

verben aTM Lanai



RECEIVING UNROOTED VERBENA CUTTINGS

Open the boxes upon arrival. Cuttings should be stuck as soon as possible. Cuttings may be temporarily stored overnight at 8°C in open boxes.

ROOTING VERBENA CUTTINGS

Root Emergence: 7-10 days

Total Rooting Time: 21-28 days

Prior to Arrival of Cuttings: Clean and disinfect propagation area. Place rooting media on the bench shortly before arrival of cuttings. Preservation of cutting quality is dependent upon how quickly cuttings are stuck into ideal propagation conditions.

Rooting Hormones: Not recommended.

Misting: Cuttings will require mist up until the 4th-6th day or until roots begin to push into media. If using bottom heat, the cuttings may require occasional misting overnight during this crucial period. Mist for short durations as needed to keep cuttings turgid and prevent wilting.

Frequency will be dependent upon light and temperature conditions. Misting should be complete 4 – 6 days after arrival. Excess misting can leach nutrients and create conditions favorable for disease.

Disease Control: A preventative soil drench for Pythium and Rhizoctonia can be made any time after sticking. Preventative sprays aid in controlling Botrytis. Excessive pesticides usage either in frequency or concentration may delay root development.

Moisture: Moisture level 4 (wet): Media is wet to the touch, but not saturated. After roots are established, keep foliage as dry as possible. Irrigate in the morning to prevent botrytis infections.

Ventilation: Ventilation and Horizontal Air Flow fans are the most important tools in reducing botrytis infections.

Humidity: 80 – 90%

Air Temperature: 18-24°C

Bottom Heat Temperature: 22°-24°C Bottom heat is recommended to promote uniform rooting.

pH: 5.5 – 6.2

Media EC: < 0.75

Light: Shade fresh cuttings, at 1500-2000 foot candles, the first week to reduce transpiration and to avoid excessive misting. Under cool conditions, cuttings with established roots can tolerate higher light levels, 3500-4500 foot candles.

Fertilizer: Apply as soon as cuttings start to root at 100 ppm with feed such as 21-5-20.

Pinch: Pinch once 14 – 21 days after sticking cuttings.

FINISHING ROOTED VERBENA CUTTINGS

VEGETATIVE VERBENA PLUGS

The following cultural factors must be managed properly to produce and finish a high quality crop.

Disease Prevention/Sanitation: Preventing plant disease is the easiest and most cost effective method of controlling potential disease problems. Prior to the arrival of your plugs, disinfect all growing surfaces. Use only new pots and fresh media.

Media: Select a porous media that drains well. A pre-plant charge of micro and macro-nutrients is recommended.

Pre-Plant: Thoroughly water the plugs until media is saturated. Moisten finish container media till wet to the touch, but not saturated. Dibble a small hole to prevent breaking of delicate roots when transplanting plugs.

Transplanting: Transplant directly into finish container with rooting media level with soil in container. Rooting media above soil line will promote excessive drying out and wilting of the plugs despite a moist environment.

Media pH: 5.5-6.2

Moisture: Alternate moisture level 4/2. Moisture level 4 (wet). Media is wet to the touch, but not saturated. Moisture level 2 (medium). Media has changed colour from dark black to a medium brown. Irrigate early in the morning to allow foliage to dry before nightfall. Do not allow plants to wilt.

Fertilizer: Begin fertilizing after plants have rooted out. Constant liquid feed with a nitrate based fertilizer at 200-250 ppm nitrogen. Feeds high in ammonium may promote soft growth.

Media EC: Regular leaching to maintain EC levels between 1.0 – 1.5 is recommended.

Temperature: 20-22°C days;

16-17°C night

Light: Initially provide 1500-2000 foot candles to a newly transplanted crop. Full sun can be tolerated once a root system is established.

Pinching: Large containers and baskets may require pinching 2 weeks after transplant to promote fuller plants. Ethrel can be used for a chemical pinch. Apply Ethrel at 250 ppm 2 weeks after transplant. A second application 2 weeks later may be needed on larger containers.

Growth Regulators: Alar at 1500 ppm will keep internodes short. Wait at least 2 weeks after any Ethrel application before using Alar. Verbenas respond to negative DIF treatments.

Common Pests: Thrips, Whitefly, Spider Mites

Common Diseases: Botrytis. These varieties are powdery mildew tolerant.

SCHEDULING

Rooted to 100mm finish: 4-8 weeks

Rooted to 140mm finish: 6-9 weeks

Rooted to 250mm basket finish: 7-10 weeks

Rooted to 300mm basket finish: 7-10 weeks

GARDEN PERFORMANCE

Lanai Garden Height: 15-30cm

Width: 50-60cm