

Osteospermum

Tradewinds™



### RECEIVING UNROOTED 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 UNROOTED CUTTINGS

**Root Emergence:** 10-14 days

**Total Rooting Time:** 21-28 days

**Preparation 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 dependant upon how quickly cuttings are stuck into ideal propagation conditions.

**Rooting Hormones:** Hormones will encourage uniform rooting. Determine proper concentrations prior to sticking the entire crop. Excess hormones can cause severe damage.

**Misting:** Cuttings will require mist up until the 10th to 14th 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 dependant upon light and temperature conditions. Excess misting can leach nutrients and create conditions favorable for disease.

**Disease Control:** If strict sanitation protocols are practiced, the need for fungicides may not be necessary. Should less than ideal conditions exist, a preventative soil drench for Pythium 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.

**Ventilation:** Ventilation and Horizontal Air Flow fans are the most important tools in reducing Botrytis infections after rooting.

**Humidity:** 90%+

**Air Temperature:** 8-22°C

**Bottom Heat Temperature:** 18-22°C the first two weeks of rooting. After root initiation, reduce temperatures to 15°C.

**pH:** 5.5-6.0

**Media EC:** 0.5 mS/cm (SME).

**Light:** Provide supplemental lighting under low light/short day conditions to prevent stretching. Supplemental lighting will also promote a more vigorous and uniform root system under low light conditions.

**Fertilizer:** If necessary, provide sufficient fertilizer to maintain a media EC of 0.5. The small change in most media should be sufficient to support rooting

**Growth Regulators:** Tradewinds™ have been bred for superior basal branching which eliminates the need for plant growth regulars during the rooting process. If PGR's are applied during the rooting process, exaggerated compact growth will create cultural challenges during the finishing stages.

### FINISHING ROOTED CUTTINGS

Tradewinds is a breakthrough in Osteospermum breeding. Superior genetics allow Tradewinds to initiate flower under warmer temperatures thus extending the growing season. Selected for compact habits and strong basal branching, Tradewinds are profitable to produce due to reduced needs for PGR's. Boost late-season and off-season sales with Tradewind. Free-flowering even under warmer conditions, Tradewinds will not stall like the competition. Trials in Gilroy, CA and Andijk, The Netherlands have demonstrated that Tradewinds will flower through the summer and continue strong into autumn. With minimal input costs, Tradewinds allows growers opportunity to offer Osteospermum in addition to other traditional autumn bedding plants.

**Disease Prevention/Sanitation:** Preventing plant disease is the easiest and most cost effective method to control potential disease problems. Prior to the arrival of your rooted cuttings disinfect all growing surfaces. Use only new pots and fresh media. A preventative fungicidal drench may be applied after transplant.

**Media:** Select a coarse porous media that drains well. Many commercially available media work well for Osteospermum.

**Pre-Plant:** Thoroughly water the rooted cuttings 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 rooted cuttings.

**Transplanting:** Transplant directly into finish container with the rooting media level with the potting media in the container. Planting too shallow will promote excessive drying out and wilting of the rooting cutting despite a moist environment.

**Media pH:** 5.5 - 6.5

**Moisture:** Alternate Moisture Level 4/1.5 Moisture level 4 (wet): Media is wet to the touch, but not saturated. Moisture Level 1.5 (dry): Media has changed color to a light brown. Water early in the day to allow foliage to dry before nightfall.

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

**Fertilizer:** Osteospermum are heavy feeders. Constant liquid feed with a balanced fertilizer at 200- 250 ppm N. Alternate between calcium and potassium nitrate based fertilizers. Calcium is necessary to promote a strong plant, potassium will discourage stretching. A controlled release fertilizer may be beneficial for field production. Avoid ammonium which may promote stretching. Excessive nitrogen will reduce the number of flowers produced.

**Media EC:** 1.5- 2.0 mS/cm (SME). High salts may promote marginal chlorosis and inconsistent branching. Calcium should help alleviate symptoms. Note: Cycocel drenches will increase EC levels.

**Temperature:** Osteospermum prefers cool conditions. Provide 16-24°C days. After transplant use 13-18°C nights to establish a strong root system and initiate flowering. Lower temperatures will delay flower development and increase crop time significantly. Tradewinds™ will continue to initiate bloom with night temperatures up to 20° C; however, the number of blooms produced may decrease with excessive temperatures.

**Vernalization:** Unlike some Osteospermum varieties, Tradewinds™ does not require as much cold treatment for flower initiation.

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**Light:** As bright as possible, provide 5,000-9,000 foot candles. Osteospermum are day neutral. A cool temperature in combination with high light promotes the highest quality plants. Low light levels may promote stretching.

**Pinching:** 'Tradewinds' will produce a higher quality finished product when pinched. It may be more cost effective to pinch before or at the time of transplant. Pinch back to 4 nodes for a 4" pot, 5-6 nodes for a larger pot. Pinching will delay flowering by 1 week. All pot sizes should be pinched.

**Growth Regulators:** Begin PGR's when first shoots are approximately 0.5 inches long. 'Tradewinds' respond to several PGR regimes. In PGR trials, the highest quality plants produced were treated with 1-2 ppm Bonzi drench. Other acceptable treatments included 1000 ppm Cycocel drench or a tank mix of 500 ppm Cycocel /1500 ppm B-Nine applied as a spray. Do not apply after buds are visible. Late applications may deform blooms. Excessive Cycocel can cause irreversible yellowing of the foliage.

**Common Pests:** Aphids, fungus gnats, whitefly, thrips, spider mites, caterpillars, leafminer.

**Common Diseases:** Botrytis, Powdery Mildew, Phytophthora, Verticillium, Root Rots, INSV, TSWV, Fusarium oxysporum

## SCHEDULING

Winter Production is generally April 1 - September 30

Rooted to 10cm finish: 6-7 wks; 1 plant per pot

Rooted to 15cm finish: 7-8 wks; 1 - 3 plants per pot

Rooted to 25cm basket finish: 12-14 wks; 3-4 plants per pot

Rooted to 30cm basket finish: 13-15 wks; 5-6 plants per pot

## GARDEN PERFORMANCE

Garden Height: 40-50cm

Garden Width: 40-50cm

