



The European Agricultural Fund
for Rural Development:
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Countryside Stewardship:

Mid Tier Options, Supplements and Capital Items

Applies to all Mid Tier multi-year (including Water Capital Items) agreements and New CS Offers for Wildlife agreements commencing on 1 January 2019

Revised July 2018

List of revisions since first publication

Section	Page(s)	Revision	Revision date
Options AB1, AB3, AB4, AB5, AB6, AB8, AB9, AB11, AB15, AB16, HS2, OP2, SW1, SW3, SW4, SW6, WD3 and WT2	10, 15, 17, 19, 21, 25, 28, 32, 40, 42, 86, 109, 138, 143, 145, 149, 170 and 180	Confirmation that, from 1 January 2019, these options cannot be used on land already receiving funding for Ecological Focus Areas declared for the Basic Payment Scheme.	July 2018
Options AB7, AB10 and AB14	24, 31 and 39	Addition of a list of permitted active ingredients in the advice and suggestions section.	July 2018
Supplement SP6	135	Clarification that the requirement relating to a stocking calendar refers to Higher Tier agreements only.	July 2018
Option UP2	167	Addition of a link to the agreed stocking calendar for this option.	July 2018

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Introduction to Mid Tier options and capital items

Countryside Stewardship offers a range of management options and capital items. This document describes those available through the Mid Tier of Countryside Stewardship. These can be applied for in different combinations to create an agreement.

This document is split into two sections. Section 1 describes the Mid Tier options. Section 2 describes the capital items.

Each description is broken down into sections covering:

- Payment rate
- Where it can and cannot be used (eligibility)
- How it will benefit the environment
- Requirements, including keeping records
- Advice and suggestions for how to carry it out

Some may also include a list of related options and items.

Rural Payments Agency inspectors will use this information to assess compliance should an agreement holder be selected for inspection.

The information in the section providing advice and guidance is not mandatory.

The Mid Tier Manual is an essential part of a Mid Tier agreement and should be consulted alongside the options and capital items, for general scheme requirements as well as help in making an application.

The Mid Tier Manual is available on GOV.UK at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/507602/cs-mid-tier-manual.pdf

Note for potential Higher Tier applicants

All Mid Tier options and capital items are also available in Higher Tier. The requirements may differ slightly for a Higher Tier agreement as the option can be tailored to the site. Higher Tier applicants should discuss and agree these requirements with their allocated Natural England adviser. Higher Tier applicants will be guided by their advisers to other related options and items which can be used with Mid Tier options and capital items.

Below is a list of Mid Tier options and capital items that have specific differences in their eligibility or management requirements, related options or advice when used in the Higher Tier. Some help to indicate whether applicants should be considering a Higher Tier agreement.

AB5 Nesting plots for lapwing and stone curlew

There are specific areas of England where stone curlews are the target farmland birds for nesting plots. These plots and their specific management requirements will be available under Higher Tier.

AB12 Supplementary winter feeding for farmland birds

Where turtle doves are a target in a Higher Tier agreement, feeding will need to continue until the end of May or longer.

GS16 Rush infestation control supplement

In a Higher Tier agreement, it may be possible to spot treat or weed wipe areas of dense rush growth with herbicides.

GS17 Lenient grazing supplement

In Higher Tier, this supplement can also be selected in combination with GS13 – Management of grassland for target features.

HS2 Take historic and archaeological features out of cultivation

In Higher Tier, this option is available on either Scheduled Monuments where approved by Historic England, or on undesignated historic or archaeological features on arable land or temporary grassland, as identified in your HEFER.

This option may also contribute to the experience for the ED1 – Educational access option.

HS3 Reduced-depth, non-inversion cultivation on historic and archaeological features

In Higher Tier, this option is available on either Scheduled Monuments where approved by Historic England, or on historic or archaeological features on arable land or temporary grassland, as identified in your HEFER.

This option may also contribute to the experience for the ED1 – Educational access option.

HS4 Scrub control on historic and archaeological features

This option may also contribute to the experience for the ED1 – Educational access option.

HS5 Management of historic and archaeological features on grassland

This option may also contribute to the experience for the ED1 – Educational access option.

HS9 Restricted depth crop establishment to protect archaeology under an arable rotation

In Higher Tier, this option is available on either Scheduled Monuments where approved by Historic England, or on historic or archaeological features on arable land or temporary grassland, as identified in your HEFER.

For Higher Tier sites, the plants to sow will be specified by a Natural England adviser.

WD3 Woodland edges on arable land

Applicants should check for European Protected Species and seek advice from their adviser.

RP4 Livestock and machinery hardcore tracks

This item can also be used in combination with options for the management and restoration of habitats or features with the support of a Natural England adviser.

RP6 Installation of piped culverts in ditches

This item can also be used in combination with options for the management and restoration of habitats or features with the support of a Natural England adviser.

TE11 Tree surgery

Veteran trees, including veteran pollards, should be dealt with using the BE6 - Veteran tree surgery option which is only available in Higher Tier.

The following capital items can be used in conjunction with a Feasibility Study under Higher Tier:

- RP7 Sediment ponds and traps
- RP9 Earth banks and soil bunds
- RP10 Silt filtration dams/seepage barriers
- RP11 Swales
- RP12 Check dams
- RP24 Lined biobed plus pesticide loading and washdown area
- RP25 Lined biobed with existing washdown area
- RP26 Biofilters

Section 1: Mid Tier Options

Nectar flower mix (AB1)

£511 per ha

Where to use this option

Whole or part parcel

Rotational

Only on:

- arable land
- temporary grass
- bush orchards

Where this option cannot be used

- where evidence or records exist for important arable plants (Plantlife IAPA classification 4 and above – see Appendix II, page 19 - www.plantlife.org.uk/uk/our-work/publications/important-arable-plant-areas). These records can either be historic (within the last 40 years) or from recent arable plant survey results
 - on organic land or on land in conversion to organic status
 - from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)
-

How this option will benefit the environment

It provides areas of flowering plants to boost essential food sources for beneficial pollinators.

If successful there will be:

- an abundant supply of pollen and nectar-rich flowers between early and late summer
- pollinating insects such as bumblebees, solitary bees, butterflies and hoverflies using the flowers

REQUIREMENTS

- establish a mix of at least 4 nectar-rich plants and at least 2 perennials from the list in the “What to sow” section
- establish the mix in blocks or strips between 15 March and 30 April or 15 July and 30 August
- rotationally cut 50% of the plot area each year between 15 April and 31 May – do not cut the same area in successive years
- cut the whole area between 15 September and 30 March, removing or shredding cuttings to avoid patches of dead material developing

Do not:

- graze between 15 March and 31 August

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- seed invoices
- field operations at the parcel level, including associated invoices
- stock records to show grazing activity on parcels

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the established mixture

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right location

The Plantlife Important Arable Plant Areas (IAPA) handbook referenced above scores individual species; if there are records of plants which score 4 or above this option cannot be used on that location.

Use lower-yielding areas with a sunny aspect, facing south or south-southwest.

Avoid planting under overhanging trees, next to tall hedges or on land facing north or east.

Leave access to surrounding crops to allow for management.

Block and plot sizes

Use wide margins and big blocks between 0.25ha and 0.5ha. This lets insects move to safety when fields are being sprayed.

Spacing five 0.5ha patches evenly within 100ha meets the food needs of many pollinators.

What to sow

The seed mix used should contain both short-term nectar rich and perennial wildflower plants, such as:

- | | |
|--|---------------------|
| ■ early and late flowering red clovers | ■ birdsfoot trefoil |
| ■ alsike clover | ■ black knapweed |
| ■ sainfoin | ■ musk mallow |

Sow at 12kg per ha to provide enough plants.

Avoid short-term mixes that do not include knapweed or mallow as they will not supply pollinators with long-term food sources for years 4 and 5 of the agreement.

When to sow

Establish the mix in spring or autumn of year 1 of the agreement.

Stopping sowing by September avoids slug and frost damage, as this tends to happen more often in later sown mixes.

How to sow

Sow by broadcasting seeds rather than drilling, when the soil is warm and moist. Use a ring roll before and after sowing. Check regularly for slug damage.

Management

Cut emerging flowers and weeds at least twice in year 1, and up to 4 times if necessary where the soil is particularly fertile. Regular cutting prevents weeds smothering the slow-growing flowers so all sown species are established successfully.

Plots may be grazed between 1 September and 14 March, but (as set out in the Mid Tier Manual section 6.2.1 General management requirements) make sure that no poaching or soil compaction by livestock takes place. Supplementary feeding could result in poaching and soil compaction, so should be avoided.

Remember that nectar plots should be kept until at least 31 December in year 5 of the agreement.

Further information

Order the 'Growing farm wildlife' DVD from Natural England which gives a step-by-step approach to sowing nectar flower mixtures.

Basic overwinter stubble (AB2)

£84 per ha

Where to use this option

Whole or part parcel

Rotational

Only on stubble that follows the harvest of:

- cereals (not maize)
- oilseed rape
- linseed

Where this option cannot be used

- parcels at risk of soil erosion or runoff, as identified on the Farm Environment Record (FER)
- organic land or land in conversion to organic status

How this option will benefit the environment

It provides a winter food source for seed-eating birds, which feed on spilt grain and the seeds of broad-leaved weeds. It also provides a foraging habitat for brown hare.

If successful there will be:

- naturally occurring arable plants providing seed and forage over the winter
- farmland birds and brown hare foraging on the seed shed during harvest

REQUIREMENTS

- After the first harvest, keep the stubble from harvest to 15 February each year

Do not:

- apply pre-harvest desiccants
- apply post-harvest herbicides
- apply any fertilisers, manures or lime to the stubble

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operation records at the parcel level, including associated invoices
- location of option submitted with your annual claim

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the stubble area

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right location

This option suits most soil types but works best when arable plants in the soil seedbank create a range of natural habitats that can support different wildlife.

The best overwinter stubbles come from spring sown crops, especially barley

Block and plot sizes

Spread basic stubbles widely across the farm to help connect farmland wildlife with other farm habitats.

This option delivers most of its benefits at a larger scale, which provides the best opportunities for foraging and feeding. Very small areas of stubble at the edge of fields (or in areas of poor soil condition) are not suitable.

This option is designed to rotate around the farm so it:

- fits in with the crop rotations
- gives the most benefit for biodiversity

Enhance basic stubble

Enhance the stubble by broadcasting beneficial seed and nectar-producing plants, such as mustard and fodder radish. Do this after harvest on a maximum of 10% of the stubble area.

Use the stubble as areas for supplementary feeding when they are next to winter bird food plots.

Rotational management

Remember that stubbles should be in place from harvest until at least 31 December in year 5 of the agreement, after which time it can be returned to the rotation.

Beetle banks (AB3)

£573 per ha

Where to use this option

Whole or part parcel

Only on:

- arable land
- temporary grassland

Where this option cannot be used

- On historic or archaeological features identified in your HEFER or FER
 - from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)
-

How this option will benefit the environment

It provides nesting and foraging habitats for:

- insects - including those that feed on crop pests
- bumblebees
- small mammals
- some farmland birds

If successful there will be:

- a raised grass bank with dense tussocky cover providing warm and dry areas for invertebrates and farmland birds
- invertebrates such as bumblebees and some farmland birds foraging and nesting on the bank during the spring and summer
- beneficial insects which feed on crop pests

REQUIREMENTS

- create or maintain an earth ridge, measuring between 3m to 5m wide and at least 0.4m high
- leave gaps no more than 25m wide at each end of the ridge to allow access for machinery
- establish or maintain a tussocky grass mixture in year 1 of the agreement
- cut the established mixture to control woody growth and suckering species - cut after 1 August to protect nesting invertebrates

Do not:

- apply any fertilisers or manures
- apply any lime
- use any pesticides, except for herbicides to weed-wipe or spot-treat for the control of injurious weeds, invasive non-natives, nettles or bracken

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operation records at parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

RELATED MID TIER OPTIONS AND SUPPLEMENTS

The following options and supplements can be located on the same area as this option:

- OR3 – Organic conversion – rotational land
- OR4 – Organic conversion - horticulture
- OT3 – Organic land management – rotational land
- OT4 – Organic land management – horticulture

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right location

This option is suitable for most soil types but especially where it is possible to form a free-draining raised bank. This will leave the upper bank area dry for insects to hibernate securely. It works best on larger fields as it is designed to provide the most benefit in more open landscapes. It can also help to slow down or stop soil erosion.

Blocks and plot sizes

Spread beetle banks widely across the farm to help connect farmland wildlife with other farm habitats.

What to sow

Sow a mixture of fine-leaved grasses such as red fescue together with some tussock-forming varieties like tall fescue, timothy and cocksfoot.

Establish the bank

Plough in 2 directions towards each furrow to create the required size, followed by shallow cultivation of the bank to produce a firm, fine seedbed if needed.

Broadcast the grass seed mixture on to the seedbed and roll. This will keep moisture in the soil. Do not overwork the bank, as this can cause a loss in overall height.

When to cut

Cut the grass several times during the first summer to help it establish, but avoid cutting when the bank is wet to stop the soil compacting.

After year 1 only cut:

- after 1 August to protect any nesting invertebrates and beneficial insects
- to control parts of the bank where woody species or invasive perennial weeds such as creeping or spear thistle are growing

Skylark plots (AB4)

£18 (£9 per plot minimum 2 plots per ha)

Where to use this option

Rotational

Only:

- on arable land
- on temporary grassland
- in winter cereal fields with an open aspect of more than 5ha

Where this option cannot be used

- In parcels bounded by tree lines or adjacent to woods, unless the parcel is larger than 10ha
 - from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)
-

How this option will benefit the environment

It provides skylarks with suitable access to nesting habitats in winter cereal crops throughout their breeding season.

If successful there will be:

- plots providing access into the growing cereal during the spring and summer
- skylarks holding territory and singing over the fields of winter cereals where the plots are located and, ideally, landing in the plots themselves
- increased numbers of singing skylarks across the farm

REQUIREMENTS

- create fallow plots at least 3m wide and with a minimum area of 16 square metres in winter cereal fields
- space plots across the field at a minimum density of 2 plots per ha, making sure they are located away from tramlines, boundaries and margins to minimise nest predation

Keeping records

You should be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the plots

RELATED MID TIER OPTIONS AND SUPPLEMENTS

The following options and supplements can be located on the same area as this option:

- HS3 – Reduced-depth, non-inversion cultivation on historic and archaeological features
- HS9 – Restricted depth crop establishment to protect archaeology under an arable rotation
- OR3 – Organic conversion – rotational land
- OT3 – Organic land management – rotational land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right location

This option works best in large, open winter cereal fields, preferably where skylarks are present or have been in the past. Avoid fields that are bordered by trees or next to woods as this increases the risks of predator attack.

Minimise attacks on nests from predators by placing plots:

- away from tramlines (choosing a middle spot between two sets of tramlines works best)
- at least 50m from field boundaries and margins

How to establish skylark plots

Create plots either:

- by turning off the drill during sowing to leave an unsown plot, or
- by sowing the crop as normal and spraying with herbicide to create the plot by 31 December

Managing the plots

After drilling, the plots can be managed with the same treatments as the remainder of the field.

There is no need to keep the plots weed-free but spot-treating with herbicide in April will help skylarks to access their nesting sites.

Mechanical weeding of crops containing skylark plots will destroy any nests present and is not recommended.

Nesting plots for lapwing (and in Higher Tier, stone curlew) (AB5)

£524 per ha

Where to use this option

Whole or part parcel

Rotational

Only on:

- arable land
- temporary grassland

Where this option cannot be used

- on parcels that are at risk of soil erosion or runoff as identified in the Farm Environment Record (FER)
- on historic or archaeological features identified in your HEFER or FER
- from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)

How this option will benefit the environment

It provides nesting sites for lapwing on arable land. The plots can also benefit other declining farmland birds, brown hare and some important arable plants.

If successful there will be:

- lapwing using plots for nesting and raising their young
- other farmland birds, brown hare and arable plants on the plot areas

REQUIREMENTS

- create individual plots that are a minimum of 1ha and a maximum of 5ha in size, in fields which must be a minimum of 5ha (or 10ha if woodland forms at least a quarter of the field boundary)
- plots may be in a fixed location in or rotated around eligible fields
- create the cultivated plots by 20 March
- plots must be at least 100m away from woods, in-field and hedgerow trees, buildings, overhead power-lines, main roads and public rights of way, and at least 200m away from wind turbines
- Where natural regeneration covers more than 70% of the plot by 30 April, restore suitable bare-ground nesting habitat making sure first that no nesting birds are present on the plots. retain cultivated areas until 31 July

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the plots

RELATED MID TIER OPTIONS AND SUPPLEMENTS

The following options and supplements can be located on the same area as this option:

- OR3 – Organic conversion – rotational land
- OR4 – Organic conversion - horticulture
- OT3 – Organic land management – rotational land
- OT4 – Organic land management - horticulture

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right location

Research shows that plots should be located:

- on level or slightly sloping ground
- next to extensively managed grassland where lapwings can feed their chicks
- on arable fields of at least 5ha, or 10ha if woodland forms at least a quarter of the field boundary
- away from waterlogged areas or land with weeds such as black-grass, wild oats or sterile brome
- at least 100m away from woods, in-field and hedgerow trees, buildings, overhead power-lines, main roads and public rights of way
- at least 200m away from wind turbines

This option can be used in a sequence with basic overwinter stubble to provide a continuity of habitat for species such as skylark and corn bunting.

How to establish the plots

Plots can be established by cultivation or spraying to create the fallow.

On heavier soils, plots can be ploughed the previous autumn and allowed to weather down to provide suitable nesting conditions in early spring.

Managing the plots

Machinery carrying out day to day farm operations such as spraying and fertilising can travel over these plots provided that the machinery keeps to the tramlines and is switched off when doing so.

Plots and plot tramlines should be checked for signs of nests prior to such travel taking place.

Nesting plots for stone curlews

There are specific areas in England where stone curlews are the target farmland bird for nesting plots. These plots and their specific management requirements will be available under Higher Tier.

Enhanced overwinter stubble (AB6)

£436 per ha

Where to use this option

Whole or part parcel

Rotational

Only on stubble that follows the harvest of:

- cereals (not maize)
- oilseed rape
- linseed

Where this option cannot be used

- On parcels at risk of soil erosion or runoff, as identified on the Farm Environment Record (FER)
- from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)

How this option will benefit the environment

It provides important winter food sources for seed-eating birds, spring and summer foraging and nesting habitat for other farmland birds and undisturbed habitat for other farmland wildlife including many pollinators.

If successful there will be:

- naturally occurring arable plants providing seed and forage during winter, spring and summer
- farmland birds and pollinating insects using the winter stubble and spring fallow area
- only low populations of blackgrass plants in the late spring that need targeted spraying

REQUIREMENTS

- retain the stubble and any subsequent regeneration until 31 July of the following year after harvest
- return the stubble to the farm rotation from 1 August each year

Do not:

- use pre-harvest desiccants
- apply fertilisers or manures to the stubble
- apply lime to the stubble
- apply pesticides to the stubble, except herbicides to control problem grass weeds by spraying the affected area from 15 May
- top or graze

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- location of option submitted with your annual claim

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

RELATED MID TIER OPTIONS AND SUPPLEMENTS

The following options and supplements can be located on the same area as this option:

- OR3 – Organic conversion – rotational land
- OT3 – Organic land management – rotational land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right location

This option can be used on most soil types but ideally choose a location with:

- low levels of blackgrass or without a thistle problem as this avoids the need to spray after 15 May and lets arable flora set seed in late spring to early summer
- arable plants in the soil seedbank, which provide natural insect-rich habitats for foraging farmland birds

Block sizes or plots

Spread enhanced stubble widely across the farm to help connect farmland wildlife with other farm habitats, and to provide some benefits for blackgrass control later in the season.

