

# Begonia Fortune

Crop	Begonia F1
Series	Fortune
Botanical name	<i>Begonia x tuberhybrida</i>
Plant type	Annual
Seed type	Pelleted
Seed count	2,700 pellets / gr
Germination	20°C - 10-14 days light favored
Growing	20°C
Optimum pH	5.5-6.0

## Plug Culture: 7 weeks (288 cell tray)

Fortune is the preferred tuberous Begonia for the grower and consumer alike. Uniformity and a well branched, compact plant habit make Fortune a production-friendly crop that is more manageable in shipping than other varieties. This prolific bloomer offers stunning blooms and outstanding color selection for the retailer and consumer.

**Stage 1** (days 1-14) 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 a light in the germination chamber. Maintain a temperature of 25°C and enough moisture to melt the pellet. The media should be wet to saturate with 100% relative air humidity.

**Stage 2** (days 15-21) 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. Early sowings require artificial light with a minimum day

length of 16 hours to promote active growth. Supplemental lighting following germination greatly reduces crop time. Strong sunlight will cause high leaf temperature and leaf edge burn. Highly alkaline water will also have deleterious effect on seedlings by causing burn.

**Stage 3** (days 22-62) 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 strong growth. Begonias are light accumulators and flowering is directly related to the total amount of light received. Increase the light level for vegetative growth. Another important point in growing Begonia is to maintain high air humidity level of 70-80% (relative humidity) to minimize leaf burning during stage 2 and 3.

**Stage 4** (days 63-70) 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.

## Transplanting to finish: 8-12 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. Begonias are sensitive to high salts; EC levels which are too

high can cause leaf edge burn. 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:** Provide a 16-hour photoperiod of light for active growth (to avoid tuber formation). Slight shading may be necessary during spring and summer months to prevent leaf burn.

**Pests:** aphids and thrips

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

**Crop Scheduling:**

Pot size	Plant per pot	Week from sowing
10 cm	1	15 weeks
15 cm	1	17 weeks
30 cm	4	19 weeks

**Average Plant Height:** 15-22 cm.

**Average Plant Spread:** 15-20 cm.

**Average Flower Size:** 7-9 cm.

*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.*