



Crop	Marigold
Series	Proud Mari
Botanical name	<i>Tagetes erecta</i>
Plant type	Annual
Seed type	De-tailed
Seed count	250-400 seeds/gr
Germination	20-25°C - 5 days light favored
Growing	18-25°C
Optimum pH	5.8-6.2

Plug Culture: 4 weeks (288 cell tray)

Stage 1 (days 1-5) Select a well-drained media with good drainage. African Marigold is sensitive to iron toxicity at a pH below 5.8, characterized by lower yellow leaves with edge browning / burning. Providing light will improve germination. Optimum soil temperature is 22-24°C.

Stage 2 (days 6-10) Marigolds germinate quickly. After emergence place the plug trays in a well-ventilated greenhouse. Reduce moisture and maintain a day temperature of 21°C and a night temperature of 18°C. A light application of fertilizer at 75-100 ppm of nitrogen will greatly benefit in helping to establish strong and healthy seedlings.

NOTE: African Marigold is an obligate short-day plant. Provide long day conditions (> 14 hours) in the seedling stage to prevent pre-mature flower bud initiation.

Stage 3 (days 11-21) Fertilize at 100-150 ppm nitrogen at least once a week. Watering just before wilt is recommended to avoid lush growth. One should water thoroughly to prevent high salts. Watering early in the morning allows the foliage to dry thoroughly and prevents potential disease problems. If necessary, one can apply daminozide at 2,500 ppm's to check growth 15-17 days after sowing.

Stage 4 (days 21-28) African Marigolds develop rapidly and are often ready to transplant after three weeks, (depending upon the plug cell size used). One can drop the air temperature to 17°C to hold plug trays for a few days. Avoid temperatures below 16°C as this will invite disease problems. Do not delay transplanting.

Transplanting to finish: 6-8 weeks

Container Size: Proud Mari is a dwarf variety with strong basal branching and can be grown and sold in 12cm pot and landscaping.

Media: Peat-lite mixes work well at a soil pH of 6.2-6.5.

Temperature: Optimum day temperature is 18-21°C with nights between 13-18°C. High temperatures (>27°C) promotes a reduction in flower size.

Fertilizer: Weekly applications of 150-200 ppm nitrogen using a well-balanced calcium nitrate based fertilizer produce plants of high quality. Alternating with 20-5-20 or as needed works well to balance the pH. As mentioned earlier, African Marigold is an iron efficient plant and requires a pH above 6.0 to guard against iron toxicity.

Flowering: Marigold Proud Mari is sensitive to photoperiod, although less so than other African Marigolds. For earlier flowering direct sow in a 50 plug tray and apply short days (9 hours of light) for two weeks starting on day 21.

Disease: alternaria, blight, botrytis, leaf spot, pythium, root rot

Pests: aphid, leaf miner, spider mite, thrip, whitefly

Scheduling:

Container	Weeks from Sow	Comment
10 cm	10-12 weeks	1 plant per pot
15 cm	10-12 weeks	3 plant per pot

Garden Height: Plants ultimately will reach 25-30 cm tall by 25-30 cm wide.

All information given is intended for general guidance only and may have to be adjusted to meet individual needs. Cultural details are based on Asian conditions such as in Japan and Sakata cannot be held responsible for any crop damage related to the information given herein. Always follow manufacturer's label instructions. Testing a few plants prior to treating the entire crop is best.