

# GrowerFacts

## Phlox 21st Century

(Phlox drummondii)

### Germination

- Cover the seed thoroughly with coarse vermiculite. Darkness is required for germination.
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- Germination takes 3 to 5 days.

### Plug Production

#### Media

Use a well-drained, disease-free, soilless medium with a pH of 5.8 to 6.0 and an EC less than 0.75 (mmhos/cm with a 1:2 extraction). Phlox is very sensitive to high salts – particularly high ammonium – during germination.

#### Sowing

Cover the seed thoroughly with coarse vermiculite. Darkness is required for germination. Germination takes 3 to 5 days.

#### Temperature

**Germination (3 to 5 days):** 65 to 70°F (18 to 21°C)

**Cotyledon stage:** 60 to 65°F (15 to 18°C)

**True leaves:** 60 to 65°F (15 to 18°C)

**Hold plugs:** 60 to 65°F (15 to 18°C)

#### Light

**Stage 1:** Darkness is required for germination.

**After germination:** 500 to 1,000 f.c. (5,000 to 10,000 Lux)

**Seedling maturity:** Up to 1,500 to 3,000 f.c. (15,000 to 30,000 Lux)

#### Humidity

Maintain 95 to 100% relative humidity (RH) until radicles emerge.

#### Soil Moisture

Keep soil moisture high until radicle emergence, then reduce moisture levels after the radicle penetrates the medium. Do not allow the seedlings to wilt.

#### Fertilizer

As cotyledons expand, feed 50 ppm N in a nitrate form. When true leaves begin to develop, increase to 100 to 150 ppm N.

#### Growth Regulators

B-Nine or A-Rest can be used to control height on phlox plugs. Do not control height by allowing plants to wilt.

### Growing On to Finish

#### Media

Use a well-drained, disease-free, soilless medium with a pH of 5.5 to 6.2 and a medium initial nutrient charge.

#### Temperature

**Nights:** 50 to 55°F (10 to 13°C)

**Days:** 55 to 60°F (13 to 15°C)

#### Light

4,000 to 5,000 f.c. (40,000 to 50,000 Lux).

#### Irrigation

Irrigate plants before they are wilted severely to avoid damage.

#### Fertilizer

Fertilize every other irrigation with 15-0-15 alternating with 20-10-20 at 150 to 200 ppm N.

#### Growth Regulators

In trials at the PanAmerican Seed research facility in Guadelupe, California, a Bonzi spray at 20 ppm three weeks after transplanting has shown to be effective at controlling height. Multiple applications or higher rates may delay flowering.

Height can also be controlled by withholding fertilizer.

Phlox are responsive to day/night temperature differential (DIF), and are shorter with a negative DIF.

#### Pinching

Pinching is not needed

#### Common Problems

**Insects:** No serious problems.

**Diseases:** Rhizoctonia, Pythium

### Green Thumb Tips

- Space plants approximately 8 in. (20 cm) apart in well-drained soil.
- 21st Century phlox grows quickly to a bushy habit when planted in full sun or partial shade. Plants need at least six hours of direct sunlight for best performance.
- Garden height is approximately 10 in. (25 cm).

Ref. : 7 May 2013

<http://www.panamseed.com/advancedsearch.aspx?srch>

