

Guidance Sheet on the Management, Restoration, and Creation of

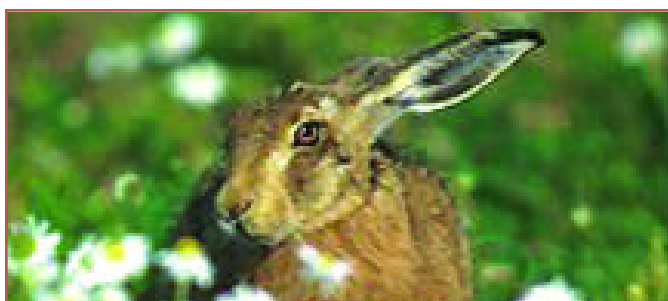
Unimproved Neutral Grassland

This good practice sheet is intended as a basic guide for landowners and land managers to conserve and enhance the biodiversity value of Unimproved Neutral Grassland and help secure its long-term future. Unimproved Neutral Grassland is listed as a priority habitat in both the UK Biodiversity Action Plan and Local Biodiversity Action Plan for Blaenau Gwent as it has suffered serious declines both nationally and locally.

Biodiversity quite simply means 'all living things'. It is the rich variety of wild plants and animals around us together with the habitats that support them.

Local Biodiversity Action Plan Priority Species associated with this Habitat include:

Badger	Red grouse
Brown hare	Skylark
Greater horseshoe bat	Great crested newt
Pipistrelle bat	Silurian moth
Barn owl	The confused moth
Eurasian curlew	Bluebell
Green woodpecker	Lesser wild thyme
Lapwing	Primrose
Linnet	Pink meadow waxcap



Brown hare

Habitat Description

Unimproved Neutral Grasslands were once widespread but are now highly fragmented and localised. Unimproved Neutral Grassland is typically species rich with a high cover of broadleaved herbs that have been managed traditionally, for

hay or pasture, and not fertilised, ploughed, or heavily grazed for many years. It is characterised by a high frequency of grasses associated with neutral soils such as crested dog's-tail and red fescue. Agriculturally favoured species, such as rye-grass, may occur in the sward, but generally not a high cover. Typical associated species include common knapweed, ox eye daisy (see photo below), common bird's-foot-trefoil, and hairy hawkbit, with meadowsweet, and marsh marigold in damper stands. The vegetation structure is usually uniform, but can be tall or short depending on management and nutrient status.



Species rich neutral grassland

Factors Affecting Habitat

- Habitat loss and fragmentation from built development, and road construction.
- Agricultural improvement through drainage, ploughing, reseeding, fertiliser or herbicide treatment, slurry application, conversion to arable, and a shift from haymaking to silage production.
- Changes in management from cutting to year round grazing (often by ponies and horses), resulting in loss of biodiversity and overgrazing. As a consequence, sites may become invaded by weed species such as ragwort, dock, and thistles.
- Abandonment and neglect leading to reversion to rank grassland and scrub.
- Forestry Planting.



Ploughing of species rich neutral grassland

Good Practice

Protect, maintain, and enhance any areas of Unimproved Neutral Grassland on your land by:

- Maintain a rich and diverse sward by reducing the frequency of grazing or mowing. Too much heavy grazing can result in the loss of sensitive species, and unless stocking levels are very low, grazing will prevent the sward from becoming tall and only favour low-growing plants. Agree a regime involving light grazing (usually between 0.4 and 0.75LSU/ha/pa) and/or light mowing. Aim for a height of about 5cm, although management for certain species may require different heights.



Low density cattle grazing

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- If mowing, always remove the cuttings. Long cuttings, if left, will cause the decay of wildflowers underneath, whilst short trimmings encourage the re-establishment of weeds such as creeping thistle.
- Try and encourage a variety of sward heights on your land to develop to benefit a range of species. For instance, areas of rough grassland and tussocky grassland are more valuable for wildlife than short grassed areas, as they support more invertebrates, and are a valuable habitat for small mammals. Longer grassed areas will also provide more nesting opportunities for birds such as skylark, lapwing, and yellow wagtail.
- Implement a hay meadow regime on the most valuable areas where hay is cut in late July. If grazing, follow the cut by aftermath grazing off and on through to the end of February. If mowing, the July cut may require a second cut in September to mimic aftermath grazing.
- For grazing to be feasible, ensure sites are securely fenced or the animals properly tethered.

- Remove any invading scrub between October to March by either hand pulling or cutting, otherwise this will out shade and out compete traditional meadow species. Stumps should be spot treated with a suitable herbicide to prevent regrowth.
- Control the spread of highly invasive weeds such as ragwort, thistles, nettles, docks, and alien species such as himalyan balsam, and japanese knotweed. These can be controlled by minimum harm to wildlife. Ragwort can be hand pulled in May before it sets seed. Thistles, nettles, and docks can be controlled by mowing them to a height of about 15cms before they flower and set seed. Himalyan balsam and japanese knotweed will require spot treatment with a suitable herbicide.
- If tall herb communities and unmanaged grassland require management, they can be mown once a year in the Autumn. This prevents succession to scrub, although some areas should be left unmown to provide shelter for small mammals etc. over the winter months.