Make sure this option is planned into the farm rotation by selecting enough appropriately sized fields with a low blackgrass burden.

Rotational management

Remember that the stubble should be in place from harvest until at least 31 December in year 5 of the agreement, after which time it can be returned to the rotation.

Whole crop cereals (AB7)

£495 per ha

Where to use this option

Whole or part parcel

Rotational

Only on:

- arable land
- temporary grassland

Where this option cannot be used

- On parcels at risk of soil erosion or runoff, as identified on the Farm Environment Record (FER)

How this option will benefit the environment

It provides a valuable seed source in grass-dominated areas, from any unripe spilt grain after harvest and from the stubble in winter. It also delivers resource protection benefits when compared to maize.

If successful there will be:

- areas of open crop growth
- a crop structure supporting a range of declining arable plants and other broad-leaved species
- plants providing summer foraging for declining and localised farmland birds, small mammals and pollinator species such as bees and other beneficial insects
- a weedy stubble providing over-wintering habitat for insects and seed-eating farmland birds

REQUIREMENTS

- establish a cereal crop (not maize) between February and April every year
- harvest as whole crop cereals
- retain the stubble from harvest until 15 February

Do not:

- apply any herbicides except those on the list of permitted active ingredients available from Natural England
- apply any insecticides between 15 March and the following harvest
- apply any fertilisers or manures to the stubble
- apply any lime to the stubble
- top or graze

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the stubble area

RELATED MID TIER OPTIONS AND SUPPLEMENTS

The following options and supplements can be located on the same area as this option:

- HS3 – Reduced-depth, non-inversion cultivation on historic and archaeological features
- HS9 – Restricted depth crop establishment to protect archaeology under an arable rotation
- OR3 – Organic conversion – rotational land
- OT3 – Organic land management – rotational land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Stubbles in the rotation

The best overwinter stubbles come from spring-sown crops, especially barley and those that receive limited herbicide. In addition, the spring crop following these stubbles can benefit farmland wildlife, especially if it is combined with another arable option.

For example, a low-input spring crop can provide habitats for spring-germinating arable plants, as well as nesting and feeding habitat for birds and brown hares.

Managing the whole crop option

Whole crop cereal stubbles can be enhanced by broadcasting beneficial seed and nectar-producing plants, such as mustard and fodder radish, on small areas during or after harvest up to a maximum of 10% of the total whole crop stubble area. This will provide additional feeding and foraging value.

The stubbles can also be used as areas for supplementary feeding when they are next to winter bird food plots.

Rotational management

Remember that stubbles should be in place from harvest to at least 31 December in year 5 of the agreement, after which time it can be returned to the rotation.

Managing AB7 for priority seed-eating farmland birds

The AB7 whole crop cereals option can be very successful in supporting priority seed-eating birds such as ciril buntings. Delaying harvest as late as possible is beneficial but it must still be harvested as a whole crop cereal.

Permitted active ingredients

The following herbicide active ingredients can be used:

- Amidosulfuron
- Clodinafop-propargyl
- Fenoxaprop-P-ethyl
- Pinoxaden
- Tri-allate

Please note: the permitted active ingredients cannot necessarily be used on all eligible crops within options AB7, AB10 & AB14. It is the responsibility of the agreement holder to confirm whether herbicides are approved for use on the affected crop. **ALWAYS use pesticides in full accordance with the product label conditions of use.**

Flower-rich margins and plots (AB8)

£539 per ha

Where to use this option

Whole or part parcel

Only on:

- arable land
- temporary grassland
- bush orchards

Where this option cannot be used

- where evidence or records exist for important arable plants (Plantlife IAPA classification 4 and above – see Appendix II, page 19 - <http://www.plantlife.org.uk/uk/our-work/publications/important-arable-plant-areas>). These records can either be historic (within the last 40 years) or from recent arable plant survey results
- adjacent to Sites of Special Scientific Interest (SSSIs) or other botanically valuable sites as identified on the Environmental Information Map
- from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)

How this option will benefit the environment

Flower-rich grass margins or plots provide important habitat and foraging sites for invertebrates (including wild pollinators) and birds.

If successful, there will be:

- an abundant supply of pollen and nectar-rich flowers throughout the summer
- pollinating and beneficial insects including bumblebees, solitary bees, butterflies and hoverflies using these flowers
- farmland birds such as yellowhammers foraging within or on the edges of the margins and plots
- annual production of flowers for the length of the agreement

REQUIREMENTS

- establish a flower-rich margin or plot between 15 March and 31 May or 15 July and 15 October based on the mixture specified in the “What to sow” section
- If plant growth is more than 15cm in height before 31 March, cut it (and remove if dense) to achieve a plant height of between 5cm and 10cm from 1 April. cut (and remove if dense) or graze 90% of the area between 15 August and 31 October to leave a plant height of between 10cm and 20cm - leave 10% of the area uncut or ungrazed

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- seed invoices
- field operations at the parcel level, including associated invoices
- stock records to show grazing activity on parcels

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the margin or plot

RELATED MID TIER OPTIONS AND SUPPLEMENTS

The following options and supplements can be located on the same area as this option:

- OR3 – Organic conversion – rotational land
- OR4 – Organic conversion – horticulture
- OR5 – Organic conversion – top fruit
- OT3 – Organic land management – rotational land
- OT4 – Organic land management – horticulture
- OT5 – Organic land management – top fruit

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right location

The Plantlife Important Arable Plant Areas (IAPA) handbook referenced above scores individual species; if there are records of plants which score 4 or above this option cannot be used on that location.

This option cannot be used adjacent to SSSIs or other botanically valuable sites, so avoid fields (or parts of fields) in such locations, as there is potential for contamination of natural plant communities with the sown species.

Use lower yielding areas if they have a sunny aspect, or face south or south-southwest. Avoid planting under overhanging trees, next to tall hedges or on land facing north or east. Leave access to surrounding crops to allow for management.

Block and plot sizes

Wide margins and big blocks let insects move to safety when fields are being sprayed. Spacing 5 patches of 0.5ha evenly within 100ha meets the food needs of many pollinators.

What to sow

The seed mix should contain both grasses and perennial flowering plants, such as:

- | | |
|-------------------------------|----------------------|
| ■ slender red fescue | ■ self heal |
| ■ sorrel | ■ common bent |
| ■ sheep's fescue | ■ yarrow |
| ■ bird's-foot trefoil | ■ sweet vernal grass |
| ■ smooth-stalked meadow grass | ■ wild carrot |
| ■ ribwort plantain | ■ black knapweed |
| ■ smaller cat's-tail | ■ lady's bedstraw |
| ■ yellow rattle | ■ meadow buttercup |
| ■ crested dog's-tail | ■ ox-eye daisy |

Sow at 20kg per ha to provide enough plants when the mixture is established.

Existing flower-rich plots and margins

Use existing suitable flower-rich plots or margins instead of re-sowing, provided they offer a variety of flowers that deliver a rich supply of pollen and nectar during the summer.

When to sow

To meet option requirements, establish the mix in spring or autumn of year 1 of the agreement.

Controlling weeds

Top emerging flowers and weeds at least 3 times in year 1 for spring sowings and at least twice in year 2 for autumn sowings. Regular topping prevents weeds smothering the slow-growing flowers so that all sown species establish successfully and toppings can be left.

Before the beginning of April each year make sure vegetation is short enough to allow flower species to grow without competition from dominant grasses. Cutting and removing summer growth between 15 August and 31 October will help reduce soil fertility, boosting flower numbers in subsequent years.

Always leave 10% of the option area uncut or ungrazed to provide overwinter nesting and safe refuges for pollinators and other invertebrates.

Remember to retain flower-rich margins and plots until at least 31 December in year 5 of the agreement.

Winter bird food (AB9)

£640 per ha

Where to use this option

Whole or part parcel

Rotational

Only on:

- arable land
- temporary grassland
- bush orchards

Where this option cannot be used

- On organic parcels or land in conversion from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)

How this option will benefit the environment

It provides important food resources for farmland birds, especially in autumn and winter. If successful there will be:

- an abundant and available supply of small seeds during the autumn and winter months
- farmland birds eating the seeds from October and beneficial insects including bumblebees, solitary bees, butterflies and hoverflies using the flowers during the summer

REQUIREMENTS

- between 1 March and 15 June, establish a seed mix of cereals, brassicas and other plants which produce small edible seeds to meet the autumn, winter and spring food needs of the following farmland birds where one or more is targeted in the area:

- | | |
|------------------|-----------------|
| ■ grey partridge | ■ turtle dove |
| ■ tree sparrow | ■ ciril bunting |
| ■ corn bunting | |

- blocks or strips must be at least 6m wide and a minimum of 0.4ha in size - the maximum individual plot size is 5ha
- re-establish the mix using plants from the “What to sow” section if the first mixture fails to establish
- maintain seed production by re-establishing every year for annual mixtures and every 2 years where mixtures have plants that deliver feed over 2 winters

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- seed invoices
- field operations at the parcel level, including associated invoices

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the blocks or strips

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.

Pick the right location

Use this option on most areas of the farm, but mixtures work best in sunny locations and on fertile sites.

Avoid planting underneath overhanging trees or next to shading woodland, as this leads to poorer establishment, growth and seed production.

Winter bird food mixes should be placed next to a field edge but can extend into the field. Leave access to surrounding crops to allow for management.

Block and plot sizes

Creating wider and bigger areas of winter bird food allows more seeds to remain undiscovered for longer, which extends their value well into winter. It also reduces the edge effect from adjacent land, such as fertiliser or pesticide drift.

Smaller areas tend to suffer from birds eating all the food within a short time.

What to sow

Sow plants that offer a spread of seed across the late autumn and winter.

Annual mixtures should include species like barley, triticale, quinoa, linseed, millet, mustard, fodder radish and sunflower. Include kale in 2-year mixtures. The mixture should cover a range of crop groups to minimise any pest and disease risks.

No single species should make up more than 70% by weight of the mix.

The following plants do not produce small seeds, as required, and so are not permitted:

- | | |
|-----------------|----------------|
| ■ maize | ■ canary grass |
| ■ tick beans | ■ sweet clover |
| ■ giant sorghum | ■ artichokes |

When and how to sow

Establish the plot between 1 March and 15 June, but ideally between mid-March and early June.

Create a fine and firm seedbed with seed sown at a depth between 1.5cm and 2.5cm. Moisture and warmth will help any brassicas establish quickly to protect against flea beetle damage.

Managing the option

Nitrogen applied at a minimum of 50kg per ha will create sufficient growth to smother annual weeds and produce plenty of seed. Herbicides can be used in some winter bird food mixes; check with a BASIS-qualified agronomist.

Rotate this option to a new site of clean ground if weed problems start to build up.

Remember that winter bird food should be in place until at least 31 December in year 5 of the agreement.

Unharvested cereal headland (AB10)

£640 per ha

Where to use this option

Whole or part parcel

Rotational only on:

- arable land
 - temporary grassland
-

How this option will benefit the environment

It provides an important food source for farmland birds throughout the year and insects in the summer, and provides both grain and seeding arable plants in winter.

If successful there will be:

- areas of open crop growth, allowing access for foraging farmland birds
- a crop structure supporting a range of declining arable plants and other broad-leaved plants
- plants providing summer and winter foraging for declining and localised farmland birds (especially grey partridge), mammals and important farmland pollinator species, such as bees and other beneficial insects
- strips or areas of weedy unharvested cereals providing over-wintering habitat for insects and food for seed-eating farmland birds

REQUIREMENTS

- establish a cereal crop (not maize) between February and April in strips between 6m and 24m wide or on a part-field or field scale
- create an open crop structure by managing the crop to deliver between 450 and 700 fertile tillers per square metre
- leave the option area unharvested until 1 February in the year following grain head production before returning to normal rotational management

Do not:

- apply any fertilisers or manures
- apply any lime
- use any herbicides except those on the list of permitted active ingredients available from Natural England
- apply any insecticides after 15 March

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- records at parcel level of field operations, including seed invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

RELATED MID TIER OPTIONS AND SUPPLEMENTS

The following options and supplements can be located on the same area as this option:

- HS3 – Reduced-depth, non-inversion cultivation on historic and archaeological features
- HS9 – Restricted depth crop establishment to protect archaeology under an arable rotation
- OR3 – Organic conversion – rotational land
- OT3 – Organic land management – rotational land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right location

This option can be successful on most soil types but ideally choose a location with low levels of thistles or problem weeds such as blackgrass. This will help the beneficial arable plants in the soil seedbank to grow without competition and provide a range of valuable habitats during the growing season. It will also allow the arable flora to set seed during the early summer period and retains the insect-rich habitat for foraging farmland birds.

Sowing the crop

It is important to make sure that the crop delivering the unharvested headland is not too dense, which restricts the foraging opportunities for farmland birds such as grey partridge. Managing the seed rate by considering drilling date, seed thousand grain weight, varietal tillering capacity and soil conditions will help achieve the required open crop structure.

Using herbicides

The objective for this option is to encourage the natural populations of arable plants that support both insects and farmland birds. Applying broad-spectrum herbicide during the cropping season and non-selective herbicides to help with harvest stops this from happening. There is only a limited list of herbicide actives that are permitted in this option, and these are subject to change as UK pesticide approvals are reviewed, so make sure to consult the most up-to-date list from Natural England.

Permitted active ingredients

The following herbicide active ingredients can be used:

- Amidosulfuron
- Clodinafop-propargyl
- Fenoxaprop-P-ethyl
- Pinoxaden
- Tri-allate

Please note: the permitted active ingredients cannot necessarily be used on all eligible crops within options AB7, AB10 & AB14. It is the responsibility of the agreement holder to confirm whether herbicides are approved for use on the affected crop. **ALWAYS use pesticides in full accordance with the product label conditions of use.**

Cultivated areas for arable plants (AB11)

£532 per ha

Where to use this option

Whole or part parcel

Rotational

Only on arable land:

- where evidence or records exist for important arable plants (Plantlife IAPA classification 4 and above – see Appendix II, page 19 - <http://www.plantlife.org.uk/uk/our-work/publications/important-arable-plant-areas>). These records can either be historic (within the last 40 years) or from recent arable plant survey results
- where arable plant records do not exist but the land is part of the Wild Pollinator and Farm Wildlife Package (see Mid Tier Manual Section 8.3)

Where this option cannot be used

- from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS).
-

How this option will benefit the environment

It creates uncropped, cultivated areas for a wide range of scarce and declining arable plants, and provides areas of less densely vegetated ground for insects and other invertebrates, and summer foraging habitats for declining farmland birds.

If successful there will be:

- vulnerable species of arable plants germinating and completing their life cycle, which will increase their populations over time
- foraging insects such as bumblebees, solitary bees and hoverflies visiting flowers and the bare ground created
- declining farmland birds, such as grey partridge and turtle dove, foraging in the arable plant area

REQUIREMENTS

- create the fallow margins or plots annually
- cultivate in the spring between February and April or in the autumn between September and November - work the soil sufficiently to produce a fine surface across the whole area

Do not:

- disturb cultivated areas before 31 August
- apply any fertilisers or manures
- apply any lime
- use any pesticides, except for herbicides to weed-wipe or spot-treat for the control of injurious weeds, invasive non-natives, nettles or bracken

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- records at parcel level of your field operations, including any associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

RELATED MID TIER OPTIONS AND SUPPLEMENTS

The following options and supplements can be located on the same area as this option:

- HS3 – Reduced-depth, non-inversion cultivation on historic and archaeological features
- HS9 – Restricted depth crop establishment to protect archaeology under an arable rotation
- OR3 – Organic conversion – rotational land
- OR4 – Organic conversion - horticulture
- OT3 – Organic land management – rotational land
- OT4 – Organic land management – horticulture

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right location

Where sites have important arable plant species present or where they could be released from the seed bank (historic or local records will help identify them), this option can deliver tailored management for them. The Plantlife Important Arable Plant Areas (IAPA) handbook referenced above scores individual species: if there are records of plants which score 4 or above this option is available.

The richest areas for arable plants are at the edges of fields, adjacent to old farm tracks and boundary features, so margins up to 6m wide will work best here.

Fields with a long history of cultivation, together with old grass margins that were previously arable, should also be considered.

Some of the more common species of arable plants are good 'indicator' species and indicate the potential of an area to hold rich arable flora in the seed bank, so it is important to focus on these sites, as well as those containing the rarest species.

Managing your plots

Rotating the cultivated areas around the farm can help control and prevent a build-up of undesirable weed species.

Varying cultivation timing and depth can also help control undesirable species while providing suitable conditions for germinating arable plants in the spring and autumn.

Topping at a height of around 30cm to prevent seeding of undesirable weed species such as wild oats and creeping thistle is allowed during the growing season, as many of the desirable arable plant species are shorter than this. Where this weed burden develops on more than 40% of the area, targeted broad-spectrum herbicides can be used once annual species have set seed (normally in September).

If grass weeds become a problem, periodically (one year in 3) creating a stale autumn seedbed and cultivating in mid-March can help control them. This is particularly relevant on heavy clay sites. Ploughing can also be useful for controlling grass weeds.

Use this option as part of a sequence of arable options which can occupy the same area of land at different times of the year, such as overwinter stubbles.

Supplementary winter feeding for farmland birds (AB12)

£632 per tonne for every 2 ha of winter bird food

Where to use this option

Whole or part-parcel

Rotational

Only on:

- arable land
- temporary grassland
- bush orchards

Where this option cannot be used

On organic parcels or land in conversion

Only where a qualifying area of AB9 - Winter bird food is included in the agreement (2ha of AB9 winter bird food allows 500kg per annum of supplementary feeding, at each of two separate feeding stations)

How this option will benefit the environment

It provides important food resources for farmland birds in late winter and early spring on arable and mixed farms, by supplementing crops of winter bird food when they have been depleted and before natural food sources become available in late spring.

If successful there will be seed-eating farmland birds using the feeding areas from December to April, including:

- yellowhammer
- grey partridge
- tree sparrow
- corn bunting
- linnet
- turtle dove (seen during the spring and summer)

Target birds will be seen more frequently on the farm in the spring and there will be increased breeding success there.

REQUIREMENTS

- spread the supplementary feed mixture specified in the agreement at an average rate of 25kg on the ground, at least once a week from 1 December until 30 April, at each of two separate feeding locations
- select feeding areas that are firm and free-draining, such as farm tracks or hard standing areas, and in close proximity to enhanced overwinter stubbles, game cover or wild bird seed mixtures

Do not:

- use hoppers to supply more than 10% of the total amount of feed provided during the specified feeding period
- use tailings (small seeds and chaff removed from the harvested crop) as supplementary feed

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- details of the mixture used (weight of components and cost)
- dates of feeding
- method of feeding (hopper or spreading)
- amount of feed
- the location of the feeding areas

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right location

When planning which feeding sites to use, make sure they can be reached regularly. This is especially important if bad weather will cause problems travelling to them during the winter.

It is important for the health of the birds benefiting from the supplementary feeding that clean and healthy feeding areas are maintained. Rotating feeding sites around the farm is very important, but each site should be near existing sown resources.

Manage how and when to supplementary feed

Having 2ha of AB9 Winter bird food in the agreement allows 1 tonne of supplementary feed to be spread each year, split equally between 2 feeding stations, so 500kg per year per feeding station. Where less than 2ha of AB9 is put into the agreement, a pro-rata amount of AB12 can be included. For example, the minimum area allowed of AB9 is 0.4ha. This would allow 200kg of AB12 to be included, spread equally between two feeding stations, so 100kg per year per feeding station.

