

Ornamental Pepper Chilly Chili

(*Capsicum annuum*)

Germination

Approximate seed count: 8,000 S/oz. (285 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: Hot Pops and Medusa are naturally compact varieties and do not need chemical control. For Chilly Chili, if necessary, one application of uniconazole (Sumagic) at rate of 2.5ppm (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 2 plugs per pot

1 gallon (18-cm) pot: 2 to 3 plugs per pot

Note: Medusa is not recommended for production in gallon containers.

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

Hot Pops, Medusa and Chilly Chili ornamental peppers produce naturally dwarf, compact plants.

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 sale in fruit: 7 to 13 weeks

Total crop time: 11 to 18 weeks

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

Common Problems

Insect: Watch for aphids

Disease: No severe disease

Post-Production Care

Once the peppers have formed, night temperatures of 60 to 65°F (15 to 18°C), and day temperatures of 65 to 75°F (18 to 24°C) are optimal.

Avoid shipping Hot Pops, Medusa and Chilly Chili plants in closed boxes. Due to the high fruit count, ethylene can build up in the boxes, causing the foliage to drop. If boxing is necessary, do not close boxes until just before loading onto trucks. Recommend that your customer unbox the plants immediately upon arrival.

Ornamental peppers prefer full sun; however, partial shade may be beneficial during retail display.

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.

