

Arable reversion to herbal ley

Funding is offered for reverting whole or part fields from arable use (including maize growing) to a herbal ley. This measure should be used for fields or areas of fields that regularly flood / get waterlogged or that experience surface runoff and soil erosion. Arable reversion which is funded by any other scheme (such as Countryside Stewardship) or future schemes such as the Sustainable Farming Incentive are not eligible.

Key requirements summary: Summer grazing by cattle and sheep and multiple cuts for hay/silage are permitted. Limited manure applications are permitted. Do not apply any nitrogen fertiliser. Phosphorus and potash fertiliser and lime applications are permitted, but only to maintain soil P&K indices of 2. Only light grazing by sheep is permitted over-winter.

Length of agreement available

2½ to 4½ year agreements available starting in either Spring or Autumn 2023. *Longer term agreements may also be available. Please contact the project team for details.*

Where to use this measure

- Across whole or part fields. This measure may be used strategically across slopes and at the bottom of slopes to slow the flow of water and encourage water infiltration. The first 2 metres from the centre of a watercourse or field ditch (or for larger watercourses the first 1 metre from the top of the bank into the field) is **not** eligible for this measure.
- On cultivated land that has been arable cropped (this can include maize) for the past 3 or more years.
- On land that is adjacent to a watercourse (including ditches) or has high connectivity to a watercourse via a road, track, or any other flow pathway.

Where this measure cannot be used

- **Do not** use this measure where evidence exists for rare arable plants / weeds.
- **Do not** use this measure on fields / parcels / strips that have already been taken out of arable production.

Requirements

Establish and manage plots according to the specification set out in the project agreement relevant to each plot. This specification will be specific to each farm and location but will be based on the following:

Establishment

- Assess whether there are any issues of soil compaction and, if necessary, plan appropriate timely cultivations such as subsoiling to resolve these before establishing the new sward.
- If there is a heavy weed burden, spray with a herbicide such as glyphosate before cultivation.
- Broadcast or drill seed into a firm, consolidated and clean seedbed of pH 6.0-8.0 and then roll at least once, ideally twice, to ensure good seed to soil contact, retain moisture and reduce movement of slugs within the soil profile. An adequate level of ley establishment by the onset of the first winter is required (i.e. approx. 80% groundcover by *1st December*).
- Sow the species mix specified in the project agreement. General requirements will be:
 - **Establish a sward of at least three grass species** (e.g. perennial ryegrass, meadow fescue, festulolium, cocksfoot or timothy), **three legumes** (e.g. red clover, white clover, alsike clover, sweet clover, lucerne, sainfoin or birdsfoot trefoil) and **two herbs/forbs** (e.g. chicory, ribgrass, plantain, yarrow or burnet) **at a seed rate of between 25 and 35 kg/ha, depending on species mix**. Match the choice of species to the soil type, e.g. do not grow cocksfoot or sainfoin on heavier soils.
 - **Sow by 10th September 2023 or by 31st May 2024**. If spring established then a cover crop must be grown over the winter before.

Inputs and management

- Manure use:
 - A farmyard manure application of up to 25t/ha is recommended before drilling the herbal ley.
 - Applications of organic manures are permitted between *1st March* and *30th August*. Manure application rates are limited to either one application of up to 25t/ha of farmyard manure per year or two applications of cattle slurry per year, each of up to 30m³/ha per application.
 - Slurry must only be applied using low emission spreading equipment, and preferably by shallow injection.
- Fertiliser and lime use:
 - Applications of nitrogen fertiliser are not permitted.
 - Maintenance applications of phosphorus and potash fertiliser are permitted, as per the AHDB Nutrient Management Guide (RB209). No more fertiliser should be applied than is required to maintain soil P and K indices of 2. Nutrients applied in manure and grazing deposits must be taken into account when planning fertiliser applications.
 - Applications of lime are permitted.
- Grazing:
 - Graze lightly while the crop is establishing (usually 6 to 8 weeks after sowing) to encourage tillering. Once growing well, rotationally graze allowing about 4 to 6 weeks for recovery and regrowth. Using electric fencing, ration an area to last from 1 to 3 days, but adjust this area to match growth and stock requirements. Over-grazing will damage chicory crowns.
 - Surplus production from herbal leys can be made into silage but from year 2 onwards avoid cutting silage after July as chicory stems can become woody.
 - Summer grazing by livestock is permitted between *15th March* and *15th October* inclusive (i.e. 7 months). Winter grazing is restricted to light grazing by sheep between *16th October* and *14th March* inclusive.
 - The **maximum summer grazing stocking rate is 3.0 livestock units per hectare (LU/ha) per summer grazing period**, calculated using the following table:

Animal numbers are converted into livestock units as follows:	LUs
Cattle over 2 years	1.0
Cattle over 6 months to 2 years	0.6
Lowland ewe and lamb; ram	0.12
Store lamb, hill ewe and lamb; hogg; teg	0.08

For example, this equates to rotating up to 50 in-calf heifers around a 10 hectare (25 acre) block over the 7-month summer grazing period (this is based on @0.6LU/heifer, so 50 heifers = 30 livestock units).

Pesticide use:

- Pesticide applications are not permitted, except for spot-spraying of injurious weeds, so any problem weeds should be controlled before establishment of the herbal ley.

