Department of Agriculture and Food
Gardennote
Note: 229
Replaces Note 163
February 2007

Common insect pests of native plants in home gardens

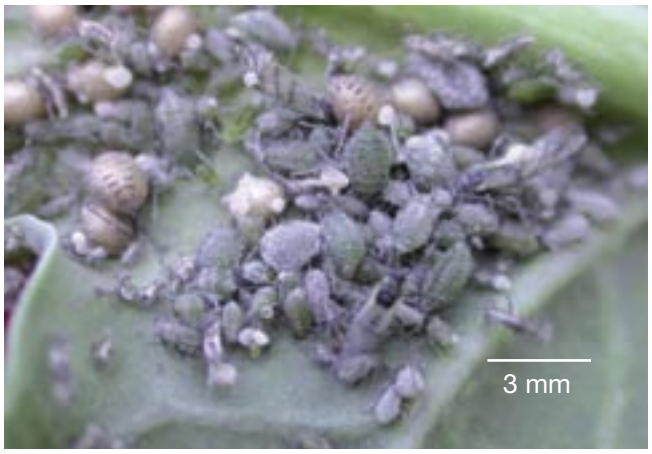
By Harald Hoffmann, Biosecurity Communications, South Perth

Various insects and mites can damage native plants in home gardens at all stages of growth. A description of some of the more important insect 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 unfamiliar to the Pest and Disease Information Service (see last page).

Aphids

Aphids are small (1-3 mm), soft-bodied insects that vary in colour (green, grey, or black). They are a common pest on Everlastings all year round, but are commonly seen in spring and autumn on other plants. Aphids can be winged or wingless and are usually slow-moving.



Aphids

Aphids cluster on the tips of the shoots, sucking the sap from the plant, which reduces plant vigour. Aphids can also spread viruses which can damage the plant. A number of natural enemies, such as ladybirds and lacewings, will give some biological control. If required, control with sprays such as dimethoate, imidacloprid, garlic extract or maldison. Soapy water and insecticidal soaps may also reduce numbers.

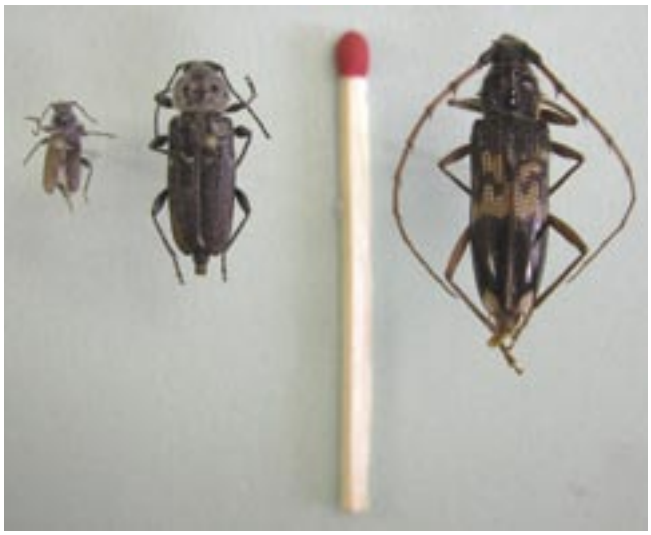
Borers

Borers are insects, which bore holes into native or exotic plants. A range of insects is involved, mostly beetles and their larvae. They live mainly in living, but generally weakened plants and in bad cases cause death. Groups of borers include beetles, wood moths, weevils and termites.

Longicorn beetles (15-50mm) are a large group that is commonly seen in summer. They have powerful jaws, and are often confused with the European house borer, which is currently a quarantine pest in Western Australia. However, European house borer adults are smaller (8-25 mm) and have shorter antennae.

Healthy plants are normally able to tolerate borer attacks, with new growth outgrowing the weakened branches and exudation of gum restricting borer activity. Affected old branches will break off.

Natural enemies of borers are birds, the assassin bug, predacious beetles and parasitic wasps and fungi. Kerosene or soap solution, poured into the tunnels may cause the grub to emerge for destruction.



Left to right: Male European house borer, female European house borer and Longicorn beetle

Caterpillars that build shelters

A number of native plants, are affected by caterpillars, that construct shelters to protect themselves from predators. These caterpillars may be solitary or gregarious and affect the plants predominantly in autumn.

