



## Main pests of fruits in the home garden

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Various insects, mites, nematodes and diseases can damage fruits in home gardens at all stages of growth. A description of some of the more important pests is given here, together with general methods for control. There are occasions when a home gardener may notice a new pest, which is different to the pests they have seen in the past. Exotic pests are a concern for the farming community, as they could threaten the agricultural and horticultural industries and increase the price of production and cost to the consumer. Please report anything unusual to the Pest and Disease Information Service (see below for details).

When using pesticides, always follow the directions on the label and spray in the evening if possible. The active ingredients of pesticides are shown in the text and there are often a number of commercial pesticides that are available with the same active ingredient.

### Insects

#### Aphids

Aphids are small (1 - 3 mm), soft-bodied insects that range in colour. They can be winged or wingless and are usually slow-moving. Damage is most serious on young trees of many fruit crops, especially citrus (such as grapefruit, lemons, mandarins and oranges) and stonefruit (mainly almonds, apricots, nectarines, peaches and plums). They are most commonly seen in spring and autumn. The insects cluster on the tips of the shoots, sucking the sap from the plant, thereby reducing plant vigour. Predators such as ladybirds and parasitic wasps can often keep aphid numbers under control.



Aphids

If required, control aphids with dimethoate, imidacloprid or maldison. Soapy water, garlic extract and insecticidal soaps may also reduce numbers. It may also be necessary to control ants, which protect aphids from their natural enemies.

#### Caterpillars

There are many species of caterpillars that can attack fruit trees. Caterpillars are the larval stages of moths or butterflies. They have a long cylindrical body and vary in length from 10 to 50 mm. Light brown apple moth caterpillars (up to 20 mm) may attack the leaves (which are webbed together), shoots, flowers and fruits of most fruit trees, especially pomefruit (mainly apples and pears) and stonefruit.



Light brown apple moth

Looper caterpillars (up to 35 mm long) attack all fruit trees, especially in summer.



Looper caterpillar

### Important Disclaimer

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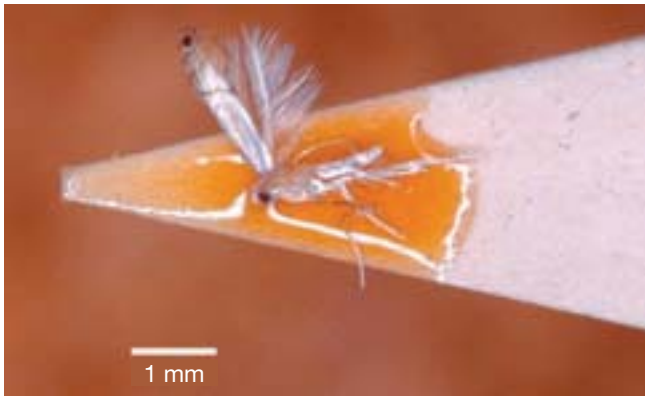
*Native budworm*

Native budworm caterpillars (up to 20 mm) feed on flowers, new shoots and young fruit of most fruit trees, causing fruit drop.

Spray at the first sign of the pest as small caterpillars are easier to kill and at this stage have caused less damage. Control with carbaryl, fluvalinate or maldison, or with biological insecticides such as garlic extract and *Bacillus thuringiensis* var. *kurstaki* (Bt).

#### Citrus leafminer

*Citrus leafminer* may severely damage citrus trees, which are less than three years old, but established trees are less affected.



*Citrus leafminer*

Leaves are twisted and the caterpillars are very small and feed within the leaf. The silvery tunnels are clearly visible on the leaves.

Damage is worst in early autumn. Regular spraying with omethoate or petroleum oil is only necessary for the first three years.



*Citrus leafminer damage*

#### Grasshoppers and locusts

In some years, wingless grasshoppers and plague locusts can appear in large numbers in summer and can kill plants, especially young fruit trees. Gardens near dry pasture are most at risk. Apply a bait containing carbaryl.



*Wingless grasshopper*



*Australian plague locust*

#### Mediterranean fruit fly

Mediterranean fruit fly (adult is 3 - 5 mm) is a serious pest of many fruit trees, especially apricots, loquats, mandarins, nectarines, peaches, plums and Washington navel oranges. Eggs are laid under the skin of the fruit and hatch into maggots (up to 8 mm) which tunnel in the fruits and cause rotting. Fruit trees such as avocados, bananas, berries, grapefruit, lemons, strawberries, nuts, papaws and Valencia oranges are less susceptible to damage from fruit fly.



*Mediterranean fruit fly*



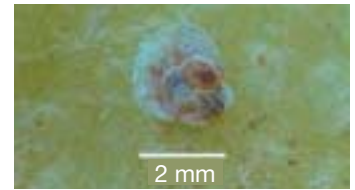
*Pink wax scale on citrus*



*San Jose' scale*



*Soft green scale*



*Red scale*



*Mealy bug*

Collect infected fruit, seal in plastic bags and place in a bin, or place in water with a small amount of kerosene on the surface of the water. The standard control method is to weekly bait the leaves, using maldison and a suitable lure such as protein hydrolysate. If necessary, trees can also be cover-sprayed weekly with fenthion, when fruit is one half to three-quarter size.

### Scales and mealybug

Scales and mealybug are in the same family and are sucking insects. They are only mobile when young and remain stationary on the plant as adult insects. They may damage many fruit trees all year, especially citrus, figs, mangoes, olives, pomefruit and stonefruit.

There are many types of scales such as pink wax, red, soft brown, black and San Jose.

Mealybug are small insects (up to 4 mm long) usually found in protected areas where the fruit is touching, especially with citrus, passion fruit and persimmons. They are covered in a white protective wax.

Parasitic wasps can often keep scales and mealybug numbers under control. It may also be necessary to control ants, which protect the pests from their natural enemies. If necessary, spray with white oil and maldison, but not in hot weather.

### Thrips

There are many types of thrips. These are small (1 - 2 mm long), yellow, green, grey, or black torpedo-shaped insects with or without feathery wings, which are usually folded along the back. They rasp the surface of fruit, leaves and flowers and withdraw the sap. This



*Thrips*

results in white streaks on leaves and fruits, especially with grapes, pomefruit, stonefruit and strawberries. Their droppings may be prominent on the underside of leaves. Damage is worse in spring.

Control with dimethoate, garlic extract, maldison, omethoate or pyrethrins.

### Weevils

There are a few species of weevils that attack fruit trees. The adults, which are about 8 mm long, are most active in spring and summer. At night, the apple weevil (prefers cherries), garden weevil (prefers apples, grapes and nectarines) and Fullers rose weevil (prefers apples, apricots and plums) may attack the leaves and scar the fruits of most fruit trees.

Fluffy dacron bands around tree trunks will slow the movement of weevils into the canopy of the tree.



*Apple weevil adult*



*Garden weevil adult*

