Growing Instructions: Begonia elatior

Phase 1: Rooting (5 weeks)

Rooting Time: 30-35 days.

Tray: We advise a 45 mm plug. Direct sticking of cuttings is also possible.

Temperature: 74-76°F soil temperature

Lighting: Long day treatment is required.

Storage: Unrooted cuttings can be stored for a maximum of 2 days at 46-50°F.

Notes: After sticking immediately water with a maximum EC of 1.0. Root under plastic for the first 18 days. After day 10 the plastic can be ventilated. Beginning in mid-March use an opaque plastic for rooting. Bottom or floor heat is advised for optimal rooting.

Phase 2: Transplant (2-3 weeks)

Temperature: Maintain 68-70°F day and night temperature.

Relative Humidity: Maintain a relative humidity 75-85%. A higher humidity may result in a higher risk of botrytis and bacterial disease.

Lighting: Long day treatment required plus assimilation lighting, especially for year-round growing. Depending on growing region, assimilation lighting of at least 3,000 lux will be necessary from Sept-Apr. Lighting will improve growing speed, plant vigor, branching, flowering and reduce botrytis.

Shade: Shade only to reduce extreme light conditions.

Fertilization: Maintain a pH of 5.5-6.0 and an EC of 1.0-1.5. Begin with a 19-6-20-4 mix up to an EC of 1.5.

CO2: 650 ppm or higher is recommended and will result in thicker and darker leaves.

Growth Control: Cycocel spray at 250-500 ppm, Florel spray at 250-300 ppm can be made to delay flowering shortly after transplanting.

Soil Moisture: Grow fairly moist and water from the top until the plant is well rooted.

Pinching: Soft pinching is usually done when using larger pots (6"or greater) and in the winter months. Pinching is done 7-14 days after transplanting depending on plant height.

Notes: At transplant ensure good contact between the plug and the soil. After transplanting, relative humidity and soil moisture should be kept on the high side. Extra time in Phase 2 will create a larger finished plant.

Phase 3: Flower Initiation (2 weeks)

Temperature: Maintain 64-66°F day and night temperature. A morning temperature drop can be utilized for height control.

Relative Humidity: Maintain a relative humidity of 75-85%.

Lighting: Short day treatment required in combination with assimilation lighting to maintain high enough light levels during the day.

Shade: Shade only to reduce extreme light conditions.

Fertilization: Maintain a pH of 5.5-5.8 and an EC of 1.5-2.0. At the time of spacing a 15-5-30 formulation is recommended.

CO2: 650 ppm or higher is recommended and will result in thicker and darker leaves.

Growth Control: Cycocel spray at 500-750 ppm, Bonzi drench at 2-3 ppm

Soil Moisture: Grow moderately moist and water from underneath when possible.

Notes: Unless growing for weekly potted programs, the short day treatment is not necessary. Growers producing for spring retail

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programs, whether alone in containers, in combinations, or hanging baskets will be better to maintain long day conditions in production through week 12. Long day can be achieved via day length extension or night interruption lighting.

Phase 4: Finish (4-5 weeks)

Temperature: Maintain 62-64°F day and night temperatures. These temperatures will help to intensify plant color. A morning temperature drop can be utilized for height control.

Lighting: Long day treatment required in combination with assimilation lighting to maintain high enough light levels during the day **Shade:** Shade only to reduce extreme light conditions.

Fertilization: Maintain a pH of 5.5-6.0 and an EC of 1.5-2.0. EC in the pot should not higher than 1.2 (0.8 is optimal). Monitor Cl levels to avoid getting too high.

CO2: 650 ppm or higher is recommended and will result in thicker and darker leaves.

Growth Control: Cycocel spray at 750-1,000 ppm,

Bonzi drench at 2-3 ppm

Soil Moisture: Grow moderately moist and water from underneath when possible.

Pest and Disease Control

Pest	Chemical Recommendation
Aphids	Avid, Floramite, Flagship, Marathon, Endeavor, Aria
Caterpillars	Adept
Spider Mite	Avid, Floramite, Sultan
Thrips	Avid, Conserve
White Fly	Marathon
Disease	**Chemical Recommendation**
Botrytis	Palladium, Chipco 26019
Fusarium	Remove infected plants
Mildew	Preventative: Sulfur Burners Treat: Concert, Heritage, Pageant
Phytophthora	Aliette
Pythium	Aliette
Rhizoctonia	Chipco 26019

