

## Insect Pests of Chilli and Their Management

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### Introduction

Chilli, also known as hot pepper, is an important vegetable as well as spice crop grown widely in tropical and subtropical parts of the world. It is an indispensable spice of every kitchen in tropics and subtropics and mainly used in culinary to add flavour, colour and pungency to foodstuffs. Pungency in hot pepper is due to the presence of a volatile alkaloid oleoresin capsaicin ( $C_{18}H_{27}NO_3$ ), which is prominently present in central core and placenta of fruit, and found absent in seeds and hull. Chilli is attacked by many direct as well as indirect pests during all the growth stages causing severe yield losses and even sometimes completes crop failure. There are different eco-friendly management of several pests attacking in chilli crop for reducing the resulting crop failure and damage by these insects.



### Insect pests of Chilli

**Thrips:** These are very minute insects; the nymphs and adults both suck cell sap from the tender leaves and transmit virus as a result the leaves start curling. The losses due to the attack of thrips may be in the range of 25-50%. A long dry weather is congenial for its rapid multiplication, whereas, heavy rains and humid weather adversely affects its development and multiplication.



### Control

- Follow long crop rotation and grow tolerant variety like, Pusa Jawala for thrips control
- Collect the debris, affected leaves and weeds, and destroy them
- Apply Carbaryl (Sevin) 5WP 0.2% or Malathion 0.1% or Nuvacron 0.1% or Dimethoate 0.03% or Monocrotophos 0.04%
- Apply Phorate 10G @ 1 kg a.i/ha to the soil in nursery after sowing seeds and in field after transplanting the seedlings



**Mites:** These are very minute insects. They remain mostly in webs on the adaxial surface of leaves,

and suck cell sap from tender leaves. Affected portion shows pin dot like pale yellow spots, and crop gives sickly appearance.

**Control**

- Spray the crop with 0.05% wettable sulfur
- Dust the chilli crop with sulfur @ 20-25 kg/ha
- Spray Rogor at 0.15% as and when the mites appear

**Aphids:** These are small sucking type insects, which remain in colonies on the under surface of plant leaves, and transmit mosaic disease. Sometimes these insects feed heavily on young leaves and cause considerable yield loss.

**Control**

- Spray the crop with 0.1 % Malathion or demeton methyl 0.05-0.2%
- Apply Phorate/Carbofuran granules at 1.0 kg a.i./ha to the soil at transplanting.



**Fruit borer:** This is polyphagous insect, and remains active throughout the year. The grayish dark brown caterpillar gregariously feed on leaves; later these caterpillars assume a habit of cutworm and feed voraciously on leaves.

**Control**

- Dust the crop with Carbaryl 4% or spray Carbaryl at 0.2%.
- Spray the crop with Quinalphos 25EC 0.4% or Dimethoate 0.03% or Monocrotophos 0.03%.

**References**

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