



5. ENHANCING WILDFLOWER GRASSLANDS IN THE WEALD

Action for valued grasslands, for now and for the future

ENHANCING WILDFLOWER GRASSLANDS IN THE WEALD

Wildflower rich grasslands found on the south-east's Weald clay are an important habitat and an attractive feature of the landscape. The decline in the area covered by these special grasslands has become a serious threat to biodiversity. With this in mind, the Weald Meadows Initiative (WMI), the Farming and Wildlife Advisory Group (FWAG) and others have been active in encouraging both farmers and non-farming landowners to manage existing grasslands and to enhance and create new wildflower grasslands.

This information sheet provides information on the enhancement of species rich grasslands on the soils typical of the Weald. Other information sheets are available on soil sampling and the creation and management of such grasslands. Always consider managing your existing grassland traditionally for a couple of years if you suspect (or have been told) that it contains a number of wildflowers and grass species.

It is possible to gradually enhance existing unfertilised grassland over a number of years by spreading wildflower seed and natural mixtures, preferably using Weald Native Origin Seed (WNOS) and/or by using local provenance plant plugs.

Look at the existing grassland site in terms of the following questions:

What type of soil is suitable?	THIN, POOR AND UN-FERTILIZED SOILS ARE BEST AS WILDFLOWERS ARE LESS LIKELY TO BE SWAMPED BY VIGOROUS WEEDS & GRASSES SUCH AS THISTLES AND DOCK.	Not sure? A soil test is always recommended. Contact WMI for advice on obtaining soil analysis (see soil testing sheet 4).
What's already there?	SOME NATIVE FINER-LEAVED GRASSES & SOME WILDFLOWERS WILL BE PRESENT e.g. SWEET VERNAL GRASS, FESCUES & BENT.	Not sure? Obtain advice from WMI who can also supply the "Wildflower Grasslands in Weald" leaflet.
What's the site like?	SLOPES ARE USEFUL, AS IS A MIXTURE OF WET AND DRY AREAS TO ENCOURAGE DIFFERENT WILDFLOWER & GRASS SPECIES. A MORE OPEN SWARD WITH SOME BARE GROUND WILL ALSO HELP.	

The key to successful enhancement is a weed free sward, where the existing grass is short and the sward is kept open over the first year or so, to enable the introduced seed to germinate and establish.

WHAT SPECIES OF WILDFLOWERS & GRASSES SHOULD I ENCOURAGE?

Fine-leaved grasses and wildflowers such as Red Clover, Ox-eye Daisy and Knapweed would all be useful enhancements to an existing grassland. It is recommended that you use a mixture of species, which will exploit local soil variations, including damper areas if appropriate.

WHERE DO I LOCATE THE SEEDS?

Ideally, seed collected from traditionally managed meadows in the High Weald AONB should be used as these seed strains will be better adapted to the local soils and conditions. Otherwise, you should check that the seed is at least of British origin if it is not local to the natural area. The exact mix of wildflower seed can depend upon whether a pasture or a hay meadow is required. For smaller sites under 2 acres a proprietary seed mix of 20:80 flowers: grasses should be used.

HOW MUCH SEED WILL I NEED?

The recommended rate of seeding using Weald Native Origin Seed (WNOS) is 100g of natural mixed seeds for an area up to 25 square metres, 1-2kg for 1 acre or 3-5kg for 1 hectare. (this includes enhancing with CSS-R1 mixtures)

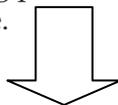
On hay meadows or on pasture left ungrazed in the spring and early summer, using a two-stage programme can speed up the enhancement of the existing grassland. This involves the introduction of the seed of the annual wildflower Yellow Rattle in the first year, followed by other single species in the second year. Yellow Rattle has the beneficial effect of increasing the sward's ability to support more wildflower species by suppressing grass growth, which would otherwise compete with wildflower species. It is also an attractive and traditional hay meadow species in its own right. An alternative method (for less vigorous grasslands) uses mixtures of natural grass and wildflower seeds and/or plant plugs. All of these enhancement programmes are illustrated in detail overleaf.

It is important to emphasise that all sites need to be weed free prior to any seed introduction!

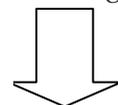
YELLOW RATTLE & SINGLE SPECIES WILDFLOWERS

This method is not suitable for grass that is heavily spring/summer grazed by rabbits.

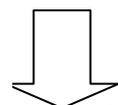
YEAR 1 AUGUST - DECEMBER Spread the Yellow Rattle seed thinly by hand on to short grass (approx 0.5 kg per acre). It does not need to be worked into the soil surface.



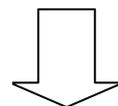
YEAR 1 JANUARY - FEBRUARY Ensure that by the end of February grass is kept short (max 2-5 cm) to allow the seedlings to push through the sward.



YEAR 1 EARLY MARCH - END JULY Do not cut grass or graze to enable the Yellow Rattle seed ripen and flower.



YEAR 2 AUGUST - MARCH Either graze or cut grass quite short and remove the cuttings - this helps to spread seed and prevents the grass from competing against seedlings. In early Autumn harrow small areas, pulling out & removing the grass to expose areas of bare soil (30% bare ground). This can be done on a field scale, or on smaller sites either in 2m diameter circles or in strips across the field.



