The Allotments Regeneration Initiative

Fact Sheet

Restore the Plot

Advice for plotholders and allotment managers on tackling derelict plots

It does not take long for a vacant plot to be invaded by 6 foot brambles or rampant bindweed. Not only does this give sites a derelict air but it also discourages prospective plotholders. This factsheet introduces the different methods that can be used by local authorities and associations to clear plots for new users. Most of the information will also be useful for new plotholders.

Getting organised

Before you start the practical work, it is helpful to develop a plan that sets out when, where and how your plot clearing activities will happen. Consider the resources available to you for clearing plots (including people to do the work), the time it will take and the possible costs you may incur. Make your goals realistic and celebrate your achievements.

The main intention of plot clearing is to get land back into use and you should aim for this to happen as soon as possible after the plot has been cleared. Notify the person(s) at the top of your waiting list in advance so that they are ready to get gardening as soon as the plot becomes available.

Plots do not need to be cleared right down to bare earth but should be free of hazards, with persistent weeds suppressed and in a state ready to start cultivating. Some associations offer a discount to plotholders taking on and clearing plots themselves – but try to ensure they are not trying to tackle something that is unachievable and likely to put them off allotments for life.

Wolverton Road Allotments

Wildflowers growing on an unused area of a plot can help to ensure it is not an eyesore and are good for attracting beneficial wildlife – but be sure to cut down stems before they seed onto adjacent plots

You may be able to secure the services of other organisations to assist in plot clearance, e.g. BTCV volunteers, your local probation service, or companies with employee volunteering schemes. Ask your local council and Council for Voluntary Services (CVS) if they know of any organisations that could help.

Tackling tenanted overgrown plots

A robust management system can help prevent overgrown tenanted plots. It is essential to have regular inspections either by the council allotment officer, or association committee for devolved management sites. A set procedure should be adopted for dealing with tenants who do not cultivate their plots. See forthcoming ARI Factsheet *Managing Non-Cultivation*. ARI can also provide sample management documents.

Federation of City Farms & Community Gardens

N.S.A.L.G. National Society of Allotment and Leisure Gardeners

Communities and Local Government

Fund for the Environment & Urban Life

LOTTERY FUNDED

Getting started

Reclaiming plots is one of the hardest challenges in allotment regeneration. Working in stages, starting with plots near the gate or in visible spots can help to improve the overall image of the site. Clearing the plots in blocks will engender a feeling of solidarity amongst new plotholders who take them on. Make sure that you leave access to plots further back, in case you need to get machinery in to clear them in the future. It is important to consider the impact that ongoing work will have on other plotholders and local neighbours. Keep them up to date about what is going to happen and when.

If you have a choice, tackle plots with the best assets first, e.g. good soil drainage and daylight, and less attractive plots last. If there are plots on your site that are nearly always untenanted, try to work out why. Do they flood? Are they in a frost pocket, near traffic noise, furthest from the taps, or infested with horsetail? Uncultivatable plots could be turned into a resource that will benefit plotholders, e.g. a barbecue area, compost bays, raised bed area, children's play area, wildlife garden, site meeting room or car park. You will need to check that you have the right to change land use. See ARI factsheet *Project Allotment.*

Take steps to ensure anyone using machinery is trained and wearing safety gear

Plot clearance methods

There are a range of different methods used for clearing plots of stubborn weeds, all of which have their own specific benefits and drawbacks. Consider which methods best suit your circumstances and resources of time, money and people. You will also need to take into account health and safety and environmental considerations. See ARI *Health and Safety on Allotments – A Management Guide*.

The following methods are tried and tested on allotment sites:

- mulches
- green manures
- rotovation
- strimming
- flaming
- herbicides.

Each is described in more detail below.

Mulches

Mulches work by excluding light from weeds and, therefore, preventing them from growing. A variety of mulch materials can be used to smother weed growth, with the advantage that plots can remain covered and kept weed-free until they are let. Mulches will need to be left down for 1-2 years to eradicate persistent weeds. Advise any tenant taking on the plot before then to roll back the mulch gradually, cultivating the plot section by section. Once the mulch is no longer needed it can be moved to another plot or stored for future use.

Plastic mulches - There are two types of plastic mulch: weed suppressant membrane and standard polythene.

