

Pentas Butterfly™ F₁ Series

(*Pentas lanceolata*)

Annuals Culture (revised 11/09/23)

Plug crop time: 6 to 8 weeks

Transplant to finish: South 8 to 10 weeks, North 10 to 12 weeks

- Hybrid vigour provides better stress tolerance than open-pollinated varieties.
- Gives pro landscapers and gardeners alike a mid-size, full-sun series that flourishes in high heat/humidity and tolerates Summer rains well while still showing colour.
- Can be sold as a late Spring to Summer item in cooler areas.
- Large, star-shaped umbels – up to 3 in./8 cm across – attract butterflies and hummingbirds.

General Information

Exposure	Bloom Season	Height	Spread	Spacing
Sun	Late Spring, Summer, Late Summer	12-22 in. (30-56 cm)	10-18 in. (25-46 cm)	10-20 in. (25-51 cm)

Germination

Seed Form	Recommended Plug Size	Seeds/Cell	Plug Crop Weeks	Days from 50% to maximum germination	Initial Media pH/EC (1:2)	Cover Seed
PEL	288	1	6-8	6-9	6.5-6.8 pH 0.75 mmhos/cm	No

Plug Production

	Stage 1	Stage 2	Stage 3	Stage 4
Moisture	Level 4-5	Level 4	Level 3-4	Level 2-4
Temperature	75°F (24°C)	75°F (24°C)	65-68°F (18-20°C)	60-65°F (16-18°C)
Light	Light	1,500-2,000 f.c. (16,100-21,500 Lux)	2,500 f.c. (26,900 Lux)	3,500-5,000 f.c. (37,700-53,800 Lux)
Fertiliser		Less than 100 ppm N (Less than 0.7 EC)	Less than 100 ppm N (Less than 0.7 EC)	Less than 100 ppm N (Less than 0.7 EC)
PGR			daminozide/2,500 ppm/Spray paclobutrazol/5 ppm/Spray	daminozide/2,500 ppm/Spray paclobutrazol/5 ppm/Spray

Fertiliser Notation

Minimize phosphorus fertilizer to avoid elongation of seedlings.

Propagation Key Tips

Pentas have the ability to naturally lower the media pH. High iron levels or pH below 6.0 can cause marginal burn and yellowing on older or lower leaves. Raise pH by adding limestone. Extremely low pH can induce iron and manganese toxicity (brown or tan lesions on the foliage); use a base-forming fertilizer, such as 15-0-15. If symptoms do not improve, or if the pH is below 6.0, irrigate the crop with a hydrated lime solution; rinse foliage after application to avoid phytotoxicity. Calcium and magnesium deficiency: If pH falls below recommended target values, lower leaf interveinal chlorosis and foliar puckering can develop. Use fertilizers that contain magnesium during early crop development. Supplement with calcium nitrate to adjust pH. Avoid wide fluctuations in media moisture levels. PGR Note: Rates of up to 5,000 ppm daminozide or 10 ppm paclobutrazol have been found to be effective under warmer growing conditions. Temperature differential (DIF) can also be used to minimize height.

Growing on to Finish

Growing on Temperature	Target Media pH/EC (1:2)	Fertiliser	Daylength
(day) 72-80°F (22-27°C) (night) 65-68°F (18-20°C)	6.5-6.8 pH 1.2-1.5 mmhos/cm	100 to 175 ppm N (0.7 to 1.2 EC)	Day Neutral

Crop Scheduling

Container Size	Plugs/Pot	Crop Time	Season	PGR
Cell Pack	1 (ppp)	8-10 (weeks)	Spring	-
4"/4.5"/Quart/10 cm	1 (ppp)	8-10 (weeks)	Spring	-
5"/6"/1 Gallon/15 cm	2 (ppp)	8-10 (weeks)	Spring	-

Common Problems

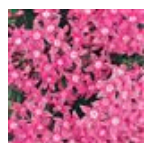
Insects: Aphids, Thrips, Whiteflies Diseases: Pythium: Drench with Subdue, Banrot, Truban or similar compound. Rhizoctonia: Drench the soil with Chipco 26019, Cleary's 3336, Banrot or Terraclor. Botrytis: Treatments include increased air circulation and Daconil fungicide spray applications. Refer to the Daconil label for the specifics.

Finishing Key Tips

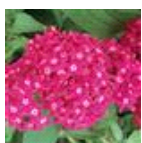
High light levels and temperatures will reduce crop time. Pentas will naturally decrease pH levels in the soil and regular monitoring is necessary. Plants that have pH below 6.4 will slow growth, delay flowering, exhibit signs of iron toxicity (foliar necrosis) and calcium/magnesium deficiency (foliar puckering). When needed, a tank mix of daminozide 2,500 to 5,000 ppm and chlormequat 500 to 750 ppm can be used. Paclobutrazol sprays of 5 to 10 ppm are also effective.

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 confirm the treatment is available in their region as well as 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



Deep Pink



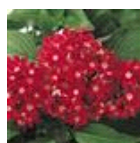
Deep Rose



Light Lavender



Orchid



Red



White



Mixture



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