

Calibrachoa Kabloom™

(*Calibrachoa x hybrida*)

Germination

Approximate seed count (pelleted seed): 900 sd/gram;
25,000 sd/oz

Media

Use a well-drained, disease-free media with a pH of 5.5 to 5.8 and an EC of 0.75 mS/cm (1:2 extraction).

Sowing

288, 128, 105 and 72 are all suitable sizes. Seed covering is not required.

Stage 1 – Germination To Radical Emergence 5-7 days continuing through day 14.

Germination temperature: 68-77°F (20-25°C) with optimum media temperature of 73°F (22.5°C).

Special Note: due to the variability of germination speed, reference following chart:

Fast Germinating Varieties:

Kabloom White, Kabloom Deep Pink, Kabloom Yellow
Stage 1 at 77°F (25°C) for 5 days
Stage 1 at 68°F (20°C) for 5-7 days

Slow Germinating Varieties:

Kabloom Deep Blue, Kabloom Red
Stage 1 at 77°F (25°C) for 7-10 days
Stage 1 at 68°F (20°C) for 10+ days

Light: Light or dark.

Media moisture: Level 5, saturated.

Relative humidity: Maintain 100% relative humidity (RH) until radicles emerge.

Plug Production

Stage 2 - Radicle Emergence to Cotyledon Expansion

Average Daily Temperature: 68°F (20°C)

Light: Daily Light Integral (DLI) of ≥ 10 moles \cdot m⁻² \cdot d⁻¹ is optimum; if not possible provide as much light as possible.

Media moisture: Reduce moisture level to 4. Do not allow wilting.

Fertilizer: Apply fertilizer at rate 1 (less than 100 ppm N/less than 0.7 mS/cm EC) from nitrate-form fertilizers with low phosphorous.

Growth Regulator: Spray application after completion of stage 1, approximately day 7-10 depending on the variety and thereafter as needed.

Effective PGRs:

Flurprimidol (Topflor): 2-3 ppm (0.53 to 0.79 ml/l, 0.38% formulation)
Paclobutrazol (Bonzi): 3 ppm (0.75 ml/l, 0.4% formulation)
Daminozide* (B-Nine): 2500 ppm (3.0 g/l, 85% formulation or 3.9 g/l, 64% formulation)

Special Note: Daminozide is more effective than Paclobutrazol at tested rates for height control and promoting branching. However, Daminozide can cause chlorotic stippling on Kabloom Red and to a lesser degree on Kabloom Yellow.
No stippling with Paclobutrazol or Flurprimidol.

Stage 3 – Cotyledon Expansion to True Leaves

Average Daily Temperature: 64°F (18°C)

Light: Daily Light Integral (DLI) of ≥ 10 moles \cdot m⁻² \cdot d⁻¹

Media moisture: Cycle between levels 2 and 4. Do not allow wilting.

Fertilizer: Increase the fertilizer rate to 2 (100 to 175 ppm N/ 0.7 to 1.2 mS/cm EC). If growth is slow, apply a balanced ammonium and nitrate-form fertilizer with every other fertilization. Maintain a media pH of 5.5 to 6.0 and EC between 1.0 and 1.5 mS/cm (1:2 extraction).

Growth Regulators:

Using same rates and application method as noted in Stage 2, every 10-14 days, as needed.

Stage 4

Temperature Range: 55-64°F (13-18°C). No lower than 55°F (13°C).

Light: Daily Light Integral (DLI) of ≥ 10 moles \cdot m⁻² \cdot d⁻¹

Media moisture: Cycle between levels 2 and 4. Do not allow wilting.

Fertilizer: Same as Stage 3.

Growth Regulators:

Using same rates and application method as noted in Stage 2, every 10-14 days, as needed.

Growing On to Finish

Container Sizes

4-6 inch (10-15 cm) Pots and Quart: 1 plug per pot
10 inch (25 cm) Basket: 3 plugs per pot
12 inch (30 cm) Basket: 5 plugs per pot

Media

Use a well-drained, disease-free soilless medium with a pH of 5.5 to 5.8 and a medium initial nutrient charge.

Average Daily Temperature

55-64°F (13-18°C).

Can be cool-grown, similar to vegetative calibrachoa. Cool-growing will delay flowering compared to warm temperature production.