Weed suppressant membrane is a porous material, blocking out light but still allowing rainwater through. Different grades are available, the heavier the grade the more light is blocked. It is expensive but lasts 10-15 years, costing approximately £3 per m^2 from garden centres and specialist mail order suppliers. There have been cases of theft of this type of mulch from sites, so you may

need to consider how you will prevent this happening if you decide to use it.

Standard polythene is a non-permeable material, which can result in a very dry, poor soil condition as it does not let water through to the soil below. It comes in various thicknesses and qualities. The cheapest is silage polythene which lasts for 2 years if treated with care. It is sold in bulk at approximately 60p per $3m^2$ if bought wholesale from agricultural suppliers. Recycled and biodegradable varieties are available.

For best results lay plastic mulches in spring, after first rapid weed growth and before weeds have set, strimming tall vegetation first. Make sure mulch is applied beyond the weedy area, to prevent weed growth persisting at the edges. Pay particular attention to digging (trenching) in the edges to prevent the material being lifted by weed growth (bindweed will persist even without light) or wind gusts. Trench in the edges to a spade depth. Pegs are available from weed suppressant membrane suppliers. Bricks and tyres can also be used, but may create a disposal problem.

Polythene should be applied after good rainfall, otherwise the soil will degrade whilst covered.

Wood chippings - Most suited for use on paths (see page 7 for more on paths). If laying directly onto soil, add a nitrogen-rich compost to the soil first as the chips take

Many hands make light work

a long time to break down and may rob the soil of nitrogen. Often available free from tree surgeons and councils. Do not use for children's play areas as there is a risk of fungal spore allergies, treated wood chip is available specifically for this use.

Cardboard - Suitable for tenants wishing to use mulching methods on parts of the plot they are not yet cultivating. Opt for bicycle or hi-fi boxes, overlap the edges generously and weigh down well. It can look messy and may blow around, even if weighed down.

Carpet - There are serious environmental concerns that the various dye(s) used in the manufacture of carpets may leach into soil and cause contamination. There are practical concerns about the disposal of carpets from allotments once they have outlived their purpose. Many councils and allotment associations add a clause to tenancy agreements preventing plotholders from bringing carpets onto allotments site. ARI does not recommend the use of carpets as a mulch on allotments.

Making the most of mulch

- Divide the plot into sections: do not expect to clear the entire plot in the first year. Mulch as much of the plot as possible, rolling back the mulch when you are ready to cultivate the next section.
- Remove as many rhizomes (storage roots of perennial weeds) as possible when digging after the mulch has been lifted, as they may still have life in them. This is especially true of couch grass and bindweed.
- It is possible for new tenants to grow some crops (e.g. courgettes or pumpkins) on the mulched area by planting through holes in the mulch. This method is not advisable in the case of heavy couch or bindweed infestations, as the smallest chink of light will reactivate these persistent weeds.
- Check which types of mulches are permitted on site.
- Do not bring any mulches onto site that you will not be able to dispose of appropriately later.
- Garden Organic's publications include the factsheets 'Chemical free plot clearing' and 'Mulches: weed prevention and control' (see *Resources*).

Green Manures

Garden Organic recommend seeding untenanted plots with a 'green manure' crop – a weed excluding vegetation that can also improve soil structure and prevent nutrients being leached from the soil. This method has not been widely used on allotments but has been used successfully on fallow farmland for years.

Green manure is unlikely to combat very heavy weed infestation, but can be useful after the initial clearance of weeds from a plot and to help suppress weeds on small areas of uncultivated plots. Green manures are also useful to sow in areas between crops to compete against weeds.

Alfalfa, red clover, winter field beans and trefoil should be sown in late summer/ autumn as they can withstand hard frost and can be left in the ground over winter. Mustard, crimson clover, fenugreek and buckwheat are sown in the spring as they grow quickly to cover empty ground and can then be dug in before planting other crops.

Rotovation

The process of a mechanical rotovator turning over the top layer of soil is best combined with herbicide or mulch regimes and is carried out before or after a period of plastic mulching. It is not effective as a single method for most perennial weeds, as it chops up the rhizomes, which then sprout back with a vengeance. The process can also degrade soil structure on heavy clay based soils – wait for a two week period of dry weather.

