

Slugs and snails

GWF265
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Slugs and snails are found in every garden. Nibbled or shredded foliage and trails of slime are tell-tale signs that slugs or snails have been at work.

Q What conditions encourage slugs and snails?

A Slugs and snails are molluscs and need a moist environment to survive. Slugs thrive in damp soil or plant debris, retreating deep into the soil when the weather is dry. Snails maintain their moisture level by going into their shells. Both are active mainly at night and in wet weather.

Q Why are they so common?

A Slugs and snails feed on a wide variety of plants and adapt to many environments. Few plants are safe and they cause problems in most gardens. Because they are so slimy they are relatively unpopular with predators. However, some are eaten by birds, hedgehogs, moles, shrews, frogs and predatory beetles.

Q How many kinds of slug are there?

A There are many kinds of slug, but only a few are serious pests.

Grey field slug (*Deroceras reticulatum*) is the most common and destructive. It is about 40mm long and light grey to fawn in colour. It feeds above ground even in cool weather.

Keeled slugs (*Milax gagetes*, *Tandonia budapestensis*, *Tandonia*

sowerbyi) have a ridge down their backs and are mainly soil-dwelling. Underground, they bore into potatoes or similar plants, but they attack plants above ground too. They are about 6cm long, black, brown or grey.

Chestnut slug (*Deroceras panormitanum*) is a faster-moving version of the grey field slug. It seems to prefer gardens and greenhouses.

Garden slugs (*Arion hortensis* and *Arion distinctus*) are very common. Although only about 3cm long, they do much damage both above and below ground.

Large black slug (*Arion ater*) is very big, up to 20cm long, and may be black or orangey-brown. It's often noticed after rain in the summer. It is less destructive than the smaller slugs, though is by no means harmless.

Q Are slugs beneficial?

A Slugs contribute to the disposal and recycling of plant debris.

Q Are all snails garden pests?

A Most snails are not significant pests in the garden. The banded ones do little harm, but the garden snail (*Helix aspersa*) and strawberry snail (*Trichia striolata*) are more common and damaging.

The garden snail is the large,

common kind with a grey-brown shell. The strawberry snail is small, about 13mm, grey to brown with a flattened shell. Snails are less numerous than slugs but are seen more often. They climb higher, as their shells protect them from drying out.

Q How is slug or snail damage different from other troubles?

A To check if slugs or snails really are to blame, look for slime trails and check under pots, stones and foliage for the slugs themselves. If you're still not sure, a night-time foray with a torch may help.

Below-ground damage to seedlings, roots and tubers could be the work of soil pests like chafer grubs or wireworms. Usually these pests will be found nearby - simply scrape away the surface layer of soil. However, you may have to look in the soil around neighbouring plants.

Potato tubers and bulbs are usually attacked after watering or rain in summer, or in moist autumn conditions. Attacks at other times could be by cutworms - a soil-dwelling caterpillar pest. If you see millipedes, springtails or woodlice, they are just taking advantage of the food supply and are not the cause of the damage.

Nibbled produce, such as celery stems and lettuce hearts could be the work of caterpillars, but these leave dark droppings (frass). If

slugs are to blame, they will usually be close to the damage.

Q Does soil type make a difference?

A Snails prefer a calcium-rich chalky soil to form their shells. Slugs are at their most prolific on soils that retain moisture, contain a lot of organic matter and have many gaps below ground where they can hide - clay soils and those that have been heavily manured are ideal. Sandy soils are much less suitable as they dry out more quickly and there are few hiding spaces below ground.

Q What can I use to deter and get rid of slugs?

A Gardeners traditionally use things like crushed egg shells, sharp sand and soot to repel slugs. In our latest trials, we found these worked best: Agralan Copper Snail and Slug Tape (Agralan); WD40; Hosta Haloos; Slug Rings; Slug pellets containing metaldehyde (eg Bio Slug Mini Pellets); Nemaslug (See right for 'Are there any biological slug controls?'); Growing Success Advanced Slug Killer.

Q What chemical controls can I use?

A There are two chemical options - metaldehyde and ferric phosphate. Metaldehyde, the active ingredient in most slug pellets, causes slugs to become paralysed. Once immobilised, the slugs dehydrate, although in very wet conditions they may recover. Metaldehyde is toxic to birds and mammals, including humans. Ferric phosphate-based pellets stop slugs and snails feeding with no ill-effects to other creatures. Only

these pellets are approved for use by organic gardeners.

Q How do I keep slugs off potatoes?

A Potato damage can be controlled to some extent by applying chemical or biological control into the crop during late July or August. Some potato varieties are much less affected than others. Avoid 'Marfona', 'Estima' and 'Maris Piper' if your soil is slug-infested. Instead try 'Pentland Dell', 'Lady Rosetta' or 'Romano' which are less susceptible. If you cannot get these locally, try **Edwin Tucker's** in Devon (call 01364 652 233), who supply a wide range of seed potatoes by mail order.

Q Do slug pellets pose a risk to wildlife and pets?

A There is no conclusive evidence that they are harmful to either when used according to instructions. However, to minimise any risk, garden slug pellets are dyed blue (to deter birds) and many contain a bitter-tasting animal repellent. If you do use them, concentrate your efforts on vulnerable plants; don't attempt to eliminate slugs from the whole garden. Scatter the pellets thinly, according to the instructions, don't leave them in heaps. Collect up the poisoned slugs and snails and consign them to the dustbin. Always store pellets in their original container, and safely out of reach of children and pets.

Q Are there any biological slug controls?

A *Phasmarhabditis hermaphrodita* is a biological control sold as Nemaslug, Slugsure T and Just Slug Killer. It can be used against slugs but it's

not effective against snails. It contains millions of naturally occurring nematodes that penetrate the slug's mantle, carrying a bacterium that infects and kills the slug. It's best used in spring and autumn when the soil is warm and moist. The nematodes are sold by mail order only.

Q Can slugs and snails be avoided?

A Tidy gardens are tough environments for slugs and snails. Keep weeds down, and clear away dead plants and rubbish to discourage them. Sometimes the number of slugs varies around the garden - look out for areas where you see no slugs and try growing your slug-susceptible plants in these places.

Dig potatoes early. Use an early-maturing kind such as 'Heather', 'Kestrel' or 'Wilja' and aim to lift these before the end of August, while the soil is still dry. In a wet summer, the slugs may be active even before this. Lift as soon as the trouble becomes apparent. Avoid using fresh or partly rotted organic matter in the garden as this helps to feed the slugs. Use well-rotted manure or compost instead - either dig it in or use as a mulch. Avoid mulching vulnerable plants like lettuce and potatoes.

Mail-order biological controls

Biowise 01798 867574
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