



Management of Small Pastures



Cowden Pound Pastures: the large anthills indicate that the field has not been ploughed or harrowed for several decades © Kent Wildlife Trust

This leaflet is designed to give owners of small pastures some general recommendations on how to manage their land and assumes that the primary objective is to manage the land for nature conservation purposes.

As part of the wider farmed landscape, pastures have their part to play in providing habitat for a range of species. They can provide nesting sites for birds such as skylarks, a source of invertebrates on which birds can feed their chicks, cover for brown hares and habitat for over-wintering invertebrates. Pastures which are botanically diverse ('species-rich grassland') can provide a source of nectar and pollen for insects such as bumblebees and butterflies, and plants on which invertebrates can lay their eggs.

Types of grassland

Grassland falls into three categories:

- agriculturally improved grassland contains very few species; it is generally dominated by rye-grass, white clover, buttercups, dandelion, chickweed, common mouse-ear and coarse grasses such as cock's-foot

- semi-improved grassland contains a wider array of species, typically between 8 to 15 per square metre
- species-rich grassland contains over 15 species per square metre. In Kent, there are several different types of species-rich grassland: acid grassland, neutral grassland and chalk grassland (see Further reading). These types of grassland can include over 40 species per square metre.

Traditionally managed, wildflower-rich grasslands have declined by 97% in the last few decades, mainly as a result of agricultural intensification through more efficient farming techniques. Their disappearance is thought to have led to the drastic decline of many species including bumblebees, farmland birds and wildflowers.

Pasture can include extensive areas of grazing marsh such as those found on the North Kent marshes and Romney Marsh, and historic parklands such as Knole Park. Not all pasture has the potential to be particularly rich in plant species: for example, grazing marsh tends to be botanically poor due to the nature of the soil, but can provide excellent habitat for rare species such as lapwing and other wetland birds.

This sheet includes information about the following topics:

- importance of pastures for wildlife
- types of grassland
- why graze?
- livestock and finding a grazier
- increasing the botanical diversity of your pasture
- what time of year is best for grazing?
- scrub
- other habitats in your pasture
- dealing with ragwort and other problem plants
- references and further reading
- further advice



Display of devil's-bit scabious on traditional pasture © Kent Wildlife Trust



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Your living landscape. Your living seas.



Ancient dune pasture, Sandwich Bay
© Kent Wildlife Trust



Species-rich grazing marsh, South Swale
© R.I. Moyses



Longhorn cattle grazing traditional
pasture in the Weald © Kent Wildlife Trust

Why graze?

From a nature conservation point of view, the main purposes of grazing are:

- selective grazing of different species of plant
- removal of annual vegetation growth through grazing helps to control the dominance of coarse grasses, prevent scrub from encroaching, and gives wildflowers and finer grasses a chance of establishing and maintaining themselves in the grassland

Removal of vegetation - and therefore nutrients - can be achieved through either grazing or mechanical cutting (if the cuttings are removed). However, only grazing with livestock can create a mosaic effect across the site, with patches of tall and short vegetation, some poaching (trampling and churning up of ground in wet weather) and some areas of scrub – this is what creates many micro-habitats which then attract a wider range of species.



Cuttings left on adds nutrients to the soil and make it difficult for wildflower seeds to germinate and grow © Kent Wildlife Trust

Livestock and finding a grazier

If you have not kept livestock before, then you are advised to look up relevant legislation on the DEFRA website. Horses are not usually classified as livestock and many of these regulations do not apply

to them. Horses, sheep and cattle all graze in different ways, and the needs of traditional breeds of livestock will differ from those of more modern breeds; for further information, read our leaflet *A brief guide to choosing livestock for conservation grazing*. If you are getting an outside grazier in you may be able to charge a small fee for the grazing. This may depend on the site and how easy it is to graze (access, water supply, condition of fencing etc).

Increasing the botanical diversity of your pasture

It is possible to increase the number of species found in pasture, or indeed to recreate pasture from arable land, but the end result will depend on many factors, including nutrient levels, weed burden, availability of local seed sources, current species composition, soil type and geology. To increase botanical diversity, you must not add any artificial fertiliser on traditional pastures. For further advice, please see the Trust's advice sheets dedicated to specific types of species-rich grassland.

The main methods for diversifying the sward are spreading green hay from a nearby species-rich meadow and using wildflower plugs (young plants) or wild flower seed. The method you choose will depend partly on the availability of local seed sources and also your budget, although we would always recommend allowing seed to come in naturally or using green hay as a first option.

Plant species which are indicative of unimproved species-rich grassland include (but will depend on soil type): bird's-foot trefoil, devil's bit scabious, common knapweed, orchids, milkwort species, vetches, clovers other than white

clover, harebell, lady's bedstraw, lichens, mosses, betony, cowslip, eyebright, oxeye daisy, ragged robin, yellow rattle, wild basil, marjoram, thymes, salad burnet, yellow-wort, common centaury.

What time of year is best for grazing?

