



Delphinium Guardian F₁ Series

(*Delphinium elatum*)

Cut Flowers Culture (revised 01/23/21)

Guardian is an F1 hybrid *delphinium elatum* that delivers programmable and reliable yields of stems.

General Information

Cultivation Type	Usage	Stem Length	Timing Group
Greenhouse, Tunnel, Field grown	Line	30-39 in. (76-99 cm)	N/A

Germination

Seed Form	Recommended Plug Size	Seeds/Cell	Plug Crop Weeks	Days from 50% to maximum germination	Initial Media pH/EC (1:2)	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)

Growing on to Finish

Target Media pH/EC (1:2)	Fertilizer	Daylength
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

Cultivation Type	Support	Temperature	Density	Crop Time
Greenhouse	Recommended	20-22°C/68-71°F (day) 16-18°C/60-65°F (night)	4 plants/ft ² (43 plants/m ²)	11-13 weeks
Field grown	Recommended	20-22°C/68-71°F (day) 16-18°C/60-65°F (night)	4 plants/ft ² (43 plants/m ²)	13-16 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.

Harvest

Harvest stems when the first 1 to 2 flowers are fully open. For local markets, harvest when 30% of florets have opened.

Post Harvest

Delphinium are highly sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product immediately after harvest. Hydrate and store in a cooler at 1-3°C (34-38°F) in a commercial floral holding solution at the manufacturer recommended rate.

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 confirm the treatment is available in their region as well as 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.

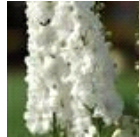
Variety Pictures



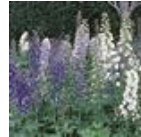
Blue



Lavender



White



Mixture



BloomStudios.
WITH PANAMERICAN SEED®

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