



# ON THE SLIME TRAIL

With our recent wet summers, we need to adopt more of a 'whole garden' approach when it comes to curtailing the ravages of slugs and snail, says **John Walker**

**W**hether they're sliding in and out of the gaps in my slate walls, chomping on the contents of my compost bins, or abseiling on glistening threads from my greenhouse roof, I love slugs. These amazing, tenacious creatures are part of the dynamic, interconnected ecosystem of my garden. They beguile me, challenge me and teach me plenty – not least how to be a canner, more thoughtful gardener. And when they graze on the algae that North Wales' weather grows so well, they even do a spot of window-cleaning for me.

Love is rarely all plain sailing and so it is with slugs (and to a lesser extent here, snails). Much as I admire slugs' tireless determination, not to mention their powers of proliferation, there are times when, as their attention turns to my plants,

that affection curdles. But as I'm in no rush to unduly sour my benign feelings toward them, and as they're never going away, I've adopted a more 'whole garden' approach to living with slugs. If record-breaking wet and slug-heaven summers like last year's are going to become more frequent – and with a changing climate there's strong evidence to suggest they are – then a more joined-up approach seems a good move.

That's not to say there won't be some casualties along the way, especially when love turns to hate, but I'm determined that me or my crops won't be among them.

## 'Whole garden' thinking

It is drummed into us that slugs and snails mean trouble for gardeners and that extermination is the only option. There's no doubt slugs can devastate our gardening efforts but



Slugs come in all colours and sizes, but it's the smaller species that tend to be more numerous and do most damage

it's worth stopping to consider where the real problem lies. Are slugs hell-bent on seeking and destroying our crops, or are we, by modifying patches of earth, by making our gardens, simply setting our cosseted plants up for an inevitable fall? Slugs might eat our plants but there are



Slugs: Can we learn to love them?

plenty of birds, amphibians, reptiles, insects, mammals and other garden inhabitants queuing up along the food chain to eat slugs.

Gardens are by their nature an artificial entity, yet that doesn't mean we can't summon the best bits of natural ecosystems to give us a helping hand. We can add a pond to attract frogs and toads; include log and leaf piles to home hedgehogs, slow-worms and centipedes; let lawn edges grow wild to shelter hurrying ground (carabid) beetles; and plant mixed hedges and dense shrubs to encourage blackbirds and thrushes to nest and feed. All of these players in nature's food chain will do their bit to reduce slug numbers. But when a single grey field slug (*Deroceras reticulatum*) can have up to 90,000 grandchildren, they've got their work cut out!

### Tapping into nature

Nature has given us a now familiar and effective ally that's partial to slugs, and it's capable of reaching where more familiar predators often don't and where the smaller and most damaging slugs hang out: the soil.

The tiny parasitic nematode *Phasmarhadtis hermaphrodita* arrives via letterbox and is kept in the fridge. To use it, you simply mix it



## Add ponds, add life

Adding one or more wildlife ponds to your garden will increase nature's presence and boost your population of nocturnal, slug-eating amphibians. Even small ponds can have a big impact. This one, made from a half-barrel, is just 60cm (2ft) across but boils over in spring with spawning frogs and toads. The slates around the edge create plenty of nooks and crannies for slug-eating wildlife to inhabit.

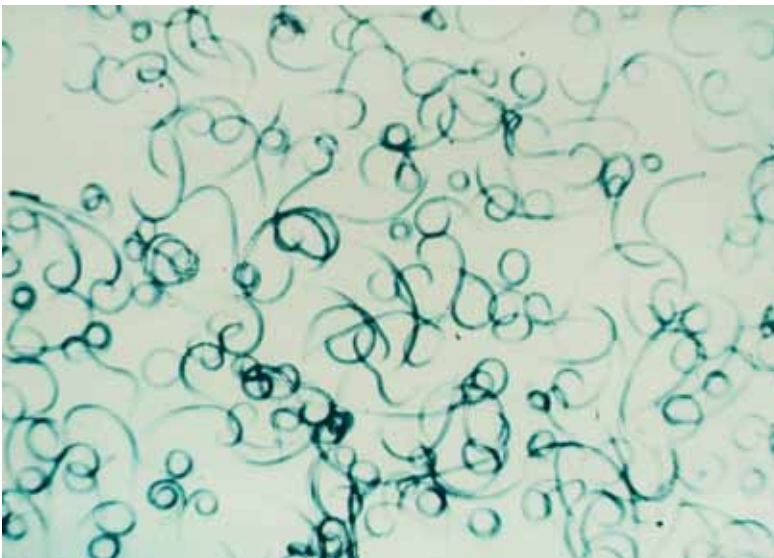
in a watering can and apply it (using a coarse rose) to moist, warm soil (5°C or above) around any at-risk crops. I don't waterproof, wellies and head-torch to put mine into action, mixing the spray from my can with

