GrowerFacts

Begonia Megawatt™

(*Begonia interspecific*)

Germination

Approximate seed count (pelleted): 28,500 S./oz. (1,000 S./g)

Media
Use a well-drained, disease-free, soilless medium with a pH of 5.8 to 6.2 and a medium initial nutrient charge (EC 0.5 mS/cm with a 1:2 extraction).

Sowing
Plug Tray Size: Sow one pelleted seed per cell in 288 or larger plug tray. Water thoroughly at sowing to completely dissolve the pellet. Do not cover the pellet at sowing.

Stage 1 – Germination takes approximately 10 to 12 days.

Germination temperature: 72 to 77°F (22 to 25°C). Prefers warmer temperature but can also germinate well at 72°F (22°C).

Light: Light is not required but is beneficial for uniform germination.

Media Moisture: Keep the media moisture (level 5) during germination. Megawatt is very sensitive to drying out during early stages of germination.

Relative Humidity: Maintain 95 to 97% relative humidity until cotyledons emerge.

NOTE: A saturated media and high relative humidity is critical to germinate successfully.

Plug Production

Temperature: Optimum 72 to 75°F (22 to 25°C)

Light: Up to 2,500 f.c. (26,900 Lux)

Media Moisture: Keep the media very wet (level 5) to medium wet (level 4) during Stage 2. Keep soil moisture high and maintain uniform media moisture. Do not stress plugs.

Fertilizer: Begin fertilization at 5 days out of the germination chamber. Start with 50 to 75 ppm N from ammonia-form fertilizer, 2 to 3 times per week. Increase slowly to 100 ppm. Maintain a media pH of 5.8 to 6.2.

Stage 3

Temperature: 72 to 75°F (22 to 25°C)

Light: Up to 2,500 f.c. (26,900 Lux).

Media Moisture: Keep media medium wet to medium (level 4 to 3). Do not allow the seedlings to wilt. Maintain uniform media moisture until the true leaves appear, then allow media to dry out slightly between waterings. Do not stress plugs.

Fertilizer: Increase the fertilizer rate to 2 (100 to 175 ppm N / 0.7 to 1.2 mS/cm EC), 2 to 3 times per week. Alternate fertilizers from ammonia-form to nitrate-form. Maintain a media pH of 5.8 to 6.2 and EC at 0.7 to 1.0 mS/cm (1:2 extraction).

Growth Regulators: Not needed.

Stage 4

Temperature: Can be decreased to 65 to 67°F (18 to 19°C)

Light: Up to 5,000 f.c. (54,000 Lux)

Media Moisture: Moisture level can be reduced to medium dry (level 3). Avoid excess humidity later in the plug production, as this will create conditions favorable for disease incidence.

Fertilizer: Same as Stage 3.

Growing On to Finish

Media
Use a well-drained, disease-free, soilless medium with a pH of 5.4 to 6.0 and electrical conductivity (EC) of 1.0 mS/cm.

Temperature
Nights: 62 to 67°F (16 to 19°C)

Days: 65 to 75°F (18 to 24°C)

Average Daily Temperature (ADT): 65 to 70°F (18 to 21°C)

Light
Daily Light Integral (DLI) of >= 10 moles.$m^{-2}d^{-1}$

Photoperiod
Megawatt is a facultative short day plant. It flowers faster under short day (10 to 12 hours) conditions.

Megawatt Green Leaf Rose and Red are more sensitive to daylength than Megawatt Bronze Leaf Pink and Rose. Long day of 13 hours or longer could delay Green Leaf varieties flower up to 2 to 3 weeks, but only delay Bronze Leaf varieties for 4 to 7 days.

Irrigation
Produce Megawatt begonias on the drier side to help prevent any fungal or water mold-type diseases. However, allowing plants to wilt even slightly between waterings will delay flowering, reduce branch number and result in pale foliage.

Fertilizer
Apply fertilizer at rate 2 (100 to 175 ppm N / 0.7 to 1.2 mS/cm) once a week as soon as the plugs have begun to root out. A balanced ammonium and nitrate-form fertilizer may be applied as needed to encourage growth and balance the media pH.

Growth Regulators
If necessary, Paclobutrazol (Bonzi, Piccolo, Piccolo 10X) spray can be applied for height control, especially for container sizes 6-in. (15-cm) or smaller. The spray rate can be up to 5 ppm dependent on environmental conditions, plant growing stage and varieties.

Megawatt can be started with Paclobutrazol 2 to 3 ppm (0.5 to 0.75ml/l 0.4% formulation) spray at about 2 weeks after transplant. If needed as plants grow bigger, a higher rate of Bonzi 4 to 5 ppm (1.0 to 1.25ml/l 0.4% formulation) spray can be applied about 2 weeks later when grown under warmer or longer daylength conditions.

Megawatt Green Leaf varieties are more vigorous than Bronze Leaf varieties. They require slightly heavier growth regulator rates than Bronze Leaf varieties.

Alternately, a tank mix of daminozide (B-Nine, Alar, dazide) 2,500 ppm (2.9g/l 85% formulation or 3.9 g/l of 64% formulation) and chlormequat (Cycocel, citadel) 300 ppm (2.54ml/l 11.8% formulation or 0.4 ml/l 75% formulation) spray is also effective for Megawatt height control. However, be aware that it will cause light phytotoxicity due to chlormequat in the tank mix.

Caution: Using chlormequat alone even with rate as low as 300 ppm will cause severe phytotoxicity. It should be avoided.

NOTE: In-house trials are recommended to determine the best rates for your location. Always follow current manufacturer label instructions.

Pinching
No pinching is required.

Crop Scheduling
Sow to transplant (288 cell plug tray): 7 to 8 weeks

Container Size: 4.5-in. (12 cm) pot

Plants per Pot/Basket: 1

Weeks from Transplant: 7-8

Container Size: 6-in. (15-cm) pot

Plants per Pot/Basket: 1

Weeks from Transplant: 7-9

Container Size: 12-in. (30-cm) pot

Plants per Pot/Basket: 3

Weeks from Transplant: 8-9

Note: Due to day length sensitivity, when producing during Summer with day length 13 hours or longer, add 2 to 3 more weeks for Megawatt Green Leaf varieties.

Common Problems
Megawatt begonias are quite disease and pest-free. No major problems will occur if using good cultural and IPM practices. A wide range of insecticides have been tested on Megawatt plants with little or no phytotoxicity.

Note: Growers should use the information presented here as a starting point. Crop times will vary depending on the climate, location, time of year, and greenhouse environmental conditions. Chemical and PGR recommendations are only guidelines. It is the responsibility of the applicator to read and follow all the current label directions for the specific chemical being used in accordance with all regulations.

Ball

Ball Horticultural Company
622 Town Road, West Chicago, Illinois, USA, 60185-2698
630 879-BALL www.ballseed.com

™ denotes a trademark of and ® denotes a registered trademark of Ball Horticultural Company in the US. It may also be registered in other countries.
©2024 Ball Horticultural Company