

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 is 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

