

Season

1

Field preparation

Prepare land incorporating about 10 MT per acre of well decomposed organic matter or manure in soil. After thoroughly mixing with the soil prepare a bed of 1meter breadth, 15-20 cm high and convenient length but should avoid a very long beds which is difficult to manage. In addition to organic matter, chemical fertilizer (NPK) 20:24:15 kg in the form of Urea, SSP and MOP can be applied as basal dose per acre or 0.5 kg suphala per decimal (50 kg /acre) which ever is convenient or readily available. It is important to conduct a soil test and apply the required quantity of fertilizers rather than following the blanket recommendation.

In one acre of land it is estimated to have about 900 mounds. On each mound, apply about 10kgs of fully decomposed compost or FYM. The spacing of the mound should be about 1.5 m between plants and to 2 meters between rows. N:P:K dose of 80kg:40kg:15kg should be applied and half of 'N' and full of 'P' and 'K' should be applied during mound preparation or before planting. The balance half of N is applied as top dress after about 1 month of planting.

Season

2

Transplanting, Mulching and Weeding

Transplant the seedling at 6-7 leaf stages, 20-25 cm high when the flower bud appears. Avoid deep planting. Keep the distance of 50 cm between rows and 45cm between plants. Irrigate the field immediately after transplanting to keep the soil moist. It is also good to mulch the plant to keep down the weeds and conserve moisture. Straw, sawdust, crop residues are the best mulching materials to use. Keep the field weed free during the early growth period of the plants. Loosen the soil using garden hoe when the soil is hardened around the plants after irrigation.

Intercultural operation

Staking of the plant with a stick/bamboo of 1.5 m (for indeterminate) plant is important to manage the crop. Constant (every two to three days) removal of the suckers of the indeterminate plants are important otherwise the plants becomes bushy and difficult to manage afterwards.



Sucker Removal



Staking

Season

3

Water Management

Tomato plants needs just sufficient water at the right time. Supply sufficient water at critical times, such as immediately after transplanting, flowering and fruit set. Excess irrigation after a long dry spell leads to fruit cracking. Plants that are irrigated late in the season produce watery fruits of poor quality. It is good to avoid overhead sprinkler irrigation system as the wet leaves encourage outbreak of early and late blight.

Pests and Diseases

Major pest and diseases of tomato are fruit borers, damping-off, blossom end rot, late blight and early blight. To control the fruit borer it is best to collect and destroy the fruit to break the life cycle. To control damping off treat the seed with Thiram @ 2 g per kg seed at the time of nursery sowing. Control of blossom end rot can be done with good irrigation practices and proper drainage systems. To control both late blight and early blight spraying of mancozeb @ 2 grams per liter water.



Blossom end rot



Late Blight



Fruit borer

Season

4

Harvesting

Harvest the fruits 80-90 days after transplanting depending upon the type, varieties and distance from the market.

Harvest tomatoes at fully ripe stage, that is, when green fruit turns to normal varietal color. However, for long distance market harvest at mature and half-ripe fruit stage.

Harvest tomatoes by twisting the node rather than pulling the fruits. Pack the fruits in crates lined with straw or similar materials which are placed at the bottom, sides, and at the top.



Post Harvest Handling

5

Soon after harvest transport the tomatoes to the pack house as soon as possible. It should not be left in a hot area for long periods. Inside the pack house, tomatoes are cleaned, graded, wrapped and packaged.

1. Grading

Grading is done based on size, color and quality. Good quality fruit should be sound, well-shaped, uniform in size and color. It must be free from diseases, cracks, blemishes, foreign matter or spray residues.

2. Packing

Higher grade fruit are packed in trays or cartons and lower grade are jumble packed.

3. Storage

Generally, tomatoes should be stored at 12 °C and 86% to 90 % relative humidity.



མོ་ནང་ཞིབ་འཇུག་དང་གོང་འཕེལ་སྒྲུབ་ཁྲུང་ བཞོན་པ་ རྒྱལ་འབྲུག་ལྗོངས་
Agriculture Research and Development Center
Bajo Wangdue Phodrang
Department of Agriculture, Ministry of Agriculture and Forests



TOMATO

Starter Guide

Contact: Arjun Ghalley
RNR-ARDC Bajo, Department of Agriculture, MoAF
Bajo, Wangduephodrang, Bhutan
Phone: +975-02-481260, 481209
E-mail:



Integrated Horticulture Promotion Project