Light

Daily Light Integral (DLI) of ≥ 10 moles \cdot m⁻² \cdot d⁻¹

Photoperiod Response

All Kablooms are facultative long day with exception of Deep Pink, which is obligate long day. Reference the following table for minimum daylength requirement for each variety.

Variety: Kabloom Yellow, Kabloom White - 10 hours

Variety: Kabloom Red - 10.5 hours

Variety: Kabloom Deep Blue - 11 hours

Variety: Kabloom Deep Pink - 12 hours

Limited Inductive Photoperiod (LIP)

Results from experiments conducted at Michigan State University indicate that Kabloom juvenility ends at 6 leaves (6 weeks from sowing). After the end of juvenility, growing under long-day photoperiod (=14 hours or night interruption) for 4 weeks in plug trays or finish containers induces plants to flower. After

induction, flowers continue to develop if grown under short-day photoperiod. Please conduct your own trials to test LIP under your conditions before broad use.

Fertilizer

Apply nitrate-form with low phosphorus fertilizer at rate 3 (175 to 225 ppm N (1.2 to 1.5 mS/cm EC) every other irrigation. Apply a balanced ammonium and nitrate-form fertilizer with low phosphorus as needed to encourage growth and to balance media pH. Maintain media pH 5.5 to 5.8.

For constant fertilizer program, apply fertilizer at rate 2 (100 to 175 ppm N or 0.7-1.2 mS/cm EC) while maintaining the above recommended EC and pH ranges.

Growth Regulators

Paclobutrazol 1 to 3 ppm (0.25 to 0.75 ml/l, 0.4% formulation) drench 7-10 days from transplant, reapply as needed.

Uniconazol (Sumagic) applied in rates similar to those used for mid-vigor vegetative calibrachoa.

Special Note: In finished production Kabloom White is more receptive and sensitive to paclobutrazol. Too heavy or too frequent applications may result in excessively compacted or stunted plants.

To determine the best rate for your conditions, we recommend that you run an in-house trial.

Special Note: Pinching

Apical dominance results in poor branching. The causes include:

Overgrown and spindly plants
Low DLI (keep ≥ 10 moles \cdot m⁻² \cdot d⁻¹)
Excessive plug crop time
Inadequate plug height control

Pinching is a good solution to remedy the situation. Pinching can occur in plug trays (shear) or after transplant.

Pinch at transplant: Soft pinch, leaving 4 basal nodes. Pinch can delay flowering; the extent of the delay depends upon the timing and location of the pinch. Do not pinch if using LIP.

**Crop Scheduling
Plug Crop Time**



Tray Size: 288

Crop Time from Sow to Pullable: 5-6 weeks

Tray Size: 128

Crop Time from Sow to Pullable: 7-8 weeks

Tray Size: 105

Crop Time from Sow to Pullable: 7-8 weeks

Tray Size: 72

Crop Time from Sow to Pullable: 7-8 weeks

Finish Crop Time from Non-Pinched Plugs

Container Size: 4-6 inch (10-15 cm) Pots and Quarts / 1 PPP

Crop Time from 288 Plug to 100% Flowering: 7-8 weeks

Total Crop Time from Sow to 100% Flowering: 12-13 weeks

Container Size: 10 inch (25 cm) Basket / 3 PPP

Crop Time from 288 Plug to 100% Flowering: 9-11 weeks

Total Crop Time from Sow to 100% Flowering: 14-15 weeks

Container Size: 12 inch (30 cm) Basket / 5 PPP

Crop Time from 288 Plug to 100% Flowering: 9-11 weeks

Total Crop Time from Sow to 100% Flowering: 14-15 weeks

Common Insect and Disease Problems

Manage similar to vegetative Calibrachoa

Note: Growers should use the information presented here as a starting point. Crop times will vary depending on the climate, location, time of year, and greenhouse environmental conditions. Chemical and PGR recommendations are only guidelines. It is the responsibility of the applicator to read and follow all the

current label directions for the specific chemical being used in accordance with all regulations.

Kabloom White: 'PAS1020307' PPAF; EU PBRAF; CA PBRAF; JP PBRAF

Kabloom Yellow: 'PAS1020308' PPAF; EU PBRAF; CA PBRAF; JP PBRAF

Kabloom Red: 'PAS1020342' PPAF; EU PBRAF; CA PBRAF; JP PBRAF

Kabloom Deep Blue: 'PAS1020344' PPAF; EU PBRAF; CA PBRAF; JP PBRAF

