



Control of ragwort, thistles and other problem plants

Generally speaking, the more biodiversity there is on a site, the better. However, there are undoubtedly some species which can become invasive if left unchecked. This advice sheet explains the conservation benefits of injurious weed species and other species such as bramble and nettles; the legislation surrounding injurious weed species; some steps you can take to prevent them from becoming a problem in the first place; and some methods of control.

Conservation benefits of these species

It is important to remember that these 'weed' species have evolved over millions of years and play a part in the lifecycle of many animals. Common ragwort is the sole food plant of the cinnabar caterpillar; creeping and spear thistles provide seeds for farmland birds such as linnets and goldfinches, as well as thistledown with which to line their nests. Thistles also provide nectar for bumblebees and butterflies and many invertebrates overwinter in their stems. Nettles are the food plant of many species including the comma butterfly and the burnished brass moth. Bramble provides berries and nectar for species such as dormouse, shelter for



Comma butterfly © I. Rickards

reptiles and nesting habitat for birds. By using chemical control methods, you run the risk of destroying other non-invasive species which are from the same family. Ragwort and thistles are both part of the Asteraceae (Daisy) family and no selective herbicide will exclusively target these few species and leave all the other species of thistle, mayweed, fleabane, knapweed, hawkweed and daisy unharmed.

Weeds and the law

There is no such thing as a 'notifiable' weed and it is not illegal to have plants such as creeping thistle growing on your land. However, five species are classified as injurious weeds under the Weeds Act 1959: common ragwort (*Senecio jacobaea*), creeping thistle (*Cirsium arvense*), spear thistle (*Cirsium vulgare*), curled dock (*Rumex crispus*) and broad-leaved dock (*Rumex obtusifolius*). These five species must not be allowed to spread to neighbouring land, especially land being used as pasture or to produce hay or silage, and enforcement notices can be issued by Natural England on behalf of DEFRA.

Prevention is better than cure

For many of these plants, disturbed ground is an ideal place to germinate. It is therefore essential to avoid creating these soil conditions in the first place by ensuring that you do not overgraze your land or allow livestock to churn it up in wet weather. A closed sward (very few patches of bare ground visible) leaves little space for weed species to germinate. Please refer to our leaflets about the management of pasture and species-rich grasslands for suggestions on how to maintain a closed sward.

This advice sheet contains information about the following topics:

- conservation benefits of 'weeds'
- weeds and the law
- how to prevent weeds from taking hold in the first place
- control of ragwort, docks and nettles, thistles, sycamore, bramble and dogwood, snowberry, rushes, bracken
- a note on the benefits of ivy
- using herbicides on your site
- references and further reading
- further advice



Ragwort – the larval foodplant of the cinnabar moth © Kent Wildlife Trust



Musk thistle © J.Shorter



Common fleabane © Kent Wildlife Trust



Stemless thistle © J.Shorter



Carlina thistle © J.Shorter

Ragwort

Ragwort is poisonous to livestock and to horses in particular. The toxins act cumulatively, so the more an animal eats (potentially over several years), the more likely it is eventually to die. The toxins are not destroyed by cutting, spraying, pulling, digging up or drying and the seed can remain dormant for up to 20 years, which is why it may sometimes come up in even the most well managed pasture and why it is essential not to leave cut, treated or wilted ragwort in a field which may be accessed by livestock.

Control by:

- **pulling or digging up:** can be done by hand over smaller areas or with a tractor-mounted mechanical puller over larger areas. Gloves need to be worn since the poison can irritate human skin. The best time to do this is when the plants are still young and the soil is soft following rainfall (tools such as 'lazy dogs' can be very useful for this task – see Further reading section). Ragwort can regenerate from fragments of root left behind after pulling. The areas of



Leaf of common ragwort © N. Jennings

disturbed ground left after pulling can also create ideal places for dormant seeds to germinate.

- **cutting:** this must be done before the plant has flowered and set seed. Only do this as a last resort since it doesn't kill the plant, can turn it from a biennial into a perennial and can cause it to 'coppice' and flower later in the season. Do not put livestock on site for at least six weeks.
- **herbicide application:** if the area to be treated is fairly small, try spot-treating with a knapsack sprayer as this is very target specific. Blanket spraying with a tractor-mounted sprayer can be used for serious infestations but will destroy many surrounding plants and other wildlife. Alternatively, if the ragwort is very tall and stands above other vegetation, then use a hand held or tractor-mounted weed-wipe.

To dispose of ragwort, stockpile it in one area, on a site that will not be accessible to livestock either now or in the future, and let it rot down. Alternatively, you can burn it, although this tends to be impractical since the ragwort will be green and therefore does not burn easily.

Docks and nettles

Follow the guidelines for good sward management to prevent docks and nettles growing in the first place. Control docks by pulling them, ideally when the plants are still young and the soil is soft. Control nettles by cutting repeatedly since this will weaken them. If you need to use a herbicide, then try to use a selective one.

Thistles

Follow the guidelines for good sward management to prevent thistles from growing and spreading. If you are able to, and this

is appropriate for the site, raise water levels slightly as thistles don't tend to be a problem on wet grassland.

Control spear thistle by digging them out or destroying the rosette when the plants are young and the soil is damp. This method is not effective with creeping thistle since it tends to propagate through its roots rather than its seeds: fragments of root (rhizome) left in the soil after pulling/digging can remain dormant for years and are very efficient at regenerating into a new plant.

Control creeping thistle by cutting before the flower bud turns purple and removing the plants to avoid any chance of the seed ripening. At this time, the plant has put all its resources into the buds and is more readily weakened by any cutting. Use a strimmer, scythe, or tractor-mounted cutter for larger areas. As a last resort, apply a herbicide in May or June (see section on ragwort).