Recommended Finishing Container Size and Crop Time

Pot Size	Number of Plugs	Phase 2		Phase 3		Phase 4		Total Growing Time in Weeks
		Number of Weeks	Plants per ft^2	Number of Weeks	Plants per ft^2	Number of Weeks	Plants per ft^2	
4”	1	2-3	8	2	4	4-5	2-3	9-10
6”	2	2-3	6	2	3	5-6	2	9-12
8”	3	2-3	5	2	2-3	5-6	1-2	9-12
10”	3-4	2-3	4	2	2-3	6-7	1	10-12

beekenkamp PLANTS

Variety Characteristics

Variety	Color	Flower Size	Flower Type	Leaf Color	Plant Type	Habit/Growth	Flower Speed
Barkos Collection Baladin	Red	6 cm	Double	Green	Upright	Medium	Early/Middle
Barkos Collection Barkos	Red	6 cm	Double	Dark Green	Upright	Large	Middle
Barkos Collection Berseba	Pink	5 cm	Double	Dark Green	Upright	Compact	Middle
Barkos Collection Berseba Red	Red	5 cm	Double	Dark Green	Upright	Compact	Middle
Barkos Collection Binos Pink	Pink	5 cm	Double	Dark Green	Upright	Compact	Middle
Barkos Collection Borias	Pink White	6 cm	Double	Dark Green	Upright	Medium/Large	Middle
BK Collection Carmen Red	Red	6 cm	Double	Green	Upright	Medium/Large	Middle/Late
BK Collection Chloe Coral Pink	Light Pink	6 cm	Double	Green	Upright	Medium/Large	Middle
BK Collection Evi Bright Pink	Hot Pink	6 cm	Semi-Double	Green	Upright	Large	Middle
BK Collection Esmay Peach	Orange	5 cm	Double	Dark Green	Upright	Medium	Early/Middle
BK Collection Frivola Pink	Pink	6.5 cm	Double	Green	Upright	Medium/Large	Middle/Late
BK Collection Frivola Magic	Green/White	6.5 cm	Double	Green	Upright	Medium	Middle/Late
BK Collection Vermillion Red	Red	5.5 cm	Double	Green	Upright	Large	Early/Middle
BK Collection Bonny (BEEL 1990)	Red	5.5 cm	Double	Dark Green	Upright	Compact/Medium	Middle
BK Collection Vermillion Hot Pink (BEEL 3632)	Pink	6 cm	Double	Green	Upright	Medium/Large	Middle
BK Collection BEEL 4100	Pink	5.5 cm	Double	Green	Upright	Compact/Medium	Middle
Garden Dreams Macarose	Light Pink	6 cm	Single	Green	Upright	Large	Middle
Garden Dreams Macarouge	Red	6 cm	Single	Green	Upright	Large	Middle
Glory Pink	Pink	6 cm	Semi-Double	Dark Green	Upright	Medium	Early
Glory White	White	6 cm	Double	Dark Green	Upright	Medium	Early
Glory BEEL 4211	Apricot Bicolor	6 cm	Double	Dark Green	Upright	Compact/Medium	Early

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Variety	Color	Flower Size	Flower Type	Leaf Color	Plant Type	Habit/Growth	Flower Speed
Ilona Collection Amber Stone	Orange	5.5 cm	Semi-Double	Green	Upright	Medium/Large	Middle
Ilona Collection Batik	Orange	5 cm	Semi-Double	Dark Green	Upright	Medium/Large	Early/Middle
Ilona Collection Blitz	Yellow	5 cm	Semi-Double	Dark Green	Upright	Medium/Large	Early/Middle
Ilona Collection Britt Dark	Orange	4 cm	Semi-Double	Dark Green	Upright	Medium/Large	Early/Middle
Ilona Collection Camilla	White Light Pink	4 cm	Semi-Double	Dark Green	Upright	Medium/Large	Early/Middle
Ilona Collection Carneval	Orange Yellow	4 cm	Semi-Double	Dark Green	Upright	Medium/Large	Early/Middle
Ilona Collection Clara	White	5.5 cm	Semi-Double	Green	Upright	Medium/Large	Early/Middle
Ilona Collection Eva	Yellow Orange	5 cm	Semi-Double	Dark Green	Upright	Medium/Large	Early/Middle
Ilona Collection Nadine	Yellow	5 cm	Semi-Double	Dark Green	Upright	Medium/Large	Early/Middle
Ilona Collection Nelly	Pink	5 cm	Semi-Double	Dark Green	Upright	Compact	Early/Middle
Ilona Collection Netja Dark	Pink	4.5 cm	Semi-Double	Dark Green	Upright	Medium	Early/Middle
Ilona Collection Nicole Stone	Salmon	6 cm	Semi-Double	Green	Upright	Medium	Middle
Ilona Collection Orange Stone	Orange	6 cm	Double	Green	Upright	Medium	Middle
Ilona Collection Peggy	Pink White	5 cm	Semi-Double	Dark Green	Upright	Medium	Early/Middle
Ilona Collection Sandrine	Dark pink	6 cm	Semi-Double	Dark Green	Upright	Medium	Early/Middle
Ilona Collection Veronica	Red	6 cm	Double	Dark Green	Upright	Medium	Early/Middle
Ilona Collection Yellow Stone	Yellow	5.5 cm	Double	Green	Upright	Medium	Middle

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