

## Dianthus Mountain Frost

(*Dianthus hybrida*)

### Propagation

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- Choose a well-drained medium with an EC of 0.75 to 0.80 mmhos and a pH of 5.8 to 6.2.
- Stick cuttings the day of arrival if possible. Otherwise, store at 45°F for not more than 18hr 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 containing 500 - 1,000ppm IBA should be applied to promote early, uniform rooting.
- Average days with mist 10 to 12 days.
- Begin fertilization with 50 to 75 ppm N 12 to 14 days after sticking
- During root development maintain moderate moisture levels in the soil. Avoid saturation of media. **Better rooting in achieved in smaller cell sizes**
- Rooted cuttings should be ready for transplanting 6 to 7 weeks after sticking.
- Dianthus require very low mist settings to root. Over-misting will result in slow rooting and high losses in propagation.

### Growing On to Finish

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##### Media

- Use media with good aeration and drainage.
- Prefers a medium that is high in organic matter.
- A pH of 5.8 to 6.2 is optimum.

##### Temperature

- **Nights:** 50 to 55°F (10 to 13°C)
- **Days:** 55 to 60°F (13 to 15°C)
- Temperatures below those recommended will slow plant growth significantly.
- An average daily temperature 55 to 60°F (13 to 15°C) is optimal, but plants will tolerate a wide range of temperatures and are very heat tolerant.
- **No vernalization required to flower however heavier flower occurs in spring after vernalization.**

##### Light

- Will perform best under moderate to high light levels of 3,000 to 5,000 f.c. (30,000 to 50,000 Lux).
- Mountain Frost Dianthus are day neutral in flower response.

##### Watering

- The media should be allowed to dry moderately between watering and never saturated. However, plants should not be allowed to wilt at any time.
- Leach regularly to avoid the buildup of high soluble salt levels.

##### Fertilizer

Use a balanced fertilizer at a rate of 125 to 150 ppm. Periodic use of a calcium based fertilizer should help optimize the nutrient levels. Discontinue fertilizing during the dark winter months to avoid excessive EC buildup.

##### Pinching

No pinching required.

##### Controlling Growth

- Will not require growth regulator treatments.
- Responsive to B-Nine/CCC at 1,500/800 ppm if needed to control petiole stretch.
- These recommendations for plant growth regulators should be used only as general guidelines. Growers must trial all chemicals under their particular conditions.

##### Common Problems

**Insects:** Aphid, Thrips

**Diseases:** Fungal leaf spots, Rhizoctonia crown rot

##### Key Tips

Plants can be finished using overhead or drip irrigation. Remove spent flowers as needed.

## **Problems Causes**

**Crown rot** Planting too deep, overwatering

### **Excessive vegetative growth and lack of flowers**

Excessive ammonium-based fertilizer

Over-fertilization under low light conditions

Low light and over-watering; saturated media

**Yellowing of young foliage** Saturated media

### **Foliage necrosis**

High soluble salts in media

Excessive water stress

## **Crop Schedule & Uses**

(Crop Schedule in Weeks – Summer/Fall planting is recommended.)

### **1 PPP\* 1-qt. (10-cm) Pot**

**Unrooted cutting** 20 - 22 weeks

**Rooted cutting** 14 - 16 weeks

### **1 PPP\* 1-gal. (15-cm) Pot**

**Unrooted cutting** 24 - 26 weeks

**Rooted cutting** 18 - 20 weeks

### **3 PPP\* 2 to 3 gal. (25 to 30-cm) Pot**

**Unrooted cutting** Not recommended

**Rooted cutting** Not recommended

\*PPP: Plants per pot or basket