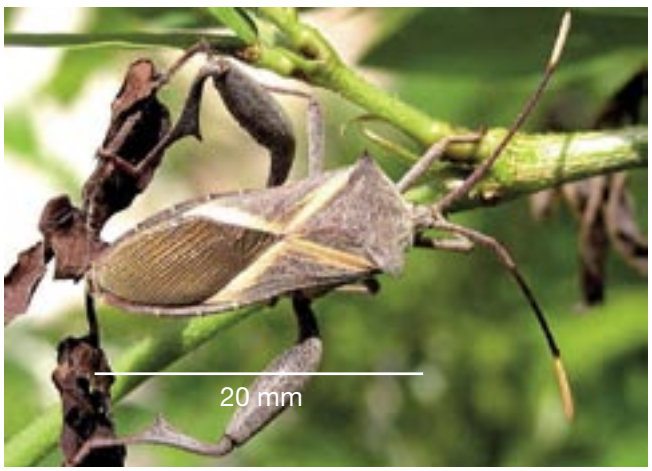
Web moth on Thryptomeneas

They hide in the shelters during the day and emerge to feed during the night. The shelters may vary from joined adjacent leaves or curling leaves to large solid constructions such as bags or mobile homes. Bag shelter moths, bag moths, case moths, bag worms and leaf rollers belong to these groups. In Western Australia Web moths are a common pest on Thryptomeneas and Melaleucas. The symptoms are browning leaves and leafless branches and signs are webbing around the leaves.

To control them, hand picking can be effective but make sure you destroy the bags after removal. For chemical control (which is rarely necessary) consider maldison. There are also natural control agents, such as parasitic wasps.

Crusader bugs

Crusader bugs occur on mainly on wattles and cassias and to a lesser extend on *Eucalyptus*, *Hibiscus* and a wide range of other plants. They are about 20 mm long, most active in summer and cause shoots and flowers to wilt and die.



Crusader bug

Crusader bugs have a pale yellow cross on their backs when their wings are folded. When disturbed they spray stinking fluid.

If possible control the bugs through hand picking. Many predators control crusader bugs, including birds, spiders, assassin bugs and parasitic wasps.

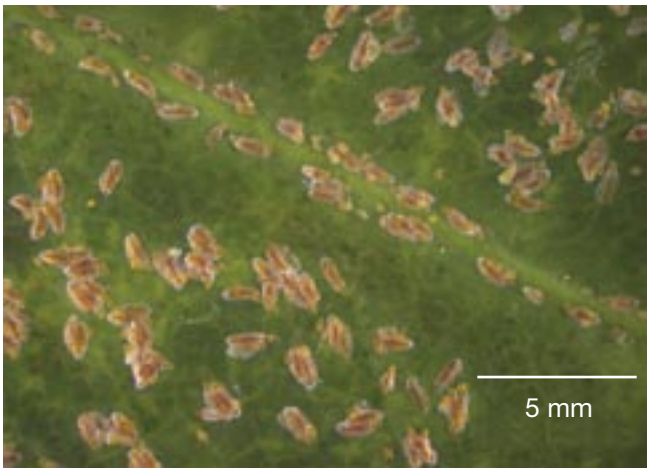
For chemical control use cyfluthrin and fenthion.

Lerps

Lerps are sap sucking insects which attack the leaves of a variety of native plants, particularly eucalypts. Like scales, the insects are protected with a waxy covering. They attack new shoots and leaves and cause severe distortion, bronzing of leaves and death of tissue. Like other sap-suckers, they produce honeydew, which encourages the growth of sooty mould. Soon after a lerp infestation, leaves turn brown and are shed prematurely.

Lerps are controlled naturally by a variety of predators, including small birds, hunting spiders, scorpions, assassin bugs, ladybirds, lacewings and parasitic wasps.

For chemical control use imidacloprid.



Lerps on eucalyptus leaf

Mealybugs

Mealybugs are, like aphids and scales, sapsucking insects. Mealybug are small insects usually found in protected areas. They are covered in a white protective wax.

Cryptolaemus ladybird (right) feeding on mealy-bug (left)

On native plants, they are mainly a year round problem on indoor or glass house pot plants as well as outdoor palms and ferns. Occasionally, mealybugs affect other plants such as grevilleas and wattles.

