5.8-6.2; EC 1.2-1.5.

Light: Lavandula are facultative long day plants, so a longer day length and higher light levels will promote early flowering. To initiate flowering under short days, extend the day length to 11-14 hours. Provide 2,000-2,500 ft. candles (21,500-26,900 lx) of light after radicle emergence and raise the light level up to 4,000-5,000 ft. candles (43,100-53,800 lx) in the last stage of plug production.

Fertilizer: Upon initial germination after 10 days, begin feeding with 100-175 ppm nitrogen. Then, fertilize the established seedlings at 175-225 ppm nitrogen.

Growth Regulators: If needed, apply B-Nine sprays during germination to keep seedlings from stretching. Apart from that, growth in the early stage is slow, so usually no growth regulators are required. Low B-Nine (daminozide) sprays at 1,000–2,000 ppm can be used.

Growing On

Media: pH 5.8-6.5; EC 1.2-1.5. Avoid planting the plugs very deep.

Light: As facultative long day plant, there is a need of long days to flower. The critical daylength is around 12 hours. To initiate buds under short days, extend the daylength.

Temperature: After transplanting, always maintain temperatures > 12 °C (54 °F) during night to initiate flower bud development. These low night temperatures encourage basal branching and compactness for a higher quality plant. An average daily temperature of 16-22 °C (60-72 °F) will work well.

Moisture: Make sure that Lavandula plants are never allowed to dry out completely. Then they may die due to root damages as soon as they are watered again. Alternate between moisture levels moist (3) and medium (2). Allow plants to reach medium (2) before re-saturating and grow relatively dry.

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

Fertilizer: Feed regularly at 100-175 ppm nitrogen.

Growth Regulators: Regular applications of B-Nine (daminozide) sprays at 2,000-3,000 ppm per spray work well.

Fungicide: Apply fungicides during long periods of low light and high humidity.

Common Diseases: Botrytis, root rot, leafspot.

Pests: Primarily aphids and mites.

Post Harvest: For shipping, keep the soil moist and the plant dry.

Timing & Positioning Charts

Plug Crop Time	
288 tray (3-4")	6-8 wks
128 tray (5-6")	8-9 wks
Finished Crop Time (from 288 tray)	
12 cm (5") pots (1")	10-12 wks
15 cm (6") pots (1")	12-14 wks
19 cm (7") pots (1-3")	14-16 wks

**seeds per plug
*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.

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