

<b>Cultural Information for:</b>	Petunia SuperCal®	Annual
<b>Common Name:</b>	Petunia	
<b>Botanical Name:</b>	Petchoa hybrids	
<b>Optimum Rooting Temperature</b>	68-72°F / 20-22°C	
<b>Optimum Growing Temperature:</b>	68°F / 20°C	

## Propagation: 4 – 5 weeks

**Rooting:** Avoid applying too much mist in propagation as excess water slows rooting. For the best results use a rooting hormone with up to 2500 ppm of IBA. Mixtures that also include up to 500 ppm of NAA work well too. Bottom heat enhances root development. Maintain soil temperatures between 68-72°F / 20-22°C. B-Nine® (daminozide) may be applied to prevent stretch.

## Production:

**Potting:** Plant one rooted cutting per 4 or 6 inch/10 or 15 cm. pot. For 12 inch/30 cm. hanging baskets plant 3 per basket for fast cropping.

**Media:** Select a sterile, well-aerated mix. The optimum pH range is between 5.5 and 6.0. Consider that the water-holding capacity that is best for consumer performance may be greater than what is ideal for production.

**Irrigation/Fertilization:** Avoid excessive irrigation when the plants are young. Delay feeding until the roots are well established and then begin feeding with a complete, balanced fertilizer at 200-300 ppm N constant liquid feed (CLF). An EC level of 1.5 - 2.0 (2:1 slurry) is a good target range under most conditions. Provide a complete minor element program. The optimum pH is 5.8 to 6.2. Iron deficiency is a common problem if the pH rises above 6.5. Correct with an acid fertilizer, such as 21-7-7, plus iron chelate. The use of Osmocote® or other appropriate slow-release fertilizer products may be beneficial in supplementing a CLF program and may provide improved performance for the consumer. Provide periodic clear water applications if excess soluble salts accumulate.

**Temperature/Humidity:** Establish the crop at an average temperature of 60°F/16°C. Once established grow at 60-70 °F/16-21°C during the day and at 60°F/16°C at night. For fast cropping, establish and grow at an average daily temperature of 68°F/20°C. SuperCal responds well to DIF regimes. Provide good air circulation at all times. Maintain relative humidity below 70% to prevent diseases like Botrytis gray mold.

**Cool Growing:** SuperCals can be grown cool to save energy at a minimum night temperature of 55°F/13°C. However, expect a delay in flowering of 7-10 days compared to growing warmer at 60°F/16°C. SuperCal also tolerate light frosts (30°F/-1°C) as long as the day temperature recovers above freezing. This allows growers to utilize outdoor growing space.

**Light:** Bright light is ideal for this crop. Provide a minimum of 4,000 foot candles/43,000 lux. SuperCal is less sensitive to day length than most petunias, but flower quicker under high light and long day conditions. In high light areas, like California, SuperCal is day length neutral. The use of supplemental light (14-16 hours, beginning at midnight) is beneficial for early spring flowering; especially in low light areas.

**Pinching:** The first pinch is the most important to promote good branching. There should be at least 5 nodes below the pinch. For fast cropping no pinch is required. Light pruning, to shape the plants or to correct for stretch, can be done at any time but will delay flowering by 3-5 weeks.

**Plant Growth Regulators (PGRs):** SuperCal are highly responsive to foliar applications of B-Nine® (daminozide) at 0.25%/2,500 ppm, and A-Rest® (ancymidol) at 5 ppm. Avoid spraying when flower buds appear, since the use of PGRs may delay flowering 1-2 weeks and slightly reduce flower size. For best results, grow SuperCal under high light, cooler temperatures and a slight negative DIF. If additional control is needed later in the production cycle, a Bonzi® (paclobutrazol) drench at 2-5ppm is very effective at controlling plant height without compromising flower size. B-Nine will change the color of Terracotta from orange to a more muted pink.

**Insects:** Aphid, caterpillar, fungus gnat, leaf miner, thrip and whitefly.

**Disease:** Botrytis (gray mold), powdery mildew, root and stem rots, viruses.

## **Troubleshooting:**

**Symptom: Yellowing of upper foliage:** May be due to a malfunctioning fertilizer injector, high pH (>6.5), or low media iron levels.

**Symptom: Yellowing of lower foliage:** May be due to a malfunctioning injector resulting in low nitrogen levels in soil or tissue, high salts, low magnesium levels, (supplement with magnesium sulfate), or root and stem rot.

**Symptom: Delayed Flowering:** If growing during the short day conditions of early spring extend the day length with supplemental light to provide 14-16 hours of light. Late applications of plant growth regulators can cause flower delay so avoid treating the plants once the flower buds are visible.

*“All information given is intended for general guidance only and may have to be adjusted to meet individual needs. Cultural details are based on North American conditions and Sakata cannot be held responsible for any crop damage related to the information given herein. Application of recommended growth regulators and chemicals are subject to local and state regulations. Always follow manufacturer's label instructions. Testing a few plants prior to treating the entire crop is best.”*

**Crop Scheduling:** Petchoa SuperCal is a facultative long day and irradiant plant and timing is based on a combination of light level, photoperiod and temperature. The use of supplemental lighting to provide a minimum of 10 moles and 12 hours of photoperiod is recommended for all early spring production.

Container Size	Cuttings / Pot	Weeks After Pinch	Time From Transplant*
5-6 inch / 12 – 15 cm	1	5-7 weeks	6-9 weeks
8-10 inch / 20 – 25 cm	2-3	6-8 weeks	8-10 weeks
12 inch / 30 cm Basket	3-5	6-8 weeks	8-10 weeks

\*average daily temperature of 60°F/16°C

## SuperCal

Variety	Quarts*	Earliness	Bloom Size	Vigor**	Habit***
Artist Rose	Yes	Very Early	Large	Average	Upright
Blue	Yes*	Average	Large	Strong	Semi-Upright
Blushing Pink	Yes	Very Early	Large	Strong	Upright
Cherry Improved	Yes	Very Early	Medium	Strong	Semi-Upright
Crimson Red	Yes	Very Early	Large	Strong	Semi-Upright
Light Yellow	Yes	Very Early	Large	Strong	Semi-Upright
Neon Rose		<b>Later</b>	Large	Strong	Trailing
Pink	Yes	Very Early	Large	Strong	Semi-Upright
Pink Ice		Average	Medium	Strong	Trailing
Purple		<b>Later</b>	Large	Very Strong	Trailing
Salmon Glow		Average	Large	Strong	Trailing
Terracotta		Average	Large	Very Strong	Upright
Violet		Average	Medium	Average	Trailing

\*These colors work well in 1 Quart / 12 cm pots. **Blue** will flower later so supplemental lighting is suggested for sales prior to week 16.

\*\*Vigor rating is relative to the other colors within each category.

\*\*\*In general, plants grow 10-14 inches/25-35 cm. high by 12-16 inches/30-40 cm. wide.

## SuperCal Premium *(available starting September 2018)*

Variety	Quarts	Earliness	Bloom Size	Vigor*	Habit**
Bordeaux	Yes	Early	Large	Average	Mounding
Caramel Yellow	Yes	Early	Large	Average	Mounding
Cinnamon	Yes	Early	Large	Average	Mounding
French Vanilla	Yes	Early	Large	Strong	Mounding
Sunray Pink	Yes	Early	Large	Average	Mounding

\*Vigor rating is relative to the other colors within each category.

\*\*In general, plants grow 14-20 inches/35-50 cm. high by 14-22 inches/35-55 cm. wide.