



Marigold in Landscaping and Urban Gardening

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Abstract

Marigold (*Tagetes* spp.) is one of the most popular ornamental plants used in landscaping and urban gardening due to its vibrant colors, adaptability, and low maintenance requirements. Known for its bright yellow, orange, and golden blooms, marigold enhances aesthetic appeal in gardens, parks, roadside plantings, and balcony spaces. Beyond its ornamental value, marigold contributes to sustainable urban ecosystems by attracting pollinators, repelling pests, and improving soil health. Its suitability for container gardening and vertical landscapes makes it ideal for limited urban spaces. This article explores the horticultural characteristics, landscape uses, ecological benefits, and practical applications of marigold in modern urban gardening systems.

Introduction

Urbanization has significantly reduced green spaces in cities, increasing the need for compact, adaptable, and multifunctional ornamental plants. Urban gardening—including terrace gardens, balcony gardens, community parks, and roadside landscaping—plays a vital role in improving environmental quality and human well-being.

Marigold, belonging to the family Asteraceae, includes commonly cultivated species such as *Tagetes erecta* (African marigold), *Tagetes patula* (French marigold), and *Calendula officinalis* (pot marigold). These species are valued for their bright flowers, long blooming period, pest resistance, and ability to grow in diverse soil and climatic conditions. Because of these qualities, marigold has become a preferred choice in both formal and informal landscape designs.

Botanical and Horticultural Features



Marigold plants are:

- Fast-growing annuals
- Easy to propagate from seeds
- Tolerant to heat and moderate drought
- Adaptable to various soil types

They bloom profusely within 45–60 days after sowing and continue flowering for several months. The flowers range from small single blooms to large double-flowered types, providing flexibility in landscape design.

Role of Marigold in Landscaping

1. Bedding and Border Planting

Marigold is widely used in flower beds and borders due to its compact growth habit and uniform flowering. French marigold varieties are particularly suitable for edging pathways and garden beds, creating defined and colorful boundaries.

2. Mass Planting and Public Landscapes

African marigold varieties, with their large and bold flowers, are ideal for mass planting in parks, institutional campuses, traffic islands, and roadside medians. Their bright colors enhance visual appeal and visibility in public spaces.

3. Seasonal Color in Gardens

Marigold is a popular choice for seasonal displays. In tropical and subtropical regions, it provides vibrant color during winter and summer seasons, depending on sowing time. Its long flowering duration ensures continuous aesthetic value.

4. Container and Balcony Gardening

Urban residents with limited space prefer container gardening. Marigold performs well in pots, grow bags, window boxes, and hanging baskets. Dwarf French marigold varieties are especially suitable for balconies and terraces.

5. Vertical Gardening and Rooftop Gardens



Due to its shallow root system and adaptability, marigold can be incorporated into vertical garden systems and rooftop landscapes. Its lightweight nature makes it suitable for raised beds and modular green walls.

Ecological and Environmental Benefits

1. Pollinator Attraction

Marigold flowers attract bees, butterflies, and other pollinators, supporting urban biodiversity. Pollinator-friendly gardens contribute to ecological balance and food security.

2. Natural Pest Repellent

Marigold emits a strong aroma due to essential oils containing compounds such as limonene and tagetone. These compounds repel certain insect pests and suppress root-knot nematodes when planted near vegetables.

This makes marigold valuable in kitchen gardens and urban farming systems.

3. Air Quality Improvement

Like other ornamental plants, marigold contributes to improving air quality by absorbing carbon dioxide and releasing oxygen. Urban greenery plays a role in reducing the urban heat island effect.

4. Low Maintenance and Sustainability

Marigold requires minimal fertilizer and pesticide inputs compared to many ornamental species. Its relatively low water requirement makes it suitable for water-efficient landscapes.

Marigold in Community and Therapeutic Gardens

Urban gardens are increasingly used for recreational and therapeutic purposes. The bright colors and pleasant fragrance of marigold create a positive psychological effect, promoting mental well-being and stress reduction.

Community gardening projects often include marigold because it:

- Is easy for beginners to grow
- Germinates quickly



- Provides visible results within a short time

Design Considerations in Landscaping

When incorporating marigold into landscape design, the following factors should be considered:

- **Plant height** (African marigold is taller; French marigold is dwarf)
- **Color combinations** (yellow and orange blend well with blue and purple flowers)
- **Spacing for proper air circulation**
- **Seasonal planning for continuous bloom**

Proper deadheading (removal of spent flowers) encourages prolonged flowering.

Challenges in Urban Landscaping

Although marigold is hardy, it may face:

- Fungal diseases under excessive moisture
- Reduced flowering in heavy shade
- Pest infestation under poor maintenance

Regular monitoring and proper spacing can minimize these issues.

Future Scope

With increasing emphasis on sustainable cities, marigold will continue to play a significant role in:

- Urban greening initiatives
- Pollinator conservation programs
- Edible and functional landscaping
- Eco-friendly ornamental horticulture

Breeding programs are also developing compact and long-lasting varieties suitable for urban conditions.



Conclusion

Marigold is a versatile and sustainable ornamental plant widely used in landscaping and urban gardening. Its vibrant colors, adaptability, low maintenance requirements, and ecological benefits make it an ideal choice for gardens, public parks, rooftops, and balconies. Beyond aesthetic appeal, marigold contributes to biodiversity, pest management, and environmental sustainability. As urban areas continue to expand, incorporating hardy and multifunctional plants like marigold into green spaces will enhance both ecological balance and human well-being.

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