Supplementary feeding should start before the sown winter bird food runs out. This keeps farmland birds using the areas and prevents a dip in their winter condition.

Distribute enough supplementary food to match the birds' consumption, so that seed is not left uneaten. This will ensure that a fresh supply of food is maintained, which will keep birds healthy and reduce any rodent problems. This is particularly important when ground feeding, or if hoppers are left unprotected.

Feed twice a week so that no food is left by the second day after feeding. As well as reducing rodents this will cut down on the use of the supplementary feed areas by crows and pigeons. Feed should be well spread out on the areas chosen, rather than left in piles.

Prepare to be flexible, so that if the winter period is extended through bad weather, the amount of feeding planned can be adjusted and extended for any additional days or weeks that are needed. This ensures that birds are not left with a 'hungry gap' before the natural seed resources on the farm become available.

What seed mix to use

The ideal mix should be a maximum of 70% cereal (wheat, barley, oats, triticale) and 3 or 4 of white millet, red millet, linseed, oil seed rape, canary seed, nyger seed, sunflower hearts (which can be bought in). A mix of 40% naked oats, 30% wheat, 20% millet and 10% oilseed rape has provided good results on some farms.

Brassica fodder crop (AB13)

£100 per ha

Where to use this option

Whole or part parcel

Rotational

Only on:

- arable land
- temporary grassland

Where this option cannot be used

- on parcels identified as being at medium to high erosion risk on the Farm Environment Record (FER)
 - on parcels immediately adjacent to a watercourse
 - on historic or archaeological features identified in your HEFER or FER
-

How this option will benefit the environment

It provides foraging sites for seed-eating birds in pastoral areas where broad-leaved plants can persist in the crop and set seed.

If successful, there will be:

- a weedy fodder crop during the summer and autumn
- an open grazed stubble which provides some winter cover and feeding areas for farmland birds

REQUIREMENTS

- establish a whole or part field of fodder brassica or fodder root crop before 31 July
- commence grazing after 15 October
- return the stubble to the farm rotation from 15 February

Do not:

- apply any herbicides or insecticides

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- stock records to show grazing activity on parcels

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

All applicants will need to send the following with their application:

- Map showing the location of watercourses

RELATED MID TIER OPTIONS AND SUPPLEMENTS

The following options and supplements can be located on the same area as this option:

- OR3 – Organic conversion – rotational land
- OT3 – Organic land management – rotational land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Managing livestock in the option area

As set out in the scheme requirements (Mid Tier Manual section 6.2.1 General management requirements) make sure that grazing on the option does not create poaching or soil erosion. The open structure of the fodder crop increases the risk of both occurring when it is being grazed. Supplementary feeding could also result in poaching and soil compaction, so should be avoided.

Rotational management

Remember that stubbles should be in place from harvest until at least 31 December in year 5 of the agreement, after which time it can be returned to the rotation.

Harvested low input cereal (AB14)

£266 per ha

Where to use this option

Whole or part parcel

Rotational

Only on:

- arable land
- temporary grassland

Where this option cannot be used

After the following break crops:

- oilseed rape
- potatoes
- beans
- peas

How this option will benefit the environment

An open-structured cereal crop provides summer foraging sites for declining and localised farmland birds and habitat for brown hare, rare arable plants and pollinator species, such as bees and beneficial insects.

If successful there will be:

- areas of open crop growth suitable for crop nesting birds such as skylarks, and a range of declining arable plants and other broadleaved species
- brown hare and foraging farmland birds such as yellowhammer and reed bunting using the crop
- important farmland pollinator species, such as bumblebees, solitary bees, butterflies and hoverflies, visiting the flowers in these areas

REQUIREMENTS

- establish a cereal crop every year in the spring between February and April or in the autumn between October and December, either as strips 6m to 24m wide or on a field scale
- create an open crop structure by managing the crop to deliver between 450 and 700 fertile tillers per square metre

Do not:

- harvest the crop before 15 July
- apply any herbicides, except those on the list of permitted active ingredients available from Natural England
- apply insecticides after 15 March

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- records at parcel level of field operations, including any associated invoices

RELATED MID TIER OPTIONS AND SUPPLEMENTS

The following options and supplements can be located on the same area as this option:

- HS3 – Reduced-depth, non-inversion cultivation on historic and archaeological features
- HS9 – Restricted depth crop establishment to protect archaeology under an arable rotation
- OR3 – Organic conversion – rotational land
- OT3 – Organic land management – rotational land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.

Pick the right location

Sites with low levels of pernicious weeds such as couch, blackgrass, brome, ryegrass and wild oats are best, although it may be necessary to use this option on sites with higher weed burdens if important populations of target plants or birds are present.

Managing the crop

Using lower seed rates between 50kg per ha and 100kg per ha will help make sure that the crop is not too dense. It will allow broadleaved plants to establish and provide foraging options for fledged farmland bird chicks.

There are a range of cereals that can be used for this option, including wheat, barley, triticale, oats and rye. Do not use maize, sorghum of any kind or millet as the cereal in this option – the herbicide and fertiliser management and dense ground-covering traits are not suitable to deliver the outcomes of this option.

Permitted active ingredients

The following herbicide active ingredients can be used:

- Amidosulfuron
- Clodinafop-propargyl
- Fenoxaprop-P-ethyl
- Pinoxaden
- Tri-allate

Please note: the permitted active ingredients cannot necessarily be used on all eligible crops within options AB7, AB10 & AB14. It is the responsibility of the agreement holder to confirm whether herbicides are approved for use on the affected crop. **ALWAYS use pesticides in full accordance with the product label conditions of use.**

Two year sown legume fallow (AB15)

£522 per ha

Where to use this option

Whole or part parcel

Rotational

Only on:

- arable land
- temporary grassland

Where this option cannot be used

- where evidence or records exist for important arable plants (Plantlife IAPA classification 4 and above – see Appendix II, page 19 - <http://www.plantlife.org.uk/uk/our-work/publications/important-arable-plant-areas>). These records can either be historic (within the last 40 years) or from recent arable plant survey results on organic parcels or land in conversion from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)
-
-

How this option will benefit the environment

It provides food for farmland wildlife, such as pollen and nectar for pollinators, and invertebrate chick food for farmland birds. It can also be a useful part of a rotation aimed at reducing blackgrass populations.

If successful there will be:

- a reduction in flowering blackgrass and an abundant supply of sown pollen and nectar-rich flowers between early and late summer in year 3 and year 5 of the agreement
- pollinating and beneficial insects such as bumblebees, solitary bees, butterflies and hoverflies using these flowers
- some adult farmland birds and chicks foraging in and around the sown fallow between April and July

REQUIREMENTS

- establish a mixture of grass and flowering species as specified in the “What to sow” section as soon as possible after harvest and before 7 September, in year 1 and year 3 of the agreement
- cut at least twice during the year as the mixture is establishing to stop blackgrass heading – do not cut after the end of October
- in the second year after establishment, cut once before the end of March if blackgrass is present
- return the option area to the arable rotation from 15 August in the second year after establishment

Do not:

- graze or conserve forage

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- records of field operations at the parcel level, including any associated invoices

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.

Pick the right location

The Plantlife Important Arable Plant Areas (IAPA) handbook referenced above scores individual species; if there are records of plants which score 4 or above this option cannot be used on that location. This option works well on most soil types where it can help to reduce the amount of blackgrass and increase wildlife resources.

It works best where some blackgrass germinates after cultivation in the autumn and more can grow from the seedbank during the winter and following spring. Mow the area as often as is needed to prevent the blackgrass from seeding.

Size of blocks or plots

Plan this option into the rotation, selecting fields on a part or whole-field scale. This will give most benefits for blackgrass reduction and biodiversity.

Spread the legume fallow areas widely across the farm to help connect insects with other farm habitats.

What to sow

Sow a mixture in the autumn based on the suggestions below, at an overall seed rate of around 30kg per ha, and retain for 2 years before re-establishment:

Plant species	Proportion by weight
Intermediate or late perennial ryegrass	66%
Red clover	15%
Common vetch	10%
Birdsfoot trefoil	7%
Common or black knapweed	2%

When soils are dry at sowing, substituting some of the ryegrass with cocksfoot (up to 30%) can help to establish ground cover more rapidly.

When to sow

Establish the legume fallow as soon as possible after harvest in year 1 and year 3 of the agreement (ideally by the end of August).

When to cut

Cut at least twice in the first year following the autumn sowing to control emerging blackgrass. But be prepared for subsequent cuts to be as close as 3 weeks apart as blackgrass re-heads more rapidly after each cut.

Cutting before the end of March in year 2 controls any remaining blackgrass, before the legume fallow mixture grows away rapidly from April.

The aim of this option is to provide an abundant supply of pollen and nectar-rich flowers, and this cannot be achieved if the option area is grazed, or if fertilisers and sprays are used.

Return the option area to crop production

Spray the legume fallow mix with a non-selective herbicide if needed, before the area is cultivated for the next crop.

Return the area to the farm rotation from 15 August.

Autumn sown bumblebird mix (AB16)

£550 per ha

Where to use this option

Whole or part parcel

Rotational

Only on:

- arable land
- temporary grassland
- bush orchards

Where this option cannot be used

- where evidence or records exist for important arable plants (Plantlife IAPA classification 4 and above – see Appendix II, page 19 - <http://www.plantlife.org.uk/our-work/publications/important-arable-plant-areas>). These records can either be historic (within the last 40 years) or from recent arable plant survey results from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)
-

How this option will benefit the environment

It provides important food resources for farmland birds and a range of nectar feeding insects, including butterflies and bumblebees, on arable and mixed farms.

If successful there will be:

- an abundant supply of small seeds during the winter months
- farmland birds such as tree sparrow and corn bunting eating these seeds
- an abundant supply of pollen and nectar-rich flowers between early and late summer
- pollinating and beneficial insects including bumblebees, solitary bees, butterflies and hoverflies using these flowers

REQUIREMENTS

- establish a mixture of the flowering and seed bearing plants specified in the “What to sow” section as soon as possible after harvest and before 7 September, in year 1 and year 3 of the agreement
- where the chosen mixture fails to establish, re-establish it using the plants in the “What to sow” section
- make sure blocks or strips are at least 6m wide and at least 0.4ha - the maximum individual plot size is 5ha
- top the established mixture between mid-February and mid-March in the second spring after sowing, to promote legume flowering during early and mid-summer
- return the option area to the arable rotation from 15 August in the second year after establishment
- to maintain seed and flower provision, re-establish the mixture every 2 years

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the blocks or strips

RELATED MID TIER OPTIONS AND SUPPLEMENTS

The following options and supplements can be located on the same area as this option:

- OR3 – Organic conversion – rotational land
- OR4 – Organic conversion – horticulture
- OR5 – Organic conversion – top fruit
- OT3 – Organic land management – rotational land
- OT4 – Organic land management – horticulture
- OT5 – Organic land management – top fruit

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right location

The Plantlife Important Arable Plant Areas (IAPA) handbook referenced above scores individual species; if there are records of plants which score 4 or above this option cannot be used on that location.

This option works well on most soil types and, as with conventional crops, there will be more seeds and flowers produced where it is located on better ground. Ideally, pick sheltered sites that face south or west for maximum benefits to pollinators.

It also works on heavier soils where spring-sowing of winter bird food plots is difficult. Avoid sites with high weed burdens to reduce competition from aggressive weeds such as thistles, blackgrass and sterile brome.

Size of blocks or plots

Sow larger plots as they are easier to manage and provide food for seed-eating farmland birds longer into the winter. Creating wider, bigger blocks also helps insects to move to safety when neighbouring crops are treated.

What to sow

Sow a mixture in the autumn based on the suggestions below, at an overall seed rate of around 30kg per ha and retain for 2 years before re-establishment.

Bird and insect plant species	Proportion by weight	Bird and insect plant species	Proportion by weight
Winter triticale	18%	Kale	5%
Winter barley	18%	Phacelia	5%
Fodder radish	15%	Common vetch	5%
Crimson clover	15%	Common or black knapweed	2%
Birds toot trefoil	10%	Rough hawkbit or wild carrot	1.50%
Gold of pleasure	5%	Ox-eye daisy	0.50%

When to sow

Establish the mixture as soon as possible after harvest in year 1 and year 3 of the agreement (ideally by 1 September).

Plots can receive 50kg per ha of nitrogen in the first spring after establishment to help increase seed production in the following winter.

When to cut

Cut a few centimetres below the tops of the flowering plants in the spring of the second year to remove any overwinter seed plants. This allows flowering plants to develop with less competition. The aim of this option is to provide an abundant supply of small seeds and an abundant supply of pollen and nectar-rich flowers, and this cannot be achieved if the option area is grazed.

Return the area to crop rotation

The option area returns to the farm rotation on 15 August, which allows time to incorporate any legume biomass for healthier soils before drilling the next crop.

If a following spring crop is planned, the legume mix can be left in the ground until Jan/Feb/Mar of the crop sowing year to maximise the nutrient and soil conditioning benefits of the sown bumblebird plants.

Protection of in-field trees on arable land (BE1)

£420 per ha

Where to use this option

Part parcel

Only on:

- arable land
- temporary grassland
- trees (dead or alive) at least 30cm diameter at breast height (dbh)

Where this option cannot be used

- On a group or line of 4 or more trees whose canopies overlap

How this option will benefit the environment

If successful, trees will be protected from agricultural operations and kept as important features in the local landscape. Tree roots will be protected from damage by cultivations with a fertiliser-free grass buffer. Undisturbed standing and fallen deadwood will provide habitat for invertebrates.

REQUIREMENTS

- protect trees from damage by livestock and wild animals
- make sure tree guards do not damage growing trees
- keep all fallen branches within the option area
- if trees die or fall, leave them in place and continue with the management requirements

In year 1 maintain or allow a grass sward to develop around each tree by natural regeneration.

Tree diameter at breast height (dbh)	Sward radius	Area per tree
30cm to 99cm	10m	0.03ha
100cm to 199cm	20m	0.12ha
200cm or more	30m	0.28ha

Once established, manage the sward:

- ensure that no more than 5% is covered in weeds or bare ground
- only cut to control woody growth

Do not:

- apply any fertilisers or manures
- apply any lime
- plough, cultivate or re-seed
- use supplementary feed
- harrow or roll
- use pesticides, except for herbicides to spot-treat or weed-wipe to control nettles, bracken, injurious weeds or invasive non-natives
- remove any tree limbs, including lower limbs, or mature ivy growth
- carry out any drainage works, including modifying existing drainage, without Natural England's written permission before any work takes place

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of each tree entered into the option
- photographs of the sward buffer

Applicants will have to send the following with their application:

- a photograph of each tree
- the diameter at breast height (dbh) for each tree
- a map of existing land drainage in each parcel

RELATED MID TIER OPTIONS

The following options and supplements can be located on the same area as this option:

- OR3 - Organic conversion - rotational land
- OR4 - Organic conversion - horticulture
- OT3 - Organic land management - rotational land
- OT4 - Organic land management - horticulture

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Storing fallen branches

Fallen branches should not be cut into pieces but stacked in piles:

- with one pile in a sunny spot and one in a shady spot
- not too high, to stop the timber drying out
- with as much timber as possible in contact with the ground

Setting tree guards

Do not attach tree guards to the trees as this can damage the trees.

Using pesticides

Avoid damaging the trees when spot-treating or weed-wiping. Using chemicals should be a last resort, as they can damage root fungi in the soil. Trees depend on fungi for future good health.

Controlling livestock damage

To prevent livestock damage:

- provide alternative shelter with water to attract animals away from trees
- fence off trees to stop animals rubbing and stripping bark or trampling the base

If fences are used they should be placed at the edge of the option area.

Protection of in-field trees on intensive grassland (BE2)

£190 per ha

Where to use this option

Part parcel

Only on:

- grassland receiving more than 100kg per ha of nitrogen a year in fertilisers or manures
- trees (dead or alive) at least 30cm diameter at breast height (dbh)

Where this option cannot be used

- On a group or line of 4 or more trees whose canopies overlap

How this option will benefit the environment

If successful, trees will be protected from agricultural operations and kept as important features in the local landscape. Tree roots will be protected from damage by cultivations with a fertiliser-free grass buffer. Undisturbed standing and fallen deadwood will provide habitat for invertebrates.

REQUIREMENTS

- protect trees from damage by livestock and wild animals
- make sure tree guards do not damage growing trees
- keep all fallen branches within the option area
- if trees die or fall, leave them in place and continue with the management requirements

In year 1 maintain or allow a grass sward to develop around each tree by natural regeneration.

Tree diameter at breast height (dbh)	Sward radius	Area per tree
30cm to 99cm	10m	0.03ha
100cm to 199cm	20m	0.12ha
200cm or more	30m	0.28ha

Once established, maintain the sward:

- ensure that no more than 5% is covered in weeds or bare ground
- only cut to control woody growth

Do not:

- apply any fertilisers or manures
- apply any lime
- plough, cultivate or re-seed
- use supplementary feed
- harrow or roll
- use pesticides, except for herbicides to spot-treat or weed-wipe to control nettles, bracken, injurious weeds or invasive non-natives
- remove any tree limbs, including lower limbs, or mature ivy growth
- carry out any drainage works, including modifying existing drainage, without Natural England's written permission before any works take place

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of each tree entered into the option
- photographs of the sward buffer

Applicants will have to send the following with their application:

- a photograph of each tree
- the diameter at breast height (dbh) for each tree
- a map of existing land drainage in each parcel

RELATED MID TIER OPTIONS

The following options and supplements can be located on the same area as this option:

- OR1 - Organic conversion - improved permanent grassland
- OT1 - Organic land management - improved permanent grassland

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form a part of the requirements for this option.*

Storing fallen branches

Fallen branches should not be cut into pieces but stacked in piles:

- with one pile in a sunny spot and one in a shady spot
- not too high, to stop the timber drying out
- with as much timber as possible in contact with the ground

Setting tree guards

Do not attach tree guards to the trees as this can damage them.

Using pesticides

Avoid damaging the trees when spot-treating or weed-wiping. Using chemicals should be a last resort, as they can damage root fungi in the soil. Trees depend on fungi for future good health.

Controlling livestock damage

To prevent livestock damage:

- provide alternative shelter with water to attract animals away from trees
- fence off trees to stop animals rubbing and stripping bark or trampling the base

If fences are used they should be placed at the edge of the option area.

Management of hedgerows (BE3)

£8 per 100m for 1 side of a hedge

Where to use this option

On boundary lines of shrubs, which are:

- composed of woody plants with less than 2m between the ground and the base of the leafy layer
- over 20m long
- less than 5m wide between major woody stems at the base
- composed of at least 80% native shrubs

Where this option cannot be used

- on features that are trees for most of their length
- lengths of hedge managed under this option are not eligible for the capital item BN7 - Hedgerow gapping-up but are eligible for other capital item payments

How this option will benefit the environment

Increases the availability of blossom for invertebrates. By allowing fruit and berries to ripen it provides food for overwintering birds. It will also improve the structure and longevity of hedgerows.

