

Types of Grazing Animals

Our familiar rural landscape has not occurred by accident but has evolved over thousands of years due to management by farmers and land managers. Grazing is a fundamental part of this management but due to pressures on the land such as economic development and increased food production, the traditional landscape, with its 'natural' grassland habitats and species has been lost from large parts of the country.

The species-rich grasslands that remain need to be managed appropriately to ensure their survival. Grazing forms a key part of this, either as spring and aftermath grazing on meadows managed for hay or extensive or pulse/mob grazing on pasture. An efficient grazing regime is based on a complex combination of four factors:

- timing - time of year and frequency of grazing
- intensity - stocking rates
- targeting - which areas to graze
- stock - type of animal to be used.

There are three main types of livestock used to graze grasslands - cattle, horses and sheep. Goats may sometimes be used, depending on the situation.

Livestock do two things in grassland; they eat and remove the vegetation which allows the less competitive plants, such as many wildflowers, to grow alongside the more competitive plants. Many grasses are good competitors and without grazing they often become tufted and can grow tall, shading wildflowers and preventing them from being able to harness the sun for photosynthesis. This effectively starves the plant and they are unable to survive. The second thing that livestock do is remove the thatch (dead grass and leaves) that gets trapped between the grasses and flowers covering the soil. Some thatch may be eaten by livestock when they munch through living vegetation, but they also help by trampling the ground and creating patches of bare soil between the grass tufts moving the thatch aside. All wildflower and grass seeds need to be in contact with bare ground to germinate and establish a root system. Thatch prevents this from occurring but livestock encourage germination by removing this build-up of dead material.

Livestock eat in different manners, which can have different effects on wildflowers and grasses. Some of these may be positive and help to maintain the species-richness of the





grassland, whilst others may be negative. Occasionally, it may be recommended to graze a grassland harder to reduce scrub encroachment, create small areas of bare ground to help seeds germinate and take the grassland back to an earlier stage of ecological succession¹.

In an ideal world, a combination of mixed stocking will produce the best management outcome. All grazing animals need:

- water - via a trough, man-made channel or naturally occurring.
- shelter - against the worst weather or shade in summer. Even if there are not housing facilities on each site, there should be trees, bushes or rock

outcrops that livestock can retreat too in severe conditions.

- fencing - appropriate fencing that is well maintained.
- attention - the livestock should be checked at suitable intervals, which may be daily.
- care - on site and off site visits by a vet may be required.

It can be difficult to move livestock between farm holdings, particularly in areas with high TB. Movement licenses are required for some types of stock and standstill periods may apply. This can cause difficulties if there are 'flying' herds of animals used to graze species-rich grasslands. All grasslands are a managed environment and if grazing cannot be undertaken, some other form of management may need to be done to replicate grazing, such as mowing and harrowing.

¹ Ecological succession - the progressive replacement of one community by another until a climax community is established.

Cattle

Cattle prefer to eat longer grasses and use their tongue to pull and tear the vegetation; grazing to a minimum height of 5-6 cm. They are generally better than sheep at creating and maintaining structurally diverse grassland:

- their large size and heavy weight breaks up the ground;
- they avoid grazing around dung pats which creates patches of longer vegetation important for insect communities. These in turn are eaten by birds and bats;
- cattle are particularly good at knocking down and creating gaps in tall, coarse vegetation such as bracken and scrub.

Different cattle breeds have differing effects on rough grassland. Traditional breeds are more adept at eating rough grassland, putting on weight and maintaining condition for production, compared with commercial breeds. Cattle need more water than sheep, and access to troughs is required at all times. The location of water troughs and mineral licks can be used to influence where cattle graze. Poaching or pock marks (the excessive trampling of grassland by cattle when wet) adversely affects pasture and meadows and can lead to a hard impenetrable surface when dry, where plants are unable to germinate. It is a particular problem that can

occur around water troughs and feeders and when cattle are over wintered outside.

Cattle are particularly good at reducing some problem grassland plant species. For example, tor-grass occurs on calcareous grassland and is not particularly palatable for livestock. However, it is most palatable earlier in the year when the shoots appear and cattle can be used to spring-graze pastures where it occurs. Spring-grazing can also be used to reduce other grasses like tufted hair-grass and purple moor-grass.

For more information on the suitability of different cattle breeds for conservation grazing see [The Breeds Profile Handbook](#).





