

Plectranthus Silver Shield

(*Plectranthus argentatus*)

Germination

Media

Use a well-drained, disease-free media with a pH range of 5.8 to 6.2, and EC less than 0.75mS/cm (2:1 extraction).

Sowing

Plug Tray Size: Can be produced in a 406, 288 (European size: 264) or a similar size plug tray with 1 seed per cell. Do not cover the seed.

Germination - takes approximately 4 to 5 days for Silver Crest and 5 to 7 days for Silver Shield.

Germination temperature: 64 to 72°F (18 to 22°C). Germinates slightly slower but more uniformly at lower range.

Light: Light is required for germination. The seed will not germinate until it receives light.

Media Moisture: Keep the media medium wet (level 4) during germination.

Relative Humidity: Maintain 95 to 97% relative humidity until cotyledons emerge. Avoid excess humidity later in the plug production, as this will create conditions favorable for disease incidence.

Plug Production

Media

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Sowing

Plug Tray Size: Can be produced in a 406, 288 (European size: 264) or a similar size plug tray with 1 seed per cell. Do not cover the seed.

Stage 1 – Germination takes approximately 4 to 5 days for Silver Crest and 5 to 7 days for Silver Shield.

Germination temperature: 64 to 72°F (18 to 22°C). Germinates slightly slower but more uniformly at lower range.

Light: Light is required for germination. The seed will not germinate until it receives light.

Media Moisture: Keep the media medium wet (level 4) during germination.

Relative Humidity: Maintain 95 to 97% relative humidity until cotyledons emerge. Avoid excess humidity later in the plug production, as this will create conditions favorable for disease incidence.

Stage 2

Temperature: 68 to 72°F (20 to 22°C) days; 64 to 68°F (18 to 20°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) during stage 2.

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. Maintain a media pH of 5.8 to 6.2 and EC at 0.5 to 0.7 mS/cm (1:2 extraction).

Stage 3

Temperature: 68 to 72°F (20 to 22°C) days; 64 to 68°F (18 to 20°C) nights.

Light: Can be up to 5,000 f.c. (54,000 Lux) while maintaining temperatures.

Media Moisture: Moisture level can be reduced to medium to medium dry (level 3 to 2). Do not allow the seedlings to wilt.

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 5.8 to 6.2 and EC at 0.7 to 1.0 mS/cm (1:2 extraction).

Stage 4

Temperature: 65 to 72°F (18 to 22°C) days; 57 to 65°F (16 to 18°C) nights.

Light: Can be up to 5,000 f.c. (54,000 Lux) while maintaining temperatures.

Media Moisture: Moisture level can be reduced to medium to medium dry (level 3 to 2). Do not allow the seedlings to wilt.

Fertilizer: Keep the fertilizer rate to 2 (100 to 175 ppm N/ 0.7 to 1.2 mS/cm EC) Maintain a media pH of 5.8 to 6.2 and EC at 0.7 to 1.0 mS/cm (1:2 extraction).

Plant Growth Regulators

In North American conditions: Use 1 to 2 foliar sprays of B-Nine/Alar (daminozide) at 2,500 ppm (3g/l 85% formulation or 3.8g/l 64% formulation) to tone the plugs.

In Northwestern European conditions: For Silver Shield, use 1 to 2 foliar sprays of B-Nine/Alar (daminozide) at 600 to 1,200 ppm (0.7 to 1.4g/l 85% formulation or 0.9 to 1.8g/l 64% formulation).

Growing On to Finish

Media

Use a well-drained, disease-free soilless media with a pH of 5.5 to 6.2 and an EC of 0.75 mmhos/cm.

Temperature

Night: 61 to 68°F (16 to 20°C)

Day: 64 to 80°F (18 to 27°C)

Plectranthus can be grown both under warm as well as under more moderate conditions, however crop time increases under moderate conditions.

Light

Light level should be as high as possible while maintaining proper temperature.

Irrigation

Allow the media to dry slightly between watering. Dryer growing will result in more silver leaf color.

Fertilization

Apply fertilizer at rate 3 (175 to 225 ppm N/1.2 to 1.5 mS/cm EC) once a week from a nitrate-form fertilizer with low phosphorus. A balanced ammonium and nitrate-form fertilizer may be applied as needed. Maintain the media EC at 1.5 to 2.0 mS/cm and pH at 5.8 to 6.2.

For constant fertilizer program, can apply fertilizer at rate 2 (100 to 175 ppm N/0.7 to 1.2 mS/cm) while maintaining the above recommended EC and pH ranges.

Plant Growth Regulators

High light levels, spacing and drought stress will keep plants from stretching. Both Silver Shield and Silver Crest react very well to B-Nine/Alar.

North American conditions:

Silver Shield: use 2 foliar sprays of B-Nine/Alar (daminozide) at 2,500 ppm (3g/l 85% formulation or 3.8 g/l 64% formulation).

Silver Crest: use 1 to 2 foliar sprays of B-Nine/Alar (daminozide) at 2,500 to 5,000 ppm (3 to 6g/l 85% formulation or 3.8 to 7.6 g/l 64% formulation).

Northwestern European conditions:

For both Silver Shield and Silver Crest: use 1 to 2 foliar sprays of B-Nine/Alar (daminozide) at 1,600 to 3,200 ppm (2 to 4 g/l 85% formulation or 2.5-5 g/l 64% formulation). Use the higher concentration for small pot and pack sizes and at low light conditions.

Pinching

No pinching is required.

Container Size

Silver Crest can be produced in 4 to 4.5-in. (to 11-cm) pots or similar size containers and packs with 1 plant per pot. Use 3 plants per pot in a 10-in. (25 cm.) basket.

Silver Shield can be produced in 4 to 4.5-in. (10 to 11-cm) pots to 1-gallon (18 to 19 cm.) containers with 1 plant per pot.

Both Plectranthus species are very suitable to combine in mixed baskets. Use Silver Shield as a large centerpiece and Silver Crest as a spreading plant on the side.

Due to directional stem arching, it is advisable to position Silver Crest plugs with the growing shoot facing outward, toward the outside of the container.

Crop Scheduling

Sow to transplant (288-cell plug tray): 5 to 6 weeks

Transplant to finish:

Silver Shield: 8 to 9 weeks for smaller pot sizes. 9 to 10 weeks for large pots and hanging baskets,

Silver Crest: 4 to 6 weeks for smaller pot sizes. 6 to 7 weeks for large pots and hanging baskets.

Common Problems

No major problems when using good culture and IPM practices.

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.