If successful there will be:

- taller and wider hedges, with gaps forming less than 10% of the hedge length
- a mix of hedges of different heights and width across the farm
- production of 2 to 4 times the weight of berries when compared with hedges cut every year
- an increase in the blossom available to insect pollinators
- dense cover, which is important for successful breeding for a variety of wildlife
- an improvement in overall hedge condition to maintain them as distinctive and historic landscape features

REQUIREMENTS

- maintain a hedge at least 2m tall and 1.5m wide by year 2, except for sections gapped up, laid or coppiced during the agreement term
- cut hedgerows:
 - either no more than 1 year in 3 between 1 September and 28 February - leave at least two-thirds of hedges untrimmed each year
 - or no more than 1 year in 2 between 1 January and 28 February - leave at least one-half of hedges untrimmed each year
- gap up any length of hedge with more than 10% gaps within the first 2 years

Do not:

- remove any tree limbs, including lower limbs, or mature ivy growth from hedgerow trees
- remove any standing deadwood
- supplementary feed livestock within 2m of the centre of the hedge

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- hedgerow management records

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of each hedge entered into the option

With their application, applicants will have to send maps showing:

- existing access tracks

This can be marked on the Farm Environment Record (FER).

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right hedge

If you do not have management control of both sides of a hedge then only enter 1 side into the option. If there is no parcel number listed under your SBI for the land on one side of the hedgerow, for example where it is a road or track verge, or the land belongs to a neighbour, that side of the hedgerow can't be entered into BE3 on your application.

Select hedges that:

- are connected to other hedges or habitats (such as woodlands and ponds)
- have other components such as hedgerow trees, bases or banks rich in flowers, or an adjacent ditch or margin

Use the option to improve the condition and longevity of hedges which are of particular historic interest, such as parish boundaries, or are especially important in the landscape.

Managing the hedges

If the correct rotor and forward speeds are used, well-maintained flails are effective for cutting 2 to 3-year-old growth of most woody species.

Fast growing species, such as ash or willow, may need heavier duty flails or more powerful cutting heads. Alternatively, use a circular saw or leave hedges uncut. There is no requirement to trim hedges at all during the agreement. Instead, leave them to grow and manage in a coppicing or laying rotation.

Cutting incrementally, rather than trimming back to the same point, allows hedges to increase in height and width by several centimetres at each cut, encouraging a dense, healthy hedgerow.

Use native shrubs species that already occur in hedgerows in the local area to gap up. A gap is a complete break in the canopy. Where a tree canopy overlaps the hedgerow canopy it is not counted as a gap.

Further information

Read more on:

- managing hedgerows in a long-term cycle - <http://hedgelink.org.uk/index.php>
- common questions on hedge cutting - <http://hedgelink.org.uk/index.php>

Management of traditional orchards (BE4) Mid Tier

£212 per ha

Where to use this option

In Mid Tier this option can only be used with approval from Natural England
Whole or part-parcel

Only on traditional orchards (apple, pear, cherry, plum, damson or cobnut plots) where at least one-third of the original stations are occupied by trees over 25 years old.

In Mid Tier the orchard must be mapped as a traditional orchard on the Priority Habitat Inventory (see MAGIC - www.magic.gov.uk)

Features that can be included in this option

The following features can be included if they are part of the parcel, even if they are ineligible for the Basic Payment Scheme (BPS).

- ditches
- drains
- dykes
- rivers and streams (boundary or internal)

The features must be less than 4m wide for the majority of their length in the parcel.

How this option will benefit the environment

If successful there will be a well-managed traditional orchard with a range of healthy young and old trees. This includes established grass, tall bushy hedges, scrub and tall herb vegetation abundant with invertebrates, birds and wildflowers.

REQUIREMENTS

- record the location, species, variety and age class of trees
- manage grassland by grazing or hay cutting
- maintain the characteristic tree form by pruning
- restore tree numbers
- protect trees from damage by livestock
- keep and protect all mature and over-mature standing trees
- keep some standing deadwood and some deadwood on living trees
- control scrub and invasive species

Do not:

- plough, cultivate or re-seed
- roll or harrow
- apply any fertilisers or manures
- apply lime
- supplementary feed

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- receipted invoices, consents or permissions connected with any work
- records of all management activity on the option area for each parcel
- dates and locations of formative or maintenance pruning carried out for each parcel

- a base map or table showing the location, species, rootstock, variety and age class of trees present in each parcel
- a monthly record of stock numbers grazing each parcel

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- if managing by hay cutting, photographs of the areas cut and uncut in each parcel
- photographs of cut areas of scrub

Applicants will have to send the following with their application:

- a map of existing land drainage in each parcel
- a photograph of trees entered into the option

RELATED OPTIONS

The following options and supplements can be located on the same area as this option:

- BE6 – Veteran tree surgery (Higher Tier only)
- BE7 - Supplement for restorative pruning of fruit trees
- ED1 - Educational access (Higher Tier only)
- GS15 - Haymaking supplement
- OR2 - Organic conversion - unimproved permanent grassland
- OR5 - Organic conversion - top fruit
- OT2 - Organic land management - unimproved permanent grassland
- OT5 - Organic land management - top fruit
- SP1 - Difficult sites supplement (Higher Tier only)
- SP3 - Bracken control supplement (Higher Tier only)
- SP4 - Control of invasive plant species supplement (Higher Tier only)
- SP8 - Native breeds at risk supplement (Higher Tier only)
- SP9 - Threatened species supplement (Higher Tier only)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Traditional orchards

Traditional orchards are defined as groups of fruit and nut trees planted on vigorous rootstocks at low densities in permanent grassland, and managed in a low intensity way. Cobnut plats are included.

Preventing weeds

Prevent weeds from competing with newly planted trees for water and nutrients. Keep a 1m diameter circle clear of all vegetation for at least the first 3 years after planting.

Supplement for restorative pruning of fruit trees (BE7) Mid Tier

£62 per tree

Where to use this supplement

In Mid Tier this option can only be used with approval from Natural England and only with BE4 Only:

- for a maximum of 3 years on an individual tree
- on neglected fruit trees with options:
 - BE3 - Management of hedgerows (Higher Tier only)
 - BE4 - Management of traditional orchards
 - BE5 - Creation of traditional orchards (Higher Tier only)

How this supplement will benefit the environment

If successful there will be restored mature fruit trees with undisturbed standing and fallen deadwood providing a habitat for a wide range of invertebrates.

REQUIREMENTS

- restore the tree form by pruning
- keep some standing deadwood or dead wood on living trees

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- receipted invoices, consents or permissions connected with the work

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the management undertaken

Applicants are likely to have to send the following with their application:

- a photograph of trees entered into the supplement

RELATED SUPPLEMENTS

This supplement can be located on the same tree as the following supplement:

- SP9 - Threatened species supplement (Higher Tier only)

Take small areas out of management (GS1)

£365 per ha

Where to use this option

Whole and part parcel

Only on:

- permanent grass
- corners and small areas within permanent grassland fields

Where this option cannot be used

- on historic or archaeological features identified in your HEFER or FER

How this option will benefit the environment

It creates year-round habitat and food for a range of wildlife.

If successful there will be tall grass tussocks with abundant flowering plants during the summer and dead seed heads throughout the winter.

REQUIREMENTS

- only cut or graze 1 year in every 5
- create a patch no more than 0.5ha in area

Do not:

- use the option more than once in every 5ha of permanent grassland on the holding
- locate the option next to another area under the same option
- cut or graze all areas in the same year if there is more than 1 area
- cut or graze during the bird breeding season 1 March to 31 August
- apply any fertilisers or manures
- apply any lime
- use pesticides, except for herbicides to spot-treat or weed-wipe for the control of injurious weeds or invasive non-natives, nettles or bracken

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- stock records to show grazing activity on parcels

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

RELATED MID TIER OPTIONS

The following options and supplements can be located on the same area as this option:

- OR1 – Organic conversion – improved permanent grassland
- OR2 – Organic conversion – unimproved permanent grassland
- OT1 – Organic land management – improved permanent grassland
- OT2 – Organic land management – unimproved permanent grassland

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully, but does **not** form part of the requirements for this option.*

Using the mosaic approach

Better results will be achieved when the areas of longer vegetation are scattered widely across a landscape and located close to other habitat features, in a mosaic approach.

Permanent grassland with very low inputs (outside SDAs) (GS2)

£95 per ha

Where to use this option

Whole parcel (except when located with GS1)

Only on:

- permanent grassland outside severely disadvantaged areas (SDAs) and below the moorland line

Where this option cannot be used

Part parcel (except when located with GS1)

This option can only be used if one or more of the following criteria are met:

- the grassland qualifies as semi-improved (see Permanent grassland options Eligibility Assessment form - <https://www.gov.uk/government/publications/countryside-stewardship-permanent-grassland-with-very-low-input-options>)
- to help the sustainable management and buffering of Sites of Special Scientific Interest (SSSIs) or priority habitats
- to maintain grassland to conserve species of national or regional importance, or protect historic or archaeological features
- when in-field scrub cover is less than 1% and the option will be used in target areas for ground-nesting wading birds
- as part of the Wild Pollinator and Farm Wildlife Package (see Mid Tier Manual section 8.3)
- on parcels adjacent to a permanent watercourse

Features that can be included in this option

The following features can be included if they are part of the land, even if they are ineligible for the Basic Payment Scheme (BPS):

- ditches, dykes, drains, rivers, streams that are less than 4m wide for the majority of their length in the parcel
- temporary water
- permanent water up to 0.1ha
- natural unsurfaced roads, tracks, paths and bridleways, as long as the Requirements can still be met
- bracken
- areas of scree, rock outcrops and boulders - each area can cover up to 0.1ha
- grazed woodland and scrub that allows livestock access and has grass underneath

How this option will benefit the environment

If successful there will be:

- more flowering grass and wildflower species
- varied structures offering nectar and shelter for invertebrates
- increased food supply for birds

REQUIREMENTS

- graze or cut for hay or silage
- remove any cuttings
- maintain a sward with a range of heights during the growing season so that at least 20% is less than 7cm and 20% is more than 7cm. No height variation needs to be maintained when the field is closed up for a cut of hay or silage.
- maintain soil above pH 5.4, by liming if necessary, unless the target is to maintain acid grassland. Do not apply paper waste or other industrial by-products.
- when a parcel is cut for hay, haylage or silage, or grazed, either up to 12 tonnes/ha of farmyard manure can be applied, or fertiliser at a maximum rate of:
 - 9 kg/ha nitrogen
 - 23 kg/ha phosphate
 - 83 kg/ha potash
- applications of fertiliser must not be increased if the current rate is less than this
- graze or cut areas of dense rush growth so that they cover 20% or less of the parcel area and are less than 20 cm high by 30 September
- where scrub cover is less than 5%, keep areas of well-established scrub in separate small patches, lines and occasional individual bushes across the site
- where scrub cover is equal to or above 5%, maintain between 5% and 10% scrub cover over the parcel
- keep historic and archaeological features free of scrub

Do not:

- plough, cultivate or re-seed
- use pesticides, except for herbicides to spot-treat or weed-wipe to control nettles, bracken, injurious weeds or invasive non-native species
- cut more than one-half of scrub in any one year, except on historic and archaeological features
- harrow or roll on historic or archaeological features
- use supplementary feed except for mineral blocks
- allow bare ground to cover more than 5% of the option area, and only in the form of small, well-distributed areas
- allow bare ground to develop on historic or archaeological features
- allow more than 5 square metres of localised patches of bare ground around rabbit warrens by year 2
- top more than 50% of the total area in any one year
- carry out drainage works, including modifying existing drainage, without Natural England's written permission before work starts

Restrictions that apply on certain dates

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
		15 March to 30 June - do not apply fertiliser or manure									
		15 March to 30 June - do not cut for hay or silage									
		15 March to 30 June - do not operate machinery or allow activities that disturb breeding birds; do not cut bracken									
		15 March to 31 July - do not cut rush									
do not top except in patches to control injurious weeds and invasive non-native species									1 Oct to 31 July		

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- received invoices, consents or permissions connected with the work
- field operations at the parcel level, including associated invoices
- a standard soil analysis to be completed in the final agreement year and results submitted with the final claim
- any sites grazed will require a grazing activity record

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the management undertaken

Applicants will have to send the following with their application:

- permanent grassland eligibility assessment form

By the submission of the first claim, applicants will need to submit a laboratory soil analysis including at least pH and phosphate (P)

RELATED MID TIER OPTIONS

These options and supplements can be located in the same area as this option:

- GS16 - Rush infestation control supplement
- GS17 – Lenient grazing supplement
- OR1 – Organic conversion – improved permanent grassland
- OR2 - Organic conversion - unimproved permanent grassland
- OT1 – Organic land management - improved permanent grassland
- OT2 - Organic land management - unimproved permanent grassland

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully, but does **not** form part of the requirements for this option.*

Choose the right location

Grassland which contains rare plant species is clearly valuable. It can still be valuable, and suited to this option, if it contains commoner species:

- legumes such as red clover, lesser trefoil and black medick
- herbs such as ribwort plantain and yarrow
- attractive wildflowers such as selfheal and germander speedwell

Low input grassland is most valuable when located alongside other important landscape features such as scrub and wetlands in a mosaic approach.

Grassland is also the best protection for historic and archaeological features, as long as plants with powerful roots like scrub or bracken do not take hold, and bare ground does not develop.

Managing the sward

The land will be much more valuable for insects, birds and other animals if it has a varied, patchy structure all year round, as detailed under requirements. It is much easier to achieve this structure by grazing with cattle than by grazing with sheep only.

Grazing may be rotational or intermittent, but the stock should eat the sward down well during the grazing periods to avoid it becoming rank during the rest periods.

Wet areas can be important sources of insect food and should be maintained where possible.

Check for breeding birds before operating machinery, even outside the closed periods.

Further information

See the illustrated guide Farming the historic landscape: caring for archaeological sites in grassland - <https://www.historicengland.org.uk/advice/planning/local-heritage/helm-redirect>

Ryegrass seed-set as winter food for birds (GS3)

£331 per ha

Where to use this option

Whole or part parcel

Rotational

Only on:

- temporary grassland
- permanent grassland that has been cultivated and re-sown within the last 5 years

Swards must contain at least 50% ryegrass (perennial, Italian or hybrid).

How this option will benefit the environment

There will be an abundance of ryegrass seed in the autumn, providing food for many birds (including yellowhammers and other buntings, gamebirds such as grey partridge, and skylarks) until late winter.

REQUIREMENTS

- close the field for at least 5 weeks before cutting, and take a silage cut before 31 May
- close the field after cutting and removal, allow the sward to flower and set seed in the autumn, and leave the sward undisturbed until 1 March
- part parcels must be at least 10m wide

On swards containing at least 70% Italian or hybrid ryegrass, a second cut of silage (or hay) can be taken before 30 June.

This option can be moved between different eligible parcels of land, but the same total area (hectare) must be maintained each year.

Do not:

- allow any grazing for at least 5 weeks before the first cut or, for Italian or hybrid ryegrass, in the period before the second cut

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- stock records to show grazing activity

Applicants will need to supply with their applications:

- evidence of the sward composition will be needed with the application
- when applying to use this option on permanent grassland, evidence will be needed that the grassland has been cultivated within the last 5 years

RELATED MID TIER OPTIONS

These options and supplements can be located in the same area as this option:

- OR3 – Organic conversion – rotational land
- OT3 – Organic land management – rotational land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option, but does **not** form part of the requirements for this option.*

How to choose a site

This option is designed to benefit buntings and other declining farmland birds, though it is also good for invertebrates and small mammals. For best results it should be used in areas that have:

- a population of buntings
- dense hedges and scrub for nesting
- invertebrate-rich habitat for summer feed (e.g. leniently grazed, low-input grassland and enhanced arable margins)

This option can provide essential winter seed food. On mixed farms it can be combined with arable options such as AB9 - Winter bird food. (See guidance on the Wild Pollinator and Farm Wildlife Package (Mid Tier Manual section 8.3)

As a part-field option the best results can be obtained by placing it next to a hedgerow or wooded edge. However, it should be kept well away from hedges and trees to feed skylarks.

This option should only be used on areas that are at least 0.5ha in size. More birds will benefit if the option is split between 2 or more locations up to 500m apart.

The option is intended for intensive grass farms that have little scope to put land in other grassland or arable options, where regular reseeding is a typical practice.

How to manage this option

The aim is to have a large amount of herbage over the winter, which will enable hard harrowing or an early spring cut.

If grass is in rotation on the farm, or is regularly ploughed and re-sown, this option could be used:

- on fields due to be ploughed or re-sown
- on thinned swards that would benefit from the self-seeding this option provides

Legume and herb-rich swards (GS4)

£309 per ha

Where to use this option

Rotational

Whole or part parcel

Only on:

- arable land
- temporary grassland
- permanent grassland that has been cultivated and re-sown within the last 5 years

Where this option cannot be used

- on parcels at risk of soil erosion or runoff as identified in the Farm Environment Record
- on organic land or land in conversion to organic status
- on parcels with historic or archaeological features in your HEFER or FER

One of the following conditions must also be met:

- a recommended fertiliser management system must be followed to plan nutrient inputs across the farm
- a recommended fertiliser management system must be adopted within 18 months of the start of the agreement
- the applicant must qualify as a low intensity farmer

How this option will benefit the environment

A vigorous sward with abundant legumes and herbs, suitable for productive cattle and sheep, will also provide habitat and food for invertebrates, including crop pollinators, and improve soil structure and water infiltration.

This option does not use nitrogen fertilisers, which contribute to climate change.

REQUIREMENTS

- establish a mixed sward of grasses, legumes and herbs and wildflowers in the first 12 months of the agreement
- maintain the required area of mixed sward for the remainder of the agreement
- make sure the sward has a minimum 10% cover of red clover
- make sure the sward has an additional 10% cover of other legumes, herbs and wildflowers (not counting white clover, creeping buttercup or injurious weeds)
- make sure that the sward contains at least 5 species of grass, 3 species of legume (including bird's-foot trefoil) and 5 species of herb or wildflower
- re-establish the sward if necessary, on the same or a different field, to maintain these minimum requirements
- manage the sward by cutting or grazing
- leave the sward to rest for at least 5 weeks between 1 May and 31 July, so that the majority of red clover flowers are open and available for pollinators
- this option can be moved between different eligible parcels, but the same total area (hectare) must be maintained each year

Do not:

- use pesticides, except herbicides to spot treat or weed-wipe injurious weeds or invasive non-native species, nettles or bracken
- use inorganic fertilisers containing nitrogen

Keeping records

Agreement holders will need to keep the following records and produce them on request:

- field operations at the parcels level, including associated invoices
- stock records to show grazing activity on parcels

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

A fertiliser management plan is required at application or within 18 months of the start of the agreement.

If applicants intend to use this option on permanent grassland, they will need to provide evidence with the application that it has been cultivated within the last 5 years.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

How to choose a site

The option allows only very limited use of pesticides so only fields that do not have a burden of weeds or slugs should be chosen. Clovers, in particular, grow less well in soil that has a pH less than 6.0 and that is below index 2 for phosphorus and potassium. Soil can be improved with lime, manures or PK (but not N) fertiliser.

This option is not intended to be used on valuable semi-natural permanent pasture. Permanent grassland re-sown with grass or other herbaceous forage during the last 5 years, temporary grassland and other "agricultural" areas of grass could benefit from this option.

How to establish

Sow shallowly on to a firm, clean, fine seedbed. Alternatively, sow into an established grass sward: create at least 50% bare ground (and preferably 70%) and pay careful attention to slugs and other pests. Sowing legumes and herbs after August may not allow good enough establishment before the winter.

Legumes

Most of the widely available, inexpensive cultivars of red clover have low persistence, so the sward is likely to need to be re-established in its third year.

Remember that white and red clover can cause bloat, particularly in cattle.