Choosing what time of year to put livestock on site can be tricky and will partly depend on the individual site's management requirements, but also the weather and availability of livestock. Generally, late summer – autumn grazing is the best period for grazing a site for conservation. It is least damaging to invertebrate communities, it removes the past year's vegetation growth and still allows for plants to flower and seed. However, if there are early- or late-flowering plants (such as autumn lady's tresses), then you may wish to vary the grazing on different parts of the field or in different years, so as to allow those plants to flower and set seed. Where possible, avoid grazing from May – July or, if unavoidable, reduce grazing intensity.



Display of orchids on traditional pasture
© Kent Wildlife Trust



	Grazing at this time of year is good for	Some issues with grazing at this time of year...
<p><i>Spring grazing (April-May)</i></p>	<ul style="list-style-type: none"> encourages the grass to tiller (spread) thus reducing bare ground a popular choice with graziers since they will be anxious to get their livestock out of doors will check the growth of sycamore and hawthorn saplings, bramble, dogwood 	<ul style="list-style-type: none"> repeated heavy spring grazing may cause local extinctions of some plant species can affect invertebrate numbers and ground-nesting breeding birds (nests maybe trampled, especially if stock density is high)
<p><i>Summer grazing (May-September)</i></p>	<ul style="list-style-type: none"> livestock can benefit from highly productive vegetation growth and keep some herb species and saplings in check less likely to cause poaching 	<ul style="list-style-type: none"> can graze out wildflower species and/or prevent annuals or biennials from setting seed reduces foraging sites for invertebrates such as bumblebees, which rely on nectar and pollen
<p><i>Late summer/early autumn grazing (September to October)</i></p>	<ul style="list-style-type: none"> least damaging for invertebrates little effect on flower species may help seed dispersal 	<ul style="list-style-type: none"> some vegetation may be unpalatable may remove leaves on which invertebrates feed livestock may just trample tall vegetation
<p><i>Autumn/winter grazing (October to March)</i></p>	<ul style="list-style-type: none"> dormant herbs and grasses will be weakened invertebrates likely to be overwintering can help break up leaf litter 	<ul style="list-style-type: none"> trampling can lead to poaching, which can result in an increase in weeds fewer nutrients removed can remove too much plant litter may not control tall grasses vegetation is unpalatable and livestock may require supplementary feeding livestock may just trample tall vegetation





Bare ground caused by overgrazing © I.Rickards



Poaching around feed station © Kent Wildlife Trust

Scrub

Scrub is a habitat in its own right and you should ensure that some is left as it provides nesting sites for breeding birds, shelter for species such as invertebrates, reptiles and amphibians, and berries for migrating and over-wintering birds. If the site has not been grazed or cut for a while, scrub can start to take over and the site will gradually revert to woodland. For further information, please read the Trust's leaflet *Scrub, its value for wildlife and how to manage it*.

Other habitats in your pasture

Many of our native species thrive in mixed farmland landscapes: mosaics of arable land, hedgerows, pasture, hay meadows, field margins, scrub, woodland and wetland areas such as ponds will provide them with the best chances of finding areas which meet all their requirements for nesting, shelter and sources of food. Where possible, it is therefore important to include some of these habitats within your pasture, such as a hedgerow around the edge, a pond or marshy area (which can be fenced off from livestock) and some scrub.

Tussocky grassland (with some coarser vegetation) can develop when patches of

grassland are left uncut or ungrazed for several years (see *Managing field margins for wildlife*). Although this vegetation will be less interesting from a botanical point of view, it will provide excellent habitat for bumblebees and small mammals, so it is worth keeping some areas around the margins of your field (you may need to fence them off from livestock); good populations of small mammals will in turn attract species such as barn owl and kestrel.

Protected species

Some protected species such as breeding birds, great crested newts and reptiles, may use the site and you will need to take this into consideration before undertaking certain management work. If such species are likely to be present, seek advice from Natural England <http://www.naturalengland.org.uk/ourwork/regulation/wildlife/species/>

Dealing with ragwort and other problem plants

A major contributing factor to the presence of weeds, such as ragwort, thistles and docks, is the presence of disturbed ground. It is very important to ensure that there is a closed sward (little or no bare ground) and this can be achieved by encouraging grasses to tiller.

- graze hard in spring. You can also harrow and seed but choose grass species which tiller fast (red fescue, perennial rye-grass, creeping bent, common bent, wavy hair-grass, sheep's fescue) and do not harrow after mid-March to avoid destroying nests of ground-nesting birds and bumble bees.
- avoid overgrazing
- avoid grazing in extremely wet weather when livestock will churn up the soil. If an area is badly poached, fence it off until the sward has recovered (although some areas such as near gateways will inevitably remain in poor condition)
- see Further reading.

Further reading and references

Bumblebee Conservation Trust
Land Management Factsheet 3
Managing wildflower pastures for bumblebees

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

Kent Wildlife Trust Land Management Advice Series
Management of Neutral Grassland;
Management of Chalk Grassland;
Management of Acid Grassland;
Control of ragwort, thistles and other problem plants;
A brief guide to choosing livestock for conservation grazing;
Scrub, its value for wildlife and how to manage it.

Natural England
(available to download from www.naturalengland.org.uk):

(Technical Information Notes TIN088):
Illustrated guide to managing neutral pasture for wildlife.

Crofts, A. and Jefferson, R.G. (eds)
(1999).
The Lowland Grassland Management Handbook (2nd ed.). English Nature/The Wildlife Trusts.

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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