

Delphinium Delfix™

Culture Guide



Botanical name: *Delphinium grandiflorum*

Product form: Seed

Containers: Quarts, Gallons

Habit: Upright

Vernalization: Not required (First Year Flowering)

Garden Specifications

Garden Height: 12–15" (30–35 cm) tall

Garden Width: 6–8" (15–20 cm) wide

Exposure: Full sun

USDA zone: 4–9

AHS zone: 8–1

Product use: Containers, Landscapes

Germination

Stages 1 & 2

Germination time: 5–7 days

Media temp: 68–70 °F (20–21 °C)

Chamber: Optional

Light: Not required for germination

Seed cover: Yes

Moisture level: 4 - WET: Soil is dark brown but not shiny, no free water is seen at the surface of the soil, when pressed or squeezed water drips easily, and trays are heavy with a visible bend in the middle.

Rec. tray size: 288–cell tray

Seeds per cell: 2–3

Young Plant Production

Stage 3 & 4

Temperature

Day: 66–68 °F (19–20 °C)

Night: 62–64 °F (17–18 °C)

Average daily temperature: 65 °F (18 °C)

Lighting

Day extension lighting: Not necessary

Light intensity: 200–250 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$ for the first two weeks after sowing or until true leaf development occurs. Light levels can be increased up to 600 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$ as rooting increases and the seedling matures.

Day length response: Day neutral

Daily light integral: 12–14 $\text{mol}\cdot\text{m}^{-2}\cdot\text{d}^{-1}$

Media pH: 5.8–6.2

Media EC: SME 0.25 to 0.5 mS/cm

Delfix™ White



Fertilizer: 50–75 ppm N

Moisture level: Media should be allowed to dry between irrigations. Alternate between moisture level 2 and 3.

2 - MEDIUM: Soil is light brown in color, no water can be extracted from soil, and soil will crumble apart.

3 - MOIST: Soil is brown in color, strongly squeezing the soil will extract a few drops of water, and trays are light with no visible bend.

Pinching: No

Plant growth regulators (PGRs): If needed, sprays of B-Nine® WSG (daminozide) at 2,500 ppm, or a Bonzi® (paclobutrazol) spray at 5 ppm can be used to tone plugs.

Plug grow time: 6–7 weeks in a 288–cell tray

Comments: While light is not necessary for germination it is beneficial to prevent stretch in low light conditions.

Bulking and Vernalization

Vernalization: Not required (First Year Flowering)

Finishing

Temperature

Day: 66–68 °F (19–20 °C)

Night: 58–60 °F (14–16 °C)

Average daily temperature: 64 °F (18 °C)

Lighting

Day extension lighting: Not necessary

Light intensity: 1,200–1,600 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$

Day length response: Day neutral

Daily light integral: 14–16 $\text{mol}\cdot\text{m}^{-2}\cdot\text{d}^{-1}$



Delfix™ White

Transplanting: Transplant directly into the finished container. Place the rooting media slightly above the level of media in the container. Make sure that the root ball is covered and that the plug is situated in the center of the pot.

Media pH: 5.8–6.2

Media EC: SME EC: 1.5–2.1 mS/cm, PourThru EC: 2.3–3.2 mS/cm

Fertilizer: 125–175 ppm N

Pinching: No. Pinching is not recommended or needed.

Plant growth regulators (PGRs): If required, a combination spray of B-Nine® WSG (daminozide) at 2,500 ppm plus Altercel™ (chlormequat chloride) at 1,000 ppm, or Bonzi® (paclobutrazol) spray at 15 ppm are effective.

Tech tip: To ensure a high quality plant keep feed levels up throughout production.



Try Chrysal Alesco®, a postharvest foliar spray, to protect ethylene sensitive crops during shipping and retail.

Moisture level: Media should be allowed to dry between irrigations. Alternate between moisture level 2 and 3.

2 - MEDIUM: Soil is light brown in color, no water can be extracted from soil, and soil will crumble apart.

3 - MOIST: Soil is brown in color, strongly squeezing the soil will extract a few drops of water, and trays are light with no visible bend.

Common pests: Aphids, Whiteflies

Common diseases: Powdery Mildew, Pythium

Scheduling

Size	Crop Time	Plants Per Pot
1.0 quart (4.5 to 5 inch)	9–10 weeks	1–2 ppp
1.25 to 2.5 quart (5.5 to 6.5 inch, trade gallon)	9–10 weeks	3 ppp

Estimated finish crop time is from transplant of a 288-cell tray and finished at an average daily temperature (ADT) of 64 °F (18 °C).

Example crop schedule for a large pack

Weeks From Transplant	Description
1 week	Transplant into the center of the pot
5 weeks	Test soil pH to be sure that it is not raising above 6.2
8 weeks	If necessary, start to treat with a PGR application
10 weeks	Finish



Delfix™ Blue