

How to: Deal with pests and diseases in the garden



Ladybird larva eating aphid Photo Gilles San Martin, Wikimedia Commons



Cabbage white larvae Photo: Markoz, Wikimedia Commons

*The most important principle to take with you when dealing with pests and diseases in a wildlife-friendly garden is **tolerance**. Approach the topic with an understanding of what types of damage are important to you and what types are not so important. One of the best things you can do for garden wildlife is to avoid the use of insecticides. Insecticides kill indiscriminately; they will kill the 'helpful' pollinators and minibeasts you are trying to encourage as readily as they kill the 'pests' you are trying to get rid of. This can also cause issues further up the food chain for bats and birds, both of which rely on large numbers of insects to feed.*

Target species: The pests which are likely to cause the most damage to your garden are insects, slugs, snails and mites. Luckily, these all have many natural predators which can be easily encouraged in UK gardens. Fungal and bacterial diseases are harder to deal with, but with vigilance damage can be caught early and spread can be prevented.

How to do it

General approaches

It is always easier to work on the principle of prevention rather than cure. Being vigilant and paying attention to any pests that seem to be abundant in your garden is a good way to start. The best approach for controlling many different pests is to encourage their natural predators in your garden; animals such as birds, frogs, bats and hedgehogs.

The idea is NOT to use chemicals for control unless there is strong evidence that you need them. While this may be necessary to protect commercial crops, only rarely do problems get so out of hand in gardens that toxic chemicals are the only answer. Our webpage '[Managing pests and diseases](#)' provides a good introduction to these issues

Slugs and Snails

Slugs and snails are one of the most common pests in the UK that gardeners look to avoid. They can usually get almost everywhere, so start by identifying plants any young plants or seedlings that you need to defend. Research has shown that gardens where slug pellets are extensively used indeed have fewer snails. But they are food for birds beetles and amphibians and slug pellets can be damaging for other organisms

- There are a range of different mechanical controls such as bran, granule or wool barriers and copper tape placed around beds or on the outer rim of pots, but these generally lose effectiveness rapidly after

rain. You can trap slugs in sunken cut-down plastic bottles with stale beer, but the resulting soup is pretty disgusting. Some people go slug and snail hunting at night with a torch to remove them from their plants, and snails can be [delicious cooked](#)

- An effective deterrent is to cut the bottoms off clear plastic bottles, and push them firmly into the soil around small young plants, this also makes a mini-greenhouse
- Biological control using [nematode cultures](#) available online can be very useful, but you need to plan ahead and apply the cultures early in the year when the soil first warms. They are best used on veg patches and allotments to protect a large area rather than individual plants
- The highly effective metaldehyde based slug pellets are no longer available for home use. Alternative iron-based pellets are effective, but they are dangerous for earthworms, so use them sparingly around the base of young plants and seedlings.
- Remember song thrushes will feed on slugs and snails especially in the summer.



Song thrush Photo: DickDaniels, Wikimedia Commons



Thrush's snail anvil Photo: Rosser1954, Wikimedia Commons

Aphids

Aphids (commonly called 'blackfly' and 'greenfly') are tiny insects which suck sap from the stems of plants and can weaken or kill young shoots or new growth.

- if you find your roses or broad beans smothered with green or blackfly, wash them off with a jet of water from the hose, or spray with soap flake (not washing detergent) solution
- Beetles are good natural pest control and many species (especially ladybirds) eat aphids, so encourage beetles in your garden by using our [guide](#) How to guide improve your garden for beetles

Sawflies and caterpillars

The most important thing is to be vigilant; caterpillars and sawfly larvae (which superficially look like green caterpillars with black dotted stripes) can strip plants of leaves very quickly. Make sure to regularly check plants (especially any currants, gooseberries and roses) throughout spring.

- Caterpillars and sawfly larvae should be picked off the plant by hand. They can also be dislodged by spraying with water.
- The only common pest caterpillars are of the cabbage white butterflies, so if you like watching the adults, don't kill all their caterpillars
- Nematode based [controls](#) are available If you have excessive numbers of larvae

Red spider mites

While red spider mites are hard to control, the damage they cause plants is often fairly limited; while they can cause plant death, leaf mottling or leaf death is more common

- They thrive in warm conditions, so are usually only an issue in the spring-summer months or within a greenhouse.
- One of the most effective ways to prevent them is to keep plants well-watered, as spider mites favour drier environments. Spraying leaves and stems with water can also be a good approach.

Plant diseases

Most plant diseases are caused by fungal infections and some by bacteria and viruses. The RHS has an excellent [page](#) introducing plant diseases. Prevention is better than cure, so removed all infected leaves or stems as soon as you see them and sterilise secateurs to avoid passing on the disease. Pruning when the air is dry helps prevent transmission.