Strimming

Some local authorities and associations strim untenanted plots on a seasonal basis, creating attractive grassed amenity areas, reducing weed seed dispersal and making the site look less derelict. More work is required to bring plots maintained in this way back into cultivation than mulching methods.

Flaming

Flame guns kill weeds by rapid dehydration and scorching. They are not effective on rhizomes but useful for weeds that have set seed as they will kill the seeds.

Herbicides

Note: Advice in this factsheet on the use of herbicides is for individual plotholders only.

An extensive armoury of chemicals is available in garden centres, these need to be used with care and within the Control of Pesticides Regulations (amended) (COPRA) (1997) Any herbicide treatment on communal areas (i.e. that are not on an individual's own plot) must be applied by a licensed operator or be under the supervision of one. You can hire a licensed operator or obtain the training yourself. Bear in mind that many herbicides are persistent in the soil and toxic for a specific period of time after application. See ARI Pack *Health and Safety on Allotments – A Management Guide* for information about training and regulations relating to the use and storage of chemicals on allotment sites. The RHS website contains guidance on the use, storage and disposal of garden chemicals, see *Resources*.

Glyphosate (trade names include: Round-up, SBK Brushwood Killer, Tumbleweed) is a systemic herbicide that works over a period of a few weeks, stopping new proteins from being made so killing the plants growth regions. Despite its reputation as an environmentally-friendly herbicide, the commercial product still has a number of harmful effects on human health, such as skin and lung irritation. Recent research has shown is it lethal to frogs. Glyphosate is only effective on relatively light weed growth. It may not eradicate established growth of bindweed and mature docks.

Horsetail is a common blight on allotment sites

Spray in spring on a dry, still day, when weeds have lots of young leaf cover, or in autumn when the plant is passing sugars to the roots for storage. Spray again 14 days later and then (if plot is not used immediately) cover area with a plastic mulch. For added efficacy, rotovate 14 days after the first spraying (in dry conditions), leave the soil for another 14 days, spray again and then cover

Additional tactics for persistent perennial weeds

Some weeds are extremely difficult to eradicate, and it will take hard work, patience and commitment to clear them. If you are happy to resort to an initial chemical application, this may reduce the battle with persistent weeds in the long run. Tactics for individual species are described below.

Blackberry (bramble)

Carefully monitored burning has been used to clear brambles quickly in dry weather. Ensure that there are gaps between bramble areas to prevent fire spreading. Refer to ARI Pack *Health and Safety on Allotments – A Management Guide* on burning byelaws and insurance.

For large areas use a tractor and flail or brush cutter followed by a power harrow or plough. A local farmer may do this work for you at a reasonable rate. You will need to remove the root crowns after ploughing.

Advise tenants to consider using a strimmer or long handled 'slasher' to clear top growth, then dig out crowns.

Couch grass

'Slicing off' the top three inches with a spade or 'hacking out' clumps with a mattock will control growth. Particularly useful on heavy clay, where the soil is not friable enough to pull out rhizomes. Add replacement organic matter or soil level will drop. Use a tractor and power harrow, setting the blades so that they drop a few inches into the soil and harrow four or five times below the sward. Best carried out in dry conditions. The same method can be used for established docks.

Composting weeds

Perennial weeds should not be composted in a standard compost heap as the plant material will re-grow if exposed to any light.

Docks or couch grass can be placed in a heavy-duty plastic sack (e.g. a fertiliser bag) to break down completely. Tie the top and leave for 2-3 years. Dry out horsetail or bindweed for several days in hot sun before composting or, as a last resort, burn it.

Soil and organic matter lost from the plot by weed removal can cause the plot's soil level to drop noticeably. This will produce a water logged and poorly aerated soil. Remove as little soil as possible when weeding and add generous quantities of organic matter to the soil to compensate.

Planting vigorous 'pioneer' species on newly cultivated soil like potatoes, squashes and broad beans, will help to break up the soil and improve its structure.

Ground elder

Digging out roots is effective, as the rhizomes don't penetrate too deeply. Removal must be thorough. Mulching will take several years to completely eradicate a colony. Combine with several repeat sprays of glyphosate.

Horsetail

Very tough to eradicate as roots can extend down more than 20 feet. A combination of growing vigorous crops, hoeing the tops and adding organic matter to the soil will eventually slow down growth. This may be more effective if done in a raised bed – strim the tops, cover with a thick layer of lime followed by several layers of cardboard and 1-2 foot layer of organic matter for growing.

