Primula malacoides F1 **Prima**

Prima series has large, dense and beautifully fragrant flower heads covered with clusters of fine flowers and held well above the foliage.

- Highest percentage of marketable plants per m2 bench space
- Compact, uniform plants
- Tight flowering window across all colours for easier and more cost-effective shipping
- Quality combination of high uniformity and good blooming power

Annual	Pot Plant
Indoor + patio	Half shade + full sun
Upright	8,000/gram
25 cm	Normal
20 cm	6-12 cm

Culture Guide

Plug Culture

Stage 1 (days 1-14) Select a sterile substrate containing a high amount of organic matter and a pH of 5.5 to 6.0. Primula seed requires light for germination but a light cover of vermiculite is recommended to maintain sufficient moisture. Optimum germination temperature is 15°C. Maintain high humidity levels and if needed place the flats in a germination chamber or shaded greenhouse to provide cool conditions.

Stage 2 (days 15-21) When the cotyledons are fully expanded, lower the humidity levels but do not allow the plants to dry out. A light mist 2-3 times per day is beneficial. Primula plants are very sensitive and the leaves can easily burn in strong light. A light shade is recommended to protect the plugs from intense sunshine. During periods of high temperatures the plants grow very slowly. Fertilize with 50-75 ppm N to strengthen the plants. Select a well-balanced nitrate based fertilizer with ample potassium to produce strong and healthy seedlings.

Stage 3 (days 22-35) The first true leaves have formed. For high quality plugs, it is necessary to maintain cool temperatures and sufficient humidity. Fertilize the plants with 100 ppm N as needed to maintain EC levels around 1.0 mmhos (1:2 slurry).

Stage 4 (days 36-45) The plants have 3-4 true leaves and are now ready for transplanting. Applying 200 ppm N a week before transplanting strengthens the plants for the transition from the plug tray to the final container.

Pack & Pot Culture

In general Transplanting too early will promote excess vegetative growth. Late transplanting results in premature flowering or no flowering on undersized plants. After budding begins raise the temperature to 14°C three weeks before bloom is desired.

Media Use a slightly fertilized well-drained sterile media. Optimum pH is 5.5-6.0.

Transplanting Transplant plugs into pots using a well-drained sterile media. Optimum pH is between 6.0-6.5. A maximum of 32,000 lux is recommended for primula Prima production.

Temperature After transplanting, maintain a temperature of 18-21°C for four weeks. Afterwards, drop the temperature to 7-10°C for 6 weeks to initiate flowers. After visible bud, raise the temperatureo 14°C three weeks before bloom is desired.

Fertilizer A well-balanced nitrate based formulation with ample potassium is recommended. Apply 100-150 ppm N as necessary to maintain an EC between 1.0-1.2 mmhos (1:2 slurry). Primula is sensitive to

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	high salts (>1.5 mmhos) which causes leaf edge burn and root damage. A pH above 6.5 will cause chlorotic leaves.
Lighting	A maximum of 32,000 lux is recommended for Primula production. Apply long day conditions (>14 hours) for fours weeks after transplanting to keep the plants in the juvenille phase and build plant body.
Growth regulators	In general, Primula growth is controlled with cool temperatures and restricting fertilizer. If necessary, the following chemical growth regulators are effective. Do not apply below 5ºC. To avoid over-regulation, multiple applications at lower rates is best. Do not apply after flower bud set. -Alar (daminozide) at 0.25-0.5%/2,500-5,000 ppm -Tilt(propiconazole) use 15-40 cc Tilt per 100 litre of water, depending on the growth and temperature, the higher the temperature the higher the concentration, do not spray when temperature is below 5 degrees Celsius. Use a spreader (sticker). Spray in total about 5 litre per 100 m2 crop, use fine nozzle. Treatment can be done once per wk, or just in case when it is needed (max 2x per wk). Stop treatments when crop starts flowering.
Pests & diseases	Primula requires cool conditions and high humidity to produce high quality plants which favor the development of Botrytis. Good sanitation, watering early in the day and good air movement helps control and prevent this disease.
Crop schedule	In general, Primula malacoides 'Prima' flowers in 19-22 weeks under optimum temperature conditions.

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