

Angelonia Archangel

(*Angelonia angustifolia*)

A Ball FloraPlant Product

Propagation

- Choose a well-drained medium with an EC of 0.75 to 0.80 mmhos and a pH of 5.8 to 6.2.
- 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.
- To encourage branching and reduce stem stretch, Archangel Angelonia should be propagated under as high a light as possible while avoiding unnecessary stress on the cuttings.
- Begin fertilization with 75 to 100 ppm N when roots become visible. Increase to 150 to 200 ppm N as roots develop. Avoid phosphorous and ammoniacal nitrogen during the rooting process to reduce stretch and unwanted vegetative growth.
- As the rooted cuttings develop, high light, appropriate water stress and moderate air temperatures should eliminate the need for chemical plant growth regulators (PGRs) on Archangel angelonia. Archangel Angelonia are responsive to a B-Nine and Cycocel tank mix, should PGRs be needed.
- Pinching is not required during propagation. However, to improve branching and habit, plants can be pinched 5 to 7 days before transplanting.
- Archangel Angelonia rooted cuttings should be ready for transplanting 24 to 28 days after sticking and should be transplanted as soon as possible. Rooted cuttings should not be held, as Archangel Angelonia will be actively growing and plants will begin to crowd and stretch very quickly.

Growing On to Finish

Scheduling

Archangel Angelonia requires higher light levels. In areas with low light levels in early Spring, Angelonia is best planted as a mid to late-Spring and Summer crop. In areas with moderate to high Winter and early Spring light levels, Archangel Angelonia can be grown year-round.

Media

Use a light, well-drained soilless medium with a pH of 5.8 to 6.2.

Temperature

- **Nights:** 62 to 70°F (17 to 20°C)
- **Days:** 74 to 85°F (25 to 30°C)

- Temperatures below those recommended will slow plant growth significantly and cause the lower foliage to yellow.

Light

- Keep light levels as high as possible while maintaining recommended temperatures. The ideal range is 6,000 to 10,000 f.c. (60,000 to 100,000 Lux)
- Light levels below 5,000 f.c. (50,000 Lux) will promote stem stretch and reduce branching.

Watering

- Allow the media to dry moderately between waterings.
- To avoid leaf tip burn, do not allow media to dry completely or the plant to wilt repeatedly.

Fertilizer

- Use constant feed at 175 to 225 ppm, with additional iron as needed.
- A full complement of minor elements should be provided.
- Excessive phosphorous and ammoniacal nitrogen will promote unwanted vegetative growth. Both should be provided in very limited quantities.
- Controlled-release fertilizer can be used to supplement a liquid feed program.
- Leach regularly to avoid the buildup of high soluble salt levels.

Pinching

A single pinch is recommended when growing Archangel Angelonia in 4.5 to 5-in. (11 to 13-cm) containers. The first pinch should be 5 to 7 days after transplanting. Stems should be pinched to 4 or 5 nodes. Growers may choose to pinch plants in larger, 5 to 8-in. (13 to 20-cm) containers a second time to enhance branching and the number of flower spikes. When growing in larger containers, the second pinch should be applied 14 to 21 days after the first.

Controlling Growth

- Height can be controlled, in part, by maintaining moderate fertility, allowing the media to dry slightly between waterings, providing maximum light and spacing plants in advance of crowding and stretch.
- Under conditions conducive to rapid vegetative growth, chemical plant growth regulators may be needed.

- A Cycocel (700 to 1,000 ppm) and B-Nine (1,500 to 2,000 ppm) tank mix applied 1 to 2 times is effective. The first application should be 7 to 10 days after the first pinch. Likewise, a tank mix of A-Rest (6 to 12 ppm) and B-Nine (1,000 to 1,500 ppm) applied 1 to 2 times can be used to control growth.
- Cultural practices should be emphasized to avoid use of PGRs on Archangel Angelonia compact varieties. In general, more frequent applications of any growth regulator at a lower concentration will produce the best results.
- Florel causes leaf tip burn when applied to Archangel Angelonia.
- These recommendations for plant growth regulators should be used only as general guidelines. Growers must trial all chemicals under their particular conditions.

10-12 weeks

*PP: 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.

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Common Problems

All Archangel Angelonia cuttings are derived from culture and virus-indexed stock from the **Ball Certified Plants®** program.

Problems: Plant/stem collapse

Causes: Wet media for an extended period of time (Pythium, Rhizoctonia, Botrytis)

Problems: Excessive vegetative growth

Causes: Low light conditions; Over-fertilization under low light conditions; Overwatering under low light conditions

Problems: Poor branching

Causes: Low fertilization, especially nitrogen; Low light conditions

Problems: Stretched plants

Causes: Low light conditions; Crowding before spacing; Late transplanting; Excessive phosphorous

Archangel Angelonia Crop Schedule & Uses

Unrooted cuttings

4.5 to 5-in. (11 to 13-cm) Pots 1 PP* - 9-11 weeks
 10 to 12-in. (25 to 30-cm) Pots or Baskets 3 to 5 PP* - 13-16 weeks

Rooted cuttings

4.5 to 5-in. (11 to 13-cm) Pots 1 PP* - 5-8 weeks
 10 to 12-in. (25 to 30-cm) Pots or Baskets 3 to 5 PP* -

