



Delta™ Premium
Blue Morpho

syngenta flowers®

Pansy Delta™ Premium

Culture Guide

Botanical name: *Viola × wittrockiana*

Product form: Seed

Containers: Packs, Pints, Quarts, Gallons, Hanging Baskets

Habit: Mounded

Garden Specifications

Garden Height: 4–6" (10–15 cm) tall

Garden Width: 6–8" (15–20 cm) wide

Exposure: Full sun

USDA zone: 4

AHS zone: 9–1

Product use: Packs, Containers, Hanging Baskets, Landscapes, Patio Pots, Combos

Germination

Stages 1 & 2

Germination time: 5 days

Media temp: 65–68 °F (18–20 °C)

Chamber: Optional

Light: Required for germination

Seed cover: Yes

Moisture level: 5 - SATURATED: Soil is dark brown and shiny, free water is present at the surface of the soil, water drips freely from the bottom of the tray, and trays are heavy with a visible bend in the middle.

Rec. tray size: 288-cell tray

Seed cover: Yes

Young Plant Production

Stage 3 & 4

Temperature

Day: 68–70 °F (20–21 °C)

Night: 64–66 °F (18–19 °C)

Average daily temperature: 67 °F (19.5 °C)

Lighting

Day extension lighting: Beneficial to 14 hours

Light intensity: 2,500–3,500 foot candles (500–700 micro mols)

Day length response: Facultative long day

Day light integral: 10–12 mols/day

Media pH: 5.5–5.9

Media EC: SME EC: 0.9–1.3 mS/cm

Fertilizer: 75–125 ppm N

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.

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): Spray with B-Nine at 2,500 ppm if hypocotyl stretch is observed or if environmental conditions are such that hypocotyl stretch is likely.

Plug grow time: 5–6 weeks in a 288-cell tray

Comments: Keep media pH below 5.8 to help avoid Thielaviopsis infections. Under hot temperatures provide lower light levels to reduce heat stress. Do not hold Pansy plugs - transplant before plugs get root bound.

Finishing

Temperature

Day: 64–66 °F (18–19 °C)

Night: 64–66 °F (18–19 °C)

Average daily temperature: 65 °F (18.5 °C)

Lighting

Day extension lighting: Beneficial to 14 hours

Light intensity: 4,000–6,000 foot candles

Day length response: Facultative long day

Day light integral: 12–14 mols/day

Transplanting: Transplant directly into the finished container. Place the rooting media slightly below 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: 75–125 ppm N

Pinching: No. Pinching is not recommended or needed.

Plant growth regulators (PGRs): Usually not required if growing cool. If conditions are warmer or darker than ideal spray with B-Nine at 2,500–5,000 ppm.

Tech tip: Keep media pH below 5.8 to help avoid Thielaviopsis infections. Under hot temperatures provide lower light levels to reduce heat stress. Do not hold Pansy plugs - transplant before plugs get root bound. Malformed and puckered leaves indicate calcium or boron deficiencies. To prevent this, fertilize with plug special (13–2–13) or a cal-mag fertilizer (14–4–14). Boron deficiencies can be distinguished by tip abortion, upper leaf stunting, puckering and thickening of leaves, along with shortened internodes and/or a gnarled mass of lateral shoots. Boron deficiency is more prevalent during warm weather with frequent watering. A borax or Solubor® drench will help overcome these problems.



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.

1 - DRY: Soil is tan to gray in color, trays are extremely light, and soil pulls away from sides of container.

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.

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.

5 - SATURATED: Soil is dark brown and shiny, free water is present at the surface of the soil, water drips freely from the bottom of the tray, and trays are heavy with a visible bend in the middle.

Common pests: Aphids, Thrips

Common diseases: Alternaria, Downy Mildew, Thielaviopsis, Cercospora, Botrytis

Scheduling

Size	Crop Time	Plants Per Pot
Packs	4–5 weeks	1 ppp
Large Packs	5–6 weeks	1 ppp
1.0 pint (4 inch)	5–6 weeks	1 ppp
1.0 quart (4.5 to 5 inch)	5–6 weeks	1 ppp
1.25 to 2.5 quart (5.5 to 6.5 inch, trade gallon)	5–6 weeks	2–3 ppp
1.5 gallon hanging basket (10 inch basket)	5–7 weeks	5–6 ppp

Estimated finish crop time is from transplant of a 288-cell tray and finished at an average daily temperature (ADT) of 65 °F (18.5 °C).

Example crop schedule for a large pack

Weeks From Transplant	Description
1 week	Drench with preventative fungicide
2 weeks	Spray with B-Nine at 2,500–5,000 ppm if needed
4 weeks	Spray with B-Nine at 2,500–5,000 ppm if needed
6 weeks	Ready to ship



Delta™ Premium
Lavender Blue Shades

syngenta flowers

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