



Get rid of vegetable pests



our summer vegetable patch can be a meal ticket for a host of critters. Gardeners need to be vigilant, inspecting plants and crops regularly for the presence of pests. This guide will help you to spot the telltale signs of pests and provides steps to take for their control to ensure they don't spoil your crops.

Hindsight is a wonderful thing, so when you notice plant damage, always take steps to identify the cause. In future years it may be possible to use preventive measures and avoid pests becoming a problem in the first place, possibly by growing crops under fine mesh.

A range of measures are available, including both chemical and organic controls. Most pesticides will harm beneficial insects and predators, so don't use them where biological controls have been introduced or ladybirds, hoverflies and other insects are active. And when using any chemical in the garden, read and follow the pack instructions precisely.

Prevention is always better than cure, so if any of the pests or problems shown here attack your crops this summer, be prepared to take the necessary steps to avoid them completely next year.

Pigeons and birds

Symptoms Leaves and fruits are eaten on many crops. The main area of soft leaf is stripped away so just the stalks and thick ribs remain. Seedbeds may be scratched and disturbed by birds looking for pests or seeds to eat, and seedlings eaten, too.

Vegetables affected

Many crops, but especially brassicas, including cabbages and kale.

What you can do Pigeon damage is usually worse during winter when other sources of food are not as readily available for birds. Damage is particularly bad when leafy crops poke through snow-covered ground. Use netting and fleece barriers to keep birds away. Build a low framework over beds to hold the netting above crops and prevent birds sitting on it and pecking through. Sparrows often pull onion and shallot sets out of the ground after planting, so always trim off loose tips, plant slightly deeper and just cover the tops to hide them from birds. Hanging reflective CDs over your crops will also help to scare them away.

Cabbage root fly

Symptoms Cabbages and other brassicas grow poorly or may wilt and die. White maggots up to 9mm long tunnel into the edible roots of radishes, swedes, turnips, and possibly into Brussels sprouts.



Vegetables affected Brussels sprouts, cabbages, radishes, swedes and turnips.

What you can do You can put a brassica collar (available from garden centres) around plants that have recently been planted out. The collar prevents the flies from placing eggs in the soil. Protect plants using fleece or an insect-proof mesh. You can also water on the biological control Nemasys Grow Your Own.

Slugs

Symptoms Slugs are active above soil level during damp weather, moving underground to shelter and feed when conditions are dry. They mainly eat leaves, but can chew through stems of seedlings and root crops. Vegetables affected Many crops, especially lettuce and salads. They will eat potatoes, carrots and parsnips, and tomatoes and marrows resting on the soil, often gaining entry where other pests have caused damage. What you can do Encourage predators that eat slugs into

your garden, such as birds, hedgehogs, frogs and beetles. Our trials have shown that organic slug pellets based on ferric phosphate are as effective as metaldehyde ones. Nemaslug is a parasitic nematode that can be watered onto moist soil during warm weather to seek out and infect slugs with a bacteria that kills them.



Cabbage white caterpillars

Symptoms Holes appear in leaves, both in the centre and around the edges, with just the thick leaf ribs remaining. Feeding caterpillars are often present on the underside of leaves, but they can crawl inside the heads of cabbages to feed hidden from view. **Vegetables affected All** varieties of brassica provide food for caterpillars, including cabbages, cauliflowers and Brussels sprouts. Nasturtiums can also be attacked.

What you can do Cabbage white butterflies are active from April/May to late summer, looking for suitable plants to lay their eggs on - grow crops under barriers of fine netting to prevent them reaching your crops. If you want a biological control, use a pressure sprayer to apply a wash containing Nemasys Caterpillar and Codling Moth Killer to all leaf surfaces of brassicas during summer. Repeat again five to seven days later until the pest has gone. Several chemical sprays are effective, applied to leaves where caterpillars are feeding; Bug Clear Gun! for Fruit & Veg is widely available.

Aphids

Symptoms Greenfly and blackfly can be found feeding at the tips of shoots and on the underside of leaves, contaminating the crop or weakening growth, and sometimes causing leaves to curl and distort. Aphids can also introduce debilitating virus diseases into crops such as marrows.

Vegetables affected

Different types of aphid attack a wide variety of crops, including tomatoes, broad and runner beans, cabbages and brassicas, lettuce, peppers and aubergines.

