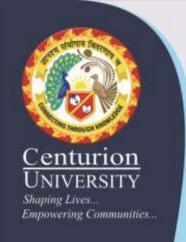


✓ Marigold has gained popularity amongst gardeners and flower dealers on account of its



Easy culture & wide adaptability
Free flowering and short duration
Wide spectrum of colour, shape, size
Good keeping quality

- ✓ Used for garland, veni and other decorations.
- ✓ It is highly suitable as bedding plant, in an herbaceous border, also as shrubbery in landscaping.
- ✓ French marigold is ideal for rockery, edging, hanging baskets and window boxes.
- ✓ Some species of *Tagetes* are used for essential oil extraction.
- ✓ Trap crop



#### **Varieties**

Tagetes erecta (African marigold)

Eg: Pusa Narangi Gainda, Pusa Basanti Gainda, Orange Lady, Golden Climax, Fire Glow, Honey comb etc

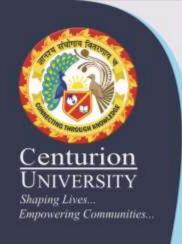
### Tagetes patula (French marigold)

Eg: Burpees Nugget, Cupid Yellow, Orange flame, Valencia, Cupid Yellow, Melody etc

## Tagetes tenuifolia

Eg: Golden Gem, Lulu, Pumila, Ursula, etc





## **Climatic Requirement**

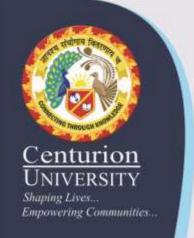
- ✓ Marigold requires mild climate for luxuriant growth and profuse flowering.
- ✓ High temperature & severe winter adversely affects flower quantity and quality.

## **Soil Requirement**

- ✓ Soil that is well drained, deep fertile, sandy loam and friable having well water holding capacity
- ✓ pH of 7.0-7.5 is most desirable.

# **Spacing**

Tagetes erecta	Tagetes patula
1) 40 x 40cm	1) 20 x 20cm
2) 40 x 30cm	2) 20 x 10cm
3) 45 x 30cm	3) 30 x 30cm
4) 60 x 45cm	4) 30 x 20cm



### **Propagation**

# By Seeds

- ✓ Seed rate of 1.5 kg is required for one hectare area
- ✓ For better seed germination, optimum temperature range between 18 to 30 °C is required.

## **By Terminal Cuttings**

- ✓ About 10 cm long cuttings are made and treated with seradix No.1.
- ✓ This method is commonly followed for maintaining the purity of varieties.
- ✓ Seedlings of one month old with 3-4 true leaves have to be selected for transplanting to the main field.







#### **Manures and Fertilizers**

- ✓ 100 kg N, 100 kg P2O5 and 100 kg K2O should be mixed at the time of preparation of land.
- ✓ Remaining 100 kg N per ha should be applied in 2 splits
  @ 30 and 40 days after transplanted.

## Weeding

- ✓ 3-4 manual weeding are required during the entire growth period.
- ✓ Pre-emergence: Atrazine @ 1-2 kg/ha, Pendimethalin @ 1.5-2 kg/ha
- ✓ Post-emergence: Paraquat @ 1.5 kg/ha, Glycel @ 1 kg/ha



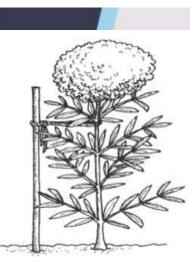
# **Irrigation**

- ✓ Season of planting determines the frequency of irrigation.
- ✓ Frequent irrigation at the interval of 4-5 days is required.



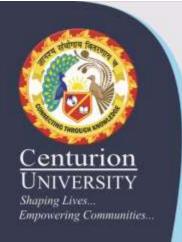
### **Pinching**

- ✓ Apical portion of the shoot is removed at the early stage to get more number of axillaries which in turn produces more flowers.
- ✓ Pinching the plants at 40 days after transplanting enabled the plants to yield more flowers.



# **Staking**

- ✓ It means providing support to the tall plants
- ✓ Needs to be staked with the help of bamboo sticks.



#### **Diseases**

- 1. Damping off
- 2. Collor rot
- 3. Leaf spot
- 4. Blight
- 5. Inflorescence blight
- 6. Powdery mildew

### Viral diseases

Marigold is infected by Cmv, Aster yellow virus





#### **Pests**

- 1. Red spider mite
- 2. Hairy caterpillar
- 3. Leaf hopper
- 4. Japanese Beetle
- 5. Tarnished plant bug
- 6. Slugs





# **Harvesting**

- ✓ Marigold flower should be plucked when they attain the full size depending upon the variety.
- $\checkmark$  Plucking of flowers should be done in cool hours of the day *i.e*, either in the morning or evening.
- ✓ Field should be irrigated before harvesting so that, flowers keep well for longer period after plucking.
- ✓ Plucked flowers should be covered with moist gunny bags if kept overnight before taking to market.

#### **Yield**

- ✓ African marigold 11 18 (t/ha)
- ✓ French marigold 8 12 (t/ha)