

Bacterial wilt of tomato



Bacterial leaf spot of Tomato



Black spot with yellow hollow develops on the leaves resulting in drying and defoliation

Control

Spray 1% Bordeaux mixture

Blight of tomato



Occurs during rainy season. Small, isolated scattered pale brown colour spots appear in the leaves. These enlarges to become large spots. Symptoms also appear on fruits. Loss may occur up to 70%.

Control

Follow field sanitation. Proper drainage during rainy season. Grow under poly house

Physiological disorder

Cracking

Long dry spell followed by rain. High day temperature followed by low temperature.

Puffiness

Hollowness inside fruit and light in weight. Due to poor pollination. High and low temperature(winter).

Blossom end rot

Calcium deficiency mainly under green house.



Insect-pest and Disease Management in Tomato



Prepared by
Liza Barua Bharali
Division of Plant Protection
and
Dr.R.K Singh
Programme Co-ordinator

Published by
Director, NRC on Mithun (ICAR) Medziphema
for
Krishi Vigyan Kendra,
Phek - Nagaland
Phone No. 03865-281436



KRISHI VIGYAN KENDRA
NRC ON MITHUN (ICAR)
PORBA, PHEK-797107
NAGALAND



Web: kvkphek.nic.in
Email: kvkphek@gmail.com

INTRODUCTION

Tomato is most important and remunerative vegetable crop in India. It is a rich source of minerals, vitamins and organic acid. Tomato fruits provide 3-4% sugar, 4-7% acids, 15-30mg/100gm ascorbic acid and 25-50mg/100gm lycopene. Major tomato growing areas are UP, Maharastra, Bihar and Orissa. It is also grown in small scale in North eastern states.

Insect-Pest

Fruit borer

Larva feeds on fruits. They bore the fruits with half of the body outside fruit.

Control

Plant African marigold in 15 -16 rows of tomato plants.

Spray neem oil @5ml/lit of water.



Leaf miner

Larvae mines beneath the leaf and defoliation occurs.

Control

Spray Neem seed kernel extract (NSKE) 4%. Spray confidor @0.5ml/lit of water.



White flies

The flies suck cell sap and damage the leaves. It also transmit leaf curl virus.

Control

Uses of 100 mesh nylon net in nursery to avoid entry of white flies for transmission for leaf curl disease. Spray neem oil @5ml/lit of water

Mite

Red color mites are found in the lower side of the leaves causes webbing and feed below.

Control

Spray neem oil @5ml/lit of water



Fruit sucking moth

Adult moths puncture ripening fruit and suck juice. Damaged area become soft and rots. Close examination reveals pin hole.

Control

Spray neem oil @5ml/lit of water

Leaf eating caterpillar

Young larvae gregariously feed and skeletonize the leaves.

Control

Spray *Bacillus thuringiensis* var. *kurstaki* @0.5kg/ha. Hand picking and killing of larvae. Spray neem seed kernel extract (NSKE) 4%.



DISEASES

Damping off

This disease occurs in almost all the crops in the nursery and in main field. Rotting of young stem at the base. The pathogen pre and post emergence damping off.

Control

Seeds should be treated with hot water at 50 °C for ½ hr. Spray 1% Bordeaux mixture.

Do not raise seedlings in the same site



Bacterial wilt of tomato

Plants wilt without yellowing. Even after adequate irrigation of plants, leaves do not regain the turgidity and dies. If a segment is cut and squeezed few drops of fluid in the water, bacterial ooze is visible.

Control

Spray Streptomycin @ 1g/10 lt of water. Follow crop rotation.