Herbs

Chicory is a highly productive species, eaten by cattle and sheep and effective in protecting against internal parasites. It is better suited to grazing than cutting, as its stout stem is difficult to dry and can damage bale wrapping material.

Permanent grassland with very low inputs in SDAs (GS5)

£16 per ha

Where to use this option

Whole parcel (except when located with GS1)
Only on:

- permanent grassland within severely disadvantaged areas (SDAs) and below the moorland line

Where this option cannot be used

Part parcel (except when located with GS1)

This option can only be used if one of the following criteria are met:

- If the grassland qualifies as semi-improved (see Permanent grassland options Eligibility Assessment form - <https://www.gov.uk/government/publications/countryside-stewardship-permanent-grassland-with-very-low-input-options>)
- to help the sustainable management and buffering of Sites of Special Scientific Interest (SSSIs) or priority habitats
- to maintain grassland to conserve species of national or regional importance, or protect historic or archaeological features
- when in-field scrub cover is less than 1% and the option will be used in target areas for ground-nesting wading birds
- on parcels adjacent to a permanent watercourse

Features that can be included in this option

The following features can be included if they are part of the land, even if they are ineligible for the Basic Payment Scheme (BPS):

- ditches, dykes, drains, rivers, streams that are less than 4 metres wide for the majority of their length in the parcel
- temporary water
- permanent water up to 0.1ha
- natural unsurfaced roads, tracks, paths and bridleways, as long as the requirements below can be met
- bracken
- areas of scree, rock outcrops and boulders - each area can cover up to 0.1ha
- grazed woodland and scrub that allows livestock access and has grass underneath

How this option will benefit the environment

If successful there will be:

- more flowering grass and wildflower species
- varied structures offering nectar and shelter for invertebrates
- increased numbers of ground-nesting and feeding birds, particularly waders such as lapwing and snipe

REQUIREMENTS

- graze or cut for hay or silage
- remove any cuttings
- maintain a sward with a range of heights during the growing season so that at least 20% is less than 7cm and 20% is more than 7cm. No height variation needs to be maintained when the field is closed up for a cut of hay or silage.
- maintain soil above pH 5.4, by liming if necessary, unless the target is to maintain acid grassland. Do not apply paper waste or other industrial by-products.
- when a parcel is cut for hay, haylage or silage, or grazed, you may apply either up to 12 tonnes/ha of farmyard manure, or inorganic fertiliser at a maximum rate of:
 - 9 kg/ha nitrogen
 - 23 kg/ha phosphate
 - 83 kg/ha potash
- applications of fertiliser must not be increased if the current rate is less than this
- graze or cut areas of dense rush growth so that they cover 20% or less of the parcel area and are less than 20 cm high by 30 September
- keep areas of well-established scrub in separate small patches, lines and occasional individual bushes across the site where scrub cover is less than 5%
- maintain between 5% and 10% scrub coverage in parcel areas where cover is equal to or above 5%
- control areas where bracken is present so that the area does not increase
- maintain areas covered by dwarf shrub
- keep historic and archaeological features free of scrub and bracken

Do not:

- plough, cultivate or re-seed
- use pesticides, except for herbicides to spot-treat or weed-wipe to control nettles, bracken, injurious weeds or invasive non-native species
- cut more than one-half of scrub in any one year, except on historic and archaeological features
- harrow or roll on historic or archaeological features
- use supplementary feed except for mineral blocks
- allow bare ground in the form of small, well-distributed areas to cover more than 5% of the option area
- allow bare ground to develop on historic or archaeological features
- allow more than 5 square metres of localised patches of bare ground around rabbit warrens by year 2
- carry out drainage works, including modifying existing drainage, without having Natural England's written permission before work starts

Restrictions that apply on certain dates

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
		15 March to 30 June - do not apply fertiliser or manure									
		15 March to 30 June - do not cut for hay or silage									
		15 March to 30 June - do not operate machinery or allow activities that disturb breeding birds; do not cut bracken									
		15 March to 31 July - do not cut rush									

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- receipted invoices, consents or permissions connected with the work
- field operations at the parcel level, including associated invoices
- a standard soil analysis to be completed in the final agreement year and results submitted with the final claim

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic evidence:

- photographs of the management undertaken

Applicants will have to send the following with their application:

- the grassland eligibility assessment form

By the submission of the first claim, applicants will need to submit a laboratory soil analysis including at least pH and phosphate (P)

RELATED MID TIER OPTIONS

These options and supplements can be located on the same area as this option:

- GS16 - Rush infestation control supplement
- GS15 Haymaking supplement or GS17 Lenient grazing supplement
- OR1 - Organic conversion - improved permanent grassland
- OR2 - Organic conversion - unimproved permanent grassland
- OT1 - Organic land management - improved permanent grassland
- OT2 - Organic land management - unimproved permanent grassland
- SP6 Cattle grazing supplement

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Choose the right location

Grassland which contains rare plant species is clearly valuable. It can still be valuable, and suited to this option, if it has a range of commoner herbs or dwarf shrubs such as red clover, yarrow, self heal, heather and bilberry.

Low input grassland is most valuable when located alongside other important landscape features such as scrub and wetlands in a mosaic approach.

Grassland is also the best protection for historic and archaeological features, as long as plants with powerful roots like scrub or bracken do not take hold, and bare ground does not develop.

Managing the sward

The land will be more valuable for insects, birds and other animals if it has a varied, patchy structure all year round. It is much easier to achieve this structure by grazing with cattle than by grazing with sheep only, which risks non-compliance with the Requirements.

Wet areas can be important sources of insect food and should be maintained where possible. Check for breeding birds before operating machinery, even outside the closed period.

Further information

See this illustrated guide:

Farming the historic landscape: caring for archaeological sites in grassland -

<https://www.historicengland.org.uk/advice/planning/local-heritage/helm-redirect>

Management of species-rich grassland (GS6) Mid Tier

£182 per ha

Where to use this option

In Mid Tier this option can only be used with approval from Natural England

Whole and part parcel

Only on grassland priority habitat.

For Mid Tier the land must be mapped on the Priority Habitat Inventory as one of the following: lowland calcareous grassland, lowland dry acid grassland, lowland meadows, upland hay meadow, purple moor grass and rush pasture (see MAGIC www.magic.gov.uk).

Features that can be included in this option

The following features can be included if they are part of the land, even if they are permanently ineligible for the Basic Payment Scheme:

- ditches, dykes, drains, rivers or streams that are less than 4m wide for the majority of their length in the parcel
- temporary water
- permanent water less than or equal to 0.1ha, at the discretion of Natural England
- natural unsurfaced roads, tracks, paths and bridleways (as long as the requirements of the option can still be carried out)
- bracken
- scree, rock outcrops and boulders up to 0.1ha
- grazed woodland and scrub that has grass underneath it and that livestock can access, at the discretion of Natural England
- small areas of other habitat types, such as reedbeds, at the discretion of Natural England

How this option will benefit the environment

It will maintain and enhance priority grasslands. It will increase the number and frequency of important plant species, with most wildflowers in bloom over the summer. Many other priority species, such as bumblebees, butterflies, birds or bats, will benefit, and buried archaeological features will not be disturbed.

REQUIREMENTS

- maintain or increase the presence and abundance of high value plant species
- maintain a range of plant heights suitable for invertebrates, birds or other priority species
- manage the grassland by grazing, hay cutting, or a mixture of both
- maintain a continuous cover, particularly over historic features
- use very little or no manure, fertiliser or pesticide
- maintain scrub, rushes and other potentially dominating plants at the levels set out in your agreement
- control undesirable plants

In Mid Tier, Additional clauses may be included to refine the standard requirements. These will be discussed and agreed as part of the approval process

Do not:

- plough, cultivate or re-seed
- harrow, roll or allow scrub or bracken to encroach on historic or archaeological features
- carry out activities that may disturb breeding birds or damage nests
- supplementary feed except for the provision of mineral blocks (non-energy based)

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- receipted invoices, consents or permissions connected with the work
- field operations at the parcel level, including associated invoices
- a standard soil analysis, to be completed in the final agreement year and results submitted with final claim
- any sites grazed will require a grazing activity record
- bag returns, if an agreed wildfowl strategy is in place

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

By the submission of the first claim, applicants will need to submit a laboratory soil analysis including at least pH and phosphate (P)

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the management undertaken

Applicants will have to send the following with their application:

- a map of the existing drainage system
- grassland eligibility documentation
- map of species rich grassland
- photograph showing any areas where sward enhancement will be carried out

If there is scrub on the site, send photographs showing the extent of it. Also send photographs showing the extent of scrub or bracken on historic or archaeological features.

RELATED OPTIONS

The following options and supplements can be located on the same area as this option:

- BE3 - Management of hedgerows
- GS15 - Haymaking supplement
- GS16 - Rush infestation control supplement
- OR2 - Organic conversion - unimproved permanent grassland
- OT2 - Organic land management - unimproved permanent grassland
- SP1 - Difficult sites supplement (Higher Tier only)
- SP2 - Raised water level supplement (Higher Tier only)
- SP3 - Bracken control supplement (Higher Tier only)
- SP4 - Control of invasive plant species supplement (Higher Tier only)
- SP5 - Shepherding supplement (Higher Tier only)
- SP6 - Cattle grazing supplement
- SP7 - Introduction of cattle grazing on the Isles of Scilly (Higher Tier only)
- SP8 - Native breeds at risk supplement (Higher Tier only)
- SP9 - Threatened species supplement (Higher Tier only)
- WT3 - Management of ditches of high environmental value (Higher Tier only)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

For successful management, in most cases the following will be needed:

- appropriate livestock (which will often be cattle), over which the agreement holder has full control
- machinery to carry out management requirements such as hay cutting
- consideration of how best to manage associated features such as ditches and scrub

Upland calcareous and other very extensively managed grassland, especially in large parcels, may not be accepted for this option. Such grassland may be eligible for other Higher Tier options, such as GS13 - Management of grassland for target features.

Management of wet grassland for breeding waders (GS9) Mid Tier

£264 per ha

Where to use this option

In Mid Tier this option can only be used with approval from Natural England

Whole or part parcel

Only on permanent grassland that is one of the following:

- coastal or floodplain grazing marsh identified as priority habitat
- other grassland identified as habitat for breeding waders

For Mid Tier the land must be mapped on the Priority Habitat Inventory as coastal flood plain grazing marsh or purple moor grass and rush pasture or lowland meadow (see MAGIC www.magic.gov.uk).

The grassland must already support breeding waders or have high potential for being restored for them.

It must also meet one of the following conditions:

- a recommended fertiliser management system is currently being followed to plan nutrient inputs across the farm
- a recommended fertiliser management system will be adopted within 18 months of the start of the agreement
- the applicant qualifies as a low intensity farmer

Features that can be included in this option

The following features can be included if they are part of the land, even if they are ineligible for the Basic Payment Scheme (BPS):

- ditches, dykes, drains, rivers or streams that are less than 4m wide for the majority of their length in the parcel
- permanent water less than or equal to 0.1ha (larger areas may be eligible at the discretion of Natural England)
- temporary water
- natural unsurfaced roads, tracks, paths and bridleways (as long as the applicant is still able to carry out the requirements of the option)
- small areas of other types of habitat, such as reedbeds and scrub, at the discretion of Natural England

How this option will benefit the environment

It will provide habitat in wet grassland for breeding wading birds. Fields will have wet areas and suitable sward conditions throughout the winter and spring and into the early summer. Waders will be able to nest and, in most years, successfully fledge their young.

REQUIREMENTS

- provide the correct sward conditions for the target species by grazing, mainly with cattle, in accordance with the stocking calendar provided by Natural England
- manage livestock during the breeding season to reduce the risk of them trampling nests
- maintain wet features (such as footdrains, gutters and scrapes) for waders to feed (these areas will need to be kept wet into the early summer, usually by holding high ditch water levels)
- control and manage trees, scrub, hedges, rushes and undesirable species
- use little or no manure, fertiliser, pesticide or supplementary feed

In Mid Tier, Additional clauses may be included to refine the standard requirements. These will be discussed and agreed as part of the approval process

Do not:

- plough, cultivate or reseed the grassland, unless agreed in writing with Natural England
- harrow or roll on historic features
- carry out activities that may disturb birds or damage nests

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- receipted invoices, consents or permissions connected with the work
- field operations at the parcel level, including associated invoices
- inputs used
- any sites grazed will require a grazing activity record

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the management undertaken

Applicants will have to send the following with their application:

- photographs showing the extent of scrub or bracken on any historic or archaeological features on the site (if present)
- photographs showing any areas where sward enhancement will be carried out
- a map of the existing drainage system
- evidence that a recommended fertiliser management system is being followed or that the applicant qualifies as a low intensity farmer
- stocking calendar

RELATED OPTIONS

The following options and supplements can be located on the same area as this option:

- GS16 - Rush infestation control supplement
- OR1 – Organic conversion – improved permanent grassland
- OR2 – Organic conversion – unimproved permanent grassland
- OT1 – Organic land management – improved permanent grassland
- OT2 – Organic land management – unimproved permanent grassland
- SP4 - Control of invasive plant species supplement (Higher Tier only)
- SP8 - Native breeds at risk supplement (Higher Tier only)
- SP9 - Threatened species supplement (Higher Tier only)
- WT3 - Management of ditches of high environmental value

The following supplements may also be used with this option, but only in exceptional circumstances at the discretion of Natural England:

- SP1 - Difficult sites supplement (Higher Tier only)
- SP2 - Raised water level supplement (Higher Tier only)
- SP5 - Shepherding supplement (Higher Tier only)
- SP6 - Cattle grazing supplement

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

For best results:

- use this option as part of a suite of wet grassland and target features options, over a wide area, potentially linking with other landowners
- use this option within, next to or linking Special Protection Areas (SPAs) or Sites of Special Scientific Interest (SSSIs) containing wading birds
- use this option within, next to or linking non-designated areas with good wader populations
- make sure this option does not conflict with Environment Agency, internal drainage Board or local authority policies on flood storage, ditch and river management, water resources and fish migration
- apply for land drainage consent if necessary
- discuss the location of capital works with the Environment Agency, internal drainage boards and local authorities
- discuss the location of capital works with the Historic Environment Service if historic and archaeological features are present

Sites which may be unsuitable for this option include:

- sites with botanical interest, where hydrological changes could damage plant communities
- washlands and other areas that flood during the wader breeding season

Management of wet grassland for wintering waders and wildfowl (GS10) Mid Tier

£157 per ha

Where to use this option

In Mid Tier this option can only be used with approval from Natural England

Whole or part parcel

Only on permanent grassland that is one of the following:

- coastal or floodplain grazing marsh identified as priority habitat
- other grassland identified as habitat for wintering waders and wildfowl

The grassland must already support wintering wildfowl and waders or have high potential for being enhanced to support them.

For Mid Tier the land must be mapped on the Priority Habitat Inventory as coastal floodplain grazing marsh, see MAGIC (www.magic.gov.uk)

It must also meet one of the following conditions:

- a recommended fertiliser management system is currently being used to plan nutrient inputs across the farm
- a recommended fertiliser management system will be adopted within 18 months of the start of the agreement
- the applicant qualifies as a low intensity farmer

Features that can be included in this option

The following features can be included if they are part of the land, even if they are ineligible for the Basic Payment Scheme (BPS):

- ditches, dykes, drains, rivers or streams that are less than 4m wide for the majority of their length in the parcel
- permanent water less than or equal to 0.1ha (larger areas may be eligible at the discretion of Natural England)
- temporary water
- natural unsurfaced roads, tracks, paths and bridleways (as long as the applicant is still able to carry out the requirements of the option)
- small areas of other types of habitat, such as reedbeds and scrub, at the discretion of the delivery body

How this option will benefit the environment

It will provide habitat in wet grassland for wintering wildfowl and wading birds. Fields will have wet areas throughout the winter, attracting wading birds and wildfowl, which will be able to feed and roost undisturbed.

REQUIREMENTS

- manage the land by grazing, and possibly cutting
- provide areas of standing water and wet features (such as footdrains, gutters and scrapes) to attract waders and wildfowl through the winter months (ditch water levels may need to be held high to achieve this)
- control and manage trees, scrub, hedges, rushes and undesirable species
- use little or no manure, fertiliser, pesticide or supplementary feed

In Mid Tier, additional clauses may be included to refine the standard requirements. These will be discussed and agreed as part of the approval process

Do not:

- plough, cultivate or reseed the grassland, unless agreed in writing with Natural England
- harrow or roll on historic features
- carry out activities that may disturb birds or damage nests

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- receipted invoices, consents or permissions connected with the work
- field operations at the parcel level, including associated invoices
- inputs used
- any sites grazed will require a grazing activity record

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the management undertaken

Applicants will have to send the following with their application:

- photographs showing the extent of scrub or bracken on any historic or archaeological features on the site (if present)
- photographs showing any areas where sward enhancement will be carried out
- a map of the existing drainage system
- evidence that a recommended fertiliser management system is being followed or that the applicant qualifies as a low intensity farmer

RELATED OPTIONS

The following options and supplements can be located on the same area as this option:

- GS16 - Rush infestation control supplement
- OR1 – Organic conversion – improved permanent grassland
- OR2 – Organic conversion – unimproved permanent grassland
- OT1 – Organic land management – improved permanent grassland
- OT2 – Organic land management – unimproved permanent grassland
- SP4 - Control of invasive plant species supplement (Higher Tier only)
- SP8 - Native breeds at risk supplement (Higher Tier only)
- SP9 - Threatened species supplement (Higher Tier only)
- WT3 - Management of ditches of high environmental value

The following supplements may also be used with this option, but only in exceptional circumstances at the discretion of Natural England:

- SP1 - Difficult sites supplement (Higher Tier only)
- SP2 - Raised water level supplement (Higher Tier only)
- SP5 - Shepherding supplement (Higher Tier only)
- SP6 - Cattle grazing supplement
- SP7 – Introduction of cattle grazing on the Isles of Scilly (Higher Tier only)

ADVICE AND SUGGESTIONS ON HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

For best results:

- use this option as part of a suite of wet grassland and target features options, over a wide area, potentially linking with other landowners
- use this option within, next to or linking Special Protection Areas (SPAs) or Sites of Special Scientific Interest (SSSIs) that have wintering waders and wildfowl as interest features
- use this option within, next to or linking non-designated areas with good wader and wildfowl populations
- make sure this option does not conflict with Environment Agency, internal drainage board or local authority policies on flood storage, ditch and river management, water resources and fish migration
- apply for land drainage consent if necessary
- discuss the location of capital works with the Environment Agency, internal drainage boards and local authorities
- discuss the location of capital works with the Historic Environment Service if historic and archaeological features are present

Sites which may be unsuitable for this option include:

- sites with an unreliable water supply
- improved, intensively managed grassland for geese, which is cut for silage and receives more than 50kg per ha of inorganic nitrogen fertiliser
- sites with botanical interest, where hydrological changes could damage plant communities

Haymaking supplement (GS15)

£85 per ha

Where to use this supplement

Whole or part-parcel

Only in combination with one of the following land management options:

- BE4 - Management of traditional orchards)
 - BE5 - Creation of traditional orchards (Higher Tier only)
 - GS5 - Permanent grassland with very low inputs in SDAs
 - GS6 - Management of species-rich grassland
 - GS7 - Restoration towards species-rich grassland (Higher Tier only)
 - GS8 - Creation of species-rich grassland (Higher Tier only)
 - GS13 - Management of grassland for target features (Higher Tier only)
 - GS14 - Creation of grassland for target features (Higher Tier only)
 - WD4 - Management of wood pasture and parkland
 - WD5 - Restoration of wood pasture and parkland (Higher Tier only)
 - WD6 - Creation of wood pasture (Higher Tier only)
-

How this supplement will benefit the environment

To ensure the continuation, or reintroduction, of haymaking on fields which are, or were, cut for hay each year. It allows a crop of herb-rich hay to be grown and harvested, which will lead to wildflowers and grasses blossoming and setting seed. This will help to conserve many of the plants in the meadow and provide pollen and nectar for bees and other insects.