YEAR 2 AUGUST - YEAR 3 NOVEMBER Spread other single species by hand onto a short sward. Some species e.g. Ox-eye Daisy, Knapweed and Vetches/ Vetchlings should be surface sown on to bare scarified patches at a rate of 50-100g per acre. Damper areas can be sown with species such as Devil's-bit Scabious, Ragged Robin, Sneezewort and Fleabane at approx 100-300g per acre.

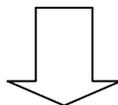
SEE FOLLOW UP MANAGEMENT BELOW - FOR A HAY MEADOW

USING OTHER WILDFLOWER SEED AND MIXTURES OF WILDFLOWER & GRASS SEED (NATURAL MIX) OR PLANT PLUGS

YEAR 1 AUGUST

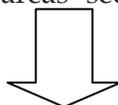
Harrow the existing grass to pull out and remove grass material to expose some areas of bare soil. This should expose 30-50% bare ground and can be carried out across the whole fields or in 2m diameter circles or strips in the field.

Keep the sward short - a maximum of 1-3 cm.



YEAR 1 AUGUST-DECEMBER

Mixes of grass and wildflower seed can be spread (on the exposed soil) thinly by hand. It does not need to be worked into the soil surface. Approx 1-3kg of such a mix will be required per acre (or 3-5kg/ha). Ox-eye Daisy and Knapweed should be sown onto scarified bare patches at a rate of 50-100g per acre. Local sourced plant plugs can also be used for small areas- see separate WMI sheet.



YEAR 1 SPRING -
YEAR 2 AUTUMN

Keep the grass short in spring and autumn by: grazing fairly hard throughout or by repeated cutting and removal through to the end of autumn. A second harrowing in the autumn may also be beneficial.

SUBSEQUENT & ONGOING MANAGEMENT REGIMES FOR BOTH METHODS

The species introduced, historical considerations and subsequent management of the grassland will determine whether the grassland becomes a hay meadow or grazing pasture. Which ever is chosen the regime should be maintained annually.

HAY MEADOW

In late July cut after most of the species have set seed and then graze the re-growth from September to November/December until the soil becomes too wet.

GRAZING PASTURE

Graze lightly in the spring and summer to allow the wildflowers to set seed and have a main grazing season in late summer through to autumn/winter.

FURTHER INFORMATION

Having read through this information sheet, looked at your site, considered seed supply, checked what equipment and skills you will need and studied the suggested timetable and the tasks required, you may have other questions or need further advice before you can get started on enhancing your grassland.

WMI can help with information and advice and can point you towards other experts and seed suppliers. If you are a farmer considering creating a larger area of grassland, it would be advisable to speak to WMI or to an adviser at the Farming & Wildlife Advisory Group who will be able to help and also refer you to related government agencies such as Natural England.

WEALD MEADOWS INITIATIVE

The Weald Meadows Initiative (WMI) aims to enable the traditional management of unimproved meadows and the successful establishment of new species-rich grasslands in the High and Low Weald. Recognising the need for wildflower management and creation to be financially viable, it pro-actively develops and markets added value grassland products.

It is a public private partnership between the High Weald AONB Unit, Agrifactors (Southern) Ltd, the Farming & Wildlife Advisory Group (FWAG) and landowners and managers.

AGRIFACTORS

Agrifactors (Southern) Ltd was incorporated in 1970 as an agricultural and horticultural merchant specialising in the supply of grass, clover, forage, fodder, vegetable and flower seeds to farmers, horticulturalists and amenity users in West Kent, East and West Sussex and Surrey. The knowledge built up since 1970, matching varieties and mixtures to soil type, location and specific climatic conditions within their trading area enable it to formulate and mix agricultural and amenity seeds to the users specific requirements. Its association with the High Weald AONB Unit, the Weald Meadows Initiative and FWAG since 1995 has developed into a worthwhile partnership enabling it to provide a seed source of known local provenance for Stewardship Schemes within the High Weald. Most of the people involved in the harvesting, drying, cleaning, mixing and despatch of this seed live locally, so that this activity supports the local community.

FWAG

The Farming and Wildlife Advisory Group is a national group led locally by farmers and local organisations. It provides the farming community with a source of independent confidential advice on the management and improvement of existing wildlife and landscape features whilst integrating environmentally responsible, cost effective methods and techniques supported by sources of grant aid and practical assistance.

PLUG SUPPLIERS

Mike Mullis – British Wildflowers 07932 683245 or mm.wfp@tesco.net

HIGH WEALD AREA OF OUTSTANDING NATURAL BEAUTY

The High Weald AONB is a historic landscape of rolling hills draped with small irregular fields, abundant woods and hedges, scattered farmsteads and sunken lanes. It was designated an Area of Outstanding Natural Beauty (AONB) in 1983 to aid its protection and management. It covers 563 square miles at the heart of South East England. Wildflower grasslands are a valued feature of the High Weald AONB.

Natural England is also an extended partner of the WMI and may be able to offer help and advice

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