

**Control:** Seed should be treated with thiram @ 2-3 g/kg seed before sowing. After seed germination seedling should be drenched with bavistin @ 1g/litre or dithane-M-45 @ 2g/litre of water.

**Downey mildew:** Downey mildew is a serious disease and may appear from nursery to curd formation stage. Fine hair like downey growth of fungus observed on the lower surface of leaves. Corresponding to the fungal growth there is minute pinhead brown necrotic spots visible on the upper surface of leaves, which later on coalesced to each other.

**Control:** Field sanitation, disease free seed and crop rotation reduce the disease.

**Black rot:** The pathogen attacks primarily the above ground parts of plants. The leaves midrib forming "V" shaped area, which is the most characteristics symptom of the disease. The bacterium is transmitted through seed.

**Control:** Seed treatment with hot water of 50 °C for 30 minutes is found effective to control the disease. Spray with Copper oxychloride @ 3 g/litre of water at 10 days interval.

#### **Disorders:**

**Buttoning:** The causes for buttoning are over-aged seedlings, poor nitrogen supply, wrong cultivars (when early variety transplanted late). The general basis of buttoning may be explained that any check in the vegetative growth of the seedlings may induce buttoning.

**Whiptail:** It is due to the deficiency of molybdenum. Young cauliflower plants in a shortage of this element become chlorotic and may turn white, particularly along the leaf margins, they also become cupped and wither. The whiptail

develops with high nitrate supply and low molybdenum. So apply 1.0 kg per hectare Molybdenum along with NPK at the time of sowing.

#### **Harvesting:**

The harvesting is to be done as soon as the curds attain right maturity and compactness. If the harvesting is delayed the curds become over mature, its quality deteriorated and turned into loose, leafy, ricy or fuzzy.

#### **Yield:**

Early maturing varieties have an average yield of 150-200 q/ha. The mid season varieties give an average yield of 250-300 q/ha. However, the late season varieties yield about 350-400 q/ha.

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# CAULIFLOWER

## Package of Practices for Cultivation in Meghalaya



Technology Mission (MM-I)



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MEGHALAYA

**C**auliflower is a cool season vegetable grown for its white and tender curd. The curd contains a good amount of vitamin B and protein. It is also a rich source of minerals mainly phosphorus and sodium.

### Varieties:

Varieties must be selected according to their growing season.

**Table 1. Yield potential of different varieties/ hybrids**

Season	Var./ hybrids	Days to 50% maturity	Yield q/ha
Early	Himkaran (Hyb)	45	247
	Pusa Early Synthetic (OP)	68	230
Mid	Pusa Sharad (OP)	72	320
	No.497 (Hyb)	70	240
Late	Himani (Hyb)	90	440
	Mahima (Hyb)	92	310
	Poosi (OP)	95	250
	Meghalaya Local (OP)	150	420

### Soil:

Sandy loam to clay loam soils with well drainage is required for good growth and yield of the crop. The optimum soil pH should be between 6 to 7.

### Climate:

Now a days cauliflower can be grown in a wide range of climate but temperature plays an important role in growth and development of the

crop and selection of varieties. The optimum temperature range for curd initiation and development is 20-25°C for early season, 15-20°C for mid season and 8-12°C for late season.

### Time of sowing:

Early season: June-July  
Mid season: August-September  
Late season: October-November

### Seed rate:

Early season: 600g/ha  
Mid and late season: 400-500 g/ha

### Nursery raising:

The nursery bed should be prepared by mixing well rotten FYM or compost @ 4 kg/m<sup>2</sup> with the soil. Nursery beds should be 1 m wide and raised 15 cm above the ground. Beds should be properly drenched with Captan or Thiram @ 2 g/l of water to prevent the incidence of fungal diseases. The seeds should be sown in lines at a spacing of 8-10 cm between rows and 1.5-2 cm between seeds at a depth of 1.5-2 cm. The seed should be covered with sand and FYM mixture. In rainy season, the nursery should be raised under low cost poly house or poly tunnels. Weeding and intercultural operation should be done at regular intervals. Nursery beds should always be irrigated with rose can.

### Manure and fertilizer:

About 20 tonnes FYM should be added in the soil one month before transplanting in the soil. Besides FYM, 120 kg nitrogen, 60 kg phosphorus, 60 kg

potash should be applied for one hectare. Half dose of nitrogen and full dose of phosphorus and potash should be given at the time of transplanting and remaining amount of nitrogen should be given in two split doses *i.e.* 30 and 45 days after transplanting as top dressing.

### Transplanting:

4-6 weeks old healthy seedlings having 4-6 leaves should be transplanted. Before transplanting hardening of seedlings should be done by withholding of water for 4-6 days prior to transplanting.

### Spacing:

Early season: 45 x 30 cm  
Mid season: 60 x 45 cm  
Late season: 60 x 60 cm

### Weeding and earthing up:

Two to three weeding is sufficient to control the weeds followed by earthing up.

### Plant protection:

**Leaf Webber:** The leaves are skeletonized by the larvae which remains on the under surface of leaves in webs and feed on them. They also attack flower buds and pods. The insect commonly attacks on early grown crop.

**Control:** (i) Picking and destruction of the larvae at the early stages of the crop.

(ii) Crop should be sprayed with b Cyfluthrin @ 0.5 ml/litre of water.

**Damping off:** It is a common disease of nursery. In severe condition the affected seedlings drooped and fall off due to infection at the collar region.