REQUIREMENTS

- cut and remove field-dried hay every year
- graze the aftermath sward, preferably with cattle

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- any sites grazed will require a grazing activity record

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the management undertaken

RELATED MID TIER SUPPLEMENTS

This supplement can be located on the same area as the following supplements:

- GS16 – Rush infestation control supplement
- SP6 - Cattle grazing supplement

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS SUPPLEMENT

*The following section gives advice on carrying out this supplement successfully, but does **not** form part of the requirements for this supplement.*

Cost of haymaking

This supplement is normally available:

- to ensure the continuation, or reintroduction, of haymaking on fields which are, or were, cut for hay each year. or
- If the cost of haymaking is particularly high, for example:
 - if buying machinery or livestock would lead to additional costs for making or storing hay
 - if there are long distances between the meadows and the hay barn

Rush infestation control supplement (GS16)

£73 per ha

Where to use this supplement

Only on:

- permanent grassland
 - on a single parcel of land with continuous rush cover of more than 50% of the parcel
 - only on a single parcel for a maximum of 3 years
-

Options to use with this supplement

This supplement must be used with 1 of the following options:

- GS2 - Permanent grassland with very low inputs (outside SDAs)
- GS5 - Permanent grassland with very low inputs in SDAs
- GS6 - Management of species rich grassland
- GS7 - Restoration towards species rich grassland (Higher Tier only)
- GS9 - Management of wet grassland for breeding waders
- GS10 - Management of wet grassland for wintering waders and wildfowl
- GS13 - Management of grassland of target features (Higher Tier only)
- UP2 - Management of rough grazing for birds

How this supplement will benefit the environment

This is a short-term incentive to reduce rush cover in parcels with heavy infestations. It will help prevent the loss of botanically rich grasslands or provide nesting areas for breeding wading birds.

REQUIREMENTS

- graze or cut areas of dense rush growth every year so that rushes are less than 20cm high by 30 September
- keep bare ground cover at less than 10% by year 2
- reduce cover of dense rush growth to less than 30% of the parcel area by the end of year 3 of the agreement

Do not:

- cut rushes between 15 March and 15 July

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- any sites grazed will require a grazing activity record

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic evidence:

- photographs of management undertaken

Applicants need to send a map showing the extent of rush cover with their application.

RELATED SUPPLEMENTS

This supplement can be located on the same area as the following supplement:

- GS15 – Haymaking supplement
- SP6 - Cattle grazing supplement

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS SUPPLEMENT

*The following section gives advice on carrying out this option successfully, but does **not** form part of the requirements for this supplement.*

Maintaining rushes

The aim is to reduce heavy infestations of rushes to a cover below 30%. Cover should then be maintained at between 10% and 30%.

Also:

- ensure damage to nests or disturbance of chicks is avoided when cutting
- avoid controlling rush where there is standing or flowing water on or close to the surface for most of the year
- avoid cutting areas where rush is growing in association with sphagnum mosses
- graze with cattle, as sheep normally avoid grazing rush
- wherever possible, remove cuttings to prevent low growing plants being smothered

Cutting machinery

The following machines are most appropriate for rush cutting:

- a grass mower trailed by a tractor
- a pasture topper
- a forage harvester

Lenient grazing supplement (GS17)

£44 per ha

Where to use this supplement

Whole or part parcel

Only on:

- permanent grassland
- in combination with GS2 as part of the Wild Pollinator and Farm Wildlife package (Mid Tier Manual section 8.3)
- in combination with GS5 permanent grassland with very low inputs in SDAs
- on parcels where at least one boundary is a hedgerow and/or there is scrub cover within 200m of the parcel

This supplement can be rotated between eligible parcels, but the same total area must be maintained each year and once applied to a parcel it must remain on it for at least 3 successive years.

How this supplement will benefit the environment

It provides critical spring and summer invertebrate food needed by species such as yellowhammers.

There should be:

- plenty of spiders and insects, including larger ones such as grasshoppers and beetles
- birds, such as yellowhammers, reed buntings and skylarks flying into the field to feed

REQUIREMENTS

- graze during the growing season to maintain a sward:
 - that has an average height of 7cm to 13cm
 - where at least 20% is shorter than 10cm
 - where at least 20% is over 10cm tall
- on the parcel or part parcel where this option is used one boundary must be a hedgerow and / or there must be scrub within 200m of the option

Do not:

- cut for hay or silage

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- stock records to show grazing activity on parcels

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic evidence:

- photographs of the management undertaken

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS SUPPLEMENT

*The following section gives advice on how to carry out this supplement successfully, but does **not** form part of the requirements for the supplement.*

Sward height importance

The option is usually used as part of a package to benefit declining farmland birds. It provides the critical spring and summer invertebrate food needed by species such as yellowhammers.

Most invertebrates are much more abundant in taller grass but birds find it difficult to access them if the whole sward is tall. Birds need shorter patches where they can land and check for danger. They can then dart into the taller patches to catch their prey, or wait for them to move to the edge of the tall grass or out into the shorter patches.

Option amount and location

Normally at least 1ha of this option per 100ha of the farm area is needed to provide sufficient invertebrates.

Place the supplement on part parcels next to hedges or scrub for yellowhammers and other buntings. For skylarks it should be placed away from trees, hedges or other tall structures.

Since the target birds do not generally feed more than 300m from their nests, parcels of this option should not be more than 500m apart.

This option will be more effective on grassland including herbs and wildflowers, but it can also be used on grassland with few, if any, herbs or wildflowers.

Checking sward height

If a sward stick is not available, uncompressed sward height can be measured using a ruler, or lines on boots. Ignore stems and seedheads – measure to the top green leaf.

How to achieve the right sward

It is much easier to achieve the correct diverse sward structure by grazing with cattle than by grazing with sheep only, which risks non-compliance with the Requirements.

Grazing can be rotational or intermittent, but the stock should eat the sward down well during the grazing periods to avoid it becoming rank during the rest periods.

Introduction to Historic Environment Options

Identifying historic features for management

All historic environment features are important and will benefit from options or capital items to encourage their best possible long-term management.

The Environmental Information Map supplied with CS application packs will show some of the historic features that can be managed under Mid Tier. Applicants should use this to complete their Farm Environment Record (FER) map along with any other historic features known on the holding such as archaeological sites, ridge and furrow and traditional farm buildings.

In addition the Historic Environment FER (HEFER), provided by the Local Authority Historic Environment Record (and Historic England for Scheduled Monuments, Registered Parks and Gardens and Registered Battlefields) for all Mid Tier applicants, provides the opportunity to enhance this record. It may contain more historic or archaeological features that must be taken into account of in the final choice of options and capital items.

Choosing options and capital items for the historic environment and landscape

Applicants are particularly encouraged to manage archaeological sites at high risk of damage from arable cultivation, or where scrub is taking over. By adopting the options appropriate to the local landscape character and the historic features CS agreements will be helping to protect our heritage for the benefit and enjoyment of future generations.

The following Historic England guides may help applicants to understand the needs of your historic and archaeological features, and choose options or capital items appropriately:

- Farming the historic landscape: caring for archaeological sites on arable land
<https://historicengland.org.uk/images-books/publications/farming-the-historic-landscape-arable/>
- Farming the historic landscape: caring for archaeological sites in grassland
<https://historicengland.org.uk/images-books/publications/farming-the-historic-landscape-grassland/>
- Caring for farm buildings
<https://historicengland.org.uk/advice/caring-for-heritage/rural-heritage/farm-buildings/>
- Moats, ponds and ornamental lakes in the historic environment
<https://historicengland.org.uk/images-books/publications/moats-ponds-ornamental-lakes-historic-environ/>
- Historic parks and gardens and changes to reservoir safety
<https://historicengland.org.uk/images-books/publications/lan-hpg-changes-reservoir-safety-legislation/>

Maintenance of weatherproof traditional farm buildings (HS1)

£3.25 per square metre

Where to use this option

Only for traditional farm buildings or parts of buildings that:

- were built using traditional methods and using timber, brick, stone, tile or slate
- were built before 1940 for agricultural use, e.g. housing machinery or animals, or storing or processing crops and food
- are still in agricultural use on a farm holding, whether or not this was the original use
- are sound and weatherproof
- are recorded on the Farm Environment Record (FER)

Where this option cannot be used

This option cannot be used if the building:

- is a metal-framed dutch barn
- was constructed as a dwelling
- is a farmhouse, residential or domestic building

Applicants must own or control the building or the part of the building entered into the option for the life of the agreement.

How this option will benefit the environment

It will help to maintain traditional farm buildings, using traditional methods and materials. This will also enhance the local landscape and preserve places for wildlife.

If successful there will be:

- traditional farm buildings, fixtures and fittings in a sound condition and weatherproof
- buildings maintained using traditional materials and methods
- preserved and accessible features as identified in the Wildlife Assessment which was submitted with the application (see Countryside Stewardship: Building Wildlife Assessment form - <https://www.gov.uk/government/publications/countryside-stewardship-building-wildlife-assessment>)
- new bat or owl boxes, where a need has been identified
- a Building Maintenance Plan and log of work being updated annually (see Countryside Stewardship: Building Maintenance Plan and Log form - <https://www.gov.uk/government/publications/countryside-stewardship-building-maintenance-plan-and-log>)

REQUIREMENTS

Year 1

- complete a Building Maintenance Plan
- install bat or barn owl boxes with open access points, if recommended in the Wildlife Assessment

Every year

- carry out visual inspections at least once a year and keep records of the results in the Building Maintenance Plan and Wildlife Assessment
- carry out maintenance work and repairs on a 'like for like' basis
- record the maintenance work carried out in the Building Maintenance Plan log
- keep the building weatherproof, including fixtures, fittings and features such as mounting blocks, stack or stook bases
- use traditional material and methods for any maintenance work, keeping the character of the building within its local setting
- maintain areas where a non-traditional material has previously been used to repair or re-clad the building, such as corrugated iron sheeting to cover roofs
- maintain existing features identified as possible roosting areas for bats, such as non-structural crevices and cavities, taking care not to disturb any bats
- get advice from a licensed ecological consultant if bat activity has been identified - this will apply at any time in the agreement
- follow any advice from the ecological consultant about when work can be undertaken on the building's fabric and get any bat licences that are needed

Do not:

- sell or convert the building for non-agricultural use during the life of the agreement

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- a copy of the Building Maintenance Plan to be submitted by the second claim. This is also to be updated with inspection results and completed works throughout the life of the agreement
- any receipted invoices (or bank statements where a receipted invoice is unavailable), consents or permissions connected with this work
- a copy of the Wildlife Assessment updated with the results of annual inspections

Applicants will need to send the following with their application:

- photographs showing the condition of the building before the start of the agreement
- a Wildlife Assessment of the building's suitability for barn owls, kestrels and bats (see Countryside Stewardship: Building Wildlife Assessment - <https://www.gov.uk/government/publications/countryside-stewardship-building-wildlife-assessment>)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

How to calculate the option area

The eligible area for this option is the footprint of the ground floor of the building. Do not include any other space from extra floors, or any parts of the yard, in the calculation.

Maintenance work

Carry out routine maintenance work to protect the fabric of the building and to keep it weatherproof. This does not include work to fix significant defects or decay, or work to bring a building in poor repair back to a good condition.

Regular inspections

Inspect the site regularly to identify areas that might need attention such as:

- blocked downpipes and gutters
- broken or slipped slates, tiles or glass
- pointing on walls
- the condition of paintwork
- barriers to wildlife access
- vegetation that needs clearing
- any other items that need minor repairs

Specific tasks and minor repairs

Carry out specific tasks regularly so the building stays in good condition and is weatherproof.

Tasks could include:

- clearing gutters from debris and leaves
- fixing slipped slate or broken roofing slates and tiles to prevent rainwater penetration
- renewing cast iron gutters and drainpipes
- replacing broken glass
- repainting woodwork and metalwork
- repointing walls
- clearing vegetation

How often the work needs doing

Some work will be required every year. Seasonal tasks, such as clearing gutters and removing vegetation, may need to be done several times a year.

Start on any agreed work as soon as the agreement begins, such as:

- installing wildlife boxes
- undertaking work to enable access for wildlife
- completing the Building Maintenance Plan

Further information

For information on the law and bats see bats: protection, surveys and licences:

<https://www.gov.uk/bats-protection-surveys-and-licences>

Also, read Bats in Traditional Buildings guidance leaflet <https://historicengland.org.uk/images-books/publications/bats-in-traditional-buildings/>

Take historic and archaeological features out of cultivation (HS2)

£425 per ha

Where to use this option

Whole or part parcel

- in Mid Tier this option can only be used on Scheduled Monuments on arable land or temporary grassland
- in Mid Tier this option can only be used with the written approval of Historic England as confirmed on your Historic Environment FER (HEFER) consultation response
- in Higher Tier this option can be used on Scheduled Monuments where approved by Historic England AND on historic or archaeological features identified in your HEFER.

Where this option cannot be used:

- from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)

How this option will benefit the environment

It protects historic and archaeological features from damaging cultivation practices.

Depending on land use and location it may also:

- reduce diffuse pollution
- reduce soil erosion

Protecting historic and archaeological features will conserve the character of the farm and protect England's heritage for future generations. This option may also maintain and conserve landscape character.

REQUIREMENTS

- use shallow cultivation on arable land to establish a grass or flower mixture
- re-seed temporary grassland by slot seeding, making sure not to damage the existing sward
- maintain a continuous grass sward over the feature
- make sure vehicle or stock access routes are at least 6m away from the feature (existing surfaced tracks can be used)
- agree with Natural England in writing all drainage works, including modification to existing drainage, before any works take place

Do not:

- plough on earthwork sites when establishing grass or flower mixtures
- harrow or roll
- supplementary feed within 6m of the option area
- allow scrub or bracken growth on the option area

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

Applicants will need to submit the following with the application:

- a land drainage map
- a map of existing tracks
- written approval for the option from Historic England

RELATED MID TIER OPTIONS

These options and supplements can be located on the same area as this option:

- OR1 - Organic conversion - improved permanent grassland
- OT1 - Organic land management - improved permanent grassland

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right location

Choose a boundary that includes all of the features and provides a practical field division.

Further information

The following guides from Historic England may also be useful:

- Farming the historic landscape: caring for archaeological sites on arable land
<https://historicengland.org.uk/images-books/publications/farming-the-historic-landscape-arable/>
- Farming the historic landscape: caring for archaeological sites in grassland
<https://historicengland.org.uk/images-books/publications/farming-the-historic-landscape-grassland/>

Reduced-depth, non-inversion cultivation on historic and archaeological features (HS3)

£79 per ha

Where to use this option

- in Mid Tier this option can only be used on Scheduled Monuments on arable land or temporary grassland
- in Mid Tier this option can only be used with the written approval of Historic England as confirmed on your Historic Environment FER (HEFER) consultation response
- in Higher Tier this option can be used on Scheduled Monuments where approved by Historic England AND on historic or archaeological features identified in your HEFER.

Where this option cannot be used

- where historic or archaeological earthworks are known to survive
- where soil movement or loss has been identified as a problem

How this option will benefit the environment

It reduces damage to historic and archaeological features under cultivation by using non-inversion (minimum tillage) machinery and shallower cultivation depths.

Protecting historic and archaeological features will conserve the historic character of the farm and protect England's heritage for future generations. This option may also maintain and conserve landscape character.

If successful there will be a soil surface with no evidence of:

- erosion
- subsoil (which indicates a deeper cultivation depth)
- freshly disturbed archaeological remains, such as pottery, burnt flint, flint tools, animal and human bone and building stone and tile

REQUIREMENTS

- use non-inversion (minimum tillage) machinery to reduce cultivation depths
- make sure that vehicle or stock access routes are at least 6m away from the feature (existing surfaced tracks can be used)
- agree with Natural England in writing all drainage works, including modification to existing drainage, before any works take place
- ensure that the following field operations do not go deeper than 15cm:
 - tillage
 - soil management
 - planting
 - harvesting

Do not:

- grow the following crops on the option area:
 - maize
 - lucerne
 - root and tuber crops, (excluding non-harvestable root crops such as grazed fodder beet and forage turnips)
 - short rotation coppice
 - miscanthus

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- consents or permissions connected with this work

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic evidence:

- photographs of the management undertaken

All applicants must submit the following with the application.

- land drainage maps
- a map of existing tracks
- written approval for the use of the option from Historic England

RELATED MID TIER OPTIONS

These options and supplements can be located on the same area as this option:

- AB₄ – Skylark plots
- AB₇ - Whole crop cereals
- AB₁₀ - Unharvested cereal headland
- AB₁₁ – Cultivated areas for arable plants
- AB₁₄ - Harvested low input cereal
- OP₅ - Undersown cereal
- OR₃ - Organic conversion - rotational land
- OR₄ - Organic conversion - horticulture
- OT₃ - Organic land management - rotational land
- OT₄ - Organic land management – horticulture
- SW₆ - Winter cover crops

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Where earthworks survive, applicants should use HS₉ Restricted depth crop establishment to protect archaeology under an arable rotation.

Reduce cultivation depth and compaction

Cultivation depth can be reduced by:

- raising the height of the chisel
- using depth control chains or gauges
- using a GPS depth controller
- increasing the number of discs (14 discs for a 3m width instead of the usual 9)
- using depth wheels with parallelogram mounting

Compaction can be reduced by:

- not working in wet soil conditions
- reducing tyre pressure on vehicles travelling on the site to spread the load more evenly

Further information

The following Historic England guide may be of use:

- Farming the historic landscape: caring for archaeological sites on arable land - <https://historicengland.org.uk/images-books/publications/farming-the-historic-landscape-arable/>

Scrub control on historic and archaeological features (HS4)

£137 per ha

Where to use this option

Whole or part parcel

Only on historic and archaeological features with more than 5% scrub cover.

How this option will benefit the environment

It reduces the risk of root damage to historic and archaeological features by permanently removing the majority of scrub.

Protecting historical and archaeological features will conserve the character of the farm and protect England's heritage for future generations. This option may also maintain and conserve landscape character.

If successful there will be:

- visible historic or archaeological features with less scrub
- very little bare soil with no burrowing animals
- a well-managed grass sward

Depending on the site's location, this option may also help to:

- reduce diffuse pollution
- reduce soil erosion

REQUIREMENTS

- remove 25% of scrub on the feature every year for the first 3 years (total 75%), clearing only between 1 October and 28 February
- remove cuttings and brash
- prevent and control scrub re-growth
- maintain a continuous grass sward or vegetation cover over the features so that no more than 5% have bare patches and erosion
- make sure vehicle or stock access routes are at least 6m away from the feature (existing surfaced tracks can be used)
- ensure all necessary consents are in place to remove any mature trees

Do not:

- grub out stumps and roots
- plough, cultivate or re-seed
- harrow or roll
- supplementary feed on or within 6m of the historic or archaeological feature

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- consents or permissions connected with this work
- field operations at the parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the management undertaken

All applicants will need to send the following with their application:

- photographs of the historic and archaeological features and the extent of scrub
- a map of existing tracks

RELATED MID TIER OPTIONS

These options and supplements can be located on the same area as this option:

- OR1 - Organic conversion - improved permanent grassland
- OR2 - Organic conversion - unimproved permanent grassland
- OT1 - Organic land management - improved permanent grassland
- OT2 - Organic land management - unimproved permanent grassland
- UP1 - Enclosed rough grazing

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Ways to remove scrub

Scrub can be removed by:

- mowing
- flailing
- using a chainsaw or strimmer
- clearing by hand

Scrub should be cut down to ground level without disturbing the roots. Make sure all cut material is removed from the site.

