Petunia SuperCal®

70FCultural Information for: Petunia SuperCal® Annual
Common Name: Petunia
Botanical Name: Petchoa hybrids
Optimum Rooting Temperature 70ºF / 21ºC
Optimum Growing Temperature: 68ºF / 20ºC
Optimum pH: 5.8 – 6.2
EC – Plug: 0.9 – 1.3 mmhos/cm **(1:2)** / 2.1 – 3.5 **(SME)** / 2.7 - 4.6 **(Pour Thru)**
EC – Finishing: 1.4 – 1.8 mmhos/cm **(1:2)** / 3.6 – 5.0 **(SME)** / 4.7 - 6.5 **(Pour Thru)**

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 at 70°F / 21°C and the air temperature at 68-72ºF / 20-22ºC. Apply B-Nine® (daminozide) as needed to prevent stretching.

Once rooting begins, fertilize with 75-100 ppm N using a well-balanced calcium nitrate-based formulation. Increase the rate to 150-200 ppm N as the plants develop.

NOTE: Be sure to supply 0.25 ppm of boron to prevent tip abortion and delayed development.

Production:

Potting: Plant one rooted cutting per 4 or 6 inch / 10 or 15 cm. pot. For 12 inch/30 cm. hanging baskets plant 5 per basket for fast cropping.

Media: Select a sterile, well-aerated mix. 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). 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. Incorporating 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 periodically clear water applications if excess soluble salts accumulate.

Temperature/Humidity: Establish the crop warm at an average temperature of 65°F/18°C. Once established grow at 65-70°F/18-21°C during the day and at 63-65°F / 17-18°C at night. For fast cropping, establish and grow at an average daily temperature of 68°F /20°C. Provide good air circulation at all times. Maintain relative humidity below 70% to prevent diseases like gray mold *Botrytis*.

Cool Growing: Grow SuperCal 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) if the day temperature recovers above freezing. This allows growers to utilize outdoor growing space.

Light: SuperCal is both a facultative long day and irradiant plant. Therefore, bright light is ideal for this crop. Provide a minimum of 4,000 foot-candles / 43,000 lux. SuperCal varieties are less sensitive to day length than many other petunias, but flower quicker under higher irradiance 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. There is some variability in flowering response in SuperCal varieties. For early season production, consult the attribute table on page two for early flowering varieties.

Pinching: The first pinch is the most important to promote good branching. There should be at least 4-5 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 necessary later in the production cycle, a Bonzi® (paclobutrazol) drench at 2-5ppm is highly effective at controlling plant height without compromising flower size.

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 delayed flowering, so do not treat the plants once the flower buds are visible.

	Height	Width
SuperCal®	16-24” / 40-60 cm.	20-30” / 50-75 cm.
SuperCal Premium®	14-20” / 35-50 cm.	14-22” / 35-55 cm.

“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.

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Petunia SuperCal®

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. Supplemental lighting at 10 moles for 12 hours is best for all early spring production.

Container Size	Cuttings / Pot	Weeks After Pinch	Total Crop Time*
5-6 inch / 12 – 15 cm	1	5-7 weeks	10-12 weeks
8-10 inch / 20 – 25 cm	2-3	6-8 weeks	11-13 weeks
12 inch / 30 cm Basket	3-5	6-8 weeks	11-13 weeks

*includes a propagation time of 5 weeks at an average daily temperature of 60°F/16°C. **Pinch recommended at time of transplanting.**

SuperCal®

Variety	Quarts*	Earliness	Bloom Size	Vigor	Habit**
Blue	Yes* **(later)**	Average	Large	Strong	Semi-Mounding
Blue Eyed Rose	Yes	Early	Medium	Strong	Semi-Mounding
Cherry Improved	Yes	Early	Medium	Strong	Semi-Mounding
Lavender Star	Yes	Early	Medium	Average	Mounding
Light Yellow	Yes	Early	Medium	Strong	Semi-Mounding
Neon Rose	No	**Later**	Large	Strong	Trailing
Shocking Pink	Yes	Early	Large	Average	Semi-Mounding
Rose	Yes	Early	Large	Strong	Semi-Mounding
Royal Red	Yes	Early	Large	Strong	Semi-Mounding
Snowberry White	Yes	Early	Medium	Slightly Lower	Semi-Mounding

*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.

SuperCal® Premium

Variety	Quarts	Earliness	Bloom Size	Vigor	Habit*
Bordeaux	Yes	Very Early	Large	Average	Mounding
Caramel Yellow	Yes	Early	Large	Slightly Lower	Mounding
Cinnamon	Yes	Early	Large	Average	Mounding
Coral Star	Yes	Early	Large	Average	Mounding
French Vanilla	Yes	Early	Medium	Slightly Higher	Mounding
Pearl White	Yes	Early	Large	Lower	Mounding
Pink Mist	Yes	Early	Large	Average	Mounding
Pink Star	Yes	Early	Large	Average	Mounding
Purple Dawn	Yes	Early	Large	Slightly Higher	Mounding
Purple Ice	Yes	Early	Large	Average	Mounding
Red Maple	Yes	Early	Large	Average	Mounding
Rose Pink	Yes	Early	Large	Slightly Lower	Mounding
Rose Star	Yes	Early	Large	Average	Mounding
Sunray Pink	Yes	Early	Large	Average	Mounding
Sunset Orange Improved	Yes	Early	Large	Average	Mounding
Yellow Sun Improved	Yes	Early	Large	Average	Mounding

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Petunia SuperCal®

SuperCal® cutting: 1.5” / 4 cm. in length with 5-6 leaves.

Calloused cutting with roots.

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Ideal rooted cutting with good balance between top and root growth.

Plant finished correctly.

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