

Begonia (Tuberous) On Top® F₁ Series

(*Begonia x tuberhybrida*)

Annuals Culture (revised 03/26/18)

Plug crop time: 7 to 8 weeks

Transplant to finish: 8 to 13 weeks

- Offering a collection of novelty colours, the On Top varieties tolerate more heat and sunlight than other begonias.
- Mounded plants show off many 2 to 5-in./5 to 13-cm flowers.
- On Top begonias bloom early and flower longer than other varieties.

General Information

Exposure	Bloom Season	Height	Spread	Spacing
Shade, Partial Sun	Spring, Late Spring, Summer, Autumn	10-12 in. (25-30 cm)	10-12 in. (25-30 cm)	10-12 in. (25-30 cm)

Germination

Seed Form	Recommended Plug Size	Seeds/Cell	Plug Crop Weeks	Days to Germinate	Initial Media pH/EC	Cover Seed
PEL	288	1	7-8	7-14	5.5-6.0 pH 0.05 mmhos/cm	No

Plug Production

	Stage 1	Stage 2	Stage 3	Stage 4
Moisture	Level 5	Level 4-5	Level 3-4	Level 3-4
Temperature	72-76°F (22-24°C)	68-72°F (20-22°C)	65-68°F (18-20°C)	62-68°F (17-20°C)
Light	Light	350-600 f.c. (3,800-6,500 Lux)	350-600 f.c. (3,800-6,500 Lux)	500-1,000 f.c. (5,400-10,800 Lux)
Fertilizer	100 to 175 ppm N - 0.7 to 1.2 EC	Less than 100 ppm N - Less than 0.7 EC	175 to 225 ppm N - 1.2 to 1.5 EC	175 to 225 ppm N - 1.2 to 1.5 EC

Propagation Key Tips

Keep moisture high until the first true leaf develops. Once cotyledons are visible, maintain moist but not saturated media to promote root development. Avoid using ammonium nitrate during plug development which may inhibit root growth. Supplemental 24 hour assimilation light provided at this stage will increase germination, reduce crop time and improve quality. Avoid strong sunlight (>2,000 foot candles). Strong sunlight will cause high leaf temperature and result in burned leaf edges.

Growing on to Finish

Growing on Temperature	Target Media pH/EC	Fertilizer	Daylength
(day) 70-72°F (21-22°C) (night) 62-68°F (17-20°C)	5.5-5.8 pH 1.0-1.5 mmhos/cm	175 to 225 ppm N - 1.2 to 1.5 EC	Obligate Long Day

Daylength Notation

Maintain 16 hour photoperiod of light for active growth. Less than 12 hours photoperiod will result in small single flowers, uneven crop and plants will form tubers.

Crop Scheduling

Container Size	Plugs/Pot	Crop Time	Season	PGR
4"/4.5"/Quart	1 (ppp)	8-9 (weeks)	Spring	chlormequat chloride 300-500 ppm Spray
5"/6"/1 Gallon	1 (ppp)	9-10 (weeks)	Spring	chlormequat chloride 300-500 ppm Spray
12" Pot or HB/5 Gallon	4 (ppp)	12-13 (weeks)	Spring	chlormequat chloride 300-500 ppm Spray

Fertilizer Notation

Moderate fertilization levels are required. It is advisable to fertilize several times with low concentrations weekly. Fertilize crop alternating with 150-200 ppm nitrogen, using a complete and potassium balanced fertilizer. Keep low ammonium levels, otherwise the roots can be damaged. At high nitrogen levels the foliage can become very big. Avoid pH above 6.0 as high pH causes iron deficiency. Apply chelated iron, if chlorosis becomes a problem. To prevent magnesium deficiency apply magnesium sulphate 90,025 %) 1-2 times. Additional foliage fertilization with potassium support compact plant growth and the foliage gets a dark green color.

Chemical Sensitivity

Avoid high salt levels in the substrate as it can cause leaf burn.

Common Problems

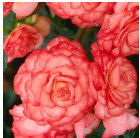
Monitor Aphids and thrips; preventative programs for powdery mildew are beneficial. Monitor Bot

Finishing Key Tips

Space plants in time. Do not overwater plants to prevent root issues. Keep humidity low (between 40% - 60%) to avoid problems with powdery mildew. For height control, a negative DIF of 2 - 3 degrees is very effective to prevent stretching of plants. When using negative, no or less PGR's is needed.

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 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.

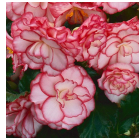
Variety Pictures



Fandango



Melon Lace



Pink Halo



Sun Glow



Sunset Shade

PanAmericanSeed™

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