What you can do Rub off any you find between finger and thumb, rinsing them away under a forceful jet of water from the hose. Grow flowering companion plants, such as poached egg flower and tagetes, to encourage hoverflies to feed, breed and lay eggs. Hoverfly larvae have voracious appetites for aphids, as do ladybirds and their larvae. Spray aphids with Vitax Organic 2 in 1 Pest & Disease Control, but avoid this where natural predators are active or you risk killing them, too.



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Snails

Symptoms Large holes appear in leaves as well as damage to stems, flowers, fruits and seedlings. Plants are eaten both at ground level and higher up. Snails may be present, particularly after dark and during damp weather.

Vegetables affected Many crops, including lettuce, salads and soft, leafy vegetables.

What you can do Regularly check plants, picking up and disposing of snails; take a torch out on warm evenings, especially after rain, to inspect them. Encourage birds that feed on snails and other predators, such as hedgehogs. Our trials have shown that organic slug pellets based on ferric phosphate are as effective as metaldehyde ones.

Flea beetle

Symptoms Tiny holes appear in the leaf surface which can go right through, spoiling leaf crops. Damage rarely kills plants, but weakens growth

and makes crops inedible.

Tiny black beetles may be seen on leaf surfaces, jumping away when leaves are touched - hence the name.

Vegetables affected All types of brassicas and related plants, such as rocket, pak choi, turnips, swedes and radish.

What you can do Sow and grow crops for their entire life under fine netting. Seedlings and young plants are most susceptible to attack, but established brassicas can also be affected. Flea beetles often migrate from neighbouring areas of oilseed rape at



harvest time. Keep crops well watered during dry periods to ensure strong growth. For chemical control, spray with Westland Plant Rescue Bug Killer Fruit & Veg Liquid Concentrate at the first signs of attack.

Carrot fly

Symptoms Carrot foliage starts turning pale and yellow through the growing season. Harvested roots have channels eaten through



creamy-white maggots (larvae) present. **Vegetables affected This** pest mainly attacks carrots, but can also infect parsnips, parsley, celeriac and celery. What you can do Several generations of this pest attack through the year, with egg laying mainly in May-June and again in August-September, so timing your sowing and harvesting can avoid activity. Very early sowings of salad varieties may escape attack. For maincrops, choose carrot varieties offering some resistance to root fly, such as 'Resistafly', 'Flyaway' or 'Maestro'. Always sow thinly to avoid the need to thin out congested seedlings, as the smell of this can attract the

carrot fly. Cover with fleece

after sowing or surround

beds with 60cm-tall barriers to prevent flies reaching the base of the crops to lay eggs. For biological control, water a solution of Nemasys Grow Your Own onto surrounding moist soil.

Onion fly

Symptoms Leaves of onions and shallots wilt or collapse completely, dying back prematurely through summer. White maggots (larvae) may be found eating roots and feeding inside stems and bulbs, damaging tissue to prevent full development, then eating away your crops.

Vegetables affected

Damage is usually found on onions, though shallots, garlic and leeks can be attacked, too.

What you can do Grow crops under fine netting throughout their life to prevent female onion fly from reaching plants to lay their eggs. Crops grown from sets seem to be less prone to attack than those grown from seed. Start sets in small pots or modular trays to produce larger plants for planting out in May-June. Mix crops together and introduce companion planting using strong-smelling flowers, such as tagetes, to help 'hide' target plants from pests. Once harvested, regularly fork over the soil where onions and shallots have been growing to expose any overwintering

onion fly pupae to birds and predators.

Asparagus beetle

Symptoms This is a very damaging pest during the summer months, with both adults and larvae munching through ferny leaves and stems of asparagus. Heavy infestations damage large amounts of top growth, and this in turn weakens plants and reduces yields the following year. Feeding damage to foliage and stems causes the tops of shoots above it to wilt, wither and dry up. Pests may be present. Adults are black beetles about 8mm long with six yellow patches on their wing cases. Larvae are about 10mm long, with a fat blackish grey body and three pairs of legs close to their head.

Vegetables affectedOnly asparagus.

What you can do Be vigilant from late spring when adults emerge from the soil to start laying eggs. Promptly pick off and destroy any pests you find. For chemical control, spray all shoots with PY Bug Killer Spray.

