

Primula Optic™ F₁ Series

(*Primula acaulis*)

Annuals Culture (revised 02/22/19)

Plug crop time: 5 to 6 weeks

Transplant to finish: Autumn 13 to 15 weeks

- Full-flowering varieties with tidy, green foliage provide bright and rich, non-fading colour in Autumn and Winter gardens and planters.
- Compact plants require less PGRs, and the series needs less cold to initiate flowers, making for easier programming.
- Superior seed quality results in a very uniform plant.

General Information

Exposure	Bloom Season	Height	Spread	Spacing
Sun, Partial Sun	Early Spring, Autumn, Winter	4-6 in. (10-15 cm)	6-8 in. (15-20 cm)	2-3 in. (5-8 cm)

Germination

Seed Form	Recommended Plug Size	Seeds/Cell	Plug Crop Weeks	Days to Germinate	Initial Media pH/EC	Cover Seed
PRM	288	1	5-6	7-10	5.5-5.8 pH 0.75 mmhos/cm	Light cover

Plug Production

	Stage 1	Stage 2	Stage 3	Stage 4
Moisture	Level 4	Level 3-4	Level 3-4	Level 3-4
Temperature	64-68°F (18-20°C)	60-62°F (16-17°C)	60-62°F (16-17°C)	60-62°F (16-17°C)
Light	Optional	500-1,000 f.c. (5,400-10,800 Lux)	2,000-2,500 f.c. (21,500-26,900 Lux)	2,000-2,500 f.c. (21,500-26,900 Lux)
Fertilizer	Less than 100 ppm N - Less than 0.7 EC	Less than 100 ppm N - Less than 0.7 EC	100 to 175 ppm N - 0.7 to 1.2 EC	100 to 175 ppm N - 0.7 to 1.2 EC

Propagation Key Tips

Avoid too high light levels (> 3,000 f.c.) to prevent leaf damage.

Growing on to Finish

Growing on Temperature	Target Media pH/EC	Fertilizer	Daylength
(day) 55-60°F (13-16°C) (night) 50-55°F (10-13°C)	5.5-6.2 pH 1.0-1.2 mmhos/cm	100 to 175 ppm N - 0.7 to 1.2 EC	Facultative Long Day

Crop Scheduling

Container Size	Plugs/Pot	Crop Time	Season	PGR
4"/4.5"/Quart	1 (ppp)	13-15 (weeks)	Autumn	daminozide 2,500-5,000 ppm Spray

Common Problems

Botrytis on flowers.

Finishing Key Tips

Vernalization can be done when plants have 6 to 10 leaves and a well-established root system. Temperature below 50°F/10°C for 5 to 6 weeks is recommended to get uniform initiation of flower buds. After vernalization go back to recommended day and night temperatures. From bud visibility to first opening of flower is approximately 3 to 4 weeks, depending on temperatures. Optic series needs less cold to initiate flowers compared to competitive series. Vernalization is not necessary for flowering but will improve crop scheduling and uniformity. Keep plants away from Botrytis. Plants are standing often in conditions with low temperatures and high humidity. To avoid Botrytis, make sure that the greenhouse is well-ventilated, and avoid watering and spraying on dark and cold days. It is best is to water or spray early in the day on days with brighter light levels. Try to keep foliage of the plants dry as much as possible.

NOTE: Growers should use the information presented here as guidelines only. PanAmerican Seed recommends that growers conduct a trial of products under their own conditions. Crop times will vary depending on the climate, location, time of year, and greenhouse environmental conditions. It is the responsibility of the grower to confirm the treatment is available in their region as well as read and follow all the current label directions relating to the products. Nothing herein shall be deemed a warranty or guaranty by PanAmerican Seed of any products listed herein. PanAmerican Seed's terms and conditions of sale shall apply to all products listed herein.

Variety Pictures



Blue



Copper



Cream



Gold



Rose



Scarlet



Scarlet Flame



White



Yellow



Mixture

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