Returning the land to agricultural production at the end of the agreement

- Terminate and cultivate the grass sward at a time of year when nutrient loss via leaching and/or surface runoff from the bare soil will be minimised (i.e. in spring / summer / early autumn, and when ground conditions are suitable).
- Establish the following crop as early in the autumn as possible. This is to:
 - ensure that the maximum amount of nutrient released by the grass sward is taken up by the following crop/s. This could involve using cover crops to retain nutrients in following winters.
 - maximise over-winter ground cover to reduce surface runoff.

Restrictions

- **Do not** use pesticides, except for herbicides to spot-treat or weed-wipe to control nettles, bracken, injurious weeds or invasive non-native species.
- **Do not** apply nitrogen fertiliser.
- **Do not** allow the soil P index to exceed 2 during the duration of the agreement.
- Once established, **do not** plough, cultivate or re-seed until the end of the term of the agreement.

Record keeping and payment terms

Agreement holders will need to keep the following records and supply them with *the payment claim* each year. Payment will only be made upon satisfactory receipt of all of the following records:

- Photographs of the plots before establishment (only required for first payment claim).
- Photographs of each reverted area.
- Invoices showing the seed mix used to establish the sward (only required for first payment claim).
- Soil analysis results (pH, P and K as a minimum) for the relevant fields dated within the past 3 years (only required for first payment claim).
- Farm and field information needed to run a phosphorus loss tool for the farm and calculate the reduction in phosphorus loss to water arising from this work. This will include farm data relating to livestock numbers, crop areas and fertiliser and manure inputs.

- Self-declaration that the terms of the project agreement have been adhered to (submit annually - *key terms are listed above*).
- Successful applicants are required to sign a declaration confirming that:
 - reasonable precautions are taken to prevent nutrients and soil from the relevant field entering watercourses or from being leached to groundwater to an extent that could cause pollution.
 - the relevant fields have not been (i) the source of a recorded pollution incident which could have been prevented by the farmer taking reasonable precautions to prevent that pollution and/or (ii) the subject of a warning, fine, prosecution or BPS deduction issued to the farmer by the Environment Agency or RPA for a breach of NVZ rules or Farming Rules for Water in the past 5 years.
- It is expected that to support and inform the above declaration, successful applicants will complete the Environment Agency's Agricultural Compliance Tool (ACT) by 31st December in each year of the agreement and submit it when completed to Wessex Water (who will hold it in confidence) and address any actions identified by the ACT. For agreements involving annual payments of more than 5 years duration and/or with a value in excess of £5,000 of annual payments, this is a requirement.
- Agreement holders are required to complete a Wessex Water supplier application form in order to receive their first payment. A copy of this is available on the scheme website.
- Agreement holders will need to keep the following records and supply them *on request*:
 - Field operations at the field parcel level, including associated invoices

Sources of information used in developing this specification

Cotswold Seeds, AHDB, Soil Association



Herbal ley at Honeydale Farm, Oxfordshire

Additional Information

Soil Association: [Tips on establishing and managing herbal leys \(soilassociation.org\)](https://soilassociation.org/tips-on-establishing-and-managing-herbal-leys)

AHDB: [Establishing herbal leys | AHDB](https://www.ahdb.co.uk/resources/establishing-herbal-leys)

AHDB: [Nutrient Management Guide \(RB209\) | AHDB](#)

AHDB: [Use multi-cut approach for quality herbal silage](#) (see extract below from this AHDB article)

Cutting every 4.5–5 weeks, leaving a stubble of at least 7.5cm and using a homofermentative inoculant should all help make good quality silage out of a herbal ley.

And don't believe that leaving the ley to grow longer will improve nutritional quality: a multi-species sward can go to seed very quickly, and its feed value starts to drop.

"Once you get woody stems, digestibility falls, fibre content increases and you get poor quality," says independent scientist Dr Dave Davies of Silage Solutions. "When herbal leys are baled, their thick plant stems damage the wrap. If you cut when the herbs have no stem, they will compact well. Chop length should be according to dry matter content – no different to ensiling grass e.g. a 30% DM should be chopped to 5cm."

Dr Davies points out that herbal leys need to be cut higher because herbs grow from the crown. Mowing below the growing point kills the plant, so he suggests no lower than 7.5cm and preferably 10cm. "Herbs also wilt more slowly, allow a maximum 48 hours as any longer leads to higher DM losses. Leave chicory out of a sward if it is predominantly for silage as it wilts slowly. If it contains a lot of clover, don't over-condition as it will lead to leaf shatter. Avoid metal tines and leave the conditioner as wide as possible."

Although harvesting younger, leafier crops helps with ensiling, herbs and legumes are more difficult to ferment due to their higher protein and mineral content, adds Dr Davies. "This makes them higher in buffering capacity, so pH falls slowly. They are also lower in sugar which is needed to feed the bacteria responsible for driving acid production," he explains.

Applying a homofermentative inoculant improves the fermentation process. Otherwise, follow standard good practice as for grass-only swards from good consolidation to sheeting-up well. However, you could struggle to realise the benefits of a quality herbal silage as it's not yet possible to accurately analyse feed value, says Dr Davies.

He recommends establishing protein and NDF content through wet chemistry and working with a good nutritionist who can understand the silage's potential, while observing responses from livestock. "I'd also suggest baling a herbal ley so that you can mix it in the diet at a known amount, rather than losing a small amount within a clamp which you can't ration."