

Begonia semperflorens

Crop	Begonia F1
Series	Ambassador, Emperor, Senator iQ, Inferno, Queen
Botanical name	<i>Begonia semperflorens</i>
Plant type	Annual
Seed type	Raw, Pelleted
Seed count	77,000 - 93,000 seeds / gr 2,700 pellets / gr
Germination	20°C -10-14 days light favored
Growing	21-22°C
Optimum pH	5.5-6.0

Plug Culture: 8 weeks (288 cell tray)

Stage 1 (days 1-10) Sow pelleted seed into a plug trays filled with a sterile and well-drained media. Optimum pH is 5.5-6.0. Do not cover the seed as begonias require light to germinate. Provide lighting in the germination chamber. Maintain a temperature of 22-25°C and enough moisture to melt the pellet. The media should be wet to saturate with 100% relative air humidity.

Stage 2 (days 11-21) The cotyledons are now visible, and roots are beginning to form. Maintain the media moist but not saturated to promote healthy root development and penetration. Reduce air humidity to 70-80% and maintain the air temperature at 22-25°C. Begin feeding at 50-75 ppm nitrogen from a well-balanced calcium nitrate based formulation. Avoid using ammonium nitrate which may inhibit root growth during germination and seedling development. Supplemental lighting following germination greatly reduces crop time. Strong sunlight will cause high leaf temperature and leaf edge burn. Highly alkaline water damages seedlings by causing burn.

Stage 3 (days 22-48) The first true leaves are developed, and roots are beginning to penetrate the media. Allow the media to dry slightly between irrigations as begonia roots require high levels of oxygen. Reduce air temperature to 18-20°C. Increase the fertilizer rate to 100-150 nitrogen once or twice per week to maintain rapid growth. Begonias are light accumulators and flowering is directly related to the quantity and quality of light received. Increase the light level for vegetative growth. It is important to maintain the air humidity at 70-80% (relative humidity) to minimize leaf burning during stages 2 and 3.

Stage 4 (days 49-56) At the end of stage 4 the seedlings should have 2-3 sets of true leaves and the roots should hold the seedling media together. Optimum air temperature is 17-20°C to help tone the seedlings. Avoid temperatures below 15°C and maintain the EC level at 0.26-0.75 mS/cm.

Transplanting to finish: 3-6 weeks

Media: Select a sterile and well-drained media with a pH between 5.5-5.8 and low in salts.

Temperature: Optimum growing temperature is 21-22°C during the day and 17-20°C at night. Once established the night temperature may be reduced to 15°C.

Fertilizer: Apply 100-150 ppm of nitrogen from a well-balanced calcium nitrate-based formulation. The use of cal / mag formulations like 15-5-15 work well to supply adequate amounts of magnesium. Tall and stretched plants with few flowers indicate too much or too little phosphorous. Stunted, chlorotic plants with marginal leaf burn indicate a lack of calcium and magnesium. To maintain optimum pH, one may alternate with an ammonium-based fertilizer like 20-10-20.

Note: Water early in the day if using overhead irrigation to avoid leaf edge burn when leaf temperatures are high.

Lighting: Supplemental lighting will hasten development and flowering.

Pests: aphids and thrips

Disease: blight, botrytis, pythium, rhizoctonia, Tomato Spotted Wilt Virus (TSWV).

Crop Scheduling:

Container	From transplanting	Total crop time
10.5cm	4-5 weeks	12-13 weeks
15cm	5-6 weeks	13-14 weeks

All information given is intended for general guidance only and may have to be adjusted to meet individual needs. Cultural details are based on Asian conditions such as in Japan and Sakata cannot be held responsible for any crop damage related to the information given herein. Always follow manufacturer's label instructions. Testing a few plants prior to treating the entire crop is best.