

Cutting Time™ Program

Madinia™ Dipladenia (Mandevilla) Production

Callused Cutting (CC) Direct Stick – Quart Finish

PROPAGATION

PROPAGATION OF CC IN FINAL CONTAINER (Approximately days 1 – 11)

Day 0: Start in clean area free of algae, fungus gnats and shore flies. Water pots the day before sticking to maintain a moisture level of 4. Ensuring that only the top three-quarters of the media is wet will result in good aeration, minimal losses and quick rooting of the cutting.

Day 1: Direct stick CC. Apply enough mist regularly throughout the day to get leaf tissue hydrated. Ideal rooting media temperatures are between 70 – 72°F (21 – 22°C). After sticking, spray cuttings immediately with CapSil® spray adjuvant at 2 – 4 oz/100 gal to improve water absorption into leaf tissue. Rooting hormone is not necessary with CCs.

Day 2 – 10: Use a light mist as needed, and evaluate every 45 – 60 minutes depending on conditions. Automatic mist systems are useful but are not needed if cuttings are checked regularly. Shade cloth can be used to achieve less than 2,000 foot candles (6 mols/day) to reduce mist frequencies. Covering cuttings with Reemay® fabric or plastic at night will help reduce stress. Daconil Ultrex® or Heritage® fungicides can be sprayed for foliar disease prevention. Apply Citation® insect growth regulator or Exhibitline™ sf beneficial nematodes for control of fungus gnats. Reapply as needed.

Day 11: CCs should be rooting into growing media. Light misting can likely be eliminated. Test several plants with a “tug” to evaluate development. If rooting starts, remove any shade cloth that might be used. Apply first fertilization at 150 ppm N using a Cal-Mag™ fertilizer formulation (15-5-15, 14-4-14, etc.)

FINISHING

FINISHING (Approximately days 12 – 77)

Day 12 – Sale: Increase fertilization rate to 200 – 225 ppm N using a Cal-Mag formulation (15-5-15, 14-4-14, etc.). Continue fertilization, alternating with a clear-water leach every fifth irrigation. Maintain media pH at 5.8 – 6.2 and EC between 2.0 – 2.5 mS/cm using a saturated media extract (SME) method.

Provide long days greater than 13 hours to hasten flowering and reduce crop time. Light levels should be >16 mols/day (5,000 – 7,000 foot candles) for best growth and reduced vining. Ideal air temperatures are between 70 – 80°F Day and 65 – 70°F Night (21 – 27°C Day and 18 – 21°C Night).

Maintain even moisture levels between wet (level 4) to dry (level 2), making sure to not overwater. Madinia™ dipladenias are slow growers and prone to problems caused by early overwatering. Scout weekly for aphids, whiteflies, thrips and spider mite activity. If necessary, spray with Endeavor® insecticide for control of aphids and whiteflies, or drench with Flagship® insecticide for broad-spectrum control of insect pests. Use Avid® miticide/insecticide in rotation with other registered products for spider mites, thrips and whitefly control.

Inspect plants regularly for foliar, stem and root diseases, especially Fusarium, Phytophthora (root and aerial) and Cercospora leaf spot. Apply Palladium® fungicide, Daconil Ultrex (not on blooms) or Heritage on a 7 – 14 day interval for control of foliar diseases. Apply Heritage plus Micora® fungicide via drench rotated with Subdue Maxx® plus Medallion® WDG fungicides as necessary to prevent root diseases.

Day 14: Apply a preventive drench of Subdue Maxx at 1 fl oz/100 gal plus Medallion WDG at 1 oz/100 gal.

Day 17 – 20: Pinching is optional. A soft pinch (keep two nodes below the pinch) will promote branching but can delay flowering. Madinia White is more vigorous and more prone to vining than the other Madinia colors, so vines might have to be removed more than once. If growth regulation is needed, spray with B-Nine® plant growth regulator at 2,500 – 3,500 ppm.

Day 27 – 29: Media analysis: send samples to analytical lab, and adjust fertility regime based on results (fertilization can be increased to 250 – 275 ppm N if needed). Maintain media pH at 5.8 – 6.2 and EC between 2.0 – 2.5 mS/cm using a SME method.



Madinia™ dipladenia callused cutting at stick (left)



Madinia™ Pink dipladenia callused cutting direct stuck into final container. Photo taken 11 weeks after stick.

Day 35: Apply a preventive fungicide drench of Heritage at 0.9oz/100 gal plus Micora 8oz/100 gal.

Day 41 – 44: Media analysis: send samples to analytical lab and adjust fertility regime based on results. Keep media pH at 5.8 – 6.2 and EC between 2.0 – 2.5 mS/cm using a SME method.

Day 70 – 77: Ready for sale.

LINER PROPAGATION OF CALLUSED CUTTINGS

PROPAGATION OF CC IN LINERS (Approximately days 1 – 25)

Day 0: Water liner media the day before sticking to ensure a moisture level of 4.

Day 1: Stick CC into liners, applying enough mist to get leaf tissue hydrated. Ideal root media temperatures are 70 – 72°F (21 – 22°C). After sticking, spray cuttings immediately with Capsil at 2 – 4 oz/100 gal to improve water absorption into the leaf tissue. Rooting hormone is not necessary with CCs.

Day 2 – 10: Use a light mist as needed, and evaluate every 45 – 60 minutes depending on conditions. Avoid severe wilting of the CC. Automatic mist systems are not needed. Shade cloth can be used to achieve < 6 mols/day (<2,000 foot candles) to reduce mist frequencies. Daconil Ultrex or Heritage fungicide can be sprayed for foliar disease prevention. Apply Citation or Exhibitline sf for control of fungus gnats. Reapply as needed.

Day 11: CCs should be rooting into growing media. Light misting can be eliminated. Remove any shade cloth that might be used and fertilize with 150 ppm N using a Cal-Mag formulation (15-5-15, 14-4-14, etc.).

Day 12 – 25: Increase fertilization rate to 200 ppm N using a Cal-Mag formulation (15-5-15, 14-4-14, etc.).

Provide long days greater than 13 hours to hasten flowering and reduce crop time. Light levels should be >10 mols/day (3,000 – 4,000 foot candles) for best growth and reduced vining. Temperatures should ideally be between 70 – 80°F Day and 65 – 70°F Night (21 – 27°C Day and 18 – 21°C Night). If plants are rooting adequately, they may be given a soft pinch (keep two nodes below the pinch) to promote branching.

Scout weekly for aphids, whiteflies, thrips and spider mite activity. If necessary, spray with Endeavor for control of aphids and whiteflies, or drench with Flagship for broad-spectrum control of insect pests. Use Avid in rotation with other registered products for spider mites, thrips and whitefly control. Inspect plants regularly for foliar, stem and root diseases, especially Fusarium, Phytophthora (root and aerial) and Cercospora leaf spot. Apply Palladium, Daconil Ultrex (not on blooms) or Heritage on a 7 – 14 day interval for control of foliar diseases. Apply Heritage plus Micora via drench rotated with Subdue Maxx plus Medallion WDG as necessary to prevent root diseases.

syngenta flowers

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