

## **BRINJAL**

*(Solanum melongena)*

Brinjal is one of the most common and popular vegetable crops grown in Northeast India. It can be grown in almost all parts of this region round the year except in high altitudes.

### **Varieties**

In brinjal two main fruit types, namely, round and long are cultivated. The varieties found suitable for this region are as follow.

**Round:** Pusa Purple Round, Pant Rituraj, ArkaNavneet

**Long:** Megha Brinjal-1 (RCMBL-1), Pusa Purple Long, PusaPurple Cluster, Pusa Kranti, ArkaSheel, Pant Sarnrat, Punjab Sadabahar, Megha Brinjal- 3 (RCMBL - 3)

**Medium:** Megha Brinjal- 2 (RCMBL- 2).



### **Soil and climate**

Brinjal can be grown on all kind of soils; generally well drained silt loam and clay loam soils are preferred.

It is a warm season crop and susceptible to severe frost. Climatic conditions especially low temperature during the cool season is desirable for successful brinjal production. The soil and climatic conditions of this region is highly suitable for cultivation of brinjal.

### **Field preparation**

For preparation of field, soil is ploughed 2-3 times with power tiller or through digging with spade. Planking is done during the last ploughing to make the soil bed friable for sowing and transplanting. Raised beds - 1 m wide, 4-5 m long and 30 cm above the soil are prepared.

### **Seed rate**

500 - 600 g/ha

### **Sowing time**

In the North East hill region conditions, brinjal can be grown round the year, the main sowing season being during July to August. For a second crop of brinjal, seeds are sown from March to April.

### **Nursery raising**

Seedlings are grown on raised nursery bed of 15 cm height. The width of the nursery bed should not be kept more than one metre and length as per convenience. The beds are dug and mixed with FYM @ 4 kg/m<sup>2</sup> and leveled. Before sowing, the nursery beds are drenched with Dithane M-45 (3g/m<sup>2</sup>) or Bavistin (2 g/rrr') to reduce the incidence of damping off. Rows are made at 5 cm distance along the width of bed with the help of bamboo stick.

Sieved FYM is applied on prepared beds and seeds are sown in line and covered with sieved FYM or sand. Sevin dust is mixed with seeds to control the ants. Nursery bed is covered with dry grass/ paddy straw or polythene for 3-5 days to induce early germination of seeds. Soon after the sowing, the beds are irrigated with water, and light irrigation should be given every day morning and evening till germination. The cover is removed immediately as soon as sprouts come out.

### **Transplanting and spacing**

The seedlings are ready for transplanting 35--40 days after seed sowing when they attain a height of 15 cm with 4-5 leaves. Usually, the spacing for the bushy non-spreading type should be 50-60 cm in both the ways and for spreading varieties row to row distance should be 75 to 90 cm and plant to plant distance is 60 to 70 cm. planting is done preferably in the evening. Irrigation is done immediately after transplanting.

### **Manures and fertilizers**

FYM or compost@20-25t/ha and NPK@120:60:80 is incorporated in the soil during soil preparation. One-third dose of nitrogen and full dose of phosphorus and potash are applied at the time of sowing or transplanting. Remaining amount of nitrogen is applied in two equal splits, first at 25-30 days and second 45-50 days after transplanting. After application of fertilizer, it is mixed in soil by light hoeing followed by light irrigation in the field.

### **Plant protection measures**

**Bacterial wilt:** Seed treatment with Bavistin@ 2 g/kg of seed. Apply bleaching powder @ 15 kg/ha in the field before one month of transplanting. Use crop rotation with non-solanaceous crops especially with cole crops.

**Phomopsis blight:** Seed treatment with hot water i.e. 50 QC for 30 minutes or Captan/ Thiram@ 3g/kg of seeds. Seedlings should be dipped in Bavistin @ 2 g/l of water for 15 minutes before transplanting. Apply 1 % Bordeaux mixture in standing crop. Follow crop rotation with non-solanaceous crops.

**Fruit & shoot borer:** Remove the infected fruits and shoots and burn or bury them in the soil. Apply 2-3 sprays of Monocrotophosor Rogor @ 1.5 ml/litre of water at the time of flowering. Use of Pheromone trap @ 100 traps for one hectare area is also found effective for controlling insect.

### **Harvesting and Yield**

Fruits are harvested when they attain good size. The stalk of the fruits should be cut with a knife.

A yield of 250 - 300 q/ha can be obtained.