

Wakehurst Meadows

An introduction by Iain Parkinson, conservation and woodlands manager at Wakehurst Place.

Old hay meadows, with their profusion of wildflowers and abundant wildlife were a common feature of our rural landscape. These rich and varied grasslands are habitats created by centuries of traditional farming practices.

Over the past 75 years, there has been an unprecedented drive to increase food productivity. A new intensive approach to agriculture has replaced the traditional wildlife-friendly mixed farms, where nature and farming existed side by side. Intensive cultivation has led to the use of chemical fertilisers and herbicides. The result has been a catastrophic loss of grassland biodiversity.



Today, meadows only survive where they're too uneconomic to manage, usually because of poor fertility or challenging terrain. In the local area around Wakehurst, the picture is much the same, with less than one per cent of grassland in the High Weald of Sussex classified as species-rich – and it's a figure that continues to decline. However, the heavy clay soils and inhospitable agricultural landscape have tended to restrict the intensification of the farming industry so an encouraging number of old meadows still survive in this part of the country.

These ancient sites are characterised by their plant life. Common knapweed (*Centaurea nigra*) is a familiar species, together with other plants associated with damp meadows, such as green-winged orchids (*Orchis morio*), cuckoo flowers (*Cardamine pratensis*) and the curious adder's tongue fern (*Ophioglossum vulgatum*) that grows in the wet flushes of Hanging Meadow in the Loder Valley Nature Reserve at Wakehurst Place.

The presence of yellow rattle (*Rhinanthus minor*) also points to a long history. This semi-parasitic annual helps to reduce the yield and vigour of dominant grasses, allowing other plants light and room to grow. For this reason, yellow rattle is now seen as an essential ingredient of any grassland restoration or enhancement project. Species rich grasslands also support a wealth of wildlife, although it's the insects and invertebrates that are the most abundant.



Although the difficult conditions and isolated nature of our remaining meadows has ensured their survival, those same challenging characteristics create many problems for their continued management. Hanging Meadow, which is located in one of the more inaccessible parts of the Loder Valley Nature Reserve, provides a perfect example. Kew's botanists have been monitoring the plants and wildlife of Hanging Meadow for more than 30 years.

Hanging Meadow and Ardingly Reservoir



Recently, we recorded a decline in a number of species that were once common. Careful inspection revealed that the heavy tractor mowers used each year to cut the meadow were compacting the soil and leaving behind a matted thatch of old grass cuttings. This was preventing newly shed seed from reaching the soil and was reducing seed germination. The uncollected grass cuttings were also acting as a fertiliser and slowly increasing the soil fertility. This favours the more dominant grasses, which out-compete the more fragile herb species.

Horses working Bloomers Valley

In an attempt to reverse this trend, we decided to adopt a more traditional management approach and started by buying a small, pedestrian hay baler. This light high-tech piece of equipment helps us to cut, turn and bale in all weathers. Haymaking in Hanging Meadow starts in early August, when the reserve's warden, Stephen Robinson, cuts the meadow with a mechanical scythe. Once cut, the grass is turned several times using a mechanical hay rake. This allows air to circulate around the grass, which speeds up the drying process. The dried grass is arranged into long piles known as windrows, in preparation for baling. The resulting mini-bales are then stored and used as winter feed for our sheep.



Most meadows are now mainly small and fragmented, but they're still an important part of the countryside. They provide a crucial link between the wider network of farmland habitats, such as old hedgerows, woods and pastures. Wealden meadows are vital for other reasons too. They are visible reminders of our agricultural past, and those that remain are an intrinsic feature of the High Weald's historic landscape and thoroughly deserve our appreciation and care.

Wakehurst Place

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