GrowerFacts

Lobelia Starship™

(*Lobelia x speciosa*)

Germination

Approximate seed count (pelleted): 30,800 to 42,000 S./oz. (1,100 to 1,500 S./g)

Key flowering facts:

- First-year-flowering perennial to USDA Hardiness Zone 6 to 10
- Vernalization: not required
- Photoperiod response: Starship Scarlet is a facultative long-day plant. It will flower faster at daylengths of 13 hours or longer. Starship Deep Rose is an obligate long-day plant. It requires 13 hours or longer daylength for flowering.

Media
Use a well-drained, disease-free, soilless media with a pH of 5.8 to 6.2 and EC about 0.75 mS/cm (1:2 extraction).

Sowing
Sow 1 seed per cell in 288 or 4 seeds per cell in 84 plug trays. Cover lightly with vermiculite to maintain media moisture.

Daylength
Spring plug production: During the plug stage, Starship lobelia needs to be grown at less than 12 hours short-day (ideally 10 hours by using black cloth) for at least the first 7 to 8 weeks from sowing, to keep vegetative growth (leaf rosette). Avoid growing plugs under supplemental long-day lighting.

Summer plug production: Grow plugs under 10 hours short-day using black cloth until ready to transplant.

NOTE: Growing plugs under long-day conditions will cause premature flowering with weaker and floppy stems. See Growing On to Finish – Photoperiod below for details.

Stage 1 – Germination takes 7 to 10 days.

Soil temperature: 65 to 72°F (18 to 22°C)

Light: Light will improve germination.

Moisture: Keep soil wet (level 4) during Stage 1.

Humidity: Maintain 95 to 97%+ relative humidity (RH) until radicles emerge.

Plug Production

Stage 2
Soil temperature: 65 to 68°F (18 to 20°C)

Light: Can be up to 2,500 f.c. (26,900 Lux).

Moisture: Maintain soil constantly moist (level 4). Do not dry out plug tray. It is recommended to grow plugs on a capillary mat to maintain uniform moisture.

Fertilizer: Do not fertilize until Stage 3, as plants are sensitive to high salt levels. Maintain media EC below 0.75 mS/cm.

Stage 3

Soil temperature: 60 to 65°F (16 to 18°C)

Light: Can be up to 2,500 f.c. (26,900 Lux).

Moisture: Allow the soil moisture to dry to level 3. Do not keep plug trays either too wet or too dry.

Fertilizer: Apply fertilizer at rate 1 (less than 100 ppm N; less than 0.7 mmhos/cm EC).

Growth Regulators: Not needed.

Stage 4

Soil temperature: 60 to 65°F (16 to 18°C)

Light: Up to 5,000 f.c. (54,000 Lux).

Moisture: Same as Stage 3.

Fertilizer: Increase fertilizer to rate 2 (100 to 175 ppm N; 0.7 to 1.2 mmhos/cm EC).

Growing On to Finish

Container Size
5-in. (13-cm) pot: 1 plug per pot

Gallon: 1 to 2 plugs per pot

2 Gallon: 3 to 4 plugs per pot

Media
Use a well-drained, disease-free, soilless media with a pH of 5.8 to 6.2 and and a medium initial nutrient charge (EC 0.75 mmhos/cm).

Temperature
Nights: 60 to 65°F (16 to 18°C)

Days: 65 to 70°F (18 to 21°C)

Note: Cooler temperatures (from 46 to 56°F/8 to 13°C) will increase production time. Avoid growing plants at a minimum temperature below 40°F (3°C), as Starship Lobelia is frost-sensitive.

Light
Keep as high as possible while maintaining proper temperature.

Photoperiod
Starship Scarlet is a facultative long-day plant. It will flower faster at daylength 13 hours or longer.

Starship Deep Rose is an obligate long-day plant. It requires 13 hours or longer daylength for flowering.

Starship flowers can be induced during plug stage. Avoid growing plugs under long days (12 hours or longer) to prevent premature flowering. See Plug Production – Daylength above for details.

When transplanting to extreme long-day conditions (16 hours or longer), extra plugs may also be needed even from short-day treated plugs.

Irrigation
Keep media moisture medium moist (level 3; substrate color is brown to dark brown). Let top soil dry in between waterings, but avoid drought stress. Avoid growing in overly wet conditions as this can cause disease or insect problems.

Fertilizer
Starship generally needs moderate fertilization. Apply fertilizer at rate 2 (between 100 to 190 ppm N; 0.7 to 1.3 mmhos/cm). Maintain soil pH at 5.8 to 6.4 and soil EC at 1.1 to 1.3 mmhos/cm.

Growth Regulators
PGRs are generally not needed, but if necessary, Bonzi (paclobutrazol) 30 ppm (7.5 ml/l, 0.4% formulation) or Sumagic (uniconazole) 5 ppm (9.1 ml/l, 0.055 % formulation) can be applied in early growing stage.

Pinching
Not needed.

Crop Scheduling
Sow to transplant (288-cell plug):
Spring, 8 to 9 weeks; Summer, 7 to 9 weeks. 84-cell plug takes 1 to 2 weeks longer. Add 1 more week for Starship Deep Rose.

Transplant to flower: 12 to 16 weeks when grown under proper daylength (13 hours or longer). Add 1 week for Starship Deep Rose.

Total crop time: 19 to 25 weeks
Starship Deep Rose will take total about 1 to 2 weeks longer to finish than Starship Scarlet.

Forcing for Summer and Fall sales target weeks 25 or later

- Sow week 15 to 17, using 288 trays.
- Grow plugs under 10-hour short-day conditions using black cloth until ready to transplant. Allow about 8 to 9 weeks during Summer production.
- After short-day treatment, transplant to final container and grow under natural long days. Outdoor production is recommended.
- Total crop time is approximately 19 to 20 weeks.

Common Problems
Insect: Leafminer, Aphids, Thrips, Snails, Slugs. Control thrips as lobelia is very susceptible to INSV damage.

Disease: INSV, Phytium, Phytophtora, Root and Crown Rot

Non-uniform plugs: EC too high during early plug stage.

Early, floppy plants: Plugs grown under long-day conditions (12 hours or longer).

Garden and Landscape Information

- A first-year-flowering perennial to USDA Hardiness

Ball Horticultural Company
622 Town Road, West Chicago, Illinois, USA, 60185-2698
630 879-BALL www.ballseed.com

Zone 6 to 10
- Late-flowering perennial – flowers Summer to Autumn
- A magnet for hummingbirds
- Finished height: 20 to 24 in./50 to 60 cm
- Finished spread: 6 to 8 in./15 to 20 cm
- Garden spacing: 12 to 14 in./30 to 35 cm

NOTE: Growers should use the information presented here as a starting point. Crop times will vary depending on the climate, location, time of year, and greenhouse environmental conditions. Chemical and PGR recommendations are only guidelines. It is the responsibility of the applicator to read and follow all the current label directions for the specific chemical being used in accordance with all regulations.

Ball

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