

GROWERTALKS

Culture Notes

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Beat the Heat with New BeeBright & HoneyCluster Pentas

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As summer is quickly approaching, so is the demand for flowering annuals that can withstand the heat and humidity of the season. With the introduction of two new pollinator-friendly pentas seed series from Syngenta Flowers, growers now have additional options to meet the needs of consumers. Both series provide non-stop flowering and outstanding heat tolerance, attracting bees and butterflies throughout the summer months.

BeeBright is a compact series of *Pentas lanceolata* with a tight, well-branched habit. Well-suited for large packs and quart-sized pots, BeeBright Pentas are a great option for high-density production. Four colors are offered in this series—Red, White, Pink and Lipstick (pictured)



. All boast large blooms that are beautifully presented on top of the plant and flower within five days of each other.

HoneyCluster is an intermediate-sized series of *Pentas lanceolata* that works well for gallon-sized containers and larger. With a more vigorous habit for easy pot fill, HoneyCluster Pentas flower up to one week earlier than other intermediate pentas series. HoneyCluster is available in Red, White, Deep Rose and Pink.

Plug culture

Pentas are heat lovers in the garden and in greenhouse production. Offered as pelleted seed to increase germination uniformity, this species should be grouped with other warm-temperature plug crops.

For the most uniform germination, pentas require a media temperature of 73 to 76F (22 to 24C) for the first 7 to 10 days or until radicle emergence. If possible, use a seed germination chamber for 5 to 6 days after sowing to ensure soil media temperatures and relative humidity are kept at optimum levels.

Once germination is complete, temperatures can be reduced to help tone seedlings. After seven days, reduce temperatures to 68 to 72F (20 to 22C) average daily temperature (ADT). Once the first set of true leaves have formed, moisture levels should be allowed to dry down to a level 2 (moist) before re-irrigating to moisture level 4 (wet).

Pentas are an iron-efficient crop, similar to marigolds and seed geraniums. It's critical to start with and maintain a media pH above 6.2 throughout the plug crop. If the pH is less than 6.0, germination will be erratic, causing uniformity issues later in the plug crop. An application of liquid limestone at 16 oz./100 gal. through a 1:100 injector after sowing is an easy way to ensure the pH of the media is high enough to allow for even germination. Calcium nitrate fertilizers, such as 13-2-13, at 50 to 100 ppm should be used throughout the plug crop to help maintain pH levels and support toned growth.

High light levels will also ensure a high-quality plug crop. If the daily light integral (DLI) is less than 12 moles per day, then supplemental lighting should be provided. It's recommended to schedule pentas later in the spring when both warm temperatures and higher light levels are easier to attain.

Pentas are typically produced in 288-cell sized trays with one seed per cell. Schedule 7 to 8 weeks from sowing to transplanting into the final container. If needed, PGR spray applications of Bonzi at 5 to 10 ppm or Sumagic at 3 to 5 ppm are effective to tone plugs.

Finished culture

Once transplanted into the finished container, maintain ADT at 66 to 75F (18 to 23C) for the best growth and fastest flowering. Light levels should be as high as possible, with a DLI target of 12 to 20 moles per day. Pentas are a facultative long-day crop and providing day lengths of 14 hours will hasten flowering.

Weekly tests should be performed to ensure the pH stays above 6.2, as iron toxicity can occur if it drops below 6.0. Typically, symptoms of iron toxicity appear as a leaf edge burn on the oldest leaves first. Calcium deficiency can also occur when the plants are grown too cool, reducing transpiration and uptake of calcium. Symptoms include interveinal yellowing and twisted growth of newly formed leaves.

Depending on temperature, PGRs may be required to help tone the plants prior to shipping. The more compact BeeBright Pentas have a reduced need for PGRs. The most common PGR applications on pentas are Bonzi, Sumagic or a B-nine plus Cycocel tank mix.

Crop schedules will range depending on pot size and the number of plants per pot. **GT**

Suggested Container Sizes	BeeBright		HoneyCluster	
	Weeks to Finish	Plants per Pot	Weeks to Finish	Plants per Pot
Large packs	7 to 8	1	N/A	N/A
4 to 5 in., quarts	7 to 8	1	7 to 8	1
6 in., gallons	7 to 8	2	7 to 8	1
10-in. baskets, 2 gal.	N/A	N/A	8 to 9	3
12-in. baskets, 14-in. patio containers	N/A	N/A	8 to 9	3 to 4

Estimated finished crop time is from transplant of a 288-cell plug and finished at an average daily temperature (ADT) of 68F (20C).

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