

Horses and ponies² can graze as close to the ground as rabbits so over-grazing with the loss of some plant species is always a risk. However, light grazing and good horse management can play an important part in nature conservation; the fact that horses graze selectively, preferring grasses, sedges and rushes leads to the under-grazing of other species which can be valuable for insect diversity. Over-grazing can be prevented by sub-dividing fields and moving the animals to the next area before the first one is grazed below 5cm (2"). When conditions are wet, damage to the sward and invasion by ragwort and other weeds can both be prevented by removing animals temporarily. The daily removal of dung will help prevent the establishment of latrine areas, which cause localised high nutrient levels which can become weed-infested. Where latrines are forming, tall, ungrazed grass is best cut and removed. In fields that have been cut for hay before they are grazed, the same guidelines should be followed. In both pasture and hay meadow, aim for a varied sward structure which includes scattered grass clumps and tussocks.

Donkeys. Much of the management of ponies applies to donkeys since, like ponies, they graze selectively and tend to dung in latrine areas. They are lighter than ponies of a similar height and they are not shod, so are less likely to damage the sward but they tend to suffer from foot problems so are not suitable for grazing wet sites.

Harrowing

Chain harrows are sometimes used to break up matted swards and spread dung, but harrowing can encourage the invasion of weeds if too much bare ground is created. If harrowing is really necessary do it between 1st September and the end of February to avoid the vulnerable time for ground nesting birds and early flowering plants.

This leaflet is intended as a basic, introductory guide to managing pasture for wild flowers. Much of the information has been extracted from English Nature's 'The Lowland Grassland Management Handbook'. For more in-depth information and details on further reading, you can consult the PGP's copy of this handbook which is available from Peter Chard, 01594 530513 or view it online at www.english-nature.org.uk.

Parish Grasslands Project HT03 Jan/2005

² For more comprehensive information see The British Horse Society website



St Briavels, Hewelsfield & Brockweir Parish Grasslands Project

Pasture (Grazed Grasslands)

A basic guide to managing pasture to encourage wild flower-rich grassland

There are two ways of managing a field to encourage the natural proliferation of wild flowers. The most effective way is to leave it to grow as a hay meadow taking a late, annual hay cut after the wild flowers have set seed. The other way is to manage the field as lightly grazed pasture.

This leaflet gives basic information on how to manage grazed grassland in order to encourage an increase in the number and diversity of plant species. It also looks at the different grazing habits of sheep, cattle, horses, ponies and donkeys.

The impact of grazing

If your grassland has been managed as a hay meadow for a prolonged period (around 10 years), it will have flora and invertebrates that reflect this and it is best to continue with the same management. Some plant species which are found in hay meadows can be absent or reduced in number in pasture owing to their intolerance to being grazed. Nevertheless, grazing plays an important role in maintaining species richness by limiting the spread of dominant (weed) species. Moderate trampling by livestock can be beneficial by creating gaps in the sward for seedlings to get established. Grazing by cattle is usually ideal, but sheep, horses and even donkeys can also be acceptable as long as fields are lightly stocked and grazing levels are carefully controlled. ***At the end of a period of grazing, the aim is for a variable sward structure with sward heights of 5cm (2") interspersed with taller tussocks.***

The impact of over-grazing

If fields are too heavily stocked, over-grazing occurs and plant species can be lost. Simply removing stock for a rest period in winter or summer will not undo the damage. However, fields that have only recently suffered from over-grazing can recover quickly if stocking levels are reduced.

Reducing soil fertility

The key to wild flower-rich grassland is reduced fertility of the soil and the absolute avoidance of chemical fertilisers, both of which encourage the growth of vigorous grasses at the expense of wild flowers. Although the dung from grazing animals might seem to be fertilising the soil, so long as no supplementary foodstuff is introduced there is a net loss of nutrients to the soil when the fattened animals leave the field at the end of the grazing period. To this end, ***supplementary feeding should not take place*** on pasture managed to promote botanical diversity.

Pasture management for wild flowers

To manage a field as pasture you must ensure that the boundary is secure, that there's a supply of fresh water and that the field is free of bracken in large quantities and potentially harmful plants like ragwort. To enable wild flowers to flourish, Defra¹ recommends that pasture is grazed for a period of at least 10 weeks between 1 April and 31 October. Grazing should be regulated to prevent over-grazing, with a lighter stocking rate until the end of June. Livestock to be excluded between 30 November and 1 March.

¹ Countryside Stewardship Scheme management prescriptions

Grazing pressure varies depending on the site and the age, size and breed of the animals. The following table of stocking densities is therefore only a basic guide to give an idea of what is meant by light stocking levels. ***The only certain way to safeguard your pasture from over-grazing is to check it frequently.***

No. of grazing weeks	No. of sheep per hectare	No. of cattle per hectare
12	17	4
24	8	2
36	5.5	1.5

The grazing attributes of different types of stock:

Sheep have a narrow mouth with thin, mobile lips which enable them to selectively graze off flower heads. It would therefore be better not to introduce sheep until later in the season after flowers have set seed. Sheep are lighter and more agile than cattle and may be more appropriate for grazing on steep slopes. They do not reject the grazing around dunged areas so they can graze swards to a uniformly low height of 3cm (1") so over-grazing is always a risk. The presence of large amounts of bramble can lead to sheep becoming entangled and trapped by their fleeces. In addition, sheep are not generally suitable for wet sites because of the problems of foot rot.

Cattle prefer to eat longer grass, using their tongue to pull material into the mouth. Their large mouths mean that they cannot graze as selectively as sheep. This is useful because unpalatable, competitive weeds are often eaten with mouthfuls of grass. Cattle are generally better than sheep at creating a structurally diverse sward; dung pats are scattered randomly, each one creating a no-graze area which continues to grow creating insect-friendly tussocks of mature plants. Cattle dung is also an important habitat for insect larvae that later become a food source for bats and birds. ***In terms of species richness, light grazing by cattle almost always produces the richest sites.***