



Calendula Caleo™

Culture Guide

Botanical name: *Calendula hybrida*

Product form: Vegetative

Containers: Pints, Quarts, Gallons, Hanging Baskets

Habit: Semi-Trailing

Garden Specifications

Garden Height: 8–10" (20–25 cm) tall

Garden Width: 12–14" (30–35 cm) wide

Exposure: Full Sun

USDA zone: 9–11

AHS zone: 10–2

Product use: Containers, Hanging Baskets, Landscapes, Patio Pots, Combos

Propagation of Unrooted Cuttings

Root emergence: 8–10 days

Rooting hormone: Not recommended.

Bottom heat temp.: 70–74 °F (21–23 °C) for the first three weeks. After roots are well developed, temperatures can be lowered to hold and tone the cuttings.

Misting: Mist schedules vary depending on light and temperature conditions. Apply just enough moisture to rehydrate the cuttings and keep them from wilting. Cuttings should be hydrated and in a non-wilted stage within 24 hours after sticking. Cuttings that continue to wilt heavily after 24 hours will callus unevenly and will be delayed in rooting. CapSil® (spray adjuvant) can be sprayed on the cuttings at a rate of 2–4 oz/100 gal within 1–2 days after sticking to help in rehydration of the cuttings. Misting should be significantly reduced after 2–3 days and after cuttings become fully hydrated.

Rec. tray size: 105-cell (30 mm) or larger

Propagation timing: 3.5–4 weeks for a 105-cell plug; add more rooting time for significantly larger plug sizes.

Temperature

Day: 72–74 °F (22–23 °C)

Night: 72–74 °F (22–23 °C)

Lighting

Day extension lighting: Not Necessary

Light intensity: 1,000–1,200 foot candles (200–250 micro mols) for the first two weeks after sticking or until root

development occurs. Light levels can be increased up to 3,000 foot candles (600 micro mols) as rooting increases and the cutting matures.

Day length response: Day neutral

Daily light integral: 4–6 mols/day for the first two weeks after sticking or until root development occurs. DLI can be increased to greater than 12 mols/day after root formation.

Media pH: 5.8–6.2

Media EC: SME EC: 0.9–1.3 mS/cm, PourThru EC: 1.4–2.0 mS/cm

Fertilizer: Begin fertilization at 100 ppm nitrogen when roots become visible. Rates can be increased up to 200 ppm nitrogen after roots become well developed. Use primarily Cal-Mag® Plus (calcium nitrate + magnesium nitrate) fertilizers in propagation to prevent unwanted stretch.

Pinching: Recommended

Plant growth regulators (PGRs): To control growth after rooting, a spray of B-Nine® WSG (2,500–3,500 ppm) can be used. For all sprays listed above, the mist should be off for a minimum of one hour for the plant growth regulator (PGR) to absorb into the leaf tissue.

Finishing

Temperature

Day: 70–72 °F (21–22 °C)

Night: 62–64 °F (17–18 °C)

Average daily temperature: 66–68 °F (19–20 °C)

Lighting

Day extension lighting: Beneficial to 14 hours

Light intensity: 4,000–6,000 foot candles

Day length response: Day Neutral

Daily light integral: 16–18 mols/day

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

Media pH: 5.8–6.2

Media EC: SME EC: 1.5–2.1 mS/cm, PourThru EC: 2.3–3.2 mS/cm

Fertilizer: 200–250 ppm N

Pinching: Yes, 1 pinch is recommended 7–10 days after transplant.

Plant growth regulators (PGRs): Caleo Calendulas have a moderately vigorous, mounding to semi-trailing habit. To keep plants under control, sprays of B-Nine® WSG (2,500–5,000 ppm), Sumagic® (1–2 ppm), or Bonzi® (2–4 ppm) can be applied to the plants as needed.

Tech tip: Varieties vary between single and semi-double type flowers. Plants are relatively fast growers and fill containers and baskets quickly. Caleo Calendulas tolerate a range of temperatures and growing conditions. However, the best plant quality occurs when plants are grown under relatively cool temperatures and high light intensities. Extremely high temperatures will result in reduced flower size and more open habits. Caleo was bred and selected for Powdery mildew resistance, but plants should be inspected periodically under high disease pressure.



Try Chrysal Alesco®, a postharvest foliar spray, to protect ethylene sensitive crops during shipping and retail

Moisture level: Media should be allowed to dry between irrigations. Alternate between moisture level 2 and 4.

2 - MEDIUM: Soil is light brown in color, no water can be extracted from soil, and soil will crumble apart.

4 - WET: Soil is dark brown but not shiny, no free water is seen at the surface of the soil, when pressed or squeezed water drips easily, and trays are heavy with a visible bend in the middle.

Common pests: Aphids, Whiteflies

Common diseases: Botrytis, Powdery Mildew

Scheduling

Size	Crop Time	Plants Per Pot
1.0 pint (4 inch)	5 weeks	1 ppp
1.0 quart (4.5 to 5 inch)	6–7 weeks	1 ppp
1.25 to 2.5 quart (5.5 to 6.5 inch, trade gallon)	8–10 weeks	1 ppp
3.0 quart to 2.0 gallon (7.5 to 10 inch)	9–10 weeks	2–3 ppp
1.5 gallon hanging basket (10 inch basket)	10–11 weeks	4 ppp

Estimated finish crop time is from transplant of a 105-cell tray and finished at the recommended average daily temperature of 68 °F (20 °C).

Example crop schedule for a 1.25 quart

Weeks From Transplant	Description
1 week	Provide average daily temperatures of 68 °F (20 °C) and DLI levels above 15 mols/day. Pinch plants when they are rooted into the pot
3 weeks	Apply a tank-mix spray of B-Nine® WSG (3,500 ppm) to control growth
4 weeks	Drop average daily temperature to 66 °F (19 °C) to control growth. Scout plants for Botrytis and Powdery mildew
8 weeks	Sale



Caleo™ Orange

syngenta® flowers

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