

ANNUAL

## PROPAGATION

# VERBENA EMPRESS™ SUN

*Verbena x hybrida*



### TRAY & ROOTING

Form	<b>Vegetative Cutting (URC)</b>
Rooting Hormone?	<b>No</b>
Tray Size	<b>50, 72, 84, 105</b>
Plants Per Cell	<b>1</b>
Days In Mist	<b>4-6</b>
Wks. From Stick To Transplant	<b>3-4</b>
Propagation Pinch?	<b>Yes</b>
Weeks To Pinch	<b>3</b>

### FERTILITY

Fertilize Through Mist?	<b>None</b>
Fertilizer Rate	<b>100-150ppm N</b>
EC Range	<b>Moderate: (2.0-3.5 mS via SME)</b>
pH Range	<b>5.6-6.2</b>

### TEMPERATURE

Average Soil Temp	<b>72-75°F (22-24°C)</b>
Average Air Temp (Day)	<b>75-80°F (24-27°C)</b>
Average Air Temp(Night)	<b>68-72°F (20-22°C)</b>

### IRRIGATION

Irrigation Frequency	<b>Level 3: Keep media moderately moist with mild dry cycles</b>
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### LIGHT

Daylength Neutral?	<b>Yes</b>
Supplemental	<b>Optional</b>
Benefits From Shade?	<b>No</b>

### POTENTIAL DISEASES

Botrytis, Rhizoctonia, Powdery Mildew

### POTENTIAL PESTS

Spider Mites, Thrips, Whitefly

### PGR SUGGESTIONS

- B-Nine (85% Daminozide) at 500ppm can be applied to control stretch. The applications can be applied beginning 1 week after sticking.
- B-Nine (85% Daminozide) at 1500ppm + Florel (3.9% Ethephon) at 500ppm tank mix

### CULTIVAR LIST

Cherry, Red, Violet, Lavender Charm, Pink, White, Compact Red, Compact Violet, Compact White



### TIPS

- Mist until roots begin to push into medium. Excessive misting can result in disease and nutrient leaching.
- Ensure light levels are at no less than 1,000-2,000 fc (10,500-21,500 lux) during rooting. After cuttings have established roots, increase light levels to 2,500-4,500 fc (27,000-48,500 lux) minimum.

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FINISHING

# VERBENA EMPRESS™ SUN

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## CONTAINER SIZE PLANTS PER POT TRANSPLANT TO FINISH (WEEKS)

**4 in. (10 cm) and up 1 4-8**

**6 in. (15 cm) and up 2-3 5-9**

**10 in. (22 cm) and up 3-5 7-10**

## FERTILITY

Fertilizer Rate **150-200 ppm N**

EC Range **Moderate: (2.0-3.5 mS via SME)**

pH Range **5.8-6.3**

## TEMPERATURE

Day Temperature **73-80°F (23-27°C)**

Night Temperature **60-68°F (16-20°C)**

## IRRIGATION

Irrigation Frequency **Level 3: Keep media moderately moist with mild dry cycles**

## LIGHT

Daylength Neutral? **Yes**

Optimum Light Level **5,000-8,000 fc (53,800-86,100 lux)**

Supplemental **None**

Benefits From Shade? **No**

## PINCHING

Finishing Pinch? **Yes**

Transplant to Pinch (days) **7-14**

## POTENTIAL DISEASES

Botrytis, Rhizoctonia, Powdery Mildew

## POTENTIAL PESTS

Spider Mites, Thrips, Whitefly

## PGR SUGGESTIONS

- Florel (3.9% Ethephon) spray at 300-500ppm and B-Nine (85% Daminozide) at 1500 to 2500ppm tank mix applied 1- 2 weeks after transplant will promote branching and can replace pinching. Additional applications can be made but delay flowering.
- B-Nine (85% Daminozide) at 2500ppm can be used to reduce plant stretch. Verbena also responds to negative DIF.



'Pink'

## TIPS

- Excess phosphorus-containing fertilizer may cause soft growth and internode stretch.
- A hard Pinch (above the 4th or 5th set of leaves) once plant roots reach the edge of the finished container will promote basal branching. Additional pinching will improve plant fullness.

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## FEATURES AND BENEFITS

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### KEY INFORMATION

Primary Common Name	<b>Verbena</b>
Consumer Watering Instructions	<b>Water thoroughly when top 1 inch (3cm) of soil is dry.</b>
Bloom Time	<b>Blooms Spring to Autumn</b>
Exposure	<b>Full Sun to Part Sun</b>
Height	<b>8-12 inches (20-30 cm)</b>
Garden Spacing	<b>24-36 inches (61-91 cm)</b>

### DESCRIPTION

Introducing Empress Sun Verbena from Dümmen Orange. Developed to fill the landscape Verbena niche, these vigorous growers feature early flowering, near-perfect uniformity, a reduced cyclical blooming pattern, and impressive heat, humidity, and mildew tolerance.

### CONSUMER APPEAL

- Trialed at over eight North American locations in 2016 with excellent results, this new Verbena line is an unmistakable win for growers, retailers, and consumers alike.
- Verbena not only attract butterflies and hummingbirds, but are deer and rabbit resistant as well!
- Highly resistant to powdery mildew.

### GARDEN ATTRIBUTES

- Perfectly suited for landscape applications. This Verbena will go-the-distance during hot, unforgiving summer months.
- Can be grown in a wide range of soil conditions though prefers fertile, consistently moist, well drained soils.
- Verbena blooms almost nonstop from spring to fall and require only a small amount of attention from gardeners.

### NATIVITY

Of hybrid origin: Parental lineages native to North America and Asia.



'Violet'



'Red'

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