Horses and ponies

Horses and ponies have forward facing teeth and can graze extremely close to the ground – as close as rabbits. The benefits of grazing with horses and ponies are:

- they preferentially select sweet grasses, but will also eat a variety of sedges and rushes particularly later in the summer;
- they tend not to select flowers, as sheep do, and avoid buttercup, common knapweed and ragwort;
- they regularly graze tufted grasses, including tor-grass;
- these 'fussy' diets are ideal for maintaining the mosaic habitat needed by many insects.

As with other livestock, there are behavioural and grazing differences between horse breeds. Native breeds such as Exmoor, Dartmoor and New Forest ponies are regarded as more suitable for rough grasslands and are

hardy, being able to cope in adverse weather as they are often reared outside without ever being brought into a stable. In the autumn, some breeds such as New Forest ponies, will graze large quantities of bracken once the toxicity has reduced, making them ideal for restoration grazing.

Problems can arise in specific locations as horses may create latrine areas, which lead to a tightly grazed vegetation and can cause localised high nutrient levels and encourage the spread of thistles, nettles and docks. Regular collection of dung will alleviate this problem and usually the more species-rich areas of a site are not used as a latrine as they are become preferred grazing locations.

For more information on the suitability of different horse and pony breeds for conservation grazing see [The Breeds Profile Handbook](#).



Sheep

Sheep have thin, mobile lips and move slowly over the sward nibbling the grass. They eat selectively when circumstances allow, biting off single leaves or shoots down to a height of 3 cm. It is notable that sheep only develop a full set of adult teeth after 3-4 years and then steadily lose them as they age, therefore young and old sheep may not graze as effectively as middle-aged sheep. As well as grasses and herbs, sheep will also selectively eat some low scrub, especially the hardy breeds such as Soay and Hebridean.

The benefits of grazing with sheep are:

- they are light and more agile than cattle and are more suited to steeply sloping land;
- although on heavy, wet soils sheep can cause trampling and poaching they do not have such an impact as heavier grazers;

- their dung is deposited randomly and they will graze next to it, therefore grazing swards to a uniformly low height.

Sheep are less susceptible to the toxins in ragwort and so can be used to spring graze it in its rosette stage to prevent flowering and setting seed. However, they are not immune to its toxins so require plenty of other vegetation to eat along with it. Extensive bramble can cause difficulties for sheep as their fleece may get caught. As sheep are prone to foot rot they are not best suited to predominantly wet sites. They also require more secure fencing than cattle.

For more information on the suitability of different sheep breeds see [The Breeds Profile Handbook](#).

Goats

Feral goats may be managed as a livestock herd. They are browsers, consuming woody vegetation 50-75% of their feeding time where this is available, and do best on land that has scrub and tufted grasses making them particularly suited to restoration grazing. Usually they graze grasses down to a height of around 6 cm and can target grass seed heads eating them before starting to eat the leaves. Like sheep, they do not develop their full set of teeth until they are five years old and can lose teeth in older age, meaning that middle-aged goats are most effective.

The benefits of grazing with goats are:

- they have a small muzzle and a flexible upper lip allowing them to be highly selective about what they eat. Goats prefer to eat the newer growth and leaves of scrub, bramble and tufted grasses rather than finer grasses;
- they are less prone to foot rot than sheep making them suitable for wetter sites but they do need some dry sheltered ground within their home range;
- they are agile and can tackle steep hills and rock edges, particularly suited to cliff edges that other livestock would have trouble accessing.

Goats will bark strip taking in order of preference, holly, ash, rowan and willow, oak, hazel, alder and birch in upland situations. In lowland situations they tend to eat elder first, followed by ash, blackthorn, sycamore and rose. They generally do not eat field maple or hawthorn. Bark-stripping takes place during mid-late winter when there are few leaves and the preceding year's growth has been consumed. They may also browse heather to a greater extent than sheep.

Goats have been particularly used along steep cliffs, such as Burrington Combe in the Mendip Hills, to reduce the amount of scrub and encourage the growth of wildflowers. They have also been used to reduce rush on wet grassland, with restoration achieved after 3-4 years by spring mob grazing with goats at a stocking density of more than 10 animals per hectare.

Goats can be difficult to manage, and are often considered to be escape artists breaking out of enclosures. However, they can be very effective and different breeds can be used to address separate situations and issues.

For more information on conservation grazing with sheep see [The Breed Profiles Handbook](#).

