

## 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.