Control scrub regrowth

Scrub regrowth can be controlled using:

- livestock grazing
- machinery
- chemicals to treat roots

Management of historic and archaeological features on grassland (HS5)

£30 per ha

Where to use this option

- only on historic and archaeological features on parcels of permanent grassland

Where this option cannot be used

- on land parcels of more than 15ha above the moorland line

The permanent grassland may form a mosaic with other vegetation types, such as heathland and moorland

How this option will benefit the environment

It maintains permanent grassland on historic and archaeological features.

Maintaining these features will conserve the character of the farm and protect England's heritage for future generations. This option may also maintain and conserve landscape character.

If successful there will be:

- a well-managed grass sward covering the feature
- very little bare soil
- no scrub or bracken
- no poaching or erosion
- no burrowing animals
- no farm tracks within 6m of the feature

REQUIREMENTS

- maintain a continuous grass sward or vegetation cover so that no more than 5% of the features develop bare patches or erosion
- make sure scrub, bracken or pernicious weeds cover no more than 5% of the features
- make sure vehicle or stock access routes are at least 6m away from the feature (existing surfaced tracks can be used)

Do not:

- plough, cultivate or re-seed
- harrow or roll
- apply supplementary feed on or within 6m of the feature

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the management undertaken

All applicants will need to send the following with their application:

- a map of existing tracks

RELATED MID TIER OPTIONS

These options and supplements can be located on the same area as this option:

- OR1 - Organic conversion - improved permanent grassland
- OR2 - Organic conversion - unimproved permanent grassland
- OT1 - Organic land management - improved permanent grassland
- OT2 - Organic land management - unimproved permanent grassland

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Plan drainage works

Installing or maintaining drainage systems can damage historic and archaeological features. To avoid damage install access points outside the feature so that drains can be maintained without having to excavate.

Further information

The following Historic England guide may be of use:

Farming the historic landscape: caring for archaeological sites in grassland:

<https://historicengland.org.uk/images-books/publications/farming-the-historic-landscape-grassland/>

Maintenance of designed/engineered water bodies (HS6)

£440 per ha

Where to use this option

Only on:

- water bodies with an artificially retained area of open standing water
- the banks of the water body and buffer strips around associated features (such as leats and culverts)

Where this option cannot be used

- to include areas of water - only land can be included in a claim
- for field ponds dug to below the water table
- for water meadows (both bedwork and catch meadow systems)
- for water bodies that are covered by the Reservoirs Act 1975- <http://www.legislation.gov.uk/ukpga/1975/23>
- for raised water bodies that are deemed at high-risk by the Environment Agency under the Flood and Water Management Act 2010 - <http://www.legislation.gov.uk/ukpga/2010/29/contents>

How this option will benefit the environment

It protects the banks and associated historic built water-control features of designed or engineered historic water bodies. It maintains or strengthens the role of these features in water quality management.

If successful there will be:

- a well-managed grass buffer with no scrub developing
- a water body that contains clear water and is not over-shaded
- structurally sound water control features
- maintenance carried out using traditional materials and methods

Maintaining archaeological and historic features will conserve the character of the farm and protect England's heritage for future generations. This option can also help to maintain and conserve landscape character.

REQUIREMENTS

- establish or maintain a permanently vegetated buffer strip at least 4m wide on the perimeter or bank of the water body
- establish or maintain a permanently vegetated buffer strip at least 2m wide around associated features outside the 4m buffer strip
- manage the buffer strips to control woody growth and make sure there is no more than 5% bare ground
- make sure that no more than 25% of the water surface is in permanent shade
- control scrub and undesirable plant species so that there is no more than 5% covering the banks of the water body by year 2
- remove all cut material

- keep the depth, shape, profile and design of the built water body and associated engineering without alteration
- keep the character of the feature in its local setting by:
 - carrying out maintenance works and minor repairs on structural historic or archaeological features on a 'like-for-like' basis
 - keeping and maintaining any non-traditional material that was previously used to repair or re-clad the structures

Do not:

- erect new fences

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- a Structures Maintenance Record using the template provided - <https://www.gov.uk/government/publications/countryside-stewardship-hs6-and-hs7-structural-maintenance-plan-and-record-forms>:
 - at least once a year, carry out and record the results of an inspection of the water body and associated features
 - complete the record with a list of items needing attention and a record of repair and maintenance work that has been carried out
 - photographs - before and after shots each year of all maintenance works and minor repairs that have been carried out to be submitted with the final claim
 - any receipted invoices (or banks statements where a receipted invoice is unavailable), consents or permissions connected with the work
 - records of all management activity on the option area for each parcel

For the final claim, agreement holders will need to submit photographs of:

- the water feature, clearly showing its shape and design and all associated engineering features such as sluices, weirs, dams and other water control structures
- the water feature and surrounding buffers, clearly showing the extent of any areas of scrub, bracken or pernicious weeds

Applicants will need to send the following with their application:

- photographs of the water feature, clearly showing its shape and design and all associated engineering features such as sluices, weirs, dams and other water control structures
- photographs of the water feature and surrounding buffers, clearly showing the extent of any areas of scrub, bracken or pernicious weeds
- evidence on how the eligibility criteria listed above are met
- Historic Environment Record or Historic England consultation map

RELATED MID TIER OPTIONS

These options and supplements can be located on the same area as this option:

- OR1 - Organic conversion - improved permanent grassland
- OT1 - Organic land management - improved permanent grassland

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.

Maintenance work

Annual maintenance – the routine work needed to protect structures and features to ensure they survive – should be carried out to identify and prevent the start of serious structural problems. This should help to avoid expensive restoration in the future.

Typical maintenance work can include:

- regularly inspecting buffer strips to make sure no scrub is developing
- making sure the buffer strips are not on compacted soil so that water can infiltrate
- inspecting the water body to make sure it is clear, and inspecting associated structures to make sure they are working properly
- undertaking minor repairs such as clearing vegetation from leats, sluices, hatches and dams, and repointing retaining walls

Summer is usually the best time for inspections and minor repair works, as water levels are lower and more of the water structures are visible.

Further information

- Reservoirs: a guide for owners and operators - <https://www.gov.uk/guidance/reservoirs-owner-and-operator-requirements>
- Moats, Ponds and Ornamental Lakes in the Historic Environment - <https://www.historicengland.org.uk/images-books/publications/moats-ponds-ornamental-lakes-historic-environ/> on English Heritage (Historic England from April 2015)
- Historic Parks and Gardens and changes to reservoir safety - <https://www.historicengland.org.uk/images-books/publications/lan-hpg-changes-reservoir-safety-legislation/> on English Heritage (Historic England from April 2015)
- Flood and Water Management Act 2010 - <http://www.legislation.gov.uk/ukpga/2010/29/contents>

Maintenance of weatherproof traditional farm buildings in remote areas (HS8)

£6.73 per square metre

Where to use this option

Only for traditional farm buildings or parts of buildings that:

- are at least 400m from the main farmstead
- are at least 200m from a metalled public road (a hard surface like asphalt, concrete, paving stones, bricks and cobbles) by the shortest practicable route
- are still in agricultural use on a farm holding, whether or not this was the original use
- are sound and weatherproof
- are recorded on the Farm Environment Record (FER)
- were built using traditional methods and using timber, brick, stone, tile or slate
- was built before 1940 for agricultural use, e.g. housing machinery or animals, or storing or processing crops and food

Where this option cannot be used

This option cannot be used if the building:

- is a metal-framed Dutch barn
- was constructed as a dwelling
- is a farmhouse, residential or domestic building

Applicants must own or control the building or the part of the building entered into the option for the life of the agreement.

How this option will benefit the environment

It will help to maintain traditional farm buildings, using traditional methods and materials. This will also enhance the local landscape and preserve places for wildlife.

If successful there will be:

- traditional farm buildings, fixtures and fittings in a sound condition and weatherproof
- traditional materials and methods used in maintenance work
- preserved and accessible features as identified in the Wildlife Assessment which was submitted with the application (see Countryside Stewardship: Building Wildlife Assessment form - <https://www.gov.uk/government/publications/countryside-stewardship-building-wildlife-assessment>)
- new bat or owl boxes where a need has been identified
- annual updates of any work in the Buildings Maintenance Plan and log (See Countryside Stewardship: Building Maintenance Plan and Log form - <https://www.gov.uk/government/publications/countryside-stewardship-building-maintenance-plan-and-log>)

REQUIREMENTS

Year 1

- complete a Building Maintenance Plan
- install bat or barn owl boxes with open access points, if recommended in the initial Wildlife Assessment

Every year

- carry out visual inspections at least once a year and keep records of the results in the Building Maintenance Plan and Wildlife Assessment
- carry out maintenance work and repairs on a 'like for like' basis
- record the maintenance work that has been carried out in the Buildings Maintenance Plan log
- keep the building weatherproof, including fixtures, fittings and features such as mounting blocks, stook or stack bases
- use traditional material and methods for any maintenance work, keeping the character of the building within its local setting
- maintain areas where a non-traditional material has previously been used to repair or re-clad the building, such as corrugated iron sheeting to cover roofs
- maintain existing features identified as possible roosting areas for bats, such as non-structural crevices and cavities, taking care not to disturb any bats
- get advice from a licensed ecological consultant if bat activity has been identified - this will apply at any time in the agreement
- follow any advice from a licensed ecological consultant about when work can be undertaken on the building's fabric and get any bat licences that are needed

Do not:

- sell or convert the building for non-agricultural use during the life of the agreement

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- copy of the Building Maintenance Plan to be submitted by the second claim. This is also to be updated with inspection results and completed works throughout the life of the agreement
- any receipted invoices (or bank statements where a receipted invoice is unavailable), consents or permissions connected with the work
- a copy of the Wildlife Assessment updated with the results of annual inspection

Applicants will need to send the following with their application:

- photographs of the condition of the building before the start of the agreement
- a Wildlife Assessment of the building's suitability for barn owls, kestrels and bats - <https://www.gov.uk/government/publications/countryside-stewardship-building-wildlife-assessment>
- Map of traditional farm building location
- Map identifying traditional farm building and the distance to main steading and metalled public access

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

How to calculate the option area

The eligible area for this option is the footprint of the ground floor of the building. Do not include any other space from extra floors, or any parts of the yard, in the calculation.

Maintenance work

Carry out routine maintenance work to protect the fabric of the building and to keep it weatherproof. This does not include work to fix significant defects or decay, or work to bring a building in poor repair back to a good condition.

Regular inspections

Inspect the site regularly to identify areas that might need attention such as:

- blocked downpipes and gutters
- broken or slipped slates, tiles or glass
- pointing on walls
- the condition of paintwork
- barriers to wildlife access
- vegetation that needs clearing
- any other items that need minor repairs

Specific tasks and minor repairs

Carry out specific tasks regularly so the building stays in good condition and is weatherproof.

Tasks could include:

- clearing gutters from debris and leaves
- fixing slipped slate or broken roofing slates and tiles to prevent rainwater penetration
- renewing cast iron gutters and drainpipes
- replacing broken glass
- repainting woodwork and metalwork
- repointing walls
- clearing vegetation

How often the work needs doing

Some work will be required every year. Seasonal tasks, such as clearing gutters and removing vegetation, may need to be done several times a year.

Start on any agreed work as soon as the agreement begins, such as:

- installing wildlife boxes
- undertaking work to enable access for wildlife
- completing the Buildings Maintenance Plan

Further information

For information on the law and bats see *bats: protection, surveys and licences* - <https://www.gov.uk/guidance/bats-protection-surveys-and-licences>.

Also, read Historic England's guidance leaflet about *caring for farm buildings* - <https://historicengland.org.uk/images-books/publications/farming-the-historic-landscape-farm-buildings/>.

Restricted depth crop establishment to protect archaeology under an arable rotation (HS9)

£174 per ha

Where to use this option

- in Mid Tier this option can only be used on Scheduled Monuments on arable land or temporary grassland
- in Mid Tier this option can only be used with the written approval of Historic England as confirmed on your Historic Environment FER (HEFER) consultation response
- in Higher Tier this option can be used on Scheduled Monuments where approved by Historic England AND on historic or archaeological features identified in your HEFER.

Where this option cannot be used

On parcels at risk of soil erosion or runoff, as identified in the Farm Environment Record (FER)

How this option will benefit the environment

It reduces the risk of damage to historic and archaeological features on arable land, particularly where subtle earthwork remains survive.

Maintaining archaeological and historic features will conserve the character of the farm and protect England's heritage for future generations.

Arable cultivation damages archaeological remains by:

- levelling out earthworks
- cutting through and churning up remains below ground
- eroding protective layers of soil

Using direct drill machinery across earthwork remains reduces the risk of damage to archaeological features.

Cover-cropping techniques can help to avoid damage to soil structure and weed problems which might otherwise build up under a direct drilling regime, by:

- reducing compaction
- limiting erosion
- suppressing weeds

If successful there will be a soil surface with no evidence of:

- erosion
- subsoil (which indicates a deeper cultivation depth)
- freshly disturbed archaeological remains, such as pottery, burnt flint, flint tools, animal and human bone and building stone and tile

There will also be improved soil structure and fewer weeds.

REQUIREMENTS

- make sure the following field operations do not go deeper than 15cm:
 - tillage
 - soil management
 - planting
 - harvesting
- use a direct drill system where historic or archaeological earthworks are known to survive
- make sure that vehicle or stock access routes are at least 6m away from the historic or archaeological feature - existing surfaced tracks may still be used
- one year in every 5 include a sown cover as part of the crop rotation, based on the “What to sow” section below

Do not:

- use equipment trains that are longer than 6m
- grow the following crops on the option area:
 - maize
 - lucerne
 - root and tuber crops (excluding non-harvestable root crops such as grazed fodder beet and forage turnips)
 - short rotation coppice
 - miscanthus
- carry out drainage works, including modifying existing drainage, before gaining written approval from Natural England

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- consents or permissions connected with the work

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the management undertaken

All applicants must submit the following with their application:

- a land drainage map
- a map of existing tracks
- written approval for the use of this option from Historic England

RELATED MID TIER OPTIONS

These options and supplements can be located on the same area as this:

- AB4 – Skylark plots
- AB7 - Whole crop cereals
- AB10 - Unharvested cereal headland
- AB11 – Cultivated areas for arable plants
- AB14 - Harvested low input cereal
- OP5 - Undersown cereal
- OR3 - Organic conversion - rotational land
- OR4 - Organic conversion - horticulture
- OT3 - Organic land management - rotational land
- OT4 - Organic land management - horticulture

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Reduce cultivation depth and compaction

Cultivation depth can be reduced through:

- direct drilling
- raising the height of the chisel
- using depth control chains or gauges
- using a GPS depth controller
- increasing the number of discs (14 discs for a 3m width instead of the usual 9)
- using depth wheels with parallelogram mounting

Compaction can be reduced by:

- not working in wet soil conditions
- reducing tyre pressure of vehicles travelling on the site to spread the load more evenly

Cover crop: What to sow

A mixture based on the following species will supply overwinter cover and cover into the next year:

- ryegrass
- millet
- triticale
- red clover
- crimson clover
- birdsfoot trefoil
- phacelia
- common vetch
- mustard

Shallow rooting species are preferable. This will prevent damage from plants with a deeper, penetrating root structure like sweet clover.

Cover crop: When to sow

The cover crop should be established quickly to get the most environmental benefits. This can be done by:

- including the cover crop in the preceding crop at harvest time using auto-casting equipment
- sowing the cover crop immediately following harvest in the autumn

Depending on the seed mixture, the cover crop can be broadcast on to the surface and rolled afterwards.

Sow in the autumn and keep until 31 July the following year.

Cover crop: Sowing

Agreement holders are more likely to succeed if they:

- establish the cover crop quickly
- sow mixtures with good frost tolerance
- have good ground cover

Further information

The following Historic England guide may be of use:

- *Farming the historic landscape: caring for archaeological sites on arable land* - <https://historicengland.org.uk/images-books/publications/farming-the-historic-landscape-arable/>

Introduction to Organic Options

The Organic options provide support to organic farmers, in recognition of the environmental benefits that organic farming can achieve. There are 6 Organic Management options and 5 Organic Conversion options. There are also 5 agri-environment options specific to organic land.

Unlike the rest of Countryside Stewardship, access to the Organic Management and Conversion options is not competitive: any farmer can apply, provided they are eligible.

These webpages provide information on the organic options.

Sources of information on organic farming

Farmers wishing to learn more about organic farming methods, particularly those considering conversion to organic farming, are advised to obtain more detailed information and advice.

Some useful sources of information are as follows: Useful websites:

- the DEFRA guide to organic farming for more information on converting to organic status, certification and standards - <https://www.gov.uk/topic/environmental-management/land-management>
- IOTA, which has a national database of independently accredited advisers with organic expertise - <http://www.efrc.com/?i=tabhomepages.php&go=IOTA&cat=IOTA>

For technical information, advice and training see:

- Organic Research Centre - <http://www.organicresearchcentre.com/>
- Soil Association; Farmer & Growers - <http://www.soilassociation.org/farmersgrowers>
- Organic Farmers & Growers - <http://www.organicfarmers.org.uk/>
- Agricology - <http://www.agricology.co.uk/>

Relevant publications include:

- 2014 Organic Farm Management Handbook 10th Edition. Nic Lampkin, Mark Measures & Susanne Padel Organic Research Centre ISBN 978-1-872064-45-0
- Grassland Management for Organic Farmers. David Younie Crowood Press ISBN 978-1-84797-387-0
- Organic Cereal and Pulse Production. Stephen Briggs Crowood Press ISBN 978-1-861269-53-9
- Organic Vegetable Production. Gareth Davies & Margi Lennartsson, Crowood Press
- Growing Green: Organic Techniques for a Sustainable Future. Jenny Hall and Iain Tolhurst
- Organic Fruit Production and Viticulture. Stella Cubison Crowood Press ISBN 978-1-84797-092-3

Assessing the farm for conversion to organic status

Although most farm types perform well under organic management, an assessment should be undertaken of the farm's conversion potential.

Farmers wishing to access the Organic Conversion options must first complete an assessment of the farm's conversion potential. This is normally completed as part of the Organic Conversion Plan agreed with an Organic Certification Body. Where the applicant does not yet have a

Conversion Plan, they are required to provide an Organic Viability Plan - <https://www.gov.uk/government/publications/countryside-stewardship-organic-viability-plan>.

Applicants are advised to:

- make sure there is ready access to a stable organic market
- set a timetable for introducing organic management to the field parcels and any livestock
- set budgets for the conversion period, including any capital costs, to assess if conversion is possible
- identify any skills and infrastructure needs to support the conversion
- include risk planning and quality control, in their conversion planning.
- seek advice and/or training from a specialist adviser.

Overwintered stubble (OP1)

£116 per ha

Where to use this option

Whole or part parcel

Rotational

Only on:

- land registered as organic or 'in conversion' with a Defra-licensed organic control body
- only on stubble that follows the harvest of:
 - cereals (not maize)
 - oilseed rape
 - linseed

Where this option cannot be used

- parcels at risk of soil erosion or runoff (as identified on the Farm Environment Record (FER))

How this option will benefit the environment

It creates a winter food source for seed-eating birds, which feed on spilt grain and the seeds of broad-leaved weeds, and a foraging habitat for brown hare.

