

## Echinacea Sombrero™

(*Echinacea x hybrida*)

### Propagation

Currently available only as rooted liners.

### Growing On to Finish

#### Media

- Use media with good aeration and drainage.
- Prefers a well-drained media that is high in organic matter.
- A pH of 5.8 to 6.2 is optimum.

#### Temperature

- Nights: 55 to 60°F (13 to 16°C)
- Days: 60 to 65°F (16 to 18°C)
- Temperatures below those recommended will slow plant growth significantly.
- An average daily temperature of 60 to 65°F (16 to 18°C) is optimal, but plants will tolerate a wide range of temperatures.
- Vernalization not required for flowering.

#### Light

- Will perform best under moderate to high light levels of 3,000 to 5,000 f.c. (30,000 to 50,000 Lux).
- Plants will flower naturally in mid- to late-June. Extended day lighting of 14 hours can be used to flower plants earlier.
- Best plant quality and flower color will be achieved when grown outdoors in full sun.

#### Watering

- The media should be allowed to dry moderately between watering and never saturated. However, plants should not be allowed to wilt at any time, particularly when flower stems are elongating.
- Leach regularly to avoid the buildup of high soluble salt levels.

#### Fertilizer

Use a balanced fertilizer at a rate of 150 to 175 ppm. Periodic use of a calcium-based fertilizer should help optimize the nutrient levels.

#### Pinching

Sombrero Echinacea are naturally well-branched and do not require pinching.

#### Controlling Growth

Under most conditions, will not require growth regulator treatments.

#### Common Problems

**Insects:** Low sensitivity, watch for aphids

**Diseases:** Sombrero Echinacea have low sensitivity to disease. Watch for Leafhopper populations. Leafhoppers spread the viroid disease Aster Yellows. All Echinacea are sensitive to this disease.

#### Key Tips

Unlike other Echinacea, Sombrero Echinacea will bulk and flower well when grown under long days, making this an ideal companion to Fall mum programs. Plant between Week 22 and Week 28 for flowering 8 to 10 weeks later. Spring planting for Spring/Summer finishing is recommended.

**Problem:** Winter plant loss

**Causes:** Planting too deep, keeping media wet during Winter growing. Spring planting is highly recommended to avoid this problem.

**Problem:** Excessive vegetative growth and lack of flowers

**Causes:** Excessive ammonium-based fertilizer; Over-fertilization under low light conditions; Low light and over-watering; saturated media; Low pH and/or media calcium levels

**Problem:** Yellowing of older foliage

**Causes:** Saturated media, excessive drought

**Problem:** Foliage necrosis

**Causes:** High soluble salts in media; Excessive water stress

**Problem:** Excessive plant height

**Causes:** Low light conditions

#### Crop Schedule & Uses

(Crop Schedule in Weeks – Spring planting is recommended for this crop. Plants can be Fall-planted in temperate climates. Finished plants should be established prior to Week 45 for best results when

Fall-planted.) Plants finish more quickly during Summer months. Typical 1 to 3-gallon finish times in Summer are 8 to 10 weeks.

**1 PPP\* 1-qt. (10-cm) pot**  
**Rooted cutting** Not Recommended

**1 PPP\* 1-gal. (15-cm) pot**  
**Rooted cutting** 12 - 14 weeks

**3 PPP\* no pinch, 1 PPP\* pinched 2 to 3-gal. (25 to 30-cm) pot**  
**Rooted cutting** 12 - 14 weeks for non-pinched

\*PPP: Plants per pot or basket

