



Caliente®

PELARGONIUM INTERSPECIFIC

ROOTING UNROOTED CUTTINGS

***See General Rooting Requirements for Syngenta vegetative cuttings for more info.**

Rooting Time: 3.5 – 4 weeks. Calientes root relatively quickly and easily. Rooting hormones generally are not needed. Most growers root Calientes with their other zonals. Low to moderate PGR use might be needed during propagation to keep top growth under control.

Misting: Average mist cycles. Gradually reduce mist as roots begin to form.

Pinching: No.

FINISHING ROOTED CUTTINGS

***See our in-depth Producing High Quality Geraniums for more information.**

Greenhouse and landscape use: 4", 6" pots, gallons and baskets. Caliente Geraniums are interspecific hybrids with leaves in between ivies and zonals. They have an excellent branched, mounding habit with numerous single flowers. Many growers have moved from traditional ivy Geraniums to Calientes because of their ease of growth and very good heat tolerance. Because of their controlled growth habit, they work in a range of pot sizes, including baskets. Outside they are excellent in ground beds, baskets and patio containers. They make nice combination containers when mixed with other complementary or contrasting colors. Use good-sized, mature plants when planting in combination containers. Calientes have excellent heat tolerance in the landscape and do best in full sun areas. Because of their single flowers, they require less maintenance (dead-heading) than traditional zonal or ivy Geraniums.

Transplanting: Transplant directly into the finished container. Place the rooting media slightly below the level of media in the container. Make sure that the root ball is covered and that the cutting is situated in the center of the pot.

Moisture: Media should be allowed to dry between irrigations. However, avoid severe drying out and consistent wilting.

Fertilizer: 225 – 250 ppm nitrogen. Calientes are moderate-heavy feeders. Monitor EC levels and leach with clear water as needed to avoid fertilizer salt buildup. Caliente Geraniums grow best when using a blend of Cal-Mag (i.e. 15-5-15, 14-4-14, etc.) and ammonium-containing (i.e. 20-10-20, 15-15-15, etc.) fertilizers. Cal-Mag types contain primarily nitrate nitrogen and help to promote toned growth, smaller leaves and media pH levels above 6. Ammonium nitrogen will encourage softer growth, larger leaves, higher media EC levels and lower media pH. A supplemental iron chelate (Sprint 330) or iron sulfate drench can be used at 2 – 4 ounces/100 gallons to correct iron deficiency (young leaf tip yellowing) under extreme heat stress or when media pH levels have gotten well above 6.

Light: 4,000 – 6,000 foot candles. Calientes grow best under moderate to high light conditions. Supplemental lighting can be used in northern climates under dark, cloudy conditions. Avoid hanging lots of baskets above Calientes as flower quality and number will be reduced. It is also wise to not hang other Geranium baskets above the crop because of the chances of bacterial disease contamination from the dripping baskets.

Media pH: 5.6 – 6.2. Calientes appear to respond a bit more like traditional ivy Geraniums and can tolerate pH levels in the mid to high 5s. Like traditional ivies, we have observed young leaf tip yellowing on some Caliente varieties (Lavender, Deep Red) under extreme heat stress or when media pH has climbed well above 6. There has not been any indication of iron/manganese toxicity (bronze speckling of older leaves) which is a common problem on zonals when pH drops down into the mid 5s.

Media EC: 2.0 – 2.5 mS/cm (in an SME, saturated media extract).

Temperature: 70° – 75°F (21° – 24°C) day and 65° – 70°F (18° – 21°C) night. Maintain warm temperatures throughout production for best growth and flowering. Temperatures consistently below 60°F will result in slow growth and pinking/purpling of the foliage. Warm temperatures are recommended early on to

promote growth and to allow plants to respond to PGR (i.e. Florel). Temperatures can be lowered toward the end of production to tone or hold the plant.

Pinching: No. Pinching is not recommended or generally needed if plants are given high light intensity and proper chemical growth regulation is used.

Growth Regulators: Florel sprays at 350 ppm early on. Caliente (and other Geraniums) respond well to early Florel sprays to improve branching and help control growth. Florel can be used one to two times depending on the production time allowed for the plant. Calientes have excellent branching and respond well to early Florel sprays. Caliente 6", gallon and basket crops generally do well with one to two Florel sprays during the first three weeks after transplant. Florel delays flowering, so depending on temperature, all sprays should be completed 6 to 8 weeks before sale. After the early Florel spray(s), Calientes can be controlled with other PGR sprays such as Cycocel at 1,000 ppm, Cycocel + B-Nine (1,000 ppm + 2,500 ppm, respectively), or Bonzi at 3 ppm. The early Florel spray(s) might be all that is needed under many growing regimes. For quick finish crops in small pots, Cycocel can be substituted for the early Florel.

Insects: Aphids and Thrips. Aphids tend to be the most common pest encountered in Geranium production. Thrips tend to be more of a problem once flowers are present. Scout plants regularly and control using appropriate chemical and biological products.

Diseases: Botrytis, Pythium and Xanthomonas. Botrytis is the most common disease, especially under close plant spacing and overhead irrigation. Provide good air circulation, proper spacing and preventative fungicide sprays to reduce the incidence of Botrytis on foliage and flowers. Pythium Black Leg and Root Rot can be a problem in overly wet media and under cold growing temperatures. Xanthomonas campestris pv. pelargonii (Xcp) is a bacterial wilt and blight that is not common, but infections have occurred sporadically in greenhouses across North America over the last 10 years. The chances of disease are greatest among growers doing their own Geranium stock. Buying culture-indexed cuttings from reputable suppliers and recognizing disease symptoms will ensure disease-free crops and minimum disease spread, respectively.

GARDEN PERFORMANCE

USDA Hardiness Zone: Not hardy

AHS Heat Zones: 3 – 11

| | Garden Height | Garden Width |
|-----------------|-----------------------|-----------------------|
| Caliente | 12 – 14" (30 – 36 cm) | 12 – 14" (30 – 36 cm) |

HYBRID GERANIUM SCHEDULING IN WEEKS

| | Caliente |
|---------------------------------------------|----------------------------|
| Rooted to 4" finish | 6 – 7 (1 plant/pot) |
| Rooted to quart finish | 7 – 8 (1 plant/pot) |
| Rooted to 5" finish | 8 – 9 (1 plant/pot) |
| Rooted to 6" finish | 9 – 10 (1 plant/pot) |
| Rooted to gallon finish | 10 – 12 (1 plant/pot) |
| Rooted to 10" basket or patio finish | 10 – 12 (3 – 4 plants/pot) |
| Rooted to 12" basket or patio finish | 10 – 12 (4 – 5 plants/pot) |

Note: These suggestions are only guidelines and may have to be altered to meet individual grower's needs. Check all chemical labels to verify registration for use in your region.