GrowerFacts

Pansy Panola® XP

(*Viola x wittrockiana*)

Germination

Approximate Seed Counts:

Matrix: 18,575-24,280/oz. (650-850/g)

Spring Matrix: 18,575-24,280/oz. (650-850/g)

Panola XP: 18,425-31,200/oz. (650-1,100/g)

Fizzy and Frizzle Sizzle: 18,575-24,280/oz. (650-850/g)

Media
Use a well-drained, disease-free media with a pH range of 5.5 to 5.8, and EC less than 0.75 mmhos/cm (2:1 extraction). Keep phosphorus level as low as possible to avoid initial stretch.

Sowing
Plug Tray Size
Can be produced in a 288 or similar cell size plug tray.

A medium covering of coarse-grade vermiculite is recommended at sowing to help maintain humidity around the germinating seed for better germination performance.

Stage 1 – Germination takes approximately 3 to 4 days.

Germination temperature: 65 to 70°F (18 to 21°C)

Light: Light is not required for germination.

Moisture: Keep soil wet (level 4) during Stage 1

Relative humidity: Maintain 95 to 97% relative humidity until cotyledons emerge.

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Moisture: Keep soil wet (level 4) during Stage 1

Relative humidity: Maintain 95 to 97% relative humidity until cotyledons emerge.

Stage 2
Temperature: 65 to 73°F (18 to 22°C) days; 60°F (16°C) nights

Light: Can be up to 2,500 f.c. (26,900 Lux) during Stages 2 and 3.

Media moisture: Keep the media medium (level 3) to medium wet (level 4).

Fertilizer: Apply fertilizer at rate 1 (less than 100 ppm N/less than 0.7 mS/cm EC) with a nitrate-form fertilizer with low phosphorous.

Stage 3
Temperature: 65 to 70°F (18 to 21°C) days; 60°F (16°C) nights

Light: Can be up to 2,500 f.c. (26,900 Lux)

Media moisture: Keep the media medium wet (level 3) during Stages 3 and 4.

Fertilizer: Increase the fertilizer rate to 2 (100 to 175 ppm N/0.7 to 1.2 mS/cm EC).
Maintain a media pH of 5.5 to 5.8 and EC at 0.7 to 1.0 mS/cm (1:2 extraction). A higher pH (greater than 6.2) can induce Boron deficiency and also encourages fungal black root rot caused by Thielaviopsis sp.

Stage 4
Temperature: 62 to 67°F (16 to 19°C) days; 55 to 60°F (13 to 18°C) nights

Light: Light levels can be up to 5,000 f.c. (53,800 Lux) if temperatures can be maintained.

Fertilizer: Same as Stage 3.

Plant Growth Regulators
Can treat with a foliar spray of A-Rest (ancymidol) at 10 ppm (38 ml/l of 0.0264% formulation) once during the plug stage at about 3 weeks after sowing, when the first set of true leaves is fully open.

Northwestern Europe: Can use 1 to 2 applications of B-Nine/Alar (daminozide) at 1,280 ppm (1.5 g/l of 85% formulation or 2 g/l of 64% formulation).

Transplant the plugs “on time” to avoid initiation in the plug stage. Plugs that are initiated will not fill out the finish container well at the time of flowering.

Growing On to Finish

Container Size
606 jumbo cell packs, 1801 trays and 4-in. (10-cm) pots.

Media
Use a well-drained, disease-free media with a pH of 5.4 to 5.8 and a medium initial nutrient charge.

Temperature
Night: 50 to 55°F (10 to 13°C)

Day: 62 to 70°F (16 to 21°C)

Light
Keep light levels as high as possible while maintaining appropriate temperatures.

Fertilizer
Starting 1 week after transplant, apply fertilizer at rate 3 (175 to 225 ppm N/1.2 to 1.5 mS/cm) using predominantly nitrate-form fertilizer with low phosphorus. If needed, alternate with a balanced ammonium and nitrate-form fertilizer to encourage growth and balance the media pH. Maintain the media EC at 1.50 to 2.00 mS/cm and pH at 5.6 to 5.8. If the media pH is greater than 6.2, then take corrective measures.

Irrigation
Maintain optimal media moisture, not too wet or not too dry.

Plant Growth Regulators
The use of plant growth regulators on pansies is largely dependent on day/night temperatures, location and time of year.

Can use tank mix foliar sprays of B-Nine/Alar (daminozide) at 5,000 ppm (5.9 g/l 85% formulation or 7.8 g/l of 64% formulation) and Cycocel (chlormequat) at 500 to 1,000 ppm (4.3 to 8.5 ml/l of 11.8% formulation or 0.7 to 1.3 ml/l of 75% formulation). A tank mix foliar spray of B-Nine at 5,000 ppm (5.9 g/l 85% formulation or 7.8 g/l of 64% formulation) and A-Rest (ancymidol) at 5 to 10 ppm (19 to 38 ml/l of 0.0264% formulation) applied 2 to 3 times beginning 1 week after transplant with 7 to 10 days interval will also work. The rate and frequency is dependent on the production temperatures and time of the year.

Northwestern Europe: Temperature is the best natural growth-controlling factor. Minimal to no plant growth regulators are needed when the crop is produced at cooler temperatures during the Spring.

Can use a tank mix of B-Nine/Alar and Cycocel. Apply B-Nine/Alar (daminozide) at 1,280 ppm (1.5 g/l of 85% formulation or 2 g/l of 64% formulation) and Cycocel (chlormequat) at 750 ppm (6.4 ml/l of 11.8% formulation or 1 ml/l of 75% formulation) as a tank mix. Frequency is dependent on the production temperatures and time of the year.

Crop Scheduling
For finishing in 606, 1801 (9-cm), & 4-in. (10-cm) container sizes seasonally. Crop times are dependent on container size, season and local growing conditions.

Matrix:
Sow to Transplant: 5 weeks
Transplant to Finish (Autumn): 4 to 6 weeks
Transplant to Finish (Spring): 6 to 8 weeks
Transplant to Finish (Autumn sowing, Winter grown frost-free northern Europe): 18 to 20 weeks

Spring Matrix:
Sow to Transplant: 5 weeks
Transplant to Finish (Autumn): 4 to 5 weeks
Transplant to Finish (Spring): 6 to 7 weeks
Transplant to Finish (Autumn sowing, Winter grown frost-free northern Europe): 18 to 19 weeks

Panola XP:
Sow to Transplant: 5 weeks
Transplant to Finish (Autumn): 3 to 4 weeks
Transplant to Finish (Spring): 4 to 5 weeks

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630 879-BALL www.ballseed.com

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Transplant to Finish (Autumn sowing, Winter grown frost-free northern Europe): 16 to 18 weeks

Fizzy & Frizzle Sizzle:
Sow to Transplant: 5 weeks
Transplant to Finish (Autumn): 4 to 6 weeks
Transplant to Finish (Spring): 6 to 8 weeks
Transplant to Finish (Autumn sowing, Winter grown frost-free northern Europe): 18 to 20 weeks

Common Problems
Insects: Check/monitor for Fungus Gnats and Shore Flies during plug production and for Aphids during early stages after transplant.

Disease: Damping-off, black root rot, foliar leaf spots and Botrytis blight are common.

Note: Growers should use the information presented here as a starting point. Crop times will vary depending on the climate, location, time of year, and greenhouse environmental conditions. Chemical and PGR recommendations are only guidelines. It is the responsibility of the applicator to read and follow all the current label directions for the specific chemical being used in accordance with all regulations.

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