Spear thistle © G.Christian



Snipe © Amy Lewis



Bumblebee on thistle © Les Binns



Treecreeper © Amy Lewis

Sycamore

Sycamore provides quality timber, coppices well, and can support large numbers of invertebrates. However, strictly speaking, it is not a native species. It can outcompete native species and will keep seeding into fields where it is growing adjacent to grassland. It also goes into leaf earlier in the year, shading out flowering woodland plants, and its leaves rot down more slowly than in other species. For these reasons, it is best kept away from ancient woodlands and you may also wish to control any sycamores that are encroaching on grassland sites:

- clear the larger sycamore trees in autumn-winter and stump treat with herbicide the day they are felled. Check with the Forestry Commission before doing any felling work to find out if you need a felling licence.
- clear smaller sycamores by hand with loppers or a bow-saw, during the winter months, and stump treat immediately, since the herbicide won't be absorbed when the sap is rising; alternatively, spray the leaves in spring (when the leaves are freshly emerged) or in the autumn

Bramble and dogwood

Native species such as bramble and dogwood have many benefits for wildlife, and provide shelter, berries and nectar and nesting habitat, so it is important to leave



Dogwood © Philip Precey

some on your land. These species can be controlled by spring grazing. Bramble can also be cut on rotation, ensuring there is always some left for wildlife.

Snowberry

Snowberry is an introduced species and can be very invasive. The best way to avoid it encroaching on your grassland is to do some spring grazing (April, May), since the shrubs will be young and the new growth will be more palatable to livestock. You could try topping it regularly (cutting off the top growth) to prevent it from getting too woody; topping it will also prevent it from seeding and producing berries, which birds then like to eat, thus dispersing the seed nearby in your fields.

Rushes

From a conservation point of view, rushes provide good habitat for many species, including invertebrates and species such as snipe. Other species such as lapwing will avoid wet grassland where there is too much rush cover and favour very open, featureless grasslands.

Rushes can be quite invasive; they also provide little nutritional value to livestock and are unpalatable, so animals will only eat them if there is nothing else left. As a result, farmers and graziers will generally control rushes by topping them or applying herbicides. From a conservation perspective, the least damaging way to control them is by grazing, ideally with breeds such as Konic horses, which can handle most vegetation. Top the rushes in spring to make the regrowth a little more palatable and then graze. Alternatively, top them in the autumn and graze – although there will be no regrowth, livestock may trample the hearts of the clumps and cause enough damage to limit further growth.



Rushes © Kent Wildlife Trust

Bracken

Bracken can take over a site if left unchecked. It is poisonous to livestock and most animals will avoid eating it unless nothing else is available. It can be controlled through cutting two or three times a year (in June, July and August) or bruising/crushing the stems. For more information, please see Further Reading.



Holly blue © T.Connor

A note on the benefits of ivy for wildlife

Please avoid clearing ivy where possible as it has many benefits for wildlife:

- it provides good evergreen cover on the ground and in trees when there is little other foliage present during the winter months and lessens the effects of frosts, allowing woodland birds and other animals to forage in leaf litter during wintry spells
- it provides a source of nectar, pollen, berries, shelter, or nest sites for bats and birds such as treecreepers, butterflies such as the holly blue butterfly (the second generation of which feeds solely on ivy) and late flying bumblebees (ivy provides one of the last nectar sources of the year)
- contrary to popular belief, it does not kill trees; however, when present in the canopy of a tree, it can add to a diseased or dying tree's inability to withstand strong winds

Implications of using herbicides

- we recommend that you always use a contractor with an appropriate Certificate of Competence to ensure that you are following the *Code of Practice for the Safe Use of Pesticides on Farms and Holdings [PB3528]*. This Code is available from Defra Publications.

- use selective herbicides in preference to non-selective ones to avoid destroying non-target species. Bare ground created by killing other plants (including grass) will only result in more sites being available for the weeds to take hold.
- try to target the plants when they are in a period of growth, but before they are flowering
- if the site is designated (eg a Site of Special Scientific Interest) or in a government scheme such as the Environmental Stewardship Scheme, you will need to follow guidelines set out in any agreements
- if you are planning to graze the site, please read the label carefully to ensure you leave enough time before allowing livestock back into the field



Ivy providing shelter © Darin Smith

Further reading and references

Suffolk Wildlife Trust

Thistle, rush, nettle and dock control in grassland.

Natural England

<http://www.naturalengland.org.uk/ourwork/regulation/wildlife/>

Technical Information Notes:

SIN011, TIN048, TIN047 on bracken management

Kent Wildlife Trust

Land Management Advice series

Management of small pastures; Management of neutral grassland; Management of chalk grassland; Management of acid grassland; A brief guide to choosing livestock for conservation grazing.

DEFRA

- *Guidance note on the methods that can be used to control harmful weeds (March 2007)* downloadable from <http://www.defra.gov.uk/publications/files/pb7190-harmful-weed-control.pdf>
- <http://www.defra.gov.uk/publications/files/pb11050-ragwort-dispose-110315.pdf>
- *DEFRA Code of Practice on How to Prevent the Spread of Ragwort (revised March 2007)*. Crown copyright. Published by DEFRA.

The Lazy Dog Tool Company

Weeding tools to remove injurious, harmful, noxious & invasive weeds without chemicals <http://www.lazydogtools.co.uk/>

The Grazing Animals Project (G.A.P.)

downloadable publications and the G.A.P. discussion forum (Nibblers) cover a whole range of conservation grazing topics: http://www.grazinganimalsproject.org.uk/nibblers_archive.html

Obtaining further advice

For further information, please contact the Trust's Land Management Advice Service by calling 01622 662012 or by emailing info@kentwildlife.org.uk



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