Natural predators such as beetles or parasitic wasps can often keep 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.

Mites

Adult mites have eight legs compared to insects, which have six legs Mites are also much smaller (less than 1 mm) than most insects. There is a large range of mites, affecting native plants. Two spotted mites and bryobia mites are the most common. They suck the sap of the leaves.

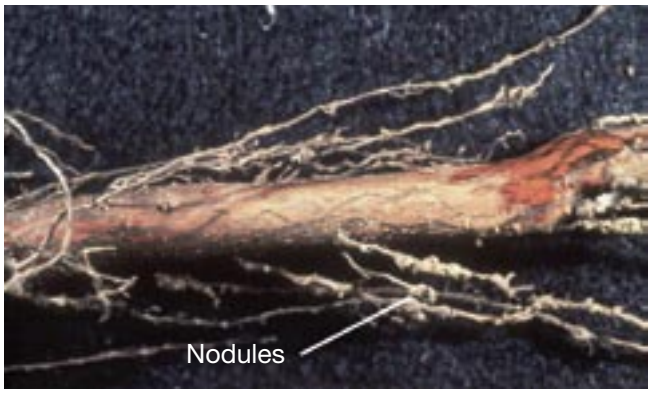
Two spotted mite (highly magnified)

The first signs of mites are usually from the yellow stippling of the leaves, which look russetty and dry. Common native plants to be affected are of the family *Agonis,* the most common one being *Agonis flexuosa,* the Western Australian peppermint. The undersides of the affected leaves usually have fine webs, under which there are hundreds of small yellow-to-red mites (0.5 - 1.0 mm) and pearly eggs. Predators such as pinhead-size black ladybirds and predatory mites can sometimes keep mite numbers under control. The predatory mites are usually fast-moving and some are bright orange. If necessary, control with dicofol. Spray at the first sign of pest damage to obtain good control.

Predatory mite (right) observing red legged earth mites (left)

Nematodes or Eelworms

Nematodes are small worms that live in the soil, but they are microscopic in size and cannot be ***seen*** with the naked eye.



Root knot nematodes

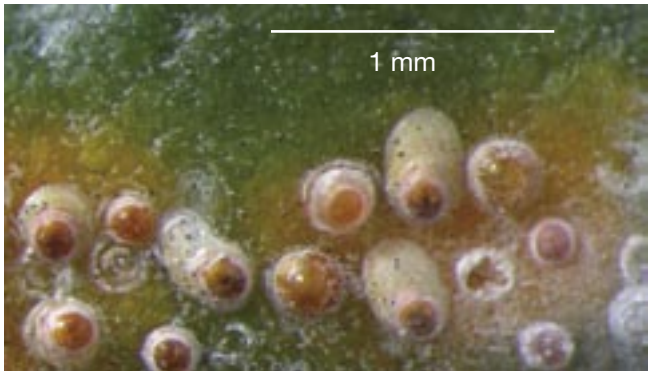
Nematodes may damage the roots of some native plants, especially sturt peas and eremophilas in sandy soils. Some nematodes affect the stem or the leaves. They are most active in summer. Root knot nematode damage is seen as enlarged swellings on the roots and by wilting of the plants. Nematodes also provide sites for increased disease infection. Increasing the amount of organic matter in the soil will also help to control nematodes. Another control method is to apply sugar or molasses to the soil at 500g/m2. In extreme cases, fenamiphos in granular form is registered for home garden use. Be aware that this fumigant will also kill any other soil organism, including beneficials,

Scales

Scale insects are about 2 - 3 mm long. They attack a wide range of plants, both exotic and native. Western Australian Peppermints *(Agonis flexuosa)* and Eucalypts are frequently affected by scales in summer in home gardens. Scales are sapsuckers and also cause a fungus, known as ‘sooty mould’. Sooty mould grows on the excretions of the scales. Severe infestations of scale insects can result in defoliation and retardation of the plant’s growth, and even in the death of the plant.

Scale insects have a waxy cover which they use to protect themselves. There are two categories of scales — ‘soft’ and ‘armoured’ — and they can take various shapes.

There are hundreds of species of scale insects in Australia.



Scales on a Banksia leaf