GrowerFacts

African Marigold Taishan®

(*Tagetes erecta*)

Germination

Media
Use a well-drained, disease-free soilless medium with a pH of 5.5 to 6.2, and a medium initial nutrient charge (EC less than 0.75 mmhos/cm with a 2:1 extraction).

Sowing
Plug Tray Size: Can be produced in 200, 288 or similar cell-size plug trays.

In northwestern Europe: Taishan can be produced in 480 or 264 cell-size plug trays.
Cover the seed with a medium layer of vermiculite at sowing.

Germination takes approximately 2 to 3 days.

Temperature: 70 to 72°F (21 to 22°C)

Light: Light is not required for germination.

Moisture: Keep soil wet (level 4) during Stage 1.

Humidity: Maintain 95 to 97% relative humidity (RH) until radicle emergence.

Plug Production

Media
Use a well-drained, disease-free soilless medium with a pH of 5.5 to 6.2, and a medium initial nutrient charge (EC less than 0.75 mmhos/cm with a 2:1 extraction).

Sowing
Plug Tray Size: Can be produced in 200, 288 or similar cell-size plug trays.

In northwestern Europe: Taishan can be produced in 480 or 264 cell-size plug trays.
Cover the seed with a medium layer of vermiculite at sowing.

Stage 1 – Germination takes approximately 2 to 3 days.

Germination temperature: 68 to 72°F (20 to 22°C)

Light: Light is not required for germination.

Moisture: Keep soil wet (level 4) during Stage 1.

Humidity: Maintain 95 to 97% relative humidity (RH) until radicle emergence.

Stage 2
Temperature: 70 to 75°F (21 to 24°C) days; 60 to 65° F (16 to 18°C) nights

Light: Can be up to 2,500 f.c. (26,900 Lux) during Stage 2.

Moisture: Keep the media medium (level 3) to medium wet (level 4).

Fertilizer: Apply fertilizer at rate 1 (less than 100 ppm N/less than 0.7 mS/cm EC) with a nitrate-form fertilizer with low phosphorous.

Stage 3

Temperature: 70 to 75°F (21 to 24°C) days; 60 to 65° F (16 to 18°C) nights

Light: Up to 2,500 f.c. (26,900 Lux)

Moisture: Keep the media medium wet (level 3) during Stage 3.

Fertilizer: Increase the fertilizer rate to level 2 (100 to 175 ppm N/0.7 to 1.2 mS/cm EC). Maintain a media pH of 5.8 to 6.2 and EC at 0.7 to 1.0 mS/cm (1:2 extraction).

Stage 4
Temperature: 65 to 70°F (18 to 21°C) days; 60 to 65° F (16 to 18°C) nights

Light: Light levels can be up to 5,000 f.c. (53,800 Lux) if temperatures can be maintained.

Moisture: Same as Stage 3.

Fertilizer: Same as Stage 3.

Growth Regulators: Generally not required during plug production. Do not hold the plugs too long – transplant them on time.

Growing On to Finish

Container Size
306 packs & 1801 flats: 1 plant per cell

4 to 4.5-in. (10 to 11-cm) pots: 1 plant per pot

Media
Use a well-drained, disease-free media with a pH of 5.8 to 6.5 and a medium initial nutrient charge.

Temperature
Night: 60-62°F (16-17°C)

Day: 65-68°F (18-20°C)
Can be grown at moderate temperatures, minimum temperature 54°F (12°C).

Light: Keep light levels as high as possible while maintaining appropriate temperatures.

Irrigation
Maintain optimal media moisture (not too wet or not too dry).

Fertilizer
Starting 1 week after transplant, apply fertilizer at rate 3 (175 to 225 ppm N/1.2 to 1.5 mS/cm) using predominantly nitrate-form fertilizer with low phosphorus. Maintain the media EC at 1.50 to 2.00 mS/cm and pH at 6.2 to 6.5. For constant fertilizer program, can apply fertilizer at rate 2 (100 to 175 ppm N/0.7 to 1.2 mS/cm) while maintaining the above recommended EC and pH ranges.

Plant Growth Regulators
PGRs are not required when grown under short days, since plants will finish naturally shorter. Taishan can be treated with PGRs when grown under long days. B-Nine/Alar (daminozide) at 5,000 ppm (5.9 g/l 85% formulation or 7.8 g/l of 64% formulation) applied twice as a foliar spray can control the plant growth.

In northwestern Europe: Can use B-Nine/Alar (daminozide) at 1,300 to 2,000 ppm (1.6 to 2.4 g/l 85% formulation or 2 to 3.1 g/l of 64% formulation).

Photoperiod
Taishan is a facultative short-day plant and the critical daylength is about 12 hours, i.e. it will flower quicker when the daylength is 12 hours or shorter. When grown at daylength longer than 12 hours, it will take an additional 10 to 14 days to flower.

Crop Scheduling
Sow to transplant: Approximately 3 weeks.

Transplant to flower: 4 to 6 weeks in Spring, 6 to 7 weeks in Summer.

Total crop time (sow to flower): 7 to 9 weeks in Spring, 9 to 10 weeks in Summer.

In northwestern Europe: Crop time during early (cool) season can be 11 weeks from sow.

Common Problems
Insects: Monitor for Aphids early in production, and for Thrips and Mites during flowering.

Note: Growers should use the information presented here as a starting point. Crop times will vary depending on the climate, location, time of year and greenhouse environmental conditions. Chemical and PGR recommendations are only guidelines. It is the responsibility of the applicator to read and follow all the current label directions for the specific chemical being used in accordance with all regulations

Green Thumb Tips

Garden and Landscape Information

- Taishan offers strong branching for superior landscape performance
- Produces large flowers that hold doubleness well.
- Plant in full sun.
- Space plants 8 to 10 in. (20 to 25 cm) apart in well-drained soil.
- Reaches 10 to 12 in. (25 to 30 cm) tall.

Ball

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