

## OFFSEASONAL TOMATO CULTIVATION:

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Tomato is one of mostly preferred vegetable crop as well it is most preferred for salad purposes. It is most suitable for cultivation in tropical, subtropical and temperate climate. It is an annual crop that is mostly cultivated in winter season. It is best grown in warm and dry season with temperature requirement of about 20-24 °C . The day temperature suitable for tomato cultivation is about 25°C and night temperature required is about 15-20°C. Less than 10°C temperature reduces the number of berries per plant whereas more than 30°C reduces the Lycopene production weakening the attractiveness of berry color . Tomato could be better cultivated in all ranges of soil varying from sandy , silty to loamy soil but the best soil needed for tomato cultivation is loamy soil with high humus contained .The soil pH needed for soil varies from 6-7 with good irrigation and drainage facilities. The lower pH reduces the calcium availability in the soil.

Nepal is boon of climatic variability. Offseasonal cultivation of any vegetables cultivation has high possibility in Nepal. The cultivation practices which is done so as the products would be obtained earlier or late season of its actual harvest time. The year round increasing demand of tomato has questioned the necessity of offseasonal production of tomatoes. Eventhough tomatoes cannot tolerate excessive cold, frost, rainfall the technologies as developed Shrijana variety in Nepal . Shrijana variety cab be cultivated in terai during wintern season (from Bhadra to Poush ) whereas in summer season in hilly region(Falgun – Chait) as seasonal production. If prevention is taken during Ashar to Bhadra , tomato could be produced offseasonal in midhills of Nepal.







### **Some consideration for Off-seasonal production of tomato in plastic house:**

- There is heavy rainfall in Nepal during the period of Asar to Ashad, thus at this time there is necessity of plastic house(800m to 2000m)
- Plastic house could be constructed using bamboo and 300-500 gaze simle plastic or 90 G.S.M solar ultraviolet rays preventive plastic sheets
- The plastic house is better constructed of length of about 20m and breadth of about 5m
- The land preparation and compost application should be done at the month of Falgun but it should be covered with plastic only during rainy season
- The seedlings of tomato should be transplanted within 10<sup>th</sup> of chait so as the product could be obtained from month of Jestha to Shrawan
- For the second production of tomato , the seedlings should be transplanted within 15<sup>th</sup> of Shrawan so as the production could be obtained from Ashoj to Mangsir
- Other dwarf vegetables crops could be grown so as to utilize interspaces between tomato cultivar during the production period
- During the month of Mangsir to Falgun , other vegetable crops like cucumber, Broccoli, cauliflower could be grown inside the plastic house

### **Land preparation and fertilizer application:**

- Deep ploughing followed by secondary tillage operation with well pulverized soil
- 50-60 Dokos of well decomposed FYM , 10kg Urea ,6 kg DAP, 5kg Potash per ropani of land
- FYM should be incorporated in field 2-3 weeks before transplanting,  $\frac{1}{2}$  doses of urea , full doses of DAP and potash should be incorporated at the final tillage in the soil
- The remaining half dose of urea should be applied at two split doses i.e.  $\frac{1}{2}$  after transplanting and remaining  $\frac{1}{2}$  at 24 and 45 days of transplanting again in two split doses

### **Seed rate and seed sowing:**

- 1000 seedlings per ropani of land(5 gm)
- 21 days old seedlings with 3-4 leaves are used for transplanting
- Transplanting should be done during the evening time

### **Irrigation:**

- 1<sup>st</sup> irrigation is done after transplanting the seedling
- During hot season , irrigation should be done at interval of 3-4 days time likewise in cold season it should be done at an interval of 10-15 days
- During dry season drip irrigation is preferred
- There should be good provision of drainage facility