

## syngenta flowers

# Shoeshine Bergenia Culture Guide

#### Bergenia cordifolia

Vibrant rose flowers emerge over glossy bronze foliage in the spring on this hardy perennial perfect for shady landscaped areas.

#### Minimum seed germination standard: 60%

Product form(s): Raw

Habit: Mounded

Container size: Quarts, gallons

Blooming season: Early spring

**Vernalization:** Not required, but cool nights less than 50 °F (10 °C) will increase uniformity and quality of flowering.

## **Garden Specifications**

Garden height: 8–10" Garden width: 10–12" Light: Shade to partial shade USDA Hardiness Zone: 3–8 AHS Heat zone: 8–1 Product use: Landscape beds, mass plantings

### **Germination**

Germination time: 4–8 days Media temperature: 70–75 °F (21–24 °C) Chamber: Optional Light: Required for germination Seed cover: None Moisture Level: 4 (wet) day 1–8 Recommended tray size: 288-cell tray Seeds per cell: 1–2

## Young Plant Production

#### **TEMPERATURE:**

**Day:** 62–65 °F (17–18 °C) **Night:** 62–65 °F (17–18 °C)

#### LIGHTING:

#### Recommended day length: Natural day lengths

Light intensity: 2,000–3,000 foot candles (400–600 micro mols)

Day length response: Day neutral

Daily light integral: Greater than 10 mols/day

Media pH: 5.4-5.8

Media EC: 0.25-0.5 mS/cm

Fertilizer: 50 ppm Nitrogen

#### Pinching: No

**Moisture level:** Alternate between a level 4 (wet) and level 3 (medium) from radicle emergence until cotyledon expansion, then allow soil to dry back to a level 2 (medium).

Plant growth regulators (PGRs): Generally not needed

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

**Tech Tips:** Keep fertilizer levels low during plug production because young plants are sensitive to high media salts. Target media EC should be 0.25–0.50 mS/cm.



## **Finishing**

#### **TEMPERATURE:**

Day: 60-70 °F (16-21 °C)

Night: 50-60 °F (10-16 °C)

Average daily temperature: 60–65 °F (16–18 °C)

#### LIGHTING:

Recommended day length: Natural day lengths

Light intensity: Greater than 4,500 foot candles (900 micro mols)

Day length response: Day neutral

Daily light integral: Greater than 13 mols/day

**Vernalization:** Not required, but cool nights less than 50 °F (10 °C) will increase uniformity and quality of flowering.

Media pH: 5.4-6.0

Media EC: 0.5-1.0 mS/cm

Fertilizer: 100-125 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: Generally not required

Pests: Foliar nematodes

**Diseases:** Fungal leaf spots

## **Scheduling**

Container size	Crop time after transplant (wks)	Plants per pot
1-quart pots (4.5- to 5-inch pots)	20–24	2
1.25- to 2.5-quart pots (5.5- to 6.5-inch pots, trade gallon)	20–24	3
3-quart to 2-gallon pots (7.5- to 10-inch pots)	20–24	4–5

Estimated finish crop time is from transplant of a 288-cell tray and finished at an average daily temperature (ADT) of 65 °F (18 °C).

**Tech tips:** Use multiple plants per container to increase flower count as each plant will only produce one flower spike in the first year of production.

#### **EXAMPLE CROP SCHEDULE FOR 2.5-QUART POTS**

Week 1: Sow 1–2 seeds per cell into a 288-cell tray; no covering; germinate at 68 °F (20 °C) ADT.

Week 2: Reduce temperatures to 62–65  $^{\circ}\text{F}$  (17–18  $^{\circ}\text{C})$  once germination is complete.

Week 6: Transplant three plants into finished container.

Week 7: Bulk plants prior to cooling period for 5–6 weeks.

Week 11: Allow 10–12 weeks at 40–50 °F (4–10 °C) for optimum flowering and plant quality.

Week 21: Increase temperature to 60–65  $^\circ\text{F}$  (16–18  $^\circ\text{C})$  ADT to force flowering.

Week 26-30: Finish

Shoeshine Rose Bergenia



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