

## Chocolate Covered Cherry, Chocolate Mint, Chocolate Splash & Dark Chocolate Coleus

*Solenostemon scutellarioides*

**Approximate seed count:** 27,500 S./oz. (970 S./g)

### Plug Production

#### Media

Use a well-drained, disease-free, soilless media with a pH of 5.5 to 5.8 and a medium initial nutrient charge (EC 0.75 mS/cm).

#### Sowing

Sow seed in 288 or larger plug tray. In Europe, 264-cell trays can be used. Cover with vermiculite lightly.

**Stage 1 – Germination** takes 4 to 5 days.

**Soil temperature:** 72 to 75°F (22 to 24°C).

**Light:** Light is not necessary.

**Moisture:** Keep media evenly moist (level 4), but not saturated.

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

**Note:** Coleus is very sensitive to high salts – particularly high ammonium – during germination. Keep ammonium levels less than 10 ppm.

#### Stage 2

**Soil temperature:** 72 to 75°F (21 to 24°C)

**Light:** Up to 2,500 f.c. (26,900 Lux)

**Moisture:** Reduce soil moisture slightly (level 3 to 4) to allow the roots to penetrate into the media.

**Fertilizer:** Apply fertilizer at rate 1 (less than 100 ppm N/less than 0.7 mS/cm EC) from nitrate-form fertilizers with low phosphorous. Alternate feed with clear water. Feed between 2 to 3 clear irrigations. Irrigate early in the day so foliage is dry by nightfall to prevent diseases. Keep soil pH at 5.5 to 6.2 and EC less than 1.0 mS/cm.

#### Stage 3

**Soil temperature:** 68 to 70°F (20 to 21°C)

**Light:** Up to 2,500 f.c. (26,900 Lux)

**Moisture:** Allow media to dry further until the surface becomes light brown (level 2) before watering but avoid excessive wilting to promote root growth and control shoot growth. Keep the moisture to wet-dry cycle (moisture level 4 to 2).

**Fertilizer:** Increase fertilizer to rate 2 (100 to 175 ppm N/0.7 to 1.2 mS/cm EC). Maintain soil pH at 5.5 to 5.8 and EC less than 1.0 mS/cm (1:2 extraction).

**Growth Regulators:** Generally not needed. If necessary, A-Rest, B-Nine and Bonzi are effective on coleus. Always follow label recommendations. Use temperature differential (DIF) whenever possible, especially the first 2 hours after sunrise, to control plant height.

#### Stage 4

**Soil temperature:** 60 to 62°F (16 to 17°C).

**Light:** Up to 5,000 f.c. (53,800 Lux) if temperature can be controlled.

**Moisture:** Same as Stage 3.

**Fertilizer:** Same as Stage 3.

### Growing On to Finish

#### Container Size

**306 pack:** 1 plant per cell

**4 to 5-in. (11 to 13-cm) pots:** 1 plant per pot

**6-in. (15-cm) or gallon pots:** 3 plants per pot

#### Media

Use a well-drained, disease-free, soilless media with a pH of 5.5 to 6.0 and a medium initial nutrient charge (EC 0.75 mS/cm).

#### Temperature

**Nights:** 57 to 65°F (14 to 18°C)

**Days:** 65 to 75°F (18 to 24°C)

#### Light

Provide shade if over 5,000 f.c. (53,800 Lux).

#### Irrigation

Avoid both excessive watering and drought.

#### Fertilizer

Coleus are low to moderate feeders. Excessive feed can lead to dull coloration and decreased vigor. Apply fertilizer at rate 2 (100 to 175 ppm N/0.7 to 1.2 mS/cm) using predominately nitrate-form fertilizer with low phosphorus and high potassium. Maintain medium electrical conductivity around 1.0 mS/cm (using 1:2 extraction).

### **Growth Regulators**

Control plant growth first by environment, nutrition and irrigation management, then with chemical plant growth regulators if needed. Minimize ammonium-form nitrogen fertilizer to avoid stem elongation. Coleus are responsive to day/night DIF and are shorter with a negative DIF

B-Nine/Alar (daminozide) 2,500 to 5,000 ppm (3.0 to 6.0 g/l 85% formulation or 4.0 to 8.0 g/l of 64% formulation) and Bonzi 5 to 10 ppm spray are effective at controlling height on coleus. They can be applied at 2 to 3 weeks after transplanting. Repeat if necessary. Because Dark Chocolate is more vigorous than Chocolate Mint and Chocolate Splash, additional or heavier PGRs may be needed.

### **Pinching**

Not necessary.

### **Spacing**

Space plants when foliage is touching.

### **Crop Scheduling**

**Sow to transplant (288 cell plug):** 5 to 6 weeks

**Transplant to flower:** 6 to 8 weeks

### **Common Problems**

**Insects:** Aphids, mealy bugs, whiteflies

**Diseases:** *Alternaria*, *Botrytis*, *Verticillium*

**Other:** Excessive internode elongation under low light

### **Garden and Landscape Information**

- Coleus are very heat and humidity tolerant.
- Plant in partial to full shade, but plants can tolerate more sun in less harsh climates.
- Chocolate Covered Cherry reaches 12 to 14 in. (30 to 35 cm) tall, Chocolate Mint reaches 14 to 20 in. (35 to 50 cm), Chocolate Splash 12 to 16 in. (30 to 40 cm), and Dark Chocolate 24 to 30 in. (60 to 75 cm).
- Plants will stretch under very low light.
- Plants may get leaf burn under high light intensity.
- Space plants 12 to 14 in. (30 to 35 cm) apart in well-drained soil.

**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.