



# natural pest & weed control



## what is it?

It's using non-synthetic methods to prevent or kill weeds and pests in the garden. This has only become a topic since the development of synthetic pesticides and weedkillers. Before that, all pest and weed control methods were natural. It's only since the large-scale manufacture and use of synthetic pesticides after the Second World War that widespread ecological damage has occurred. The organophosphates that were used to produce the first commercial pesticides were originally developed in Germany for use in chemical warfare. Go figure, as they'd say in some quarters (not here, of course).

## what are the benefits?

- Pesticides and weedkillers are poisonous, and so risky things to have in our homes & gardens
- Chemical residues in our food can poison us quickly and in more subtle, long-term ways
- Synthetic pesticides kill not just the bugs that they're aimed at, but other species that are essential for the balance of nature in your garden and further afield
- Loss of predator species, killed by pesticides, actually makes the pest problem worse
- Poisons find their way to the wrong places via run-off, spillages or disposal, and destroy plants, animals and their habitats
- Garden chemicals are expensive and made in factories; many non-chemical means of control are free, cheap or re-use waste materials



*Blue tits will eat pests, as will hedgehogs, frogs, toads, newts, ladybirds and lacewings.*

## what can I do?

### Controlling pests

First, practise good soil management, because vigorous, healthy plants growing in healthy, well-managed soil are much less susceptible to pests.

**Encouraging pest predators:** birds eat pests. Buy or make bird boxes (you can find plans online). Plant trees/bushes with berries, or flowers that produce seeds, like zinnias or cornflowers.

Frogs and toads eat slugs, so build a wildlife pond. Even an old sink buried in the ground will do – make ramps for wildlife to get in and out. Hedgehogs eat slugs, snails and caterpillars; make your garden hedgehog-friendly by having an area of long grass or other cover. Ladybirds (and their larvae) eat lots of aphids, and so do lacewings. Make homes for them, e.g. cut the end off a plastic bottle and fill with hollow stems, sticks, or rolled up cardboard, then fix to a wall or fence. You can buy insects such as ladybirds by mail order – but it's an expensive solution and the ladybirds might fly off! You can also buy nematodes – tiny parasitic worms that get into slugs and eat them from the inside (yuk). These are watered into soil starting in early spring, and will control slugs for c. 6 weeks. Longer term, you're better off taking other natural measures to control slugs – such as encouraging predators and removing slug habitats like piles of stones or long grass near beds.

**Trapping:** for slugs, fill a shallow dish with beer, place it on the ground, make a lid that keeps out rain but allows in slugs and snails. They climb into the trap, and drink themselves to death. You can also buy pheromone traps to hang in fruit trees to control pests, but this is usually for commercial fruit growers. There are also sticky 'fly paper' traps that catch aphids. Make sure they don't contain insecticides.



*The most important thing you can do is to not use pesticides in your garden or smallholding.*

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Slugs and snails will hide under half an orange / grapefruit skin or a plank of wood. Every morning, lift the traps and dispose of the slugs. Aphids love nettles, and so do ladybirds. Grow nettles in pots, place them near crops – aphids settle on them and get eaten by the ladybirds!

**Hunting:** go out with a torch and bucket after dark to pick up slugs. In daytime, inspect your crops for caterpillars and aphids. Caterpillars can be picked off and removed or killed, aphids, just squish between your fingers (or spray with soap solution, which is safe but deadly). Garlic and chilli solution is a natural insecticide.

**Barriers:** slugs don't like water; make little moats for pots or table/staging legs. They don't like galvanised metal or copper either; pant in old water tanks or cylinders, or stick copper tape round your pots - or smear petroleum jelly on the outside of pots, or cut rings from a plastic bottle, smear the outside, and put them round plants.

Use fine mesh to protect crops from insects; it keeps Cabbage Whites from brassicas, and carrot fly from carrots. Secure it with tent pegs, wire staples or weights. Crop netting is cheaper but will allow small insects through.

Use horticultural fleece when planting out young tomatoes, squash or courgettes. Make a frame with an old wire basket, hoops of garden wire or bendy sticks. Cover with fleece, digging the edges into the soil. This not only speeds growth and protects from late frost, but also protects against slugs (sprinkle a few organic slug pellets around the plants – but use even these sparingly).



*Companion planting: onions mask the smell of carrots and keep away carrot fly.*

**Confusion and disguise:** some pests find plants by sight, so avoid planting blocks of the same plant. Some pests use smell, so plant onions with carrots, or French marigolds next to tomatoes etc. to disguise the smell. A scarecrow or hanging CDs near your brassicas helps deter pigeons.

### Controlling weeds

There are plenty of alternatives to weedkillers.

**Mulching:** a layer of material on the soil excludes light, stops weeds germinating, keeps the soil moist, and (apart from black plastic) eventually break down and enrich the soil. Cardboard or newspaper make good mulch. Hold them down with wood, bricks etc., or better still, straw, woodchip, dead weeds, compost, grass clippings etc. Cardboard / newspaper underneath is better. A good mulch can clear overgrown areas. Carpet must be natural fibre, with non-toxic dyes.

Non-natural materials include black polythene or polypropylene landscaping fabric. Add organic material (woodchip etc.) – it keeps sunlight off the polythene/polypropylene, which otherwise will break up in a few years.

**No-dig:** digging brings up weed seeds, which can lie dormant in the soil for many years. Weeds can be removed with hoes or 'flame-weeders'. Use organic mulches between crops. Between crops or seasons, sow a green manure such as rye grass or mustard to boost fertility and keep weeds in check. Cover beds in winter and in spring the soil will be warm, soft and weed-free.

**Prevention:** hoe or mow weeds before they produce seeds, though some will blow in from elsewhere. Edge your beds to prevent weed roots entering; or grow comfrey along the edge of your plot - comfrey leaves are used as mulch, compost material and source of liquid comfrey feed.

## resources

- see [lowimpact.org/lowimpact-topic/natural-pest-weed-control](http://lowimpact.org/lowimpact-topic/natural-pest-weed-control) for more info, links, products, services, courses & books, including:
- Allan Shepherd, *the Little Book of Slugs*
- Charlie Ryrie, *Pests*
- Fern Marshall Bradley, *The Organic Gardener's Handbook of Natural Pest and Disease Control*
- [soilassociation.org](http://soilassociation.org) - promoting organic growing
- [permaculture.co.uk/readers-solutions/get-rid-of-pests-garlic](http://permaculture.co.uk/readers-solutions/get-rid-of-pests-garlic) - how to make garlic insecticide
- [gardenorganic.org.uk/weed-management](http://gardenorganic.org.uk/weed-management) - organic weed management

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