

Delphinium Guardian F₁ Series

(*Delphinium elatum*)

Cut Flowers Culture (revised 01/10/18)

What You Want, When You Want It

It's easy to program your crop to meet shipping dates with Guardian. It offers very uniform blooming, especially under short days. Plus, it's up to 6 weeks faster from transplant to bloom than O.P. types, for more turns in the greenhouse. For programmability and efficiency, Guardian is leading the charge.

Plug crop time: 6 to 7 weeks

Transplant to finish: 16 weeks

- Breeding breakthrough makes it easy to program your crop to meet shipping dates.
- Very uniform blooming within each variety, especially under short days.
- Works well as a tall landscape/perennial variety, as a commercial cut flower, and in potted plant programs.
- Up to 6 weeks faster from transplant to bloom than O.P. types for more turns per sq. ft./metre of greenhouse space.
- Also suitable as a greenhouse cut flower or for garden cut flower production.
- As a greenhouse cut flower, Guardian can be grown under the same conditions as dianthus and snapdragons.
- Produces excellent stem quality for good cut flower shippability.

General Information

Exposure	Bloom Season	Height	Spread	Spacing
Sun	Early Spring, Spring	30-39 in. (76-99 cm)	10-12 in. (25-30 cm)	10-14 in. (25-36 cm)

Germination

Seed Form	Recommended Plug Size	Seeds/Cell	Plug Crop Weeks	Days to Germinate	Initial Media pH/EC	Cover Seed
RAW	288	1	5-6	5-6	5.8-6.2 pH 0.75 mmhos/cm	Yes

Plug Production

	Stage 1	Stage 2	Stage 3	Stage 4
Moisture	Level 4	Level 3	Level 2	Level 2
Temperature	65-70°F (18-21°C)	65-68°F (18-20°C)	60-65°F (16-18°C)	60-65°F (16-18°C)
Light	Optional	2,000-2,500 f.c. (21,500-26,900 Lux)	2,000-2,500 f.c. (21,500-26,900 Lux)	4,000-5,000 f.c. (43,100-53,800 Lux)
Fertilizer	Less than 100 ppm N - Less than 0.7 EC	100 to 175 ppm N - 0.7 to 1.2 EC	100 to 175 ppm N - 0.7 to 1.2 EC	100 to 175 ppm N - 0.7 to 1.2 EC

Propagation Key Tips

Autumn: greenhouse 13 weeks, field 16 weeks. Spring: greenhouse 11 weeks, field 13 weeks. Treat cut stems with an ethylene-inhibiting agent. In temperate areas such as coastal California, plugs are generally transplanted into the field August through October, and February to early May. Autumn transplants will flower the following Spring (February onward); Spring transplants flower late Spring.

Growing on to Finish

Growing on Temperature	Target Media pH/EC	Fertilizer	Daylength
Autumn: (day) 68-71°F (20-22°C) (night) 60-65°F (16-18°C) Spring: (day) 68-71°F (20-22°C) (night) 60-65°F (16-18°C) Summer: (day) 68-71°F (20-22°C) (night) 60-65°F (16-18°C)	5.8-6.5 pH 1.3-1.5 mmhos/cm	100 to 175 ppm N - 0.7 to 1.2 EC	Facultative Long Day

Crop Scheduling

Crop Type	Season	Density	Crop Time
-	Autumn	4 plants/ft ² (43 plants/m ²)	13-16 weeks
-	Spring	4 plants/ft ² (43 plants/m ²)	11-13 weeks
-	Summer	4 plants/ft ² (43 plants/m ²)	11-13 weeks

Finishing Key Tips

Autumn: greenhouse 13 weeks, field 16 weeks. Spring: greenhouse 11 weeks, field 13 weeks. Treat cut stems with an ethylene-inhibiting agent. In temperate areas such as coastal California, plugs are generally transplanted into the field August through October, and February to early May. Autumn transplants will flower the following Spring (February onward); Spring transplants flower late Spring.

NOTE: Growers should use the information presented here as guidelines only. PanAmerican Seed recommends that growers conduct a trial of products under their own conditions. Crop times will vary depending on the climate, location, time of year, and greenhouse environmental conditions. It is the responsibility of the grower to read and follow all the current label directions relating to the products. Nothing herein shall be deemed a warranty or guaranty by PanAmerican Seed of any products listed herein. PanAmerican Seed's terms and conditions of sale shall apply to all products listed herein.

Variety Pictures



Blue



Lavender



White



Mixture

PanAmericanSeed™

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