

CREATING species-rich grassland

Agriculturally improved grassland usually has high levels of nitrates and phosphates. These promote grass growth preventing the establishment of wild flowers which thrive on nutrient-poor soils. Reducing nutrients before sowing wildflower seed is therefore essential. There are several options:

Deep plough the grassland: the top soil with nutrients is buried and nutrient-poor subsoil is brought to the surface. After harrowing to provide a fine soil texture, wildflower seed can be sown on the surface. This method is expensive but effective.

Rotavate and sow wildflower seed with plenty of Yellow Rattle. The rattle is hemiparasitic on grasses, reducing their vigour. You may still have a nutrient problem and unwelcome docks, nettles and thistles with this method but keep cutting these in the early spring and again in the late summer. Either take a hay cut or graze after mid-July.

Cut the grass 2 or 3 times: cut during the spring and summer, removing all the cut material as silage or haylage, or rake off away from the grassland. Graze with livestock in the autumn and early spring and then repeat the programme for a further one to two years until nutrient levels are lowered. In the autumn after the last cut, sow wildflower seed with plenty of Yellow Rattle. The following spring allow plants to grow and only cut and remove material after mid-July; if possible aftermath graze. Repeat this regime and over time the grassland will become more species-rich.

Helpful Tips

- Only use native wildflower seed of local provenance, available either from GWT or MMG or from a reputable supplier such as Plant Wild in Herefordshire or Habit Aid in Somerset
- Follow the guidance for management of species-rich grassland.
- Creating a wildflower meadow requires patience. Many plant species are perennials that take two to three years of growth before they flower and orchids may take seven or eight years to do so, but it is worth the wait.



Ringlet on Red Clover
(Jeremy Harris)



Crimson Waxcap (Jon Dunkelmann)



Six-spot Burnet Moth on
Knapweed (Keith Moseley)



Gatekeeper on
Ragwort (Ray Armstrong)



Common Blue on Bird's-foot Trefoil
(Jon Dunkelmann)

Management of Grasslands for Wildlife

Advice from Monmouthshire
Meadows Group



Produced with support from Monmouthshire County Council's Pollinator Fund, part of a local authority revenue grant from the Welsh Government's Environment & Sustainable Development Directorate

Leaflet text and design ©MMG Cover photo: Peacock butterfly on Field Scabious (Clare Adamson)

Monmouthshire Meadows Group

Registered charity number 1111345

www.monmouthshiremeadows.org.uk



Grasslands need management

The dramatic loss of flower-rich grassland is well known but still too many areas of species-rich grassland are being ploughed, planted with trees or just left unmanaged. If uncut or ungrazed the grassland becomes tall, rank and tussocky.

Bracken and brambles quickly invade along with tree seedlings and the grassland is soon on its way to becoming scrub woodland.

Meadows and pastures are permanent grassland. Permanent native flower-rich grassland should never be ploughed or rotavated for growing cornfield annuals such as poppies and cornflowers. Municipal roundabouts, buffer strips on arable fields and areas in gardens are the best place for colourful annuals.



MANAGING species-rich grassland – the two options

1 Hay Meadows

From the end of March to late summer allow the grassland to grow. In mid-July to September cut for hay. If you cannot make hay, for example because of wet weather, do ensure all the cut material is removed from the site to prevent enrichment.

If possible leave some areas at the edges uncut so that late-flying bumblebees and other insects can forage on remaining flowers of Knapweed; so that late-flowering species such as Field Scabious, Devil's Bit Scabious and Betony have a chance to flower; and so that invertebrates including grasshoppers and butterfly larvae have a refuge. These areas can change from year to year so that the grassland does not become tussocky.

If there is much re-growth after the hay cut then ideally you should aftermath graze the grassland in the autumn or late winter so that the grass is short by the end of March. (An alternative would be to take another cut and again remove the cut material.) The refuge areas could be protected with electric fencing.

2 Pastures

To allow plants to flower only graze with cattle or hardy ponies after mid-July. Another options is to top the long grass and herbs and ideally rake off before grazing with sheep.

If the grassland covers a large area, cattle at a low-density could graze throughout the year. If sheep are in a pasture in the spring and early summer they will eat most flowers, so it is best not to introduce them until the end of the season if you want flowers, butterflies, bees, hoverflies and a myriad of other life.

Helpful tips

- Never add artificial fertilizer and avoid annual manure spreading
- Safeguard meadow ant mounds in pastures especially on steep hillsides: clearly they will not survive in a regularly cut hay meadow
- Allow moles to thrive in pastures – molehills provide excellent germinating areas for new plants such as Cowslips. In hay meadows molehills are less welcome, but they will do no harm if raked over before hay-making
- Do not harrow in old pastures as this will destroy ant mounds and may damage grassland fungi including the many colourful waxcaps, puffballs and spindles that you often find
- Do not add lime as this will also damage or kill fungal mycelia. Fungi are important for their symbiotic mycorrhizal associations with orchids and other wild flowers
- Ragwort should be removed from hay meadows as it is poisonous in hay for livestock, notably horses. In pasture livestock avoid it, and some Ragwort is of great value for a wide range of insects including many butterflies
- Control bracken around the edges of grassland by scything, cutting or crushing and bruising it. In some cases use of Asulox herbicide may be necessary if the bracken is extensive
- Control docks and nettles, although nettle patches at the edges are a valuable resource for many butterfly and moth caterpillars