- Diseases caused by fungi are common in gardens and cause conditions such as box blight, blossom wilt, rusts and brown rot. They usually spread in warm humid conditions, so check plants in typically wet UK summer months. Once an outbreak has started, it is important to cut back all damaged vegetation and dispose of it to limit spread. Plants generally recover in the following year.
- Don't spray plants with fungicides unless you have a clear and significant problem. Be tolerant of toadstools appearing in your garden. The only exception is [honey fungus](#) that if ignored can spread and kill important trees and shrubs. Fairy ring fungi in lawns may be unsightly, but the grass recovers
- Two devastating fungal diseases are Dutch elm disease and ash die-back which are killing important native trees, but these are not commonly grown in gardens
- Bacterial diseases cause slime fluxes and cankers on trees, nasty -smelling oozing areas on dead bark. Crown gall is a bacterial infection making tumour-like growths the roots and stems on a variety of trees, flowers and vegetables. Depending on the impact of the infection, you may need to cut the affected area or dig out and destroy the whole plant.
- [Viruses](#) cause diseases in plants including camellias, cannas, cucumbers, tomatoes, daffodils and hellebores. The only cure is to dig up and destroy the plants affected
- Foliage infected by rusts or mildews can be home composted. Most other material will be sterilised during council-collected composting. Bonfires were traditionally used, but their smoke is now considered hazardous and they should be avoided

How easy is it to do?

Easy/moderate. Avoiding insecticides and tolerating some herbivore damage is extremely easy! Some of the manual controls mentioned can be moderate amounts of work and may require you to pay close attention to your plants over a period of weeks or months to ensure that pests do not return.

How much will it cost?

All the approaches detailed in this guide are low cost. Many of the manual controls are free (just picking insects off with your fingers!) or use equipment (e.g soap flakes) from around the house. Copper tape to curtail slugs and snails can usually be found for under £5 in most garden centres, while wool or granule barriers cost £5-10. Nematode cultures for various pests cost £10-£20 for a season's treatment.

How effective is it for the target species?

Effective/ somewhat effective. Manual and mechanical controls can be effective, but do take some effort. Accepting minor damage will lead to a flourishing garden rich in biodiversity.

Golden rules – what the science tells us

- Insecticides kill **all** insects, meaning that they harm beneficial insects as much as pests. Many insecticides can also cause issues further up the food chain, particularly for birds, due to build-up in the food chain. Therefore, using insecticides can be very damaging for the biodiversity of your garden and its surrounding areas.
- Cultivating a garden with many natural predators of pest species (both insect predators such as beetles and vertebrate predators such as birds and frogs) is a much better and longer-term solution than chemicals.

What to look for?

Always look out for and note any herbivore damage and keep a close eye on any pests within your garden. This will help you decide if damage is staying at an acceptable level in the garden. It is particularly important to keep an eye on any new growth or young plants, as these are the plants which are most likely

to die from pest activity. In terms of disease, the exact type of damage to look for will depend on the diseases of the plant. Generally, keep an eye out for any brown or black marks on leaves, any signs of die back and any wilting in apparently-well-watered plants.

Things to be aware of

Fungal and bacterial diseases vary greatly year on year, and on where you are based in the country because their spread can be affected by weather. Therefore, be prepared to accept that some years it can be hard to completely avoid damage.

Further information

Our 'Managing pests and disease' [webpage](http://www.wlgf.org/managing_pests.html): www.wlgf.org/managing_pests.html

Garden organic is also a good [source of information](http://www.gardenorganic.org.uk/growing-advice) www.gardenorganic.org.uk/growing-advice

The RHS has good searchable pages on [pests](http://www.rhs.org.uk/advice/plant-problems/pests) and [diseases](http://www.rhs.org.uk/advice/plant-problems/diseases-disorders), which will allow you to get in-depth advice on specific species: www.rhs.org.uk/advice/plant-problems/pests

www.rhs.org.uk/advice/plant-problems/diseases-disorders

RHS on [plant viruses](http://www.rhs.org.uk/advice/profile?PID=188) www.rhs.org.uk/advice/profile?PID=188

RHS on [honey fungus](http://www.rhs.org.uk/advice/garden-health/disease/honey-fungus) www.rhs.org.uk/advice/garden-health/disease/honey-fungus

RHS on [biological controls](http://www.rhs.org.uk/advice/profile?pid=506) www.rhs.org.uk/advice/profile?pid=506

RHS on [biological control suppliers](http://www.rhs.org.uk/advice/pdfs/biological-control-suppliers) www.rhs.org.uk/advice/pdfs/biological-control-suppliers

How to improve your garden for [beetles](http://www.wlgf.org/ht_beetles.pdf) www.wlgf.org/ht_beetles.pdf

Link to [cooking snails!](http://www.wlgf.org/snails.html) <http://www.wlgf.org/snails.html>