To make a glyphosate application effective the plant needs to be damaged first, as the high silica content of the plant means that any spray runs off. When the plant is in full growth bash it with a spade to break

the stems and then apply glyphosphate. The plant absorbs the herbicide and will die off to some extent.

Bindweed

Very tough to eradicate as roots can extend down 15 feet. Constant hoeing, hand weeding tops and forking out as much of the white root as possible will eventually slow down growth. Mulching the area with black polythene for a year brings the rhizomes to the surface where they can easily be dug out. This also weakens their growth, however, it doesn't kill them off completely. Trench a polythene mulch into the soil to prevent the rhizomes creeping out around the edges. Place a large yoghurt pot (or similar) over each stem and leave for several months. The plant will keep filling the pot interior, gradually expending the energy of the vast underground root network. The RHS website contains guidance on the eradication of bindweed, see *Resources*.

Japanese Knotweed

This is an example of a non-native species that has become invasive in the UK (other examples include giant hogweed, or creeping pennywort in ponds). Legislation controls the disposal of this species in the UK. The Environment Agency (England) has produced 'Protecting our Native Wildlife – A Guide for the Control of Non-Native Weeds' (see *Resources*) which gives an overview of legislation, where responsibility for removal lies, and techniques for the safe and legal eradication of invasive species. It is recommended that eradication takes place as part of a wider strategy to control the species locally, consult your local council environment department before you make plans as they may have wider experience of eradication methods. It is illegal to dispose of Japanese Knotweed at landfill sites, so after the plant is uprooted it must either be burned or buried on site in accordance with Environment Agency Code of Practice, or transported by licensed contractors to an approved disposal facility.

Tackling rubbish on plots

Carry out a Risk Assessment before tackling rubbish on plots. See ARI *Health and Safety pack*.

Consider sharp objects such as glass or syringes. Wear sturdy gloves and shoes when removing rubbish from plots.

If using a hired skip fill it fast and evenly, before the neighbours do. Do not allow plotholders to fill bins with weeds – these should be composted on site. For tactics to prevent flytipping, see ARI factsheet *Safe Sites*.

Asbestos

All grades of asbestos now constitute controlled waste and have to be removed by employees of licensed companies who wear protective clothing, use a covered skip and remove the waste to licensed areas. This can cost several hundred pounds for a skip-full. Most local authority waste management departments provide a free service to identify the type of asbestos and removal regulations. You may be able to negotiate a reduced removal cost direct from the council.

Wolverton Road Allotments

Removing a heap of rubbish from a plot can be a daunting – but the end result can be very satisfying!

Glass

Allotments are often littered with broken glass, hidden in undergrowth. If an area of broken glass is found, mark out and cover area with mulch until weeds are dead, making it easier to find and remove glass pieces. The mulch should be something that can be easily removed.

The eradiction method used depends on the season. In general, cut back the plants and pull them up from the ground, making sure that you get all the roots, or the plant will keep growing. This will gradually weaken the plant, but the act of cutting and pulling must be performed at least once a month, and it can take more than 10 years to completely destroy the knotweed this way. Shading the plant out is a very effective way of suppressing future growth. It can be strimmed down in late June/early July and its stems injected with glyphosate. It should then be covered with polythene membrane and a mulch applied on top. The edge of the area needs to be trenched and the membrane dug into the trench to prevent further growth of the knotweed. Many repeat sprays of glyphosate will be required. This will eventually control it but it is extremely difficult to eradicate altogether.

Long-term derelict sites

A planned, methodical approach is needed to restore an entire site which has not been cultivated for several seasons.

- Consult local neighbours before clearance starts, they may prefer certain trees or shrubs to remain in situ.
- Check the area for wildlife species such as badgers, slow worms and nesting birds, which are protected by law. Your local council's Ecologist can provide advice on retaining the site's biodiversity during and after restoration.
- For derelict sites with scrub, the tractor and flail method works best: flail the scrub to the base, rake off the waste and shred, compost, or burn it. The land can then be power-harrowed, dropping the harrow attachment down to 8 inches, or a mini excavator used.
- A JCB followed by tractor and plough also works well.
- If brush cutters or chain saws are used the operator should have the required certificates and carry a suitable amount of public liability insurance (e.g. in York contractors are required to carry £5 million public liability insurance).
- In Dartford a dozen plots were cleared by a local farmer with a rotary drum behind a tractor, which cost £50.
- Stump killer will be required to prevent re-growth of trees and shrubs (or a stump-grinder could be used).
- Scrub and small trees can be cleared using bow saws and loppers if you have enough volunteers. Small trees, especially hazel, birch, sycamore and ash, can be coppiced (cut regularly) to produce 'poles' of wood or pea/bean sticks.