Restore areas of Unimproved Neutral Grassland by:

- Convert improved grassland to semi-improved grassland by taking an annual hay cut and stock at 1.0LSU ha/pa, or take an annual hay crop in each of the first three years and stock at 0.75LSU/ha/pa. Manage the grassland without using any lime, organic, or inorganic fertilisers.
- Manage semi-improved grasslands without using any cultivations or inorganic fertilisers. Stock at between 0.4 and 0.75LSU/ha/pa.



Meadow restoration

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Create new areas of Unimproved Neutral Grassland by:

- Look for opportunities for habitat creation on long disturbed areas such as arable land and mineral workings, or existing grass swards of very poor wildlife value, such as intensively improved permanent pasture for grazing animals, or amenity grassland that is mown frequently.
- Ensure areas are of low soil fertility where competition from aggressive species is reduced. On areas on higher levels of fertility, the topsoil should be removed down to the underlying subsoil.

Natural Regeneration

- This is the preferred option as this will ensure that plants are of genetic stock and therefore well adapted to the soils and local conditions. Natural regeneration can be promoted by fencing off suitable areas, such as arable land or bare ground, to prevent grazing, and allowing seeds within the soil (the seed bank) to germinate, or seeds to spread from nearby areas of species rich neutral grassland.

Seeding/Planting

- Undertake any soil preparation and sowing work in the Autumn, avoiding any wet or frosty spells.
- Prepare the ground to encourage natural regeneration or for seeding/planting, by hand-digging or rotavating for small-scale projects; ploughing, harrowing or rotavating for large scale. For seeding, the soil should be cultivated so it is extra fine and free of stones to allow a good seed covering.
- Remove any perennial weeds such as thistle, dock etc. by spot treatment with a suitable herbicide or regular cutting, particularly during the first year, as these will out compete the meadow wildflowers. All cuttings should be removed. Weed control should continue until the grassland becomes established.
- Try and use seed collected from local areas of unimproved neutral grassland. One way of reducing costs is to harvest the seed rich hay either as bales or as loose hay in July and spread it on land without separating out the seed. On small areas, seed sowing can be carried out by hand or applied to larger areas using tractor-mounted machinery such as fertiliser spreaders, and slot seeders, that opens up a strip in the turf, into which the seed is planted.
- If seed cannot be harvested from local meadow sources, then seed or native pot grown plants can be purchased from a reputable wildflower supplier, both of which can be obtained from a reputable local wildflower supplier. The relative proportions of wildflower mixtures by weight are usually 80% grasses and 20% wildflowers.

- Further advice should be sought on appropriate seed/plant mixtures, seeding/planting techniques, and aftercare and management.

Do not carry out any of the following operations without first seeking further advice:

- Burn any vegetation.
- Plough, cultivate, or re-seed with inappropriate seed mixes, roll or chain-harrow.
- Install any new drainage systems, clear out any ditches, reduce existing water levels, or affect natural drainage and wetland features such as pools and flushes.
- Apply any herbicides or pesticides within 10m of Unimproved Neutral Grassland unless spot treating notifiable weeds and invasive species such as bracken and bramble. Environment Agency approval will be required on herbicide use on or near water-bodies.
- Apply any inorganic or organic fertilisers, such as farmyard manure, slurry, sewage sludge, chicken manure or fish meal within 10m of Unimproved Neutral Grassland.
- Apply any lime, basic slag, calcified seaweed, or other materials to alter soil acidity.
- Store any manure, farm wastes, or any other waste on any area of Unimproved Neutral Grassland.
- Introduce game or change existing practices.
- Carry out supplementary feeding or install new watering troughs

Stocking Rates

The following conversions have been identified under the Tir Gofal Scheme run by the Countryside Council for Wales (CCW) and will apply when calculating stocking rates:

	Livestock Units (LSU)
1 Dairy Cow	= 1.0LSU
1 Beef Animal (less than 24 months)	= 0.6LSU
1 Suckler Cow	= 1.0LSU
1 Breeding Ewe (with or without lamb)	= 0.15LSU
1 Horse	= 1.0LSU

Further Advice



Blaenau Gwent Biodiversity Partnership

Provides advice on the restoration of priority habitats and species within the County Borough.
Tel. 01495 355702



Blaenau Gwent County Borough Council

Administers the Biodiversity Action Grant Scheme that offers landowners and community groups small grants up to £2k for biodiversity projects.
Tel. 01495 356070



Countryside Council for Wales (CCW)

Administers the Tir Gofal Agri-Environment Scheme where grants are available for a wide range of habitat management work on farms.
Tel. 02920 772400



Environment Agency Wales

Administers herbicide consents near watercourses Tel. 08708 506506 and runs the Pollution Hotline Tel. 0800 807060

Please note, the recommendations contained on this sheet are for guidance purposes only. Due to the complexity of individual grasslands and the interactions occurring within them, it is advisable to seek specialist advice with relevant organisations from the early stages. This sheet can also be downloaded from the Blaenau Gwent Biodiversity Partnership website called 'The Web of Life'. This can be accessed through www.blaenau-gwent.gov.uk.