

# Apple

## Pests

### **Codling Moth** (*Cydia pomonella*) :

The adult female moth lay eggs on developing fruits and leaves. The larva of the pest enters into fruit from any point of the surface and tunnels down to the core. Excessive damage is caused in the core region. The damaged fruit drops off prematurely.



**Control** : The control strategy includes mass pheromone trapping (25 traps/ha), collection and destruction of over wintered cocoons during April-June and deep burying of fallen fruits during August. 2 sprays of Phosphamidon (0.04%) in June-July at an interval of 2-3 weeks is effective in controlling the pest.

### **Apple Clearwing Moth** (*Synanthedon myopaeformis*) :

This is one of the most important pests in apple. The larvae make tunnels in the bark of old trees leading to peeling of bark. This makes the barks prone to infection by other decaying organisms.

**Control** : Winter spraying (when the larvae start feeding) as well as summer spraying (when the adults appear) is recommended to control the pest. Immediately on appearance of the larvae Chlorpyrifos (0.15%) is sprayed 3 times at an interval of 20 days.

### **Woolly Apple Aphid** (*Eriosoma lanigerum*) :

Woolly apple aphid is a serious pest attacking apples, and it migrates from root to shoot and vice-versa throughout the year. It is a small, brown and greyish purple sucking aphid, which attacks bark and roots forming galls on roots, stem and shoot.

**Control** : Resistant rootstocks should preferably be used for grafting the desired cultivar. Soil application of Phorate or Carbofuran granules during May and October/November checks incidence and spread of the pest. Spraying with Chlorpyrifos (0.02%) or Fenetrothion (0.05%) twice in May and June controls the pest effectively.

### **Blossom Thrips** (*Taeniothrips* spp. *Thrips flavus*, *Thrips carthami*, *Haplothrips ceylonicus*) :

Thrips attack is favoured by hot-and dry weather conditions. They cause extensive damage to the flowers. The flowers attacked by the thrips show withering symptoms resulting in poor fruit set or pre-mature fall in the early stages of development. Heavily infested bloom produces distorted flowers that open on one side.

**Control** : Bio-control agents like *Chrysopa* sp. and ladybird beetle (*Coccinella septumpunctata*) act as predators of thrips. Foliar application of Chlorpyrifos (0.04%) or Fenetrothion (0.05%) at pin bud stage is recommended for control of the pest.

### **Red Spider Mites (*Panoychus ulmi*) :**

Low relative humidity favours mite multiplication. Different stages of mite are found in colonies covered by white-silky webs on lower surface of leaves. The adult lay reddish eggs underneath the leaves and on the spurs. Nymphs and adults suck cell sap and bronze patches appear on leaves. Affected leaves become mottled, turn brown and fall.

**Control :** Predators like coccinellids, predatory mite and anthocorid bug help to reduce the population of mites. Spraying with Dicofol (0.05%) followed by Malathion (0.05%) effectively reduced the mite infestation.

### **San Jose Scale (*Quadraspidiotus perniciosus*) :**

The ash-coloured scales feed on the bark of trunks and branches by sucking sap of the tree. The affected bark surface shows greyish specks. The pest also infects the fruits leading to the formation reddish spots.

**Control :** Application of 2% Misible oil (6-8 litres/tree) to the dormant trees in winter followed by spraying with Diazinon (0.04%) during February-March controls the pest.

### **Root Borer (*Dorysthenes hugelli*) :**

The root borer is a very destructive pest in sandy loam soils. The shining chestnut red beetles lay eggs in the soil during July-August. The grubs feed exclusively on the thick roots. The damage symptoms are often observed when substantial loss has already occurred.

**Control :** Planting apple orchards on dry and sandy soils should be avoided. The adults should be trapped and killed in the month of September. Drenching the basins of the plants with Chlorpyrifos (0.04%) or dusting with Folidol dust (25 kg/ha) in September effectively controls the pest.