



Malvern Hills
National
Landscape

**Creating and managing
wildflower meadows
with horses and ponies:
Good practice case study
2024**

malvern hills-nl.org.uk



Overview

The owners of a small holding within the Malvern Hills National Landscape have been exploring the best way to use their horses to create wildflower meadows. A well-managed meadow, where wild grasses and flowers are allowed to flourish, is beautiful to look at, great for wildlife and provides a healthy environment for ponies and horses.

The owners moved to their property in 2017, bringing with them their horses, as well as experience of running a livery and equine veterinary practice and an interest in the medicinal use of grazing. They wanted to create wildflower meadows not only to improve horse health but also to benefit the environment. Their aim is to support wildlife, soil health, fauna and local flora through their horse care practices.

The 6-acre smallholding had been used for intensive grazing but there were remnants of previously rich grassland, suggested by a few meadow species near edges and hedge-lines, including orchids. A soil test showed that phosphate levels were low, suggesting that the fields had not been 'improved' with fertiliser. Wildflower meadows thrive on low-nutrient soils so re-establishing a wildflower meadow was possible.

What follows is the owner's account of how they set up a meadow system that benefited their horses and local wildlife.



Figure 1: Permanent chestnut posts for field subdivision

A Countryside Stewardship grant in 2018 provided help towards fencing and new hedging, with a diverse mix of native shrub and tree species being planted around the perimeter for browsing. A local landowner offered seed from an established wildflower meadow, which was collected when ripe using a brush seed harvester and spread over the cut fields in late summer. Two of the fields are ridge and furrow, and historically important, so these were cut but then left undisturbed before spreading the seed. The third was scarified before seed was sown to expose bare soil. All three established well despite the differences in preparation.

The land is divided into permanent pasture and meadow and supports three horses. Permanent rustic chestnut post and electric tapes are used to create and change grazing areas within these three zones without being intrusive in the landscape, as the electric tape is removed when it is not needed, leaving the posts in situ. A central lane way in the meadows connects these smaller grazing areas, which are always large enough for the horses to roam and graze freely and which are rested after a week of grazing.

The pasture is used for grazing in Spring and early Summer, with the horses being allowed to browse there from March to July. The sward is kept relatively short from this grazing but is species-rich since it isn't intensively grazed, or grazed all year-round. Any invasive species, such as thistles, are removed by hand if they become problematic.



Figure 2: Paddock grazed from March to July

In the meadow areas grasses and flowers are left un-grazed until mid-late Summer, when the seed is then harvested to help establish other wildflower meadows. Brush seed harvesting leaves the grass and herbs standing and the horses are turned out to browse on them between July and February. Dividing the fields into smaller areas and grazing at different times, rather than cutting and baling the entire area, avoids removing all the vegetation at once, leaving areas undisturbed for wildlife.

Over time the flora has diversified into species-rich wildflower meadows and through careful monitoring and responsive management the owners can change the areas for grazing to allow different plants to flower and to set seed. The vegetation is kept above 5cms in height whilst being grazed, encouraging extensive roots which stabilise the soil, help with drought tolerance and tap into soil minerals. Some areas of both the meadow and pasture are left over winter as standing vegetation or foggage – good for browsing and invaluable for wildlife.



Figure 3: Diverse wildflower and grass species in a well managed horse meadow

Horse manure is picked up and removed, to remove nutrients, give plants light and to prevent building up a worm burden on the land. Horse worming is minimised by targeting control. Worming is only carried out when needed, instead a faecal egg count is done on a regular basis and action taken only when needed. Worming chemicals in manure not only kill horse worms, they also kill dung beetles and earth worms which are vital for soil health.

The horses keep fit and well and thrive on being able to choose what they eat. The high fibre and low sugar of meadow plants and grasses is more digestible than rye grass and some plants have medicinal properties or contain valuable trace elements. An elderly horse with few teeth is especially fond of the soft ribwort plantain and another which had bouts of colic on rye grass has fared better on a wildflower meadow mix. Being able to find and select food also provides the horses with enrichment activity.

After six years not only are the horses healthy but the land is too, providing a great example of what can be done to promote biodiversity using horses. The number of wildflower species continues to increase, the long roots of the meadow grasses and herbs have helped with drainage in the wetter areas and wildlife is thriving – so much so that local school children are enjoying nature visits and guided walks are held in the summer. The number of insects and birds is increasing; flocks of goldfinches visit to feed by day and bats patrol the field in the evenings. This alternative way of grazing horses shows that, far from being a 'problem' in protected landscapes, they can be used to help create wildflower meadows – one of our most cherished and threatened landscapes – and benefit wildlife.



Figure 4: Meadow Brown Butterfly - Diverse wildlife species are attracted by the meadow.

Top tips

Test your soil before you start: Wildflower meadows will only establish on low nutrient soils. Phosphorus Index levels of less than 2 are ideal for creating or restoring wildflower meadows. If your soil is too rich, vigorous grasses will out compete wildflowers.

Know your horses: Remember that what suits one horse may not suit another. Horses are individuals, and you need to tailor your grazing and horse practices to fit your animals.

Worming: The chemicals in worming agents don't just kill the 'bad' ones. Don't worm your horses automatically; practice good hygiene, ask your vet to do faecal egg counts and only worm when needed.

Removing the sward: Meadows need to be cut when the seed has set in late summer and the cut grass and herbs need to be removed. They can be 'cut and collected' by machine for hay or simply grazed – it's the timing and removal of hay which matters, not the method you choose to do it. If grass is left after cutting it builds up a thatch which smothers fine grasses and herbs. Note that some 'stalky' wildflower hay may be difficult to plastic wrap as bales, due to puncturing of the plastic by tough stalks. Alternatively, the growth can be removed by grazing at the right time.

It's not just grass: Hedges and trees are a great source of browsing material, providing foraging enrichment for your horses, shade and shelter and natural highways for wildlife. Make sure field trees are surrounded by guards to protect them – especially the bark – from the horses.



Figure 5: rustic tree guard

The following bodies provide core grant support to the Malvern Hills AONB Partnership:



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