raindrops, as they're more effective applied to wet soil. Nematodes are harmless to just about everything but slugs, which, following invasion, stop feeding and eventually die. No harm becomes anything snacking on an infected slug.

Supercharging your soil with nematodes helps check not just the current slug population but any that hatch from eggs. When the time's right, which means when the soil's warm and wet enough in spring, I usually give all my garden beds a 'nematode top-up', no matter what's growing in them.

Nematodes work less well at curtailing snails and the bigger slugs, such as *Arion ater*, the black slug, although it does relatively little damage, except to seedlings in spring, preferring to feast on rotting organic matter. Any help in turning stuff that will rot into compost is welcome, so big slugs are popped into my bins to earn their keep.

**TOP TIP**  
Don't be afraid to use nematodes - they're naturally occurring and impossible to over apply. Slugs retreat to below the soil surface before dying, where they will rot down.



Naturally-occurring tiny parasitic nematodes like these can be watered onto the soil to control soil-dwelling slugs

# Organic gardening



## Get defensive

Even by calling on nature big and small to help push back the slug tide, some will always get through. This is when using a physical barrier to deter slugs kicks in, and it can be highly effective. I'm not talking crushed eggshells here, which don't work (they're not sharp or disruptive enough) but other slug-hindering materials.

Because I take an earth-friendly approach, I try to solve pest

These crushed, sharp-edged shells, a by-product of the seafood industry, make an effective and good-looking slug deterrent

challenges in ways that require the smallest 'take' in terms of energy and resources, and do the least harm. There are numerous slug deterrents available, made from all sorts of materials. Some of these, such as copper rings and tapes, which 'shock' slugs and snails when they touch them, do work a treat. But copper ore needs mining, then smelting and so on, until a finished product's in our hand. This all uses energy and resources, helping upsize our gardening 'footprint'. Bought-in solutions can also be expensive.

Being the frugal type, I've settled on a material which does this age of austerity proud. It's natural, infinitely renewable and rots away. One source is more 'local' than you might imagine.

## Hair today, deterrent tomorrow

Two hair types make highly effective slug barriers in my garden. One I harvest from barbed wire fences, the other comes from the top of my bonce. Both cost me nothing and are footprint-free.

Due to its fine, fibrous texture and tiny barbs, sheep's wool makes smooth running hard going for a slug, so they won't tangle with it. I tease out clumps of wool and spread it around at-risk plants outdoors and in containers. If your plot's a long way from barbed wire, wool has been refined into an effective pelleted form (called Slug Gone) which I've used successfully. It's not free, but it has a relatively modest footprint and is available by post.

My ultimate slug deterrent is entirely home-grown. My hairdresser is happy for me to scoop up my own and others' trimmings to take away. As with wool, I put it around slug-prone plants, in a layer 2.5cm (1in) deep. When the job's done both wool and hair can be worked into the soil, or add them to your compost bin. I don't mind the look of either among my crops, but if you're fussy, try to resist going peroxide blonde...



