

African Marigold Vanilla

(*Tagetes erecta*)

Germination

Seed Count: 9,000-10,000 S/oz. (317-352 S/g)

Plug Tray Size

Can be best produced in a 288, 200 or a similar cell size plug tray.

Media

Use a well-drained, disease-free, soilless medium with a pH of 6.2 to 6.5 and a medium initial nutrient charge (EC) of 0.75 mmhos/cm (1:2 extraction).

Sowing

Cover the seed with coarse vermiculite. Allow 3 to 4 days for germination.

Temperature

Germination: 70 to 72°F (21 to 22°C)

Cotyledon stage: 65 to 72°F (18 to 22°C)

True leaves: 65 to 70°F (18 to 21°C)

Hold plugs: 65 to 68°F (18 to 20°C)

Light

Stage 1: Light is not required for germination

After germination: 1,000 to 2,500 f.c. (10,600 to 26,500 Lux)

Seedling maturity: Up to 3,000 f.c. (31,800 Lux)

Humidity

Maintain 95% relative humidity (RH) until cotyledons emerge.

Soil Moisture

Keep soil moisture high until radicle emergence, then reduce moisture levels after the radicle penetrates the medium. Do not allow seedlings to wilt.

Plug Production

Fertilizer

Stages 2 & 3: Apply 50 to 75 ppm N, maintaining an EC of 1.0.

Stage 4: Apply 100 to 150 ppm N, maintaining an EC of 1.0 to 1.5. Maintain pH in the range of 6.0 to 6.5.

Growth Regulators

PGRs are not required.

Growing On to Finish

Container Size

Can be produced in 4.5-in. (11-cm) or similar size containers.

Media

Use a well-drained, disease-free, soilless medium with a pH of 6.2 to 6.5 and a medium initial nutrient charge.

Temperature

Nights: 60 to 62°F (15 to 17°C)

Days: 65 to 68°F (18 to 20°C)

Light

Keep light levels from moderate to high.

Irrigation

Maintain even moisture. Do not allow plants to wilt.

Fertilizer

Feed plants weekly with 150 to 200 ppm N with a complete fertilizer. Maintain the media EC at 1.5 to 2.0 mmhos/cm and pH at 6.2 to 6.5.

Growth Regulators

PGRs are not required.

Crop Scheduling

Sow to transplant (288 cell plug tray): 3 weeks

Transplant to finish in 4.5 (11 cm) pot: 7 to 8 weeks

Total crop (sow to flower): 10 to 11 weeks

Common Problems

Diseases: Damping off in the seedling stage

Insects: Aphids, mites, whitefly