If successful there will be an increase in the number of farmland birds using the overwintered stubble.

REQUIREMENTS

- bale, chop or spread straw after harvest
- retain the stubble from harvest until 15 February
- establish a green overwinter cover crop (such as mustard or fodder radish) on at least 10%, but not more than 50%, of the option area

Do not:

- apply any fertilisers, manures or lime to the stubble
- top or graze
- cultivate the stubble after harvest

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- location of this option submitted with your annual claim
- a valid organic certificate and schedule for all the parcels entered into this option with your annual claim

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic evidence:

- photographs of the stubble area

Applicants will have to send the following with their application:

- a valid organic certificate and schedule for all the parcels entered into this option

RELATED MID TIER OPTIONS

The following options can be located on the same area as this option:

- OR3 - Organic conversion - rotational land
- OT3 - Organic management - rotational land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option*

Rotating this option

This is a rotational option - it can move between eligible parcels, but maintain the same total area (hectarage) each year.

Cover crops should be located (on up to 50% of the option area) where they will help to reduce any risk of soil erosion. To avoid destroying the stubble, the cover crop must be established using only shallow cultivation, and non-inversion techniques.

Further information

See Introduction to Organic Options.

Wild bird seed mixture (OP2)

£640 per ha

Where to use this option

Whole or part parcel

Rotational

Only on:

- rotational land registered as organic or ‘in conversion’ with a Defra-licensed organic control body.
- If the land has been sown to grass it must be for fewer than 7 years

Where this option cannot be used:

- from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)

How this option will benefit the environment

It provides a valuable year-round habitat and food for farmland wildlife such as pollinators and farmland birds.

If successful there should be an increase in important food resources for farmland birds, especially in winter and early spring.

REQUIREMENTS

Establish a balanced seed mix of at least 3 small-seed bearing plants chosen from the following list:

- | | |
|-------------|-----------------|
| ■ barley | ■ millet |
| ■ triticale | ■ mustard |
| ■ kale | ■ fodder radish |
| ■ quinoa | ■ sunflower |
| ■ linseed | |

The mix must meet organic standards. Apply to your organic control body for a derogation if organic seed is unavailable.

If the chosen mixture fails to establish, re-establish with seeds from the list above as soon as practicable.

Re-establish the mixture every 2 years to maintain seed production.

Create blocks:

- at least 6m wide
- at least 0.4ha in area
- at most 5ha in area

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- seed invoices
- field operations at the parcel level, including associated invoices
- a valid organic certificate and schedule for all the parcels entered into this option with your annual claim

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic evidence:

- photographs of the blocks or strips

Applicants will have to send the following with their application:

- a valid organic certificate and schedule for all the parcels entered into this option

RELATED MID TIER OPTIONS

The following options can be located on the same area as this option:

- OR3 - Organic conversion - rotational land
- OT3 - Organic management - rotational land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

As this is a rotational option, it can be moved between eligible parcels, but the same total area (hectarage) should be maintained each year.

For best results, no single species should make up more than 70% of the mix by weight.

Further information

See Introduction to Organic Options.

Supplementary feeding for farmland birds (OP3)

£494 per tonne for every 2 ha of wild bird seed mixture

Where to use this option

Only:

- on land registered as organic or 'in conversion' with a Defra-licensed organic control body
 - when a qualifying area of OP2 wild bird seed mixture option is included in the agreement (2ha of OP2 - Wild bird seed mixture allows 500 kg per annum of supplementary feeding at each of two separate feeding stations)
-

How this option will benefit the environment

It provides important food sources for farmland birds in late winter and early spring on arable and mixed farms, by supplementing crops of winter bird food with additional seed, such as cereal, oilseed and specialised grains. It gives the birds food through the 'hungry gap' (the late winter period when seed is in short supply) and as they enter the breeding season.

If successful there will be farmland birds using the feeding areas once the sown resources have run out.

REQUIREMENTS

- spread the seed mix every week from 1 December to 30 April
- spread an average of 25kg at least once a week at each of two separate feeding stations
- select feeding areas that are:
 - firm and free-draining such as farm tracks or hard standing areas
 - close to enhanced winter stubbles, game cover or wild bird seed mixtures

The feeding mix must:

- comply with organic standards
- be made of 70% cereals
- be made of 30% small seeds

Tailings (small seeds removed from the harvested crop) may be used but they must not exceed 30% of the seed mix by weight.

Do not:

- use hoppers to supply more than 10% of the feeding mix.

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- details of the mixture used (weight of components and cost)
- dates of feeding
- method of feeding (hopper or spreading)
- amount of feed spread on each date
- the location of the feeding areas
- a valid organic certificate and schedule for all the parcels entered into this option with your annual claim

Applicants will have to send the following with their application:

- a valid organic certificate and schedule for all the parcels entered into this option

RELATED MID TIER OPTIONS

The following options can be located on the same area as this option:

- OR3 - Organic conversion - rotational land
- OT3 - Organic management - rotational land

Further information

See Introduction to Organic Options.

Multi-species ley (OP4)

£115 per ha

Where to use this option

Whole or part parcel

Rotational

Only:

- on land registered as organic or ‘in conversion’ with a Defra-licensed organic control body.
 - If the land has been sown to grass it must be for fewer than 7 years.
-

How this option will benefit the environment

It provides a valuable year-round habitat and food for farmland wildlife such as pollinators and farmland birds.

REQUIREMENTS

- in year 1 of the agreement, establish a multi-species ley containing at least:
 - 5 grass species
 - 3 legume species
 - 3 herb species
- the grass component must not exceed 75% of the seed mix by weight (measured in kilograms per hectare).
- once established, manage with rotational cutting or grazing
- for 50% of the option:
 - cut or graze between 1 April and 15 May
 - do not cut or graze this area again until 1 August
- for the remaining 50% of the option area:
 - cut or graze between 15 May and 30 June
 - do not cut or graze this area again until 15 September

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- stock records to show grazing activity on parcels
- a valid organic certificate and schedule for all the parcels entered into this option with your annual claim

Applicants will have to send the following with their application:

- a copy of a valid organic certificate and schedule for all the parcels entered into this option

RELATED MID TIER OPTIONS

The following options can be located on the same area as this option:

- OR3 - Organic conversion - rotational land
- OT3 - Organic management - rotational land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

As this is a rotational option, it can be moved between eligible parcels, but the same total area (hectarage) must be maintained each year.

Further information

See Introduction to Organic Options.

Undersown cereal (OP5)

£86 per ha

Where to use this option

Whole or part parcel

Rotational

Only on:

- land registered as 'fully organic' or 'in conversion' with a Defra-licensed organic control body
-

How this option will benefit the environment

Provides a habitat that benefits animals including invertebrates and birds that forage within the undersown cereal crop.

REQUIREMENTS

- establish an autumn or spring sown cereal crop (not maize) undersown by 30 April with a grass/flower-rich legume ley.

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- a valid organic certificate and schedule for all the parcels entered into this option with your annual claim

Applicants will have to send the following with their application:

- a copy of a valid organic certificate and schedule for all the parcels entered into this option

RELATED MID TIER OPTIONS

The following options can be located on the same area as this option:

- HS3 – Reduced-depth, non-inversion cultivation on historic and archaeological features
- HS9 - Restricted depth crop establishment to protect archaeology under an arable rotation
- OR3 - Organic conversion - rotational land
- OT3 - Organic management - rotational land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

As this is a rotational option, it may be moved between eligible parcels, but the same total area (hectarage) should be maintained each year.

Further information

See Introduction to Organic Options.

Organic conversion – improved permanent grassland (OR1)

£75 per ha per year for up to 2 years

Where to use this option

Whole parcel

Only on:

- land registered as 'in conversion' with a Defra-licensed organic control body
- improved and semi-improved permanent grassland
- arable land, where the land is to be reverted to permanent grassland as part of a Countryside Stewardship agreement.

Where this option cannot be used

- on parcels that have previously been registered with an organic control body by the applicant,
- on parcels for which the applicant has previously received conversion aid

How this option will benefit the environment

It helps to convert permanent grassland from conventional management to organic management.

REQUIREMENTS

- follow the Conversion Plan agreed with an organic control body for the land and associated stock
- comply with organic standards from the start of organic conversion to the end of the agreement
- make sure that all land has completed conversion and is registered as 'fully organic' before the end of the agreement

Applicants will have to send with their application, either:

- a copy of the Conversion Plan agreed with the organic control body; or
- a fully completed Viability Plan; and
- Evidence land is improved permanent grassland or rough grazing

Keeping records

Agreement holders who submitted a viability assessment with their application must start their organic conversion process and submit a copy of the Conversion Plan (agreed with the organic control body) with their first payment claim.

All agreement holders will need to supply a valid organic certificate and schedule with their annual payment claims.

Agreement holders will need to keep up to date and supply on request Conversion Plan approved by an organic control body.

RELATED MID TIER OPTIONS

The Organic Management – Improved Permanent Grassland option (OT1), should follow on from this option, when the Organic Conversion period is completed.

Other Countryside Stewardship options and supplements relevant to grassland management may be used on the same land area where eligibility rules allow.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*This section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Improved and semi-improved grassland

To qualify as improved or semi-improved grassland, at least 2 of these need to apply:

- cover of both ryegrass and white clover is more than 10%
- the sward is not species rich (15 or fewer species per square metre, including grasses)
- there is a low cover (less than 30%) of wildflowers and sedges, excluding white clover, buttercup, injurious weeds

Permanent ineligible features may be eligible as part of the option area if registered with a control body.

Further information

See Introduction to Organic Options.

Organic conversion – unimproved permanent grassland (OR2)

£50 per ha per year for up to 2 years

Where to use this option

Whole parcel

Only on:

- land registered as ‘in conversion’ with a Defra-licensed organic control body
- unimproved permanent grassland and rough grazing that is below the moorland line

Where this option cannot be used

- on parcels that have previously been registered with an organic control body by the applicant,
- on parcels for which the applicant has previously received conversion aid

How this option will benefit the environment

This option supports conversion of unimproved grassland to organic management.

If successful there will be an increase in the overall area of land registered and managed as organic.

REQUIREMENTS

- follow the Conversion Plan agreed with an organic control body for the land and associated stock
- comply with organic standards from the start of organic conversion to the end of the agreement
- make sure that all land has completed conversion and is registered as ‘fully organic’ before the end of the agreement

Applicants will have to send with their application, either:

- a copy of the Conversion Plan agreed with the organic control body; or
- a fully completed Viability Plan
- Evidence land is unimproved permanent grassland or rough grazing

Keeping records

Agreement holders who submitted a Viability Plan with their application must start their organic conversion process and submit a copy of the Conversion Plan (agreed with the organic control body) with their first payment claim.

All agreement holders will need to supply a valid organic certificate and schedule with their annual payment claims.

Agreement holders will need to keep up to date and supply on request a Conversion Plan that has been approved by an organic control body.

RELATED MID TIER OPTIONS

The Organic Management – Unimproved Permanent Grassland option (OT2), should follow on from this option, when the Organic Conversion period is completed.

Other Countryside Stewardship options and supplements relevant to grassland management may be used on the same land area where eligibility rules allow.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Unimproved grassland

To qualify as unimproved grassland, at least 2 of the following need to apply:

- cover of both ryegrass and white clover is less than 10%
- the sward is species rich (more than 15 species per square metre, including grasses)
- there is a high cover (more than 30%) of wildflowers and sedges, excluding white clover, creeping buttercup or injurious weeds

Permanent ineligible features may be eligible as part of the option area if registered with a control body.

Further information

See Introduction to Organic Options.

Organic conversion – rotational land (OR3)

£175 per ha per year for up to 2 years

Where to use this option

Whole or part parcel

Rotational

Only on:

- land registered as 'in conversion' with a Defra-licensed organic control body
- arable land, temporary grassland or on permanent grassland where cultivation is part of the Conversion Plan.

Where this option cannot be used

- on parcels that have previously been registered with an organic control body by the applicant,
- on parcels for which the applicant has previously received conversion aid

How this option will benefit the environment

Helps to convert land under conventional management to organic management.

If successful there will be an increase in the overall area of land registered and managed as organic.

REQUIREMENTS

- follow the Conversion Plan agreed with an organic control body for the land and associated stock
- comply with organic standards from the start of organic conversion to the end of the agreement
- make sure that all land has completed conversion and is registered as 'fully organic' before the end of the agreement

Applicants will have to send with their application, either:

- a copy of the Conversion Plan agreed with the organic control body; or
- a fully completed Viability Plan

Keeping records

Agreement holders who submitted a Viability Plan with their application must start their organic conversion process and submit a copy of the Conversion Plan (agreed with the organic control body) with their first payment claim.

All agreement holders will need to supply a valid organic certificate and schedule with their annual payment claims.

Agreement holders will need to keep up to date and supply on request a Conversion Plan that has been approved by an organic control body

RELATED MID TIER OPTIONS

The Organic Management – Rotational land option (OT3), should follow on from this option, when the Organic Conversion period is completed.

Other Countryside Stewardship options and supplements for rotational land and arable land may be used on the same land area, where eligibility rules allow.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Permanent ineligible features may be eligible as part of the option area if registered with a control body.

Further information

See Introduction to Organic Options.

Organic conversion - horticulture (OR4)

£400 per ha per year for up to 2 years

Where to use this option

Rotational

Whole or part parcel

Only on:

- land registered as 'in conversion' with a Defra-licensed organic control body
- arable land, temporary grassland or on permanent grassland where cultivation is part of the Conversion Plan.

Where this option cannot be used

- on parcels that have previously been registered with an organic control body by the applicant,
- on parcels for which the applicant has previously received conversion aid

How this option will benefit the environment

It helps to convert rotational land used to produce vegetables or salads into organic status land.

If successful there will be an increase in the overall area of land used to produce organic products.

REQUIREMENTS

- follow the Conversion Plan agreed with an organic control body for the land and associated stock
- comply with organic standards from the start of organic conversion to the end of the agreement
- make sure that all land has completed conversion and is registered as 'fully organic' before the end of the agreement
- enter a maximum area of 20ha into the option
- keep at least 1 horticultural crop in each field parcel (or part parcel) during the agreement

Applicants will have to send with their application, either:

- a copy of the Conversion Plan agreed with the organic control body; or
- a fully completed Viability Plan

Keeping records

Agreement holders who submitted a Viability Plan with their application must start their organic conversion process and submit a copy of the Conversion Plan (agreed with the organic control body) with their first payment claim.

All agreement holders will need to supply a valid organic certificate and schedule with their annual payment claims.

Agreement holders will need to keep up to date and supply on request a Conversion Plan that has been approved by an organic control body

RELATED MID TIER OPTIONS

The Organic Management – Horticultural land option (OT4), should follow on from this option, when the Organic Conversion period is completed.

Other Countryside Stewardship options and supplements relevant to arable and rotational land management may be used on the same land area where eligibility rules allow.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Permanent ineligible features may be eligible as part of the option area if registered with a control body.

Further information

See Introduction to Organic Options.

Organic conversion - top fruit (OR5)

£450 per ha per year for up to 3 years

Where to use this option

Whole parcel

Only on:

- land registered as 'in conversion' with a Defra-licensed organic control body
- parcels that are managed primarily for the production of top fruit (such as apples, pears and plums) and permanent bush crops (such as gooseberries and redcurrants)
- orchards fully stocked at the appropriate spacing for the species and variety of fruit tree or bush

Where this option cannot be used

- on parcels that have previously been registered with an organic control body by the applicant,
- on parcels for which the applicant has previously received conversion aid
- on orchards that are used for the production of alcoholic drinks
- on orchards that are not in commercial production

How this option will benefit the environment

Helps recently planted and traditional standard orchards (and permanent fruit or berry bushes) convert to organic management.

If successful there will be an increase in the overall land area registered as organic, providing a range of environmental and public benefits.

REQUIREMENTS

- follow the Conversion Plan agreed with an organic control body for the land and any associated stock
- comply with organic standards from the start of organic conversion to the end of the agreement
- make sure that all land has completed conversion and is registered as 'fully organic' before the end of the agreement
- protect trees to prevent damage from livestock and wild animals
- manage tree guards to prevent any damage to growing trees
- keep a 1m diameter circle around the base of all newly planted trees clear of vegetation for at least 3 years after planting

Applicants will have to send with their application:

- copies of fruit sale receipts to show that the orchards are in commercial production and not used for the production of alcoholic drinks
- photographs of the trees they are entering into the option
- either a copy of the Conversion Plan agreed with the organic control body; or if not available a fully completed Viability Plan
- Conversion map showing planting spacing and species within orchard.

Keeping records

Agreement holders who submitted a Viability Plan with their application must start their organic conversion process and submit a copy of the Conversion Plan (agreed with the organic control body) with their first payment claim.

All agreement holders will need to supply a valid organic certificate and schedule with their annual payment claims.

Agreement holders will need to keep the following records and supply them on request:

- sales receipts for fruit crops - submitted with the annual claim
- an up-to-date Conversion Plan approved by an organic control body

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic evidence:

- photographs of the trees entered into this option

RELATED MID TIER OPTIONS

The Organic Management – Top Fruit option (OT5), should follow on from this option, when the Organic Conversion period is completed.

Other Countryside Stewardship options and supplements relevant to orchard management may be used on the same land area where eligibility rules allow.

Further information

See Introduction to Organic Options.

Organic land management - improved permanent grassland (OT1)

£40 per ha

Where to use this option

Whole parcel

Only on:

- land registered as 'fully organic' by a Defra-licensed organic control body
- improved and semi-improved permanent grassland
- arable land, where the land is to be reverted to permanent grassland as part of a Countryside Stewardship agreement.

How this option will benefit the environment

Maintains land under organic management, providing a wide range of environmental and public benefits.

If successful associated benefits will increase as the organic area is maintained.

REQUIREMENTS

Comply with organic standards for the life of the agreement.

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- a valid organic certificate and schedule for all the parcels entered into this option with your annual claim

Applicants will have to send the following with their application:

- a valid organic certificate and schedule for all the parcels entered into this option with their application.
- records to show the land is improved or semi-improved grassland

RELATED MID TIER OPTIONS

Other Countryside Stewardship options and supplements relevant to grassland management may be used on the same land area where eligibility rules allow.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Improved and semi-improved grassland

To qualify as improved or semi-improved grassland, at least 2 of these need to apply:

- cover of both ryegrass and white clover is more than 10%
- the sward is not species rich (15 or fewer species per square metre, including grasses)
- there is a low cover (less than 30%) of wildflowers and sedges, excluding white clover, buttercup, injurious weeds

Permanent ineligible features may be eligible as part of the option area if registered with a control body.

Further information

See Introduction to Organic Options.

Organic land management - unimproved permanent grassland (OT2)

£20 per ha

Where to use this option

Whole parcel

Only on:

- land registered as 'fully organic' by a Defra-licensed organic control body
 - unimproved permanent grassland and rough grazing that is below the moorland line
-

How this option will benefit the environment

It maintains unimproved grassland under organic management, providing a wide range of environmental and public benefits.

REQUIREMENTS

Comply with organic standards for the life of the agreement.

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- a valid organic certificate and schedule for all the parcels entered into this option with your annual claim

Applicants will have to send the following with their application:

- a valid organic certificate and schedule for all the parcels entered into this option
- Evidence land is unimproved permanent grassland or rough grazing required

RELATED MID TIER OPTIONS

