

Climate

The tomato is warm season crop. The temperature of 20-25 °C is considered to be ideal for tomato cultivation, and the excellent quality red color is developed in tomatoes at 21-24 °C temperature.

Due to intense heat (temperature above 43 °C), the plants get burnt, and flowers and small fruits also fall, whereas less than 13°C and greater than 35 °C decreases the fruits and the red color production ratio.

Land

Tomato grows very well on a wide range of soils, but it grows well on deep, well-drained soils with good drainage ability. Sandy loam to medium black soils is considered to be best suitable for Tomato cultivation.

For Tomato farming soil PH must be at 6-7 with soil with excellent drainage property.

Advanced varieties

Improved Verity:

Pusa Ruby, Pusa- 120, Pusa shital, Pusa Gaurav, Pusa Early Dwarf, Arka Saurabh, Arka Ahuti , Arka Vikas, Arka Meghali, HS101, HS102, HS110, Hisar Arun, Hisar Lalit, Hisar Lalima, Hisar Anmol, Co-1, CO 2, CO 3, S-12, PKM 1, Punjab Chhuhara, Pant Bahar, Pant T3 and Solan Gola

Hybrids Verity:

Pusa Hybrid 1, Pusa Hybrid 2, Pusa Hybrid 3 , Arka Abhijit, Arka Vishal, Arka Shresta, Arka Vardan, Vaishali, COTH 1 Hybrid Tomato, Rashmi, MTH 4, Naveen, Rupali, Avinash 2, Sadabahar, Sonali and Gulmohar.

Transplanting :

Before transplanting plant in the field treat with a fungicide like bavistin and humic acid.

If transplanting is done in the rainy season then maintain spacing 75 x 60 cm and summer season, 75 x 45 cm.

If you are using drip irrigation method for tomato crop, then transplanting is to be done in paired row system with the spacing of 50 cm x 50 cm.

Fertilizers and manure

At the time of land preparation, broadcast and thoroughly mix the well-decomposed FYM at 20 to 25 t/ha in the soil

Then add a basal fertilizer dose Nitrogen – 60 kg, Phosphorus – 80 kg and Potash -60 kg Potash per hectare.

After 30 to 45 days of planting, give 30 kg amount of nitrogen to the crop.

Weed control

First weeding operation start after 20 to 25 days of transplanting. Always maintain clean and weed free farm because weed competes with crop also they provide shelter to the various harmful insect.

[Mulching](#) is also good option control weed after black plastic (50 microns) mulching is mostly used which controls about 95% weeds.

Alternatively, you can use organic mulch like sugar cane trash, which controls about 60% of weeds.

Supporting Tomato plants (staking)



The long growing varieties of tomatoes need to be specially supported. At the time of plant growth, plants should be staking with the help of string or wire.

With the help of this support, fruits cannot expose to soil and water; hence there is no problem of tomato fruit rotting so that more production can be obtained.

Irrigation for Tomato Crop

To get maximum yield from tomato crop, use [drip irrigation](#) method. During summer give water 6-7-day intervals and in winter season give water after of 10-15 days.

If possible, use drip irrigation. With the help of this irrigation method, you can able to save about 60-70 percent of the water and increase 20%-25% more production.

Harvesting



The first harvesting of plants usually starts in 75 to 90 days from planting. While Considering the market distance and transport mode, tomato fruits should be harvest as follows.

1) Green stage:

If you are sending tomato fruit for long distant market, then harvest at Maturity stage with green colour .

2) pink stage:

The tomato should be harvested by changing the color of the green color to the pinkish appeared. It is better to send such fruits to nearby markets.

3) Maturity stage:

To sell tomato in the local market, harvest after the fruit is reddish on the tree.

4) Full maturity:

In this state, the fruit is fully reddish and slightly red on the tree. Such fruits are useful to make durable materials such as ketchup, sauce, soup, chutney, etc.

After removing the fruit, grading the fruit, packing it in the corrugated boxes.

Production:

The average hectare production of tomatoes is 250 to 400 quintal. The production of up to 750-800 quintals of hectare can be achieved due to excellent cultivation