

Viola Celestial

(*Viola cornuta*)

Propagation

- Choose a well-drained medium with an EC of 0.8 to 1.0 mmhos and a pH of 5.5 to 5.8.
- Stick cuttings the day of arrival if possible. Otherwise, store at 45°F (7°C) for not more than 18 hours before sticking.
- Soil temperature should be maintained at 70 to 72°F (21 to 24°C) until roots are visible.
- A rooting hormone basal dip of 500 to 750 ppm should be applied to promote early, uniform rooting.
- Mist at moderate levels for the first 24 to 48 hours to rehydrate cuttings. Avoid over-application of mist after this period. Viola cuttings will lose nutrition quickly and root slowly if too much mist is applied. Minimal mist or tenting will yield the best results.
- Begin fertilization with 50 to 75 ppm N after 7 days. An acidic fertilizer such as 20-10-20 is effective in maintaining correct media pH.
- During root development, maintain moderate moisture levels in the soil. Avoid saturation of media to ensure faster rooting.
- Soft pinching once in the propagation tray at 25 to 28 days after sticking will promote a well-branched finished plant.
- Rooted cuttings should be ready for transplanting 35 to 42 days after sticking.

Growing On to Finish

Media

- Use media with good aeration and drainage.
- Prefers a medium that is high in organic matter.
- A pH of 5.5 to 5.8 is optimum. EC of 0.8 to 1.0 mmhos.

Temperature

- **Nights:** 50 to 55°F (10 to 13°C)
- **Days:** 60 to 65°F (16 to 18°C)
- Temperatures below those recommended will slow plant growth.
- An average daily temperature of 55°F (13°C) is optimal, but plants will tolerate a wide range of warm temperatures.
- Celestial Viola are day-neutral plants and do not require vernalization to flower or for bulking.

Light

- Will perform best under moderate to high light levels of 5,000 to 8,000 f.c. (50,000 to 80,000 Lux).
- Celestial Viola are day-neutral plants and will

flower anytime weather conditions are above freezing.

- Finish Viola plants outside in full-sun conditions for best quality.

Watering

- The media should be allowed to dry slightly between watering and never saturated. Once plants are reaching maturity, slight water stress will help avoid stretch. Over-dry plants will develop yellow lower leaves, however.
- Leach regularly to avoid the buildup of high soluble salt levels.

Fertilizer

Use a balanced Pansy/Viola fertilizer at a rate of 125 to 150 ppm. Monitor media pH levels to avoid Iron deficiency.

Pinching

Celestial Viola are selected for excellent natural branching habit. Fuller and larger plants can be achieved when pinched once in the propagation tray and can be pinched a second time 1 to 2 weeks after transplant to create very full plants.

Controlling Growth

- Under most conditions, will not require growth regulator treatments. Plants will respond to B-Nine at 2,500 ppm if growing conditions cause stretch. However, flower size may be negatively affected.
- Celestial Viola are very sensitive to paclobutrazol and uniconazole PGRs. Use these with extreme caution.
- Celestial Viola can be sheared back and will rebloom nicely if sales demand is not sufficient for sell-through at initial flowering.

Common Problems

Insects: Whitefly, Spider Mite

Diseases: Celestial Viola are not particularly disease-sensitive. Watch for Thielaviopsis and Pythium root rot and treat if identified. Preventative treatments are typically not necessary.

Problem: Plant collapse

Causes: Plants grown in saturated media for extended periods of time (Pythium); Rooted cuttings transplanted too deeply

Problem: Excessive vegetative growth and lack of flowers

Causes: Excessive ammonium-based fertilizer ; Over-fertilization under low light conditions; Low light and over-watering; saturated media

Problem: Yellowing of young foliage

Causes: Saturated media, pH >6.0

Problem: Foliage necrosis

Causes: High soluble salts in media; Excessive water ; Pesticide application

Problem: Poor branching and thin plants

Causes: Low fertilization during early stages of growth ; Low light conditions

Crop Schedule & Uses

(Crop Schedule in Weeks from Spring planting.)

1 PPP* 1-qt. (10-cm) pot

Unrooted cutting 11-13 weeks

Rooted cutting 6-8 weeks

1 PPP* 1-gal. (15-cm) pot

Unrooted cutting 13-15 weeks

Rooted cutting 8-10 weeks

3 PPP* 2 to 3-gal. (25 to 30-cm) pot

Unrooted cutting 15-17 weeks

Rooted cutting 10-12 weeks

*PPP: Plants per pot

Schedule for traditional Fall planting: Plant liners into final container prior to Week 48 in the South and Week 42 in the North for best results. Plants should be well-established in final containers before exposure to freezing or near-freezing temperatures.

