BeeBright™ Pentas
Culture Guide

Pentas lanceolata

Minimum seed germination rate: 85%
Product form: Pelleted, raw
Container size: Packs, 4- to 6-inch pots, gallons
Habit: Mounding

Garden Specifications

Garden height: 12”–14”
Garden width: 12”–16”
Light: Full sun
USDA Hardiness Zone: 10
AHS Heat zone: 12-1
Product use: Beds, mass planting, containers, mixed combinations

Germination

Germination time: 7–10 days
Media temperature: 73–76° F (23–24° C)
Chamber: Optional
Light: Not required for germination
Seed cover: No
Moisture level: 5 (saturated) day 1–6
Recommended tray size: 288-cell tray
Seeds per cell: 1

Young Plant Production

TEMPERATURE:

Day: 68–72° F (20–22° C)
Night: 68–72° F (20–22° C)

LIGHTING:

Recommended day length: >14 hours
Light intensity: 3,500–4,500 foot candles (700–900 micro mols)
Day length response: Facultative long day
Daily light integral: 12–20 mols/day

Media pH: 6.4–6.8
Media EC: 1.0–1.2 mS/cm
Fertilizer: 50–100 ppm Nitrogen
Pinching: No

Moisture level: Reduce to moisture level 4 (wet) from day 7–14. Once cotyledons have expanded, alternate from a level 4 (wet) to level 2 (medium).

Plant growth regulators (PGRs): If needed, spray B-Nine® (diaminozide) at 2,500–5,000 ppm or Bonzi® (paclobutrazol) at 5–10 ppm to tone plugs.

Plug time: 7–8 weeks for a 288-cell tray
Tech tips: Provide supplemental HID lighting when Daily Light Integral (DLI) is less than 12 mols/day.
Finishing

TEMPERATURE:
- **Day:** 68–72°F (20–22°C)
- **Night:** 64–68°F (18–20°C)
- **Average daily temperature:** 66–73°F (19–23°C)

LIGHTING:
- **Recommended day length:** >14 hours
- **Light intensity:** 3,500–5,500 foot candles (700–1,100 micro mols)
- **Day length response:** Facultative long day
- **Daily light integral:** 12–20 mols/day

**Media pH:** 6.4–6.8

**Media EC:** 1.0–1.2 mS/cm

**Fertilizer:** 75–100 ppm Nitrogen

**Pinching:** No

**Moisture level:** Alternate between a level 4 (wet) and level 2 (medium). Allow soil to dry to a level 2 (medium) before irrigating up to a level 4 (wet).

**Plant growth regulators:** BeeBright Pentas are genetically compact plants requiring less PGRs in finished production.

If needed, the following PGRs are effective as sprays: B-Nine (daminozide) at 2,500–5,000 ppm, Cycocel® (chloromequat chloride) at 750–1,000 ppm, Bonzi (paclobutrazol) at 5–10 ppm, or A-Rest® (ancymidol) at 3–5 ppm.

**Pests:** Thrips, whiteflies, aphids, spider mites

**Diseases:** Pythium, Rhizoctonia, Botrytis

Scheduling

<table>
<thead>
<tr>
<th>Container size</th>
<th>Crop time after transplant (wks)</th>
<th>Plants per pot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packs</td>
<td>7–8</td>
<td>1</td>
</tr>
<tr>
<td>4- to 5-inch pots, quarts</td>
<td>7–8</td>
<td>1</td>
</tr>
<tr>
<td>6-inch pots, gallons</td>
<td>7–8</td>
<td>2</td>
</tr>
</tbody>
</table>

Estimated finish crop time is from transplant of a 288-cell tray and finished at an average daily temperature (ADT) of 68°F (20°C).

**Tech tips:** Use calcium and nitrate-based fertilizers to maintain pH above 6.2 to prevent iron toxicity symptoms. Additional applications of Magnesium sulfate every three weeks is recommended to help maintain healthy, green color. Warm temperatures and high light levels will accelerate growth and flowering.

**EXAMPLE CROP SCHEDULE FOR 4- TO 5-INCH POTS AND QUARTS**

**Week 1:** Sow into 288 or similar plug tray.
**Week 2:** Maintain 68–72°F (20–22°C) throughout plug production.
**Week 6:** PGR—If needed, spray B-Nine (daminozide) or Bonzi (paclobutrazol) to tone plugs.
**Week 7:** Transplant one plug per pot for 4-inch pots and finish at 68°F ADT and minimum DLI of 12–15 mols/day.
**Week 11:** PGR—As needed, spray recommended PGRs listed above.
**Week 14–15:** Finish

**Moisture Level**

<table>
<thead>
<tr>
<th>Moisture Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 DRY</td>
<td>Soil is tan to gray in color, trays are extremely light, soil pulls away from sides of container.</td>
</tr>
<tr>
<td>2 MEDIUM</td>
<td>Soil is light brown in color, no water can be extracted from soil, soil will crumble apart.</td>
</tr>
<tr>
<td>3 MOIST</td>
<td>Soil is brown in color, strongly squeezing the soil will extract a few drops of water, trays are light with no visible bend.</td>
</tr>
<tr>
<td>4 WET</td>
<td>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, trays are heavy with a visible bend in the middle.</td>
</tr>
<tr>
<td>5 SATURATED</td>
<td>Soil is dark brown and shiny, free water is present at the surface of the soil, water drips freely from bottom of tray, trays are heavy with a visible bend in the middle.</td>
</tr>
</tbody>
</table>