

L-15/KVK Lohit/2009-10

# INSECT PEST AND DISEASE MANAGEMENT OF ORANGE



**Krishi Vigyan Kendra**  
Lohit District  
Arunachal Pradesh

**Introduction:** India ranks sixth in the production of citrus fruits in the world. In India, the common citrus fruits are mandarins, sweet oranges and lime. The major area under citrus is in Arunachal Pradesh (19.6 thousand ha) followed by Assam (14.4 thousand ha). Mandarin (*Citrus reticulata*) is an important commercial citrus species grown upto an altitude of 1000m above msl. The important insect pest and disease of orange in Lohit district are given below:

### **INSECT PESTS -**

#### ★ **Trunk borer**

Symptoms:

Makes hole into trunk near base, plant die.

Control measures

- Inject 5 ml monocrotophos in holes.
- Collection & destruction of adults by shaking branches .
- Pruning & burning of infested twigs.

#### ★ **Mealy Bug and Leaf Minor**

Symptoms:

Silvery serpentine, mines on lower side of leaves, distorted leaves, fruit drop.

Control measures

- Monocrotophos 2.5ml /lt of water.

#### ★ **Aphid**

Symptoms:

Aphids feed on plant cell contents and sap by piercing the plant and sucking up the liquids.

Control measures

- Spraying of malathion 1ml/litre of water.



#### \* **Scale insect**

Symptoms:

Scale feeding slowly reduces plant vigor;  
Heavily infested plants grow poorly and  
may suffer dieback of twigs and branches.

Control measures

- Spraying of malathion 1ml/litre of water.

#### **DISEASES-**

#### \* **Phytopathora rot**

Symptoms:

Gummy on surface of bark, turn brown crack,  
leaves rot.

Control measures:

- Avoid water stagnation around the plants.
- Scraping of affected parts and pasting with Bordeaux paste.

#### \* **Powdery mildew**

Symptoms:

The mycelium grows over the surface of the leaf, absorbing nutrients from the plant. Later, the leaf may turn yellowish and begin to dry up and die, but the leaves often support the presence of the powdery mildew fungus for some time without significant injury.

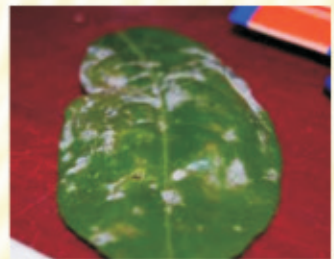
Control measures:

- Pruning of dead twigs followed by application of tridemorph or benzimidazole (3g/l).

#### \* **Citrus canker**

Symptoms:

Typically raised and can be seen on  
both sides of the leaf.



Control measures:

- Cutting of infected twigs followed by spraying of 1% Bordeaux mixture. Preparation of Bordeaux Mixture Dissolve 500gm of copper sulphate crystals in 5 litres of water. In another 5 litres of water prepare milk of lime with 500gm of quick lime slowly, Pour the copper sulphate solution into the milk of lime slowly stirring the mixture all the while. Test the mixture before use for the presence of free copper which is harmful to the plants by dipping a polished knife in it. If the blade shows a reddish colour, add more lime, the blade is not stained when dipped a fresh in the mixture.

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