

Dianthus Barbarini®



Culture Guide

Botanical name: *Dianthus barbatus*

Product form: Seed

Containers: Packs, Pints, Quarts

Habit: Upright

Vernalization: Not required (First Year Flowering)

Garden Specifications

Garden Height: 4–8" (10–20 cm) tall

Garden Width: 4–8" (10–20 cm) wide

Exposure: Part shade–Full sun

USDA zone: 4–9

AHS zone: 9–4

Product use: Containers, Landscapes, Patio Pots

Germination

Stages 1 & 2

Germination time: 5–7 days

Media temp: 72–74 °F (22–23 °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: 1–2

Young Plant Production

Stage 3 & 4

Temperature

Day: 66–68 °F (19–20 °C)

Night: 62–64 °F (17–18 °C)

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

Lighting

Day extension lighting: Beneficial to 14 hours

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: Facultative long day

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

Media pH: 5.5–5.9

Media EC: SME 0.9 to 1.3 mS/cm

Fertilizer: 50–75 ppm N



Moisture level: Media should be allowed to dry between irrigations. Alternate between moisture level 3 and 4.

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.

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.

Pinching: No

Plant growth regulators (PGRs): Beneficial to treat with either, B-Nine® WSG (daminozide) spray at 2,500 ppm, or Bonzi® (paclobutrazol) spray at 5 ppm to tone plugs.

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

Comments: To hasten flowering provide 14 hours or more of supplemental lighting in the plug stage.

Bulking and Vernalization

Vernalization: Not required (First Year Flowering)

Finishing

Temperature

Day: 64–66 °F (18–19 °C)

Night: 62–64 °F (17–18 °C)

Average daily temperature: 62 °F (17 °C)

Lighting

Day extension lighting: Beneficial to 14 hours

Light intensity: 800–1,200 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$

Day length response: Facultative long day

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



Barbarini® Red Picotee

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: 5.5–5.9

Media EC: SME EC: 0.9–1.3 mS/cm, PourThru EC: 1.4–2.0 mS/cm

Fertilizer: 125–175 ppm N

Pinching: No. Pinching is not recommended or needed.

Plant growth regulators (PGRs): Plants will benefit from spray applications with one of the following PGRs: Bonzi® (paclobutrazol) spray at 10–15 ppm, or Sumagic® spray at 3–5 ppm.

Tech tip: By providing high light and dropping the temperatures to an ADT of 60 °F (21 °C) will reduce the need for PGRs.



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 4.

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

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.

Common pests: Aphids, Thrips, Whiteflies

Common diseases: Botrytis, Pythium

Scheduling

Size	Crop Time	Plants Per Pot
1.0 quart (4.5 to 5 inch)	10–12 weeks	1 ppp
1.25 to 2.5 quart (5.5 to 6.5 inch, trade gallon)	10–12 weeks	3 ppp

Estimated finish crop time is from transplant of a 288-cell tray and finished at an average daily temperature (ADT) of 62 °F (17 °C).

Example crop schedule for a 2.5 quart

Weeks From Transplant	Description
1 week	Transplant three plugs into the center of the pot. Provide day extension lighting to 14 hours to hasten flowering.
4 weeks	If needed, spray with Bonzi® at 10–15 ppm
7 weeks	If needed, spray with Bonzi® at 10–15 ppm
10 weeks	Finish

Barbarini® Mix

