

## **6. Bottle Gourd Cultivation**

### **1. Introduction**

Bottle gourd (*Lagenaria siceraria*), also known as lauki or doodhi, is grown for its tender, edible fruits. It is a common summer vegetable in India.

### **2. Climate and Soil Requirements**

- Temperature: Ideal range is 25–35°C.
- Rainfall: Requires 50–75 cm.
- Soil:
  - Fertile sandy loam or silty loam soil.
  - Soil pH: 6.0–7.5.

### **3. Seed Selection and Preparation**

- Varieties:
  - Pusa Manjiri: High-yielding variety.
  - Arka Bahar: Suitable for humid climates.
- Seed Rate: 3–4 kg per hectare.
- Seed Treatment: Treat with Carbendazim (2 g/kg).

### **4. Sowing Techniques**

- Time of Sowing:
  - Summer: February–March.
  - Monsoon: June–July.
- Method: Direct sowing in pits or ridges.
- Spacing: Maintain 1.5–2 meters between rows and 1 meter between plants.

### **5. Fertilizer Management**

- Base Fertilizers:
  - Nitrogen (N): 60 kg/ha.
  - Phosphorus (P): 40 kg/ha.
  - Potassium (K): 40 kg/ha.
- Application: Apply full P and K and half N at sowing; remaining N during flowering.

### **6. Irrigation Management**

- Frequent irrigation every 5–7 days during summer; reduce frequency in monsoon.

## **7. Pest and Disease Management**

- Pests:
  - Red Pumpkin Beetle: Spray Malathion (0.1%).
- Diseases:
  - Downy Mildew: Spray Metalaxyl (0.3%).

## **8. Weed Control**

- Perform hand weeding 20–25 days after sowing.

## **9. Harvesting and Post-Harvest Management**

- Harvesting: Harvest fruits 55–60 days after sowing while still tender.
- Post-Harvest: Pack and store at 10–15°C for transport.

## **10. Yield and Economics**

- Yield: 20–25 tons per hectare.
- Cost of Cultivation: ₹50,000–₹70,000 per hectare.
- Market Price: ₹10–₹20 per kg.