

PACKAGE OF PRACTICES

CROP: MARIGOLD

Sl. No.	Particulars/operations /Practice	Details of operation
1	Suitability for the area/ Agro climatic zone	A sunny location is ideal for marigold cultivation. Highest yields are obtained when planting is done during August - September. Rainfall during the rainy season and high temperatures during summer will affect the flower quality.
2	Land / Soil	A deep, fertile, friable soil having good water holding capacity, well drained and nearer to neutral in reaction (pH 7.0 – 7.5) is most desirable. An ideal soil for marigold cultivation is fertile and sandy loam.
3	Season/Sowing time	Depending on environmental conditions, marigold can be grown three times in a year – rainy, winter and summer seasons.
4	Seed rate	6000 to 7000 seeds per acre. For raising seedlings seeds can be sown in plug trays.
5	Preparation of Main field and planting	At the time of transplanting the seedlings should be of 7 to 10 cm height and bear 3-4 true leaves. Transplanting should be done in well prepared land in the evening hours. Watering the nursery bed one day prior to uprooting will lessen the damage to the root system. Uprooting of seedlings and transplanting should be done in the evening hours for better establishment.
6	Spacing	Proper spacing between plants is required for better development of plants and higher flower yield. The following spacing is recommended for marigold 60 X 30 cm.
7	Seed treatment before sowing	Seed treatment with Gaucho(Imida) 2ml/kg
8	Manures and Fertilizers	Incorporate 50 tonnes of Farm Yard Manure/hectare during the last ploughing. Apply 400 kg N, 200 kg P ₂ O ₅ and 80 kg K ₂ O per hectare. Half of nitrogen, entire dose of phosphorus and potash should be applied as a basal dose, preferably one week after transplanting. Rest half of Nitrogen should be given two or three times during the vegetative growth period preferably applied one month after first application at fifteen days interval. Irrigate after each application of fertilizers.
9	Irrigation schedule	At all stages of vegetative growth and during flower production sufficient amount of moisture in soil is essential. In sandy loam soil, weekly irrigation is necessary between September to March while during summer months between April to June irrigation at 4-5 days intervals is required.

10	Weeding/inter-cultivation	In marigold control of weeds is an important operation. If the weeds are not removed in time, a great loss would occur in terms of growth and productivity of marigold particularly during the rainy season. Hoeing and weeding should be done 3 to 4 times during the crop period to make the soil loose and weed free. Chemical weed control is also recommended.
11	Bud Pinching	Removal of the apical portion of the shoot is known as pinching. It is observed that pinching at 30 days after transplanting enhances flower yield.
12	Pest and Disease control	<p>Bud caterpillars (<i>Helicoverpa armigera</i> and <i>Phycita sp.</i>): Fame 0.4ml/ltr</p> <p>Aphids (<i>Aphis gossypii</i>): Coragen 0.5ml/ltr</p> <p>Thrips: Imidachloprid 1ml/ltr</p> <p>Red spider mite (<i>Tetranychus sp.</i>): Ecomite @ 1 ml/l of water</p> <p>Hairy caterpillar (<i>Diacrisia oblique</i>): Nuvan or Thiodan at 1 ml/l of water</p> <p>Damping off: Captan @ 1gm/ltr of water</p> <p>Flower bud rot: Dithane M- 45 @ 2gm/ltr of water</p> <p>Powdery mildew: Karathane (40 E C) @ 0.5% or dusting with sulphur powder.</p> <p>Wilt and Stem rot: Treat soil with Captaf, Mancozeb and Metalaxyl.</p>
13	Harvest/Expected yield	The duration from sowing to harvesting for marigold crops are typically 110-120 days from the sowing. Marigold flowers are plucked when they have attained full size with an average weight around 18-20 gm each. Plucking of flowers should be done in cool hours of the day. The field should be irrigated before plucking so that flowers keep well for a longer period after harvest. Plucked flowers are collected in polythene bags or bamboo baskets for carrying to markets. Average yield of marigold can be expected ranging from 8 to 10 tonnes per acre.