

## Lobelia Starship Scarlet

(*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
- Photoperiod response: quantitative/facultative long-day plant with critical daylength 13 hours
- Vernalization: not required

#### 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. Lightly cover only when grown under dry conditions.

**Stage 1** – Germination takes 7 to 10 days.

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

**Light:** Light is optional but can 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).

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

#### 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.

**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).

#### Note:

During plug stage, *L.speciosa* needs to be grown at less than 13 hours short-day conditions to keep vegetative growth and avoid premature flowering. Long days together with warm conditions make plants stretch easily, resulting in weaker plants in growing-on phase.

### Growing On to Finish

#### Container Size

**5-in. (13-cm):** 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 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 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 an facultative long-day plant. It will flower faster at daylength 13 hours or longer.

Starship Scarlet flower can be induced during plug stage under long-day conditions, which causes premature flowering with weaker and thinner stems. Therefore, keeping plug production at less than 13 hours is recommended. Otherwise, it may be necessary to transplant an extra 1 or 2 plugs for larger pot size.

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

### 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 too-wet conditons as it 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)

### Growth Regulators

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):** 7 to 9 weeks; 84 cell plug takes a week longer

**Transplant to flower:** 12 to 16 weeks when grown under proper daylength (13 hours or longer)

**Total crop time:** 19 to 25 weeks

### Common Problems

**Insect:** Leafminer, aphids, snails, slugs

**Disease:** Phytium, Phytophthora, Root and Crown Rot

### Garden and Landscape Information

- A first-year-flowering perennial to USDA Hardiness Zone 6 to 10
- A late-flowering perennial which flowers from 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 20cm
- 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.

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