

## Ornamental Pepper Black Pearl

(*Capsicum annuum*)

### Germination

Approximate seed count: 6,850 S/oz. (240 S/g)

#### 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).

#### Sowing

Can be produced in 288 or larger plug tray. Cover the seed lightly with coarse vermiculite.

**Stage 1** – Germination takes 5 to 7 days

**Soil temperature:** 72 to 76°F (22 to 24°C)

**Light:** Optional

**Moisture:** Keep soil evenly moist but not saturated (level 4)

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

**Note:** Peppers are very sensitive to high salts, particularly high ammonium, during germination. Keep ammonium levels to less than 10 ppm.

### Plug Production

#### Stage 2

**Soil temperature:** 68 to 73°F (20 to 23°C)

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

**Moisture:** Reduce soil moisture slightly (level 3 to 4) to allow the soil to dry out slightly before watering for best germination and rooting.

**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.

#### 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 to promote root growth and control shoot growth. Keep the moisture level to wet-dry cycle (moisture level 4 to 2). Avoid wilt.

**Fertilizer:** Increase fertilizer to rate 2 (100 to 175 ppm N/0.7 to 1.2 mS/cm EC) from 14-0-14 or other calcium/potassium nitrate fertilizer. Fertilize every 2 to 3 irrigations. Maintain medium pH of 5.8 to 6.2 and EC between 1.0 and 1.5 mS/cm (1:2 extraction).

**Growth Regulators:** If necessary, one application of uniconazole (Sumagic) at rate of 2.5 ppm (4.6 ml/l of 0.055% formulation) can be applied at 2 weeks after sowing. Repeat two weeks later if needed.

#### Stage 4

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

**Light:** Up to 5,000 f.c. (53,800 Lux)

**Moisture:** Same as Stage 3.

**Fertilizer:** Fertilize with 14-0-14, 15-5-15 or calcium/potassium nitrate feed at rate 2 (100 to 175 ppm N/0.7 to 1.2 mS/cm EC) as needed.

### Growing On to Finish

#### Container Size

**4 to 4.5-in (10 to 11-cm) pot:** 1 plug per pot

**6-in. (15-cm) pot:** 1 to 3 plugs per pot

**1 gallon (18-cm) pot:** 1 to 3 plugs per pot

#### Media

Use a well-drained, disease-free, soilless media with a pH of 5.5 to 6.2 and a medium initial nutrient charge (EC 0.75 mmhos/cm).

#### Temperature

Nights: 65 to 70°F (18 to 21°C)

Days: 68 to 80°F (20 to 26°C)

Peppers prefer warm temperatures. Peppers can be damaged by temperatures below 45°F (7°C).

**Light**

Maintain light levels as high as possible. High light levels and spacing will keep plants from stretching.

**Irrigation**

Grow plants on the dry side. To provide some height control, plants can be allowed to wilt slightly prior to irrigation once plants are rooted to the edge of the container.

**Fertilizer**

Apply fertilizer at rate 3 (175 to 225 ppm N/1.2 to 1.5 mS/cm) every third irrigation with predominately a nitrate-form fertilizer with low phosphorus and high potassium. Maintain media pH at 5.8 to 6.2.

For a constant fertilizer program, apply fertilizer at rate 2 (100 to 175 ppm N or 0.7 to 1.2 mS/cm).

**Controlling Height**

High light levels and spacing will keep plants from stretching.

Chemical plant growth regulators are not recommended on ornamental peppers after transplanting.

**Pinching**

Pinching is not needed.

**Crop Scheduling**

**Sow to transplant (288 cell plug):** 4 to 5 weeks

**Transplant to foliage only, no fruit:** 5 to 6 weeks

**Transplant to mature fruit:** 11 to 15 weeks

**Note:** Crop time to fruit will be 4 to 5 weeks longer during Spring production.

**Common Problems**

**Insect:** Watch for aphids.

**Disease:** No severe disease

**Tips for Landscapers and Gardeners**

Location: Full sun

**Garden Height:**

Black Pearl: 14 to 18 in. (35 to 45 cm); may grow 2 to 3 ft. (60 to 90 cm) or taller in warmer areas with longer

growing seasons.

Purple Flash: 13 to 15 in. (33 to 38 cm)

Calico: 10 to 12 in. (25 to 30 cm)

**Garden Spread:**

Black Pearl: 12 to 16 in. (30 to 40 cm)

Purple Flash: 19 to 21 in. (48 to 52 cm)

Calico: 14 to 16 in. (35 to 40 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.

