



MARIGOLDS

(*Tagetes erecta*)
for the

FARMER FLORIST



Tagetes erecta are known as African marigolds. Members of the family Asteraceae, they are related to daisies and sunflowers. Flowers range from 2 to 5 inches in diameter and can be single (daisy-shaped) or, more usually, double (carnation-shaped). The cultivars are mainly yellow or orange, although more colors, such as bronze, white, and lime, have been released.

Production

Marigolds are an annual summer crop, although they can be started in spring or extended into fall in a high tunnel. If they are directly sown outdoors, marigolds germinate in 4–7 days at 75–80°F. When starting with transplants, sow seeds indoors into a 288- or 384-plug tray 4 weeks before last frost. Lightly cover the seed with coarse vermiculite. Keep the soil surface moist until emergence, and then let the soil dry between watering.

Transplant to cell packs when true leaves appear, and fertilize weekly with 100–150 ppm 14-0-14. Harden off and transplant outside when the danger of frost has passed. Marigolds require average soil with moderate fertility. Be careful not to overfertilize! Space plants at 12–18 inches within and between rows.

Marigolds perform best in full sun; however, high temperatures at the peak of summer in July and August can cause plants to stall and temporarily decline in growth and bloom. Deadhead regularly to increase blooms.

Weeds compete for water, nutrients, and light, resulting in reduced flower yield and increased threat of serious insect and disease problems. A successful weed management program uses cultural practices, such as cultivation and mulching, or a combination of cultural and chemical measures, taking into consideration labor costs and the cost and availability of materials. Potentially useful herbicides include Dacthal, Fusilade, Betasan, Treflan, metolachlor, and Poast.

When employing chemical measures, it is the user's responsibility to follow label instructions. Herbicide labels can be obtained from these websites:

- www.cdms.net
- www.bluebooktor.com/index.html
- www.greenbook.net

Review labels before purchasing a product. Some labels list scientific names and common names of plants, some list common names, and some list a combination. Registration of chemicals and their approved uses changes periodically.

African marigolds are reportedly susceptible to aster yellows, a disease that can affect entire crops. Symptoms of aster yellows begin as a loss of color in the leaf veins, spreading to a general chlorosis of the entire leaf. This effect is typically seen on new foliage and may appear on only a portion of the plant. Another symptom indicative of aster yellows is adventitious shoot proliferation. This may appear as abnormal new shoot growth out of the flowers with a witch's broom in place of a normal flower. Plant leaves may be smaller, narrower, and yellow-green.

Aster yellows disease is transmitted from plant to plant by the aster leafhopper (*Macrostelus quarilineatus* Forbes). Leafhoppers are light-colored, gnat-sized bugs. An effective management system will follow an integrated approach of scouting, insecticides, and good field hygiene to reduce disease spread from infected to healthy plants.

Harvest and Handling

Harvest marigolds when flowers are starting to open. The stems, when cut, should be 24–32 inches long. Place them in water immediately and hold at 36–41°F. No preservative or conditioning is recommended. Marigolds have a vase life of a week or more. Mostly used fresh, marigolds are also suitable for drying.

Design Applications

Arrangement



A blue and white pottery container is a good choice for a mass-pattern arrangement of marigolds (*Tagetes erecta* 'Giant Orange'). This design used fresh flower foam mechanics, but the container could easily hold crumpled chicken wire held in place with waterproof florist tape. Orange is the direct complement of blue, so any blue container or background would provide high contrast to these flowers. A design such as this would fit perfectly on a console table against a plain wall or mirror. Larger marigolds were placed deeper in the design for focal impact.

Centerpiece

A hurricane lantern container holds fresh flower foam and approximately 30 marigolds accented with camellia leaves. Evening receptions call for candles, and bright-colored flowers show up well in their subdued light. These orange marigolds will take on a burnished gold appearance at night.

Cultivar Recommendations

Giant Series

Large flower heads average 3 inches in diameter atop sturdy stems. They are prolific producers as cut flowers and reach a height of 36–40 inches in 70–90 days. Research conducted at Mississippi State University's Coastal Research and Extension Center has shown this series to be an excellent performer for Mississippi growers.

Jubilee Mix

Fully double flowers measure 5 inches across in shades of yellow, gold, and orange on 24- to 36-inch stems. These are suitable for fall markets because of their autumnal hues. As with most African marigolds, they have highly scented foliage, which may be stripped from the stems.



Cultural Floral Design



Marigold garlands are a traditional floral design in the Hindu faith, used in celebrations, ceremonies, or offerings to a god or spirit. The flower symbolizes success, prosperity, and favorable outcomes. Yellow and orange signify surrender to a higher being. In this setting, a Lord Buddha shrine features a backdrop of three garden trellis panels held together with cable ties. Marigold flower heads were selected based on uniformity and size (approximately 3 inches across) and strung on heavy thread using a 2-inch needle.



Materials needed to construct a marigold garland include heavy thread, a large needle, and scissors. These materials can be found at craft stores or departments.

Corsage/Boutonniere



Marigolds can be used successfully in flowers-to-wear designs. The boutonniere features camellia foliage as an accent, while the shoulder corsage is surrounded by variegated ivy leaves. All materials are mounted on 24-gauge wire using pierce or cross-pierce methods, then wrapped with paper-based corsage tape. Misting with an anti-transpirant spray will keep the designs fresher longer.

Resources

Stevens, A. B. (1998). *Field grown cut flowers: A practical guide and sourcebook, commercial field grown, fresh, and dried cut flower production*. Edgerton, WI: Avatar's World.

Vaughan, M. J. (1988). *The complete book of cut flower care*. Portland, OR: Timber Press.

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