Paths and boundaries

Plot boundaries will probably need to be re-marked and paths should be a width that is compliant with the Disability Discrimination Act (1.2 metres). Using materials such as Terram/Scotlay and Crusher-run is the best way of making cheap, hardwearing paths.

Terram and Scotlay are moisture permeable membranes. They are used by construction companies to make low cost roads because they let rain through and stop gravel etc sinking down into the soil. They are extremely durable and long lasting. Crusher-run is the material used to cover the membrane, a mixture consisting of gravel-sized lumps down to fine dust, which matts down to make a firm surface. Road finings are a similar material. Where roads are resurfaced, the tarmac lifted off can be reused as a material for paths.

Crusher-run should be laid to a minimum depth of 150mm. An ideal is 250mm. For a path 2.5 metres wide with Crusher-run laid to a depth of 250mm an average price would be £12 per linear metre, including the Terram.

Terram and Crusher-run can sometimes be obtained free from the council's highways department, in which case the only cost is delivery and having it spread.

Woodchip paths can make it easier for everyone to get around the allotment

The Allotments Regeneration Initiative

Our vision is to increase allotment uptake by individuals and groups

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Fax: 0117 923 1900

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www.farmgarden.org.uk/ari

This fact sheet is also available in **large print, braille** or on **audio tape** from the ARI office

Please feel free to photocopy and circulate ARI publications

Wood chip is an attractive path material. It is best to have a water permeable membrane under the wood chip. Do not use heavy duty polythene unless the wood chip layer is very thick, or the path will become slippery. Wood chip will eventually rot down and will need to be removed and replaced every 3-5 years.

Resources

Allotments Regeneration Initiative (ARI)
Supports and develops allotments regeneration and the creation of brand new allotment sites in the UK.

www.farmgarden.org.uk/ari
ari@farmgarden.org.uk
Tel. (0117) 963 1551

Federation of City Farms and Community Gardens (FCFCG)
Supports, represents and promotes community-managed farms and gardens across the UK.

www.farmgarden.org.uk
admin@farmgarden.org.uk
Tel. (0117) 923 1800

National Society of Allotment and Leisure Gardeners (NSALG)
The national representative body for the allotment movement in the UK.

www.nsalg.org.uk
natsoc@nsalg.org.uk
Tel. (01536) 266 576

National Association for Voluntary and Community Action (NAVCA)
The website includes a directory of local groups throughout the UK.

Tel. (0114) 278 6636
navca@navca.org.uk
www.navca.org.uk

British Trust for Conservation Volunteers (BTCV)
Tel. (01302) 388 883
information@btcv.org.uk
www.btcv.org

From the home page you can find local volunteer groups under: network/community group finder.

Job done…all that work was worthwhile!

Garden Organic

Tel. (0247) 630 3517
enquiry@hdra.org.uk
www.gardenorganic.org.uk

Royal Horticultural Society

Tel. (020) 7834 4333
info@rhs.org.uk
www.rhs.org.uk

Environment Agency

Tel. (08708) 506 506
enquiries@environment-agency.gov.uk
www.environment-agency.gov.uk

Pesticide Action Network

Tel. (020) 7065 0905
admin@pan-uk.org
www.pan-uk.org

National Proficiency Test Centre

Accredited training in herbicide application.

Tel. (0247) 685 7300
information@nptc.org.uk
www.nptc.org.uk

National Vocational Qualifications

Contact your local further education college or visit: www.qca.org.uk/qca

For licensed herbicide operators and heavy-duty clearance work:

Ask for your council's advice and see 'Agricultural Consultants and Groundwork Contractors' in the Yellow Pages. It is also worth contacting local farmers.

Growing food – how safe is your land? How to assess and deal with potential land contamination

Guidance booklet available from ARI.

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