

Aphids on apples and pears

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Commonly known as greenfly, these small insects form clusters, particularly on young shoots. There are many species that attack apples and pears, but not all are serious pests.

Q How do I recognise aphids on shoots?

A The insects themselves are green or brown, teardrop-shaped, about 2mm long, usually without wings, and they often congregate in large numbers. They excrete a sugary substance called honeydew which sticks to the upper surfaces of the leaves, making them appear glossy. In time the sticky honeydew will become covered in a black fungus called sooty mould. You may also notice rolled-up leaves or distorted shoots and leaves.

Q What damage do aphids do?

A Aphids feed by sucking sap from the cells of a plant which distorts its growth. This can mean that new shoots are stunted, leaves can't photosynthesise very effectively, or fruit is disfigured and fails to mature properly. The honeydew the aphids excrete encourages the growth of black sooty mould. This is unsightly and further damages the plant's health by blocking out light from the leaves. Aphids are also responsible for spreading many virus diseases, though this is unlikely to be a problem with apples and pears in gardens.

Q Can you tell me more about them?

A There are six species of aphids which commonly attack apple or pear shoots. Expect to see them in April, May and June. They vary both in appearance and in the type of damage they do.

Apple-grass aphid (*Rhopalosiphum insertum*) is yellow-green and attacks leaves and blossom. It does relatively little harm unless present in very large numbers. Infested leaves turn yellow and curl up. The aphid then leaves the apple tree to spend summer on grass or oats, returning in autumn.

Green apple aphid (*Aphis pomi*) is bright green or yellowish green and attacks young shoots. It will also attack pears and other related plants. It lives on fruit trees all year round. Older trees are not usually affected, but young trees are at serious risk.

Pear-bedstraw aphid (*Dysaphis pyri*) is a large, pinky-brown aphid with a waxy coating and is the commonest aphid on pears. It attacks the young shoots and causes leaf curl and discoloration. It spends the summer on gallium (bedstraw).

Rosy apple aphid (*Dysaphis plantaginea*) is pink to grey with a waxy coating. It infests leaves and blossom in early spring and can seriously distort fruit and shoots. It is the most damaging apple

aphid and often causes fruit to ripen early. This aphid spends the summer on other plants such as plantains.

Rosy leaf-curling aphid (*Dysaphis devectora*) is bluish-grey with a waxy coating. It can cause very serious damage. It feeds on leaves that then develop bright red or yellow patches and become tightly curled in response. It lives all year on apple trees and causes damage year after year. It does not cause fruit distortion.

For woolly aphid, see overleaf.

Q When should I expect to see these aphids?

A All of these species overwinter as eggs. The eggs hatch at the end of March, which is also when fruit buds open. The young aphids feed on the flowers and move into crevices, where they are less vulnerable to insecticides. Numbers peak in early summer.

Q How do I control them?

A Small numbers (relative to the size of the tree) are not worth worrying about. Trees will tolerate some damage and the aphids' natural predators will also help to get rid of them. If the infestation is serious, there are several alternative control methods. A well-aimed jet of

water from a hand-held sprayer may be all that is needed on a small tree, or spray with an insecticide containing bifenthrin or thiacloprid. The sprays will kill other insects too. If you need to use when the trees are in flower, apply at dusk to avoid harming pollinating insects.

Q Are there any organic options?

A Pyrethrum-based insecticides break down very quickly and are acceptable to organic gardeners. Another option is an insecticide based on natural fatty acids. These may also harm other insects such as bees so follow the precautions outlined above.

If you see large clusters of eggs, around old fruiting spurs of pears for example, it's worth cutting these out.

Q What about winter washes?

A Most aphids overwinter as eggs on the fruit trees. Winter washes containing tar oil are no longer available, so scrub off aphids using water with a drop of detergent in it.

Q What about natural predators?

A Insectivorous birds such as tits can consume huge numbers of aphids. Encourage them by putting out food in winter and nest boxes. Ladybirds and lacewing larvae are also big aphid-eaters. Encourage them by not using insecticides which can harm them. Research suggests that growing wild flowers around trees encourages predatory insects.

Q My tree has the symptoms but no aphids; where have they gone?

A Natural predators can wipe out entire colonies or the aphids may have just moved on. Most aphid life cycles involve two host plants, and they spend only part of the year on each. With fruit trees, the worst infestations are likely to occur in early spring. Several species move to other hosts for the summer and autumn.

Q What about woolly aphid?

A This aphid (*Eriosoma lanigerum*) arrived in Britain in the eighteenth century and is now very common. Woolly aphids feed on apples and ornamentals that are closely related, such as crab apples, chaenomeles, cotoneaster and pyracantha.

Q How do I recognise them?

A You will not see the small, brown or greyish-purple aphids, but rather their woolly protective coating which is white and waxy. This coating looks rather like a fungus, especially when the woolly aphids cluster together in large numbers. Woolly aphids feed on sap and are attracted to younger, woody shoots and damaged areas such as pruning wounds. Unsightly galls form where aphid colonies have attacked. These can split, letting in diseases such as apple canker. Woolly aphids don't attack the roots, but they can infest the base of the trunk.

Q When should I expect to see them?

A They overwinter as young aphids. These are not covered by waxy strands, so they are hard to

spot. In March and April they become active, and soon breeding colonies covered in a white, woolly coating will be noticeable. They spread by producing crawling young which find new areas to colonise then produce young. In July winged forms fly off to infest other plants. Breeding stops in autumn when immature aphids seek sites to overwinter.

Q How much of a problem are they?

A On a healthy tree, woolly aphid is unlikely to do much damage, though it can harm young trees or those weakened by disease or poor growing conditions. However, sticky masses can be a nuisance when harvesting fruit. Infestations are often kept in check by predators. Both native predators, such as ladybirds, hoverflies and lacewings, and an introduced parasite attack woolly aphids. The introduced parasite, a tiny wasp *Aphelinus mali*, now lives wild in southern England and is especially effective during hot, dry years. You can tell that this parasitic wasp is at work in your garden if the wool has been reduced, leaving a shiny, blue-black, naked aphid with a circular hole in its back through which the parasite has made its exit. Although this parasite is very susceptible to insecticides, it will thrive in an organic garden.

Q How can I control woolly aphid?

A Watch for signs of woolly aphid in the spring. Scrub them off using water with a drop of detergent in it. If you can get rid of the bark colonies before the aphids begin to move on to

young shoots in July, it will make spraying unnecessary. If early control is unsuccessful, spray with Growing Success Fruit and Veg Bug Killer or Provado Ultimate Bug Killer Ready to Use.

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