



'Calliope Hot Pink'

Geranium Calliope Series

THREE NEW COLORS HAVE BEEN ADDED TO ROUND OUT THE POPULAR CALLIOPE SERIES OF INTERSPECIFIC GERANIUMS.

By **Harvey Lang**

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 “srenches” 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

Success Is An Option

The right products can mean the difference between a good grower and a GREAT grower



NoFly WP Bio Insecticide

NoFly WP Bio Insecticide takes care of aphids, thrips, whiteflies, mealy bugs and fungus gnats in the greenhouse. This patented, beneficial fungus is an aggressive predator that kills pests within 5 days. NoFly WP is compatible with many chemical and biological pesticides making it an excellent tool for your IPM program.

Actino-Iron Soil Additive

Adding Actino-Iron to growing media replaces preventative fungicide and iron chelate applications. Actino-Iron contains *Streptomyces lydicus* WYEC 108, a patented bacteria that protects roots from diseases such as *Pythium*, *Phytophthora* and *Fusarium*. Actino-Iron also contains naturally complexed iron that keeps even troublesome plants, such as petunias and calibrachoa, green throughout the season.

Actinovate SP Bio Fungicide

When diseases attack you will be prepared. Actinovate SP contains a high concentration of *Streptomyces lydicus* WYEC 108, a beneficial bacteria that fights harmful fungal plant pathogens. Simply spray for diseases like Powdery Mildew and Downy Mildew or apply as a soil drench for *Phytophthora*, *Fusarium*, *Pythium*, *Rhizoctonia* and other harmful root rot fungi.

Write in 785

888-261-4731
www.naturalindustries.com



DA1231-D

CULTURE CONNECTION

CROP CULTURE REPORT



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. 

Harvey Lang is a technical services representative for Syngenta Flowers, Inc. He can be reached at harvey.lang@syngenta.com.