

Interspecific Marigold Endurance™ Culture Guide

F1 Tagetes triploid

Product form: Seed

Containers: Large Packs, Pints, Quarts, Gallons

Habit: Mounded

Garden Specifications

Garden Height: 14" (35 cm) tall

Garden Width: 14" (35 cm) wide

Exposure: Full sun

USDA zone: 10

AHS zone: 12-1

Product use: Containers, Landscapes, Patio Pots, Combos

Germination

Stages 1 & 2

Germination time: 3-5 days

Media temp: 68-72 °F (20-22 °C)

Chamber: Optional

Light: Not required for germination

Seed cover: Yes

Moisture level: 5 - SATURATED: Soil is dark brown and shiny, free water is present at the surface of the soil, water drips freely from the bottom of the tray, and trays are heavy with a visible bend in the middle.

Rec. Tray size: 288-cell tray

Seeds per cell: 1

Young Plant Production

Stage 3 & 4

Temperature

Day: 66-68 °F (19-20 °C)

Night: 66-68 °F (19-20 °C)

Average daily temperature: 67 °F (19 °C)

Lighting

Day extension lighting: Not necessary

Light intensity: 2,000-2,500 foot candles (400-500 micro mols)

Day length response: Facultative short day

Day light integral: 10-12 mols/day

Media pH: 5.8-6.2

Media EC: SME 0.5 to 0.75 mS/cm

Fertilizer: 75-125 ppm N

Moisture level: Media should be allowed to dry between irrigations. Alternate between moisture level 2 and 4.

2 - MEDIUM: Soil is light brown in color, no water can be extracted from soil, and soil will crumble apart.

4 - WET: Soil is dark brown but not shiny, no free water is seen at the surface of the soil, when pressed or squeezed water drips easily, and trays are heavy with a visible bend in the middle.

Pinching: No

Plant growth regulators (PGRs): Usually not needed. If necessary spray with B-Nine® WSG at 1,500-2,500 ppm to control stem elongation.



Endurance™ Orange

Plug grow time: 3–4 weeks in a 288-cell tray

Comments: Very easy to germinate on the bench. If seedlings get stretched, they can be planted deep at transplanting and new roots will form along the stems. Do not hold too long in the plug tray or stress-induced flowering may occur and plants will flower before bulking up to a satisfactory size.

Finishing

Temperature

Day: 66–68 °F (19–20 °C)

Night: 62–64 °F (17–18 °C)

Average daily temperature: 65 °F (18 °C)

Lighting

Day extension lighting: Not necessary

Light intensity: 4,000–6,000 foot candles

Day length response: Facultative short day

Day light integral: 12–14 mols/day

Transplanting: Transplant directly into the finished container. Place the rooting media slightly below the level of media in the container. Make sure that the root ball is covered and that the plug is situated in the center of the pot.

Media pH: 6.1–6.5

Media EC: SME EC: 1.5–2.1 mS/cm, PourThru EC: 2.3–3.2 mS/cm

Fertilizer: 125–175 ppm N

Pinching: No. Pinching is not recommended or needed.

Plant growth regulators (PGRs): Usually not required, especially when finished during short days. If necessary under low light or high temperature/humidity conditions, spray with B-Nine® WSG at 2,500–5,000 ppm before buds are wider than 1 cm (pea size). Later PGR sprays may reduce flower size or cause flowering in the foliage.

Tech tip: To avoid iron and/or manganese toxicity, monitor and maintain media pH above 6.1. If plugs are stretched plant them deep (up to the cotyledons is OK) to prevent floppiness.



Try Chrysal Alesco®, a postharvest foliar spray, to protect ethylene sensitive crops during shipping and retail.

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Common pests: Aphids, Whiteflies, Thrips, Spider mites, Leafminers

Common diseases: Pythium, Botrytis, Bacterial leaf spot, Alternaria leaf spot

Scheduling

SIZE	CROP TIME	PLANTS PER POT
Large Packs	4–5 weeks	1 ppp
1.0 pint (4 inch)	4–5 weeks	1 ppp
1.0 quart (4.5 to 5 inch)	5–6 weeks	1 ppp
1.25 to 2.5 quart (5.5 to 6.5 inch, trade gallon)	5–6 weeks	2–3 ppp

Estimated finish crop time is from transplant of a 288-cell tray and finished at an average daily temperature (ADT) of 65 °F (18 °C).

Example crop schedule for a 1.0 quart

WEEKS FROM TRANSPLANT	DESCRIPTION
2 weeks	Check media pH and adjust if under 6.1
2 weeks	Ready to ship



Endurance™ Sunset Gold

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