easy grow guide begonia ikon (green & bronze) (F1 begonia spp.)



Plug Production: 512 plugs, 288 plugs

Sowing/Media:	Use a well-drained, disease-free, peat based plug medium with pH 5.5-5.8, EC <1.0 mmhos. No covering is needed.		
Germination Stages 1 & 2: (14 days)	Media temperature should be 73-78°F (23-25°C). Keep medium uniformly moist, almost saturated, with no change in colour of media surface until first true leaf is halfway expanded. Light is not required but will enhance germination and early growth, maintain high humidity until day 10 when it can be reduced to around 50%. Cotyledons should have expanded by 14 days.		
Germination Stage 3:	Media temperature should be 68-72°F (20-22°C). Once true leaves are halfway expanded, dry off the media surface. Due to the shallow rooting of Begonia, drying off before then will result in uneven, stunted growth. Keep light levels 1500-3000 f.c. Feed every watering with 100-150 ppm N from 20-10-20, 15-5-15 or 17-5-17. NH4 feeds help to expand the leaves. Keep media pH 5.5-5.8 and EC 1.25-2.0 mmhos. HID lights are beneficial in periods of low light and can reduce crop time by 1-2 weeks.		
Germination Stage 4:	Media temperature can be lowered to 65-68°F(18-20°C). Keep light levels 3000 f.c. approx. Practice good wet/dry moisture cycle and water early in the day to avoid leaf scorch on sunny days. Feed as required with 150ppm N from 15-5-15, 17-5-17 or 13-2-13 to tone plants. Growing drier and cool temps with high light can help slow growth.		

Growing On to Finish: 4-6" (10-15cm) pots, baskets

Media:	Use a well-drained, disease free, peat-based growing mix with pH 5.5-5.8, EC <1.5 mmhos. Do not bury the plugs.			
Temperatures:	Keep soil temperature 65-68°F(18-20°C) for rooting out, then lower to 63-68°F(17-20°C) to grow on.			
Light:	Keep light levels <4000 f.c. Low light levels promote bigger leaves and faster growth, high light levels promote hard leaves and earlier flowering.			
Irrigation:	Practice a good wet/dry moisture cycle, but avoid drying below roots until they have reached the bottom of the container, as this will result in uneven and stunted growth. Water early in the day to avoid leaf scorch on sunny days.			
Fertilizer:	Feed twice per week with 150ppm N from 20-10-20, 15-5-15 or 17-5-17. Increase moisture and feed levels if growing under high light levels. Keep media pH 5.5-5.8 and EC 1.25-2.0 mmhos. Reducing feed and drying down between irrigations tones the crop.			
Growth Regulators:	Managing moisture, fertilizer, light and temperature is an effective way to control growth. Sprays of B-Nine (1500-2500ppm) or A-Rest (2-5ppm) can be used if needed.			
Pests:	Fungus gnats, Shoreflies, Aphids, Thrips			
Diseases/other issues:	Pythium, Botrytis, burnt/spotted leaves - from watering in full sun, big leaves/no flowers too much NH4 feed and moisture, stunted early flowering plants – not enough moisture and NH4 feed but too high light levels.			
	and NH4 feed but too high light levels.			

Plug Times:

512 Plug, 288 plug	512 plug – 7-8 weeks, 288 plug – 7-9 weeks
--------------------	--

Transplant to Finish:

Container	Plants/Container	Transplant to Finish (weeks)	Total Crop Time (weeks)
4" (10cm) Pots	1x plug	6-7 (green), 5-6 (bronze)	13-15 (green), 12-14 (bronze)
6" (15cm) Pots	1x plug	7-8 (green), 6-7 (bronze)	14-16 green), 13-15 (bronze)
12" (30cm) Baskets	5x 288 plugs	5-7 (both)	12-16 (both)

Crop times are based on optimum conditions. Alternative environmental conditions and cultural regimes can alter the crop times stated above.