



Factsheet no.9

ORGANIC WEED CONTROL

A weed is simply a plant in the wrong place! Many weeds can be beneficial to wildlife in some places and harmless in others in the garden or allotment. Successful weed control depends upon correct diagnosis of the problem.



Diagnosing the problem

Weed control is dependent upon which types of weeds are present and in what type of situation.

Annual and biennial weeds reproduce by seed and can be eradicated relatively easily. Perennial weeds are more persistent and vigorous, reproducing by a variety of means. They can spread vegetatively utilising runners or rhizomes and also by setting seed. In some cases, a small piece of root left in the soil will germinate.

Controlling weeds

The best form of control is to use preventative measures. Using a chemical herbicide will not address the problem in the long term. Herbicides may also affect non-target plants and affect the ability of pest predators to survive by removing a proportion of the food chain. The key to weed control is not to create an opportunity for weeds to take hold and spread. Ensuring bare earth is covered with plants or a mulch layer will help enormously.

Ground cover

Bare ground will always encourage opportunistic weeds to colonise or allow weed seeds present in the soil to germinate.

Weed removal before planting

It is worth spending preparation time clearing weeds from a plot before planting.

- Identification of species present will help to decide on the method used.
- Annual and biennial weeds can be removed by hoeing the area and removing plants to the compost heap.
- It may be worth waiting to see if more weeds appear and then hoeing again.
- Perennial weeds are likely to be encouraged to grow more vigorously after hoeing unless the process can be repeated until any root matter present becomes exhausted.
- Cut tall grasses and weeds on a heavily colonised plot and remove. Cover the area with a mulch that will prevent light from reaching the soil. Roots will become exhausted and weeds will be recycled by worms and other soil organisms.
- Rotavating cuts up roots in the soil and can help to control annual and perennial weeds but it must be repeated if weeds start to grow from root fragments in the soil. It can damage soil structure and cause a hard pan beneath the surface.

Weeding after planting

Weeds amongst your plants can be removed by hoeing or hand weeding. Persistence is required to prevent re-germination. Mulching between plants will prevent re-growth by preventing light reaching the soil.

Care should be taken not to smother seedlings with mulch as this could cause waterlogging around delicate roots.

More persistent weeds will need to be hand pulled, particularly perennials; care should be taken to remove the whole plant.

Lifting weeds with a garden fork will loosen soil around the roots and help to prevent pieces breaking off in the soil.

Mulches

A range of materials can be laid on the soil and plants can also be utilised as living mulches. A layer of mulch will also aid water retention and therefore reduce the need for irrigation. Lay in the spring when weeds are beginning to grow.

Cardboard & newspaper have the advantage of being readily available and are biodegradable. Ensure that sheets are weighted and edges overlap, whole newspapers opened out will give required thickness.

Sheet mulches are made from a variety of materials. Sheets can be planted through by cutting crosses in material. Bury edges and weight down large areas.

- Non-biodegradable black polythene (440-500 gauge) can be re-used for up to 3 years.
- Biodegradable plastic sheets may cause problems as they break down leaving holes and damaging plants if blown about in the wind.
- A biodegradable alternative to plastic is to use rolls of tough brown paper which can be planted through and then dug into soil after use. Wool matting is also available and will last a growing season before degrading.
- If irrigation is required a seep-hose may be laid under the sheeting.

Carpet can be used as a mulch but unless using one made entirely from natural materials then it should not be allowed to degrade in situ. Many carpets contain pesticides and dyes which may affect soil health. There is also the risk of synthetic fibres remaining which will severely hamper ongoing cultivation.

Other biodegradable mulches are available such as bark clippings, straw and leafmould which can be used between plants in borders and will also disguise sheet mulch amongst ornamental planting. Some loose mulches may reduce nitrogen in the soil.

Beneficial Weeds

Weeds can be attractive to look at, attract pollinators, attract pest predators; some can feed the soil and some are edible.

Corn poppy (*Papaver rhoeas*) - attractive plant that attracts butterflies and bees.

Common nettle (*Urtica dioica*) - important life-cycle plant for butterflies and the young leaves can be used in soups.

Clovers (*Trifolium spp.*) – fix nitrogen in the soil.

Dandelion (*Taraxacum officinale*) is attractive to butterflies and bees and the leaves can be used as a salad plant.

Garlic mustard (*Alliaria petiolata*) – leaves have a mild garlic flavour. Other edible 'weeds': sorrel, fat hen, chickweed, cleavers, horseradish. Deep-rooted weeds accumulate minerals from deep in the soil so harvesting the leaves and adding them to your compost pile is a good way to add fertility to your garden.

Weeds can also act as 'indicators', showing you what kind of soil you are dealing with: horsetail and creeping buttercup are a sign of poor drainage; chickweed indicates a neutral pH; nettles, ground elder, fat hen and chickweed are all signs of good nitrogen levels in the soil.

Harmful Weeds

Vigorous weeds, including ones that spread vegetatively, need to be disposed of carefully. A hot compost heap will help destroy seeds but extra measures like drowning the weeds first or drying them out in the sun before composting – or having a bonfire – will make sure that roots and seeds can't spread.

Persistent weeds include:

Bindweed (*Convolvulus arvensis*), **Cinquefoil** (*Potentilla spp.*), **Couch grass** (*Agropyron repens*), **Creeping thistle** (*Cirsium arvense*) **Creeping buttercup** (*Ranunculus repens*), **Docks** (*Rumex spp.*), **Ground elder** (*Aegopodium podagraria*), **Ground Ivy** (*Glechoma hederacea*), **Japanese knotweed** (*Polygonum cuspidatum*) – dispose carefully, extremely invasive!, **Rosebay willowherb** (*Epilobium angustifolium*)