Lay barriers so that they are at least 2.5cm (1in) in width. This will stop slugs from bypassing the barrier

## SLUG BARRIERS

Slug- and snail-resistant barriers should be laid at least 2.5cm (1in) across to protect plants. These are just some of the materials you can use. From centre top, running clockwise:

- 1 Wool pellets swell up and expand into a fibrous hairy barrier when moist
- 2 Hygroscopic granules, which dry out slugs' slimy mucus when they touch them
- 3 Human hair keeps on growing, is infinitely 'renewable' and slugs and snails hate getting caught in it
- 4 Bran impedes a slug's movement and they will also gorge on it while leaving your plants unharmed
- 5 Ceramic shards have sharp, angular edges that deter slugs
- 6 Sawdust sticks to slugs' mucus, so they avoid getting stuck in it

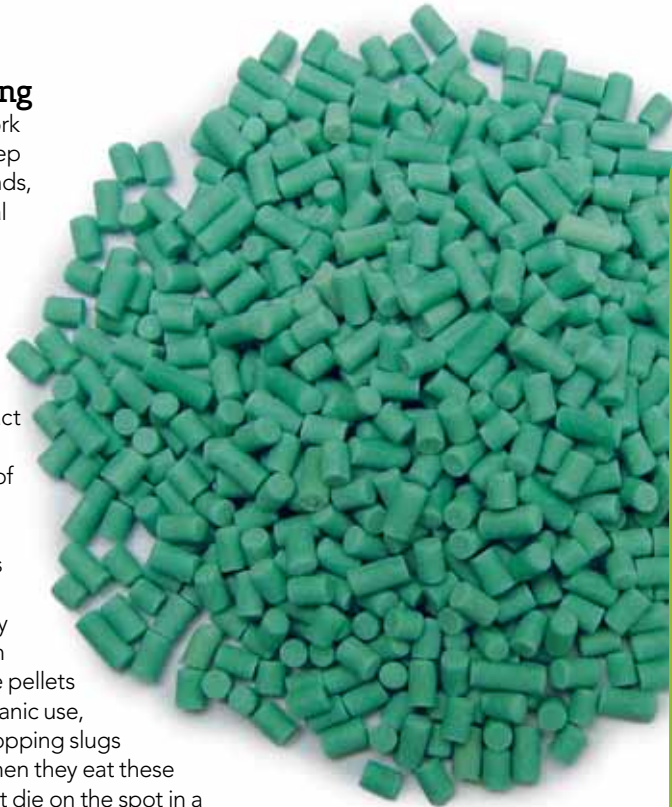


One of my most effective slug deterrents is sheep's wool, which I 'harvest' for free while out on a walk

## Pellets as icing

Even though I work with nature to keep slugs within bounds, I still use chemical slug pellets if I need to, but only as the icing on my slug-containment cake. As they are designed to attract slugs, pellets are an effective way of guarding against rogues that have eluded predators and nematodes, and breached any barriers. I use iron (ferric) phosphate pellets approved for organic use, which work by stopping slugs from feeding. When they eat these pellets, they don't die on the spot in a frothing mass (as they do after eating metaldehyde pellets) but move away and die out of sight. Any uneaten pellets break down harmlessly into the soil. Trials by Which? have found iron phosphate pellets, which are harmless to wildlife (including soil life), children and pets, to be just as effective as those containing metaldehyde.

Out of all the slug controls, pellets come with one of the bigger gardening footprints; they use raw materials and need energy to make, package and transport (and there's the container to recycle, too). I use them, sparingly, as icing, but they can



Slug pellets containing iron (ferric) phosphate are effective at controlling slugs and snails, but treat them as a last resort

offer salvation in a new garden where everything's fresh and its ecosystem is only just taking shape.

Pellets do, of course, poison slugs and snails. I'd much rather let an ally further down the food chain do the dirty work, but no one said that, sometimes, love didn't hurt.

## Drinking the blues

Slug pellets made with metaldehyde are toxic not just to slugs and snails, but also to other animals. Metaldehyde is also responsible for a less well-known but growing problem: pollution of our water supply. In tests last autumn, metaldehyde levels in both raw and treated water supplies in most UK areas were 40 times over the limit set by the European Union. Much of this came from agricultural use in a year of relentless slug damage. Although this pollution is detectable, there is no way of removing it. The Environment Agency claims there is no health risk, but this is environmental pollution which we gardeners can help ease by switching to iron phosphate pellets.

