



Atlantis™

SCHIZANTHUS X WISETONENSIS

Minimum Germination Rate: 75%

Seed Product Form: Raw

FLOWERING

Flowering Mechanism: Obligate long plant – days > 12 hours are necessary for flower initiation.

Time frame when plants are receptive to flower initiation: 1–2 weeks after transplanting allowing plants to bulk before initiation.

PLUG CULTURE

The timing approximations are based on optimal culture recommendations below:

Germination 1 (approximately day 7 – 14): From the time a seed is sown until radicle emergence takes place; usually with the root penetrating the media and some cotyledon development. Humidity in the air is 95 – 98% (humidification); media moisture 3.

Cover: Seeds may be covered lightly with a light layer of coarse vermiculite to maintain optimum moisture levels.

Media: pH: 5.8 – 6.2. EC: 0.25 – 0.5 Avoid media compaction to allow for root penetration.

Light: No light is needed for germination.

Moisture: Moist (3) important to keep soil moist but not wet (4).

Humidity: 100% until radical emerges then lower to 40%-70%.

Temperature: 62° – 65°F (17° – 19°C) 7-14 days.

Fertilizers: 14-4-14 or 17-5-17 at 50-70 ppm. Maintain EC of 0.25 – 0.50.

Germination 2 (approximately day 7 – 14): From the time cotyledon is observed until it is fully expanded. The roots have expanded throughout the media. Dehumidify from 98% to 50% in the air. Media moisture needs to be moist (3) at this stage.

Media: pH: 5.8 – 6.2. EC: 0.25 – 0.50

Light: Keep plugs under short days to prevent premature flowering. 2,000 – 3,000 foot candles (20,000 – 30,000 lux); 6 – 10 mols of light.

Moisture: Moist (3) and alternate to medium (2.5) within 18 hours at radicle emergence (approximately day 8).

Dehumidify: Lower relative humidity to 40% (approximately day 14). Provide horizontal airflow to aid in drying down the media through evapotranspiration, allowing better penetration of oxygen to the roots.

Temperature: Once cotyledons are observed, continue to maintain temperatures of 62° – 65°F (17° – 19°C).

Fertilizers: 14-4-14 or 17-5-17 at 50 – 70 ppm nitrogen then can be increased to 70 – 100 ppm once true leaves appear as needed for an EC in the soil of 0.5 – 1.

Fungicides: Plants may become susceptible to Botrytis under humid conditions but no preventative fungicides are recommended.

Plug Bulking/Flower Initiation: The time it takes for the shoots to proportionately fill the plug cell and for roots to develop throughout the media. Flower initiation is not recommended for Schizanthus until two weeks after transplant.

Media: pH: 5.8 – 6.2. EC: 1 – 1.2

Light: 3,500 – 5,500 foot candles (35,000 – 55,000 lux); 12 – 20 mols of light. Keep plants under short days to prevent premature flowering

Temperature: 62° – 65°F (17° – 19°C)

Moisture: Alternate between moisture levels moist (3) to medium (2.5). Allow the soil to approach medium (2.5), before re-saturating to moist (3). If media is allowed to dry back further than (2.5) may cause burning and foliage loss.

Fertilizers: 14-4-14 or 17-5-17 at 75 – 125 ppm nitrogen, as needed for an EC in the soil of 1 – 1.2.

Growth Regulators: If needed, spray B-Nine (daminozide) at 1,500 – 2,500 ppm.

Fungicides: None recommended; watch for Botrytis in humid conditions.

Initiated Bulking: Seedlings develop from juvenile to mature.

Light: Provide 4,750 – 7,500 foot candles (47,500 – 75,000 lux) or 17 – 28 mols of light continue to keep plugs under short days to prevent premature flowering.

Temperature: 62° – 65°F (17° – 19°C)

Fertilizers: 14-4-14 or 17-5-17 at 75 – 125 ppm nitrogen, as needed for an EC in the soil of 1 – 1.2.

GROWING ON

The timing approximations are based on optimal culture recommendations below:

Transplant to Finish: Optimize plant shoot and root growth, which is usually a 1:1 ratio.

Media: pH: 5.8 – 6.2. EC: 1.1 – 1.3

Light: Plants should be grown in full sunlight. If weather conditions are poor, additional lighting will improve quality of plants. Plants should be bulked in the finish container under short days 1 – 2 weeks and then day length can be extended to 14 hours per day until flowering begins.

Temperature: 60° – 63°F (16° – 17°C) days and 55° – 58°F (12.5° – 13.5°C) nights.

Moisture: Alternate between moisture levels moist (3) and medium (2.5). Allow media to approach level (2.5) before re-saturating to moist (3). Overwatering will create a larger but soft plant prone to Botrytis and soft rots. Underwatering will produce small plants with yellow lower leaves or leaf-tip burn.

Humidity: 40%

Fertilizers: 14-4-14 or 17-5-17 at 125 – 150 ppm, as needed for an EC in the soil of 1.1 – 1.3. Underfeeding will cause irreversible lower leaf yellowing.

Growth Regulators: B-Nine (daminozide) 1,500 – 3,000ppm or A-Rest (ancymidol) at 1 – 2 ppm. Plant growth regulators are generally not needed when plants are grown under the recommended temperatures.

Fungicides: Sub-irrigation or drip watering will help prevent disease due to the dense foliage in the finished product.

TECHNIQUES TO ENHANCE POST HARVEST QUALITY

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

Growth Regulators: Not required if plants are grown at temperatures recommended.

Fertilizer: Potassium nitrate drench at 150 ppm nitrogen.

Common Diseases: Botrytis. Monitor moisture and humidity levels.

Common Pests: Thrips, Whitefly and Aphids. Use pesticides according to label directions.

PRODUCT USE	GARDEN SPECIFICATIONS
Pots, containers, mass plantings	Light: Full sun USDA Hardiness Zone: 11 AHS Heat Zone: Unknown

	Garden Height	Garden Width
Atlantis	8 – 10" (20 – 25 cm)	8 – 10" (20 – 25 cm)

SCHIZANTHUS SCHEDULING IN WEEKS

	Atlantis
Total crop time	12 – 14
'128' plug crop time	6 – 7
'200' plug crop time	5 – 6
'288' plug crop time	4 – 5
Transplant to finish crop time	
4" crop	7 – 9, depending on number of plugs transplanted
5" crop	8 – 10, depending on number of plugs transplanted

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.