GrowerFacts

Fuseables® Calibrachoa

(*Calibrachoa hybrid*)

Germination

Approximate seed count (multi-pelleted seed): 820 to 935 S./oz. (29 to 33 S./g)

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
Can be produced in a 288, 105/128, 72 liner size plug tray, but recommend 105/128 cells or larger. Do not cover the seed. Water adequately after sowing to completely dissolve the pellet.

Stage 1 – Germination begins at day 4 to 5 continuing through day 14.

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

Light: Lighting is not required, but beneficial.

Media moisture: Keep soil very wet (level 5) during first two week for optimal germination.

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

Plug Production

Stage 2
Temperature: 68 to 72°F (20 to 22°C).

Light: Up to 2,500 f.c. (26,900 Lux). DLI = 10 moles•m-2•d-1.

Media moisture: Start to slightly reduce soil moisture (level 4) to allow the roots to penetrate into the media. Do not allow seedlings to wilt.

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.

Stage 3

Temperature: 65 to 68°F (18 to 20°C).

Light: Can be up to 2,500 f.c. (26,900 Lux). DLI = 10 moles•m-2•d-1.

Media moisture: Allow media to dry further until the surface becomes light brown (level 2) before watering. Keep the moisture to wet-dry cycle (moisture level 4 to 2). Do not allow seedlings o wilt.

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 5.8 and EC between 1.0 and 1.5 mS/cm (1:2 extraction).

Growth Regulators: If possible, try to grow Calibrachoa Fuseables plugs without any PGRs. The competition amongst the multiple seedlings in each plug cell will provide natural growth control. Also, cooler temperatures during stage 4 will provide natural toning of the plugs.

If PGRs are needed, daminozide (B-Nine, Alar) at 2,500 ppm (3.0 g/l, 85% formulation or 3.9 g/l, 64% formulation) or paclobutrazol (Bonzi, Piccolo) 5 ppm (1.25ml/l, 0.4% formulation) as a spray can be used at 3 weeks after sowing. Daminozide is more effective than paclobutrazol.

Stage 4

Temperature: 60 to 65°F (16 to 18°C).

Light: Up to 5,000 f.c. (53,800 Lux) if temperature can be controlled. DLI = 10 moles•m-2•d-1.

Media moisture: Same as Stage 3.

Fertilizer: Same as Stage 3.

Growing On to Finish

Container Size
6 to 8-in. (15 to 20-cm) pots: 1 plug per pot

10-in. (25-cm) color bowls or baskets: 1 to 3 plugs per color bowl or basket

12-in. (30-cm) color bowls or baskets: 3 plugs per color bowl or basket

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

Temperature
Nights: 55 to 64°F (13 to 18°C).

Days: 64 to 77°F (18 to 24°C)

Calibrachoa Fuseables can be grown at temperatures as low as 50ºF (10ºC). Crop timing (time to flower) is related to average temperature when grown under proper daylength. Plants will take longer to flower when grown under cooler conditions.
Light
Keep light levels as high as possible (DLI = 10 moles•m-2•d-1) while maintaining moderate temperatures.

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 and EC 1.5 to 2.0 mS/cm.

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
Use daminozide (B-Nine, Alar) at 2,500 ppm (3.0 g/l, 85% formulation or 3.9 g/l, 64% formulation) at 7 days after transplant followed by a paclobutrazol (Bonzi, Piccolo) 2-3 ppm (0.5-0.8 ml/l, 0.4% formulation) drench a week later, repeat paclobutrazol drench if necessary.

The first application of daminozide at 7 days after transplant can be replaced by paclobutrazol 20 ppm spray or 1 ppm drench.

In warmer areas, Flurprimidol (Topflor) can replace Paclobutrazol (Bonzi). Topflor is stronger than Bonzi and the effect lasts longer. The rate of Topflor drench can be 2/3 to 1/2 of Bonzi drench rate.

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

In Northern European conditions: 3 to 5 applications of daminozide (B-Nine, Alar) at 1,250 ppm (1.5 g/l, 85% formulation or 2.0 g/l, 64% formulation) spray has been tested and shown effective.

Photoperiod
Calibrachoa Fuseables are slightly sensitive to daylength. All varieties can flower successfully at 11 hours daylength with crop time delay of about 3 to 6 days compared to that under long day conditions.

Crop Scheduling

Sow to transplant (288-cell plug tray): 4 to 5 weeks

Sow to transplant (105/128-cell plug tray): 5 to 6 weeks

Sow to transplant (72-cell tray): 6 to 7 weeks

Transplant to finish from 105/128 cells:
Container Size: 6 to 8-in. (15 to 20-cm) pot

Plants per Pot or Basket: 1

Weeks from Transplant: 8-9

Total Weeks: 13-15

Container Size: 10-in. (25-cm) color bowl or basket

Plants per Pot or Basket: 1

Weeks from Transplant: 10-11

Total Weeks: 15-17

Container Size: 10-in. (25-cm) color bowl or basket

Plants per Pot or Basket: 3

Weeks from Transplant: 8-9

Total Weeks: 13-15

Container Size: 12-in. (30-cm) color bowl or basket

Plants per Pot or Basket: 3

Weeks from Transplant: 10-11

Total Weeks: 15-17

Common Problems

Ball

Ball Horticultural Company
622 Town Road, West Chicago, Illinois, USA, 60185-2698
630 879-BALL www.ballseed.com

Insect: Thrips, Aphids

Disease: Botrytis

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.

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