

Aphids: Garden Organic Factsheet



Aphids are sap-sucking insects that can be found on a very wide range of plants. They are one of the most common pests to attack garden plants. They are more commonly known as ‘greenfly’ or ‘blackfly’. Some aphids attack many different types of plant, others are specific to only one or two.

Typical symptoms

Aphids will attack all parts of a plant including leaves, shoots, flowers, stems and even roots. Most commonly, aphids are seen in large numbers clustered around tender young growth often causing young shoots to become weak and distorted. If numbers of aphids are very high they can actually kill the plant they are living on. Some species of aphid protect themselves by causing the leaves to pucker and curl, or by producing a waxy, woolly coating.

Aphids feed by puncturing and tapping into the plants veins to feed on the sap. This feeding method can spread plant viruses as the insects fly from plant to plant. Examples of viruses spread in this way are: pea leaf-roll virus, cucumber mosaic virus and plum pox virus.

Aphids consume large volumes of sap, excess being secreted as a sticky ‘honeydew’ that may coat the leaves beneath. Sooty moulds may develop on the honeydew coated leaves. The black or dark brown soot-like deposits can prevent light getting to the leaves causing premature leaf fall, though sooty moulds are not in themselves harmful to the plant.

Some aphid species are tended by ants that feed on the honeydew, in return, protecting the colony from predators and parasites.

Description of pest

Generally 1-5mm long with a soft body, long legs and antennae, and usually a prominent pair of tube-like structures at the end of the abdomen. Aphids come in a selection of colours, with more than 500 species in Europe. They exist in both winged and wingless forms. They are weak fliers, but can travel a long way on air currents - even hundreds of miles!

Life cycle

Many species of aphid have more than one host plant, and will overwinter on different plant species from the ones they live on in the summer. Life cycles are generally complex and many generations are produced each year. They usually survive the winter at the egg stage, although in mild weather the adults can survive and remain active. In spring, populations rise rapidly as female aphids are able to give birth to live young as well as laying eggs, resulting in a rapid rate of reproduction as the temperature increases.

Prevention and control

- Knowing the pest: Knowledge of the habits and life cycle of a particular aphid can help achieve more effective control.

For more specific information try:

- ‘*Collins Guide to Pests, Diseases and Disorders of Garden Plants*’ by Stefan Buczacki and Keith Harris. ISBN 0-00-220063-5
- ‘*Pests - How to Control them on Fruit and Vegetables*’ by Pauline Pears and Bob Sherman (Search Press/HDRA) 1990, revised 1992, ISBN 0 855327413
- ‘*Aphids*’ by Roger Blackman (Gunn & Co Ltd) - not really a book to go out and buy, but worth trying to get from a library. ISBN 0 602 21667 2

Other aphid factsheets available online to Garden Organic members include:

- [Cabbage aphid](#)
- [Woolly aphid](#)
- Healthy soil: Make sure conditions are favourable for strong, healthy plant growth. Avoid using too much nitrogen-rich fertiliser. This encourages soft leafy growth which is attractive to aphids.
- Encourage natural controls: Make your garden a friendly place for a range of beneficial creatures by avoiding harmful sprays and providing suitable wildlife habitats. There are many creatures that feed on aphids, including birds, insect larvae, earwigs and bats. During winter, hang up pieces of fat in fruit trees and above rose bushes to attract blue tits which eat aphid eggs. Grow flowers that attract hoverflies, lacewings and ladybirds. They prefer small, simple flowers such as members of the Apiaceae (Umbelliferae) and Asteraceae (Compositae) families. Particularly good are the poached egg plant (*Limnanthes douglasii*), the annual climber, *Convolvulus tricolor* and flowers of buckwheat green manure. Remember that these natural pest controllers actually need a supply of aphids to survive, so leave some where they are not a particular problem. A patch of nettles can be a good source of nettle aphids (*Microlophium evansi*) the earliest to appear in spring for hungry ladybirds. Nettle aphids are host specific and will not attack other plants in the garden.
- Choose resistant varieties: Some varieties of lettuce are resistant to root or leaf aphids. These include Avon Crisp, Lakeland, Milan, Little Gem, Sylvesta and Barcelona. Other plants are resistant to viruses which are spread by aphids.

Some varieties of plant, such as aphid resistant strains of raspberries, have hairier leaves which aphids dislike.

- **Barriers:** Covers such as horticultural fleece can give good protection against aphids and the viruses they transmit.
Some ants 'farm' aphids for the honeydew that they produce. This means that they protect them from predators and move the pests around a plant to new 'pastures'. If a tree is badly infested with ants and aphids, a band of insect glue round the trunk stops the ants climbing up the tree. Without protection, aphid numbers will decline as they are exposed to more parasites and predators.
- **Hand picking:** Inspect plants regularly and squash any aphids that are seen. Pick off heavily infested shoots and leaves and drop into a bucket of soapy water. Wearing rubber gloves can make this job a little less unpleasant.
- **Cold water spray:** A strong jet of water from a hose will dislodge aphids. Best done early in the day to allow the plants time to dry, avoiding creating damp conditions for fungal diseases to spread.
- **Biological controls:** There is a wide range of predators to choose from, including parasitic wasps, *Aphidius* and *Aphidoletes*, a type of gall-midge: *Harmonia* and *Hippodamia* are ladybird-like beetles and *Chrysoperla carnea*, a species of lacewing.
 - **For greenhouses or conservatories:** The parasitic wasps, *Aphidius* or *Aphidoletes* are probably the most widely available control for amateur growers. The air temperature needs to be above 10° C for the predators to establish.
 - **For outdoors:** Aphids outside can be controlled by introducing lacewing larvae (*Chrysoperla*) in June, when the temperatures average around 14°C. Don't forget to put up a lacewing hotel in August for the adults to hibernate in, or they won't stay in the garden to eat next year's aphids.
Ladybirds (*Coccinella*) and their larvae are excellent predators, too. Ladybird larvae are available to buy, simply introduce to plants heavily infested with aphids and they will soon get to work, consuming the aphids.

Garden Organic members can find more details on these two predators, see the Garden Organic factsheets:

- [Ladybirds](#) [Lacewings](#)
- **Chemical control - a last resort:** Insecticidal soap, pyrethrum or derris can be used. Also the sprays based on rape seed oil, as this does not harm bees, ladybirds or lacewings. They are all contact insecticides which will only kill what they hit. For best results, drench the aphids thoroughly using a powerful sprayer. There is no benefit in spraying parts of the plant not infested.

[Biological aphid controls](#) and [chemical controls](#), as well as other organic gardening products, are available from The Organic Gardening Catalogue.

Sprays approved for use in the organic garden can be harmful to useful insects, so only use them as a last resort.

Spray flowering crops at dusk when bees are not active. Always follow the manufacturers instructions when making up and using sprays. Read the label before you buy. Use pesticides carefully