GrowerFacts

Calibrachoa Isabells

(*Calibrachoa x hybrida*)

Propagation

- Choose a well-drained medium with an EC of 0.75 to 0.80 mmhos and a pH of 5.4 to 5.8.
- Open boxes upon arrival. Stick cuttings within 12 to 24 hours of arrival. Cuttings can be stored overnight, if necessary, at 45 to 50°F (7 to 10°C).
- Soil temperature should be maintained at 68 to 73° F (20 to 23°C) until roots are visible.
- Avoid over-application of mist in propagation.
- Begin fertilization with 75 to 100 ppm N when roots become visible. Increase to 150 to 200 ppm N as roots develop.
- Once roots are visible, the media should be kept moderately wet and never saturated.
- This will prevent iron deficiency and the associated chlorotic foliage that can develop.
- As the rooted cuttings develop, appropriate water stress and moderate air temperatures should eliminate the need for chemical plant growth regulators (PGRs).
- Isabells Calibrachoa can be pinched 18 to 24 days after sticking, when roots are well-developed, to promote early branching and improve habit. Isabells Calibrachoa rooted cuttings should be ready for transplanting 24 to 28 days after sticking.

Growing On to Finish

Media

- Use a well-drained, disease-free, soilless medium with a pH of 5.4 to 5.8.
- Maintain a media pH of 5.4 to 5.8 throughout production. The media should be routinely tested every 14 days or when early signs of elevated pH become visible. These early signs can be the first indicators of the need to lower the soil pH to avoid iron deficiency.

Temperature

- **Nights:** 50 to 58°F (10 to 14°C)
- **Days:** 71 to 76°F (21 to 24°C)
- Higher than recommended temperatures will cause poor branching, unwanted stem stretch and reduced flowering.
- Suggested night temperatures will create maximum branching and the best possible habit.

Light

- Keep light intensities at 5,000 to 8,000 f.c. (50,000 to 80,000 Lux).
- Low light levels cause stem stretch and poor flowering.
- Flowering is best under long days of Spring and Summer. Generally, flowering will begin in mid- to late Spring and will be heaviest in late May to September. Crop times will be increased under short daylength. An Autumn crop is possible if the crop is started early enough to allow for flower initiation before days shorten significantly.
- For fastest flowering during short daylength, maintain night temperatures at 59 to 61°F (15 to 16°C) and use lighting to provide a daylength greater than 12 to 13 hrs. Night-break lighting can be used.

Watering

- Plants are susceptible to Botrytis – avoid high humidity and wet foliage.
- Calibrachoa are susceptible to root diseases if over-watered. Allow the media to dry slightly between watering, but avoid any wilt.
- Provide plants with adequate horizontal airflow at all times.

Fertilizer

- Calibrachoa require heavy fertilization.
- Use constant feed with a balanced fertilizer at 225 to 300 ppm N with additional iron as needed.
- A full complement of minor elements should be provided.
- Use clear water with every third watering if high soluble salt problems occur.

Media pH Management

- Plants must be monitored regularly for early, visual signs of upward pH drift (interveinal yellowing on youngest leaves). Regular soil pH tests are an excellent way to identify movements in pH before they create visual symptoms, which can be difficult to correct.
- Periodic application of acidic feed or drench applications of a chelated iron product can be used to maintain appropriate pH levels.
- An effective method of lowering pH is a soil drench of iron sulfate. The foliage must be rinsed immediately after treatment since the iron sulfate solution can result in phytotoxicity to flowers and foliage.

Pinching

- Pinch plants back 7 to 14 days after transplanting to improve basal branching. Plants can be pinched as the crop matures to improve their habit, but flowering will be delayed approximately 2 to 3 weeks.
- In trials, Florel has proven effective for increasing branching when applied 1 to 3 times at 250 to 500 ppm to a stress-free, actively growing plant. Flowering will be delayed a minimum of 7 to 8 weeks, depending on the concentration used. Improved branching, darker green foliage and shorter internodes will be the benefits.

Controlling Growth

- Use high light and cool temperatures to control growth.
- Isabells Calibrachoa respond well to DIF in production.
- If necessary, growers can use 1 or more applications of B-Nine (1,500 to 3,000 ppm) starting 2 weeks after transplant. Calibrachoa growth can also be controlled with 1 to 2 spray applications of A-Rest (20 to 50 ppm) or drench applications of Bonzi (3 to 8 ppm). Sumagic (20 to 30 ppm) can effectively control the growth of Calibrachoa when applied 1 to 2 times as a spray.
- Growers can also use a Bonzi drench (1 to 8 ppm), applied when plants first reach saleable size, to slow growth, maintain a tight habit and allow normal flower development.
- Plant growth regulators applied late in the crop cycle can delay flowering 1 to 2 weeks. Application should be avoided once flower buds appear.
- These recommendations for plant growth regulators should be used only as general guidelines. Growers must trial all chemicals under their particular conditions.

Problem: Plant collapse

Causes: Wet media for an extended period (Phytophthora, Rhizoctonia, Theilaviopsis)

Problem: Delayed flowering

Causes: Daylength too short; Late application of growth regulators

Problem: Excessive vegetative growth

Causes: High ammonia concentration in the soil; Over-fertilization under low light conditions; Low light levels and over-watering; wet media; Excessive phosphorus

Problem: Poor branching

Causes: Low fertilization; lack of nitrogen; Late/no pinch

Problem: Stretched plants

Causes: Low light levels

Problem: Chlorosis

Causes: Iron deficiency, high pH; Nitrogen deficiency; High salt levels in media

Crop Schedule & Uses
(Crop Schedule In Weeks)

Unrooted cuttings
4-in. (10-cm) pots 1 PPP* 9–13

6-in. (15-cm) pots 1 to 3 PPP* 10–15

10 to 12-in. (25 to 30-cm) pots 4 to 5 PPP* 11–16

Rooted cuttings
4-in. (10-cm) pots 1 PPP* 6–9

6-in. (15-cm) pots 1 to 3 PPP* 7–11

10 to 12-in. (25 to 30-cm) pots 4 to 5 PPP* 8–12

*PPP: Plants per pot or basket

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.

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

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