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## Crop Culture Report: Geranium Calliope Series

By Harvey Lang

*Three new colors have been added to round out the popular calliope series of interspecific geraniums.*

Calliope is an “interspecific hybrid” series, developed by crossing normal zonal (upright) geraniums with ivy geraniums. Well-grown Calliope baskets and containers have excellent sell-through at retail because of their controlled mounding habit, vibrant colors and superb outdoor performance. While the flowers are semi-double similar to most other zonals Calliope takes color to another level in geraniums.

Syngenta Flowers has introduced three new Calliope geranium colors in Spring 2012 Hot Pink, Lavender Rose and Burgundy. These new varieties join Scarlet Fire and the original Dark Red.

### Propagation Tips

Open the boxes upon arrival and stick the unrooted cuttings (URCs) as soon as possible. Generally, geraniums should be at the top of the sticking priority list. If cuttings can't be stuck immediately, place the URCs in a cooler at 40 to 45° F with a minimum of 70 percent relative humidity. Avoid dehydrating the cuttings. Calliope is also available in callused cuttings (CCs) which should be handled similarly to URCs. Callused cuttings will reduce rooting time and are a good option for direct-sticking into the final container.

Cuttings of all Calliope varieties root relatively quickly in about four weeks

and rooting hormones are generally not needed. The new Calliope varieties are not as vigorous as Dark Red, but growers should transplant on time and use appropriate plant growth regulators (PGRs) to control growth. PGRs should be applied shortly after root formation, about two weeks after sticking, to prevent unwanted stretch during propagation. Cycocel plant growth regulator (1,000 ppm) or a tank mix of Cycocel and B-Nine plant growth regulator (1,000 ppm + 1,500-2,500 ppm, respectively) sprays are commonly used and should be sufficient to control growth. The new Hot Pink and Lavender Rose varieties will require less PGRs than Dark Red and Burgundy. A Florel plant growth regulator spray can be applied at 250 to 350 ppm roughly three weeks after sticking to improve branching and to help abort premature flower buds. Do not apply Florel if the rooted cuttings (RCs) are to be placed in boxes and shipped.

A preventive fungicide spray a few days after sticking will help prevent Botrytis infections. Common chemicals include Heritage, Daconil, Decree, Spectro and Chipco 26019 fungicides, along with several others. A follow-up spray can be given about five to seven days after the first application depending upon disease pressure. Do not use Medallion or Palladium fungicides on geraniums as phytotoxicity can occur. Plants should be given a fungicide drench after roots develop to prevent Pythium “black leg.” A drench with Subdue MAXX fungicide at the low end of the label rate works well to control Pythium root rot.

If shipments are delayed or cuttings are heated during shipping, a spray of Fascination plant growth regulator at 2.5 ppm per day after sticking will help to reduce bottom-leaf yellowing. Do not apply “sprenches” of Fascination and try to keep the solution from running into the rooting media, otherwise rooting will be delayed.

### **Finishing Tips**

After transplant, Calliope needs relatively high light intensities (greater than 4,500 foot-candles) for best flowering. Avoid growing under overhead baskets, which can reduce light transmission to the plant. Moderately warm temperatures (65 to 70° F average daily) ensure healthy roots and consistent plant growth.

Shortly after transplant and continuing throughout production, feed plants consistently with 200- to 250-ppm nitrogen. Maintain electrical conductivity (EC) levels in the potting media between 2 and 2.5. Calliope varieties are rather heavy feeders providing adequate nutrition guarantees abundant and large flowers. Maintain the potting media pH around 6.0 (in a saturated media extract) to optimize the plant’s nutrient uptake. Like zonal geraniums, Calliope can get iron and manganese toxicity caused by low media pH; however, the series is more resistant to this disorder than most zonal types. Fertilizers with low phosphorus and ammonium (i.e., “Cal-Mag” types) should be predominantly used to avoid

lowering of the media pH and to reduce leaf size.

PGRs are normally needed for Calliope geraniums after transplant. The new Calliope colors are more compact compared to 'Calliope Dark Red', a vigorous-growing variety. Compared with 'Calliope Dark Red', plan on about 10 percent less vigor with 'Calliope Burgundy', about 20 percent less vigor with 'Calliope Hot Pink' and 25 to 30 percent less vigor with 'Calliope Lavender Rose'.

Early Florel sprays will help improve branching and control growth. Calliope gallon and basket crops generally do well with two Florel sprays during the first three weeks after transplant. As mentioned previously, the first of these sprays can be done in propagation. Florel delays flowering, so complete all sprays six to eight weeks before sale depending on finishing temperatures. Plants grow out of the Florel delay faster under warmer temperatures. After the early Florel sprays, control these new Calliope varieties with other PGR sprays such as Cycocel at 1,000 ppm, Cycocel plus B-Nine (1,000 ppm + 2,500 ppm, respectively) or Bonzi plant growth regulator at 2 to 4 ppm. If needed, use a Bonzi drench at 0.1 ppm to hold plants without significantly affecting flower size.

Botrytis is the most common disease, especially with close plant spacing and overhead irrigation. Provide good air circulation, proper spacing and preventive fungicide sprays to reduce Botrytis on foliage and flowers.

Scout plants regularly. Control aphids and thrips, the most common insect pests encountered in Calliope production, using appropriate chemical and biological products.

Calliope geraniums are best grown in gallons, baskets and large containers; however, with adequate spacing a nice crop can be produced in quarts. Calliope also performs well in large patio combination plantings, and makes attractive displays when mixed with other non-geranium species.

Production times vary geographically depending on growing conditions and desired size of the finished product. Most growers can expect gallon containers (one plant per pot) and 10-inch (three plants) to 12-inch (three to four plants) baskets to finish in 10 to 12 weeks from transplant.

### [PDF: Crop Culture Report: Geranium Calliope Series](#)

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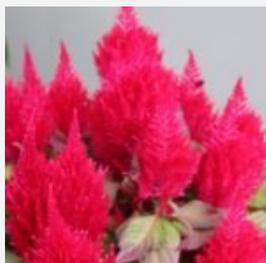
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