



Osteospermum



Asti™

OSTEOSPERMUM ECKLONIS

Minimum Germination Rate: 85%

Seed Product Form: Raw

FLOWERING

Time frame when plants are receptive to flower initiation: Days 21 – 28 days; 4 – 6 leaves present.

Flowering Type: Day-neutral plant – will flower regardless of daylength.

Specific Flowering Mechanism: Maturity of plants, cool nights and high irradiance will promote more flowers per plant.

PLUG CULTURE

Germination: Optimum conditions for seedling development that begins the day the crop is sown until cotyledon expansion. Expect radicle emergence in 8 – 12 days.

Cover: Cover seeds with a thin layer of medium sized vermiculite to maintain moisture levels.

Media: • pH: 5.8 – 6.2
• EC: <1

Light: Light is not necessary for germination. If utilizing a chamber, providing a light source of 10 – 100 foot candles (100 – 1,000 lux) will improve germination and reduce stretch compared to seed germinated in the dark.

Temperature: 68° – 70°F (21° – 22°) day and night from day 1 until day 8 – 12, or when cotyledons appear.

Moisture: Begin with a saturated (5), days 1 – 4 days. On day 5, drop to moisture level wet (4) until day 8. Afterward, begin alternating between moisture levels wet (4) to medium (2).

Humidity: 100% until day 9.

Dehumidify: On day 10, lower humidity level to 40%. Provide horizontal airflow to aid in drying down the media through evapotranspiration, allowing better penetration of oxygen to the roots.

Fertilizers: None

Plug Bulking/Flower Initiation: Optimum conditions during the vegetative period, beginning at cotyledon expansion, needed for the root to reach the edge of the plug cell AND to make the plant receptive to flower initiation.

Media: • pH: 5.8 – 6.2
• EC: 1 – 1.2

Light: Supplemental light at 350 – 500 foot candles (3,500 – 5,000 lux) for a daily total of 3,500 foot candles (35,000 lux) will enhance root and shoot growth.

Temperature: 65° – 68°F (18° – 20°C) from day 13 – 21. Then 65° – 67°F (18° – 19°C) night temperature and 62° – 64°F (17° – 18°C) day temperature.

Average Daily Temperature (ADT): 65°F (18°C)

Moisture: Alternate between moisture levels wet (4) and (2) moist. Allow media to approach level (3) before re-saturating to level (4). Watch for excess algae growth. Using R/O (Reverse Osmosis) water will help reduce algae levels.

Fertilizers: Under high light conditions, apply an ammonium-based feed (17-5-17) at 75 – 100 ppm nitrogen. Under low light conditions, apply a calcium-based feed (14-4-14) at 75 – 100 ppm nitrogen.

Growth Regulators: Control growth with light, temperature, moisture and fertilizer levels.

Note: These suggestions are only guidelines and may have to be altered to meet individual grower's needs. Check all chemical labels to verify registration for use in your region.

GROWING ON

Transplant Ready: 3 – 4 weeks from a '288' plug tray; 5 weeks in a '128' tray.

Finish Bulking/Flower Initiation: Optimum conditions during the vegetative period, beginning at transplant, needed for the root to reach the edge of the container AND to make the plant receptive to flower initiation.

Media: • pH: 5.8 – 6.2
• EC: 1.5 – 1.75

Light: Provide 3,500 – 4,500 foot candles (12 – 15 total mols or 35,000 – 45,000 lux) to hasten flower development.

Temperature: Days 61° – 68°F (16° – 21°C); nights 52° – 61°F (11° – 16°C).

Average Daily Temperature (ADT): 60°F (16°C)

Moisture: Alternate between moisture levels wet (4), and medium (2). Allow media to approach level (2) before re-saturating to level (4).

Humidity: 40 – 70%

Dehumidify: Provide horizontal airflow to aid in drying down the media through evapotranspiration, allowing better penetration of oxygen to the roots.

Fertilizers: Under high light conditions, apply an ammonium-based feed (17-5-17) at 125 – 175 ppm nitrogen. Under low light conditions, apply a calcium-based feed (14-4-14) at 125 – 175 ppm nitrogen.

Growth Regulators: An application of B-Nine at low rates to plugs will help avoid hypocotyl stretch. If grown cool, PGRs should not be necessary after transplant. B-Nine (daminozide) at 2,500 – 5,000 ppm may be applied if desired. Cycocel (chlormequat chloride) at 750 – 1,000 ppm may also be applied.

Pinch: No pinch is necessary during spring production under cool low light conditions since this will delay flowering. For fall production under high light and high temperature a pinch can be beneficial to increase branching. In areas with high night temperature, consider finishing later in the fall.

TECHNIQUES TO ENHANCE POST HARVEST QUALITY

When to Treat: 1 – 2 weeks prior to finish or shipping.

Growth Regulators: B-Nine (daminozide) at 2,500 – 3,000 ppm if needed.

Fertilizer: Potassium nitrate drench at 150 ppm nitrogen.

Common Diseases: Pythium, Rhizoctonia, Phytophthora, Botrytis. To reduce disease pressure, provide good air circulation and keep humidity levels at 40 – 50%. Keep foliage dry going into night-time hours. Apply appropriate fungicides as needed according to label rates.

Common Pests: Fungus Gnats, Shore Flies, Thrips, Aphids. Scout plants on a regular basis and apply appropriate pesticides according to label rates.

PRODUCT USE	GARDEN SPECIFICATIONS
Containers, combinations, blooming potted plant	Light: Full sun USDA Hardiness Zone: 10 AHS Heat Zone: 6 – 1

	Garden Height	Garden Width
Asti	17 – 20" (43 – 50 cm)	17 – 20" (43 – 50 cm)

OSTEOSPERMUM SCHEDULING IN WEEKS

	Asti
Total crop time	14 – 18 weeks depending on the time of year
'288' plug crop time	4
'128' plug crop time	5
Transplant to finish crop time	
4" crop	10 – 14 (9 – 10 from a '128' size plug)
6" crop	12 – 15