Wireworm

Symptoms Damage usually isn't noticed until harvest time, when you'll find tunnels eaten away in tubers and root crops, sometimes with

the pest present. These troublesome pests are the larval stage of the click beetle. Adult wireworms can be 15-40mm long, orange in colour and with three pairs of legs close to their head end. They live exclusively underground, feeding on living plant material including roots and tubers.

Vegetables affected

Mainly potatoes and carrots, although seedlings can also be attacked.

What you can do Wireworms tend to be worse when a lawn or grassland is first cultivated to become a vegetable bed or allotment. Where this has happened, try to avoid growing susceptible plants for three to four years, so wireworm larvae complete their life cycle, turn into click beetles and move away to new grassland. Regularly dig over the soil to expose pests to feeding birds. Adult click beetles themselves do not harm plants.



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Pea moth

Symptoms Hungry caterpillars of pea moths feed unseen on peas inside pods. Split open the pods at harvest time and you'll discover the caterpillars feeding inside, or just the remains of chewed peas and excrement. Growing to about 14mm long, the caterpillars are creamy white with dark dots on their body. Once mature, they crawl down into the soil to pupate.

Vegetables affectedOnly peas.

What you can do Choose quick-growing varieties, sown early or late in the year, to avoid having peas in flower during the worst periods of moth activity in June and July. Female moths seek pea flowers to lay their eggs on, so grow crops under fleece to

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prevent them reaching your plants. Grow mangetout in summer, picking the pods young before the caterpillars develop and feed on them. You can spray at flowering time with a preventive chemical control, such as Westland Plant Rescue Bug Killer Fruit & Veg Liquid Concentrate.

Brassica whitefly

Symptoms These small, white, flying pests feed on the underside of brassica foliage, but fly off in clouds when disturbed. Whitefly eggs appear as tiny pale dots on the underside of leaves and hatch into another generation of adults. Most crops aren't badly damaged as edible parts, such as cauliflower curds, aren't affected.

However, it can be more

of a problem on kale, where the leaves are eaten. Sooty mould can develop on sap (honeydew) dripping from feeding whitefly.

Vegetables affected

All varieties of brassica, including kale and Brussels sprouts.

What you can do

Several sprays are available for organic control, such as Agralan Whitefly Killer and the foliar feed SB Plant Invigorator, which traps and kills whitefly on contact. Treat all areas where pests are feeding, particularly the underside of leaves. These sprays only control adult whitefly, so regularly repeat spray to kill further pests as they hatch. This will also prevent them from breeding and laying more eggs.







Red spider mite

Symptoms A miniscule crawling pest that feeds on plants, usually sucking sap on the underside of leaves, which creates pale spots and mottling on the leaf surface. Established colonies produce fine webbing between foliage and stems. The female mites reproduce quickly in warm conditions, laying up to 100 eggs in three weeks.

Vegetables affected

A wide range of greenhouse crops, including aubergines, cucumbers, okra, peppers, tomatoes and fruit such as peaches.

What you can do Prevent infestation by maintaining

high humidity, as this reduces egg-laying activity. Mist plants regularly and damp down floors every morning. Act immediately if symptoms are seen. Organic sprays include SB Plant Invigorator - there are no effective chemical sprays available. For biological control, introduce Phytoseiulus persimilis at the first sign of attack. These predatory mites work best at about 21°C, eating all stages of red spider mites.

Greenhouse whitefly

Symptoms These tiny pests feed on the underside of leaves and shoot tips, weakening growth of the plant. They exude sap (honeydew) as they feed - which drips onto leaves below and can attract sooty mould - and fly off if disturbed, spreading to neighbouring plants. They reproduce quickly in warm weather, laying scale-like eggs, but breed throughout the year under glass.

Vegetables affected

Tomatoes, cucumbers, sweet and chilli peppers, aubergines, strawberries and other greenhouse crops and fruit. What you can do Hang sticky yellow glue-traps around the greenhouse to catch and monitor the pest. Whitefly is resistant to many insecticides, but both PY Spray Garden Insect Killer Concentrate and Vitax Organic 2 in 1 Pest & Disease Control can be effective. Also try spraying SB Plant Invigorator onto pests, sticking them to leaf surfaces. Repeat regularly to control hatching whitefly before they lay further eggs. For biological control during summer, introduce the predatory wasp Encarsia formosa.



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