

Perovskia Blue Steel

(*Perovskia atriplicifolia*)

Germination

Approximate seed count (raw): 28,350 to 36,850 S./oz.
(1000 to 1500 S./g)

Key flowering facts:

- Photoperiod response: day neutral plant
- Vernalization: not required
- Light: high light requirement. A light accumulator for flowering.

Media

Use a well-drained, disease-free, soilless media with a pH of 5.8 to 6.2 and EC of 0.75 to 1.0 mmhos/cm.

Sowing

Sow 1 seed per cell in 288 or 180 plug trays, 2 to 3 seeds per cell in 128 or larger trays. Cover the seeds with vermiculite to improve moisture for uniform germination.

Stage 1 – Germination takes 2 to 4 days.

Soil temperature: 65 to 72°F (18 to 22°C)

Light: Light is optional for germination.

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

Humidity: Maintain 95 to 97% relative humidity (RH) until radicles emerge.

Plug Production

Stage 2

Soil temperature: 65 to 68°F (18 to 20°C)

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

Moisture: Maintain high moisture level (level 4) through stage 2.

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

Humidity: Maintain 80 to 85% relative humidity (RH).

Stage 3

Soil temperature: 65 to 68°F (18 to 20°C)

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

Moisture: Allow the soil moisture to dry to level 3.

Fertilizer: Increase fertilizer to rate 2 (100 to 175 ppm N; 0.7 to 1.2 mmhos/cm EC).

Growth Regulators: Blue Steel is compact variety, so generally not needed. If necessary, daminozide (B-Nine, Alar) 1500 ppm (1.8 g/l 85% formulation or 2.3 g/l of 64% formulation) will give good height control. For planning a pinch later, lower rate of daminozide 750 to 1,000 ppm (0.9 to 1.2 g/l 85% formulation or 1.0 to 1.5 g/l of 64% formulation) with multiple applications (2 to 3 times) will tone the plugs well.

Humidity: Maintain 70 to 75% relative humidity (RH).

Stage 4

Soil temperature: 60 to 65°F (15 to 18°C)

Light: Up to 5,000 f.c. (54,000 Lux)

Moisture: Same as Stage 3

Fertilizer: Same as Stage 3

Pinch: Pinch is recommended. Pinch as early as possible to reduce possible crop time delay but it is necessary to leave 3 to 4 nodes below pinch for sufficient branches.

Growing On to Finish

Container Size: Quart pot (12-cm)

288-180 cell (1 spc): 1

128 or larger (2-3 spc): N/A

Container Size: 1 gallon (18-cm)

288-180 cell (1 spc): 1-3

128 or larger (2-3 spc): 1

Container Size: 2 gallon (30-cm)

288-180 cell (1 spc): 3-5

128 or larger (2-3 spc): 3

Media

Use a well-drained, disease-free, soilless media with coarse parts with a pH of 5.8 to 6.2 and an EC of 1.0 to 1.2 mmhos/cm.

Temperature (optimum)

Nights: 55 to 60°F (13 to 16°C)

Days: 65 to 72°F (18 to 22°C)

Note: Can be grown in cooler temperature, especially when grown under low light conditions cooler temperature will make more stiff stems. However, it will slow plant growth significantly.

Perovskia foliage could be damaged by heavy frost. Spring finish outdoor production should wait until critical frost period has passed.

Light

High light requirement (≥ 12 mol.m-2.d-1, optimum ≥ 15 mol.m-2.d-1). Plants will flower faster and with stronger stems when grown under high light conditions. It is light accumulator for flowering.

Photoperiod

Blue Steel is a day neutral plant.

Irrigation

Blue Steel requires average to slightly below average amounts of irrigation. Let media dry slightly between waterings and never get saturated. Plants also should not be allowed to wilt at any time.

Fertilizer

Blue Steel generally needs moderate fertilization. Use a balanced fertilizer at rate 150 to 200 ppm N as needed or constant liquid fertilizer with 75 to 100 ppm N with each irrigation. Increase potassium to nitrate ratio in later growing-on stage. Maintain media pH 5.8 to 6.2 and EC 1.2 to 1.5 mmhos/cm.

Growth Regulators

Multiple applications (3 to 4 times) of daminozide (B-Nine/Alar) 2,500 to 5,000 ppm (3.0 to 6.0 g/l 85% formulation or 3.9 to 7.8 g/l of 64% formulation) controls plant height and promotes branching.

Optional PGR: Multiple applications of paclobutrazol (Bonzi, Piccolo) 20 to 30 ppm spray or multiple applications of uniconazole (Sumagic, Concise) 10 to 15 ppm spray.

Pinching

Pinching is recommended if the plugs did not receive any pinching. Pinching can be done 2 to 3 weeks after transplant; leave 4 to 5 nodes below pinching level. Note: Pinch after transplanting can delay crop time.

Crop Scheduling

Sow to transplant:

Plug Size: 288 (1 spc)

Spring: 6-7

Summer: 5-6

Plug Size: 180 (1 spc)

Spring: 8-9 with pinch*

Summer: 6-7 with pinch*

Plug Size: 128 or larger (2-3 spc)

Spring: 8-9 with pinch*

Summer: 6-7 with pinch*

***Without pinch, plug time can be 1 to 2 weeks shorter.**

Transplant to finish (from 288 cell)

Container Size: Quart pot (12-cm)

Plugs per pot: 1

Weeks from transplant; Spring: 11-13

Weeks from transplant; Summer: 9-10

Total Weeks; Spring: 17-20

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current label directions for the specific chemical being used in accordance with all regulations.

Total Weeks; Summer: 14-16

Container Size: 1 gallon (18-cm)

Plugs per pot: 1-3

Weeks from transplant; Spring: 12-14

Weeks from transplant; Summer: 10-11

Total Weeks; Spring: 18-21

Total Weeks; Summer: 15-17

Container Size: 2 gallon (30-cm)

Plugs per pot: 3-5

Weeks from transplant; Spring: 13-15

Weeks from transplant; Summer: 11-13

Total Weeks; Spring: 19-22

Total Weeks; Summer: 16-19

***Add 2-3 more weeks for Northern European production**

Common Problems

Insect: Spider Mites, Aphids, Whitefly.

Disease: No serious problems.

Leaf yellowing of older foliage: EC too low.

Garden and Landscape Information

- Perovskia Blue Steel is a first-year-flowering perennial to USDA Hardiness Zone 4 to 9 (-30 to 20°F/-34 to -7°C minimum temperatures).
- Plant in full sun after all danger of frost has passed.
- Heat and drought-tolerant perennial.
- Exceptionally long-flowering from July through September.
- Space plants at 12 to 14 in. (30 to 35 cm) apart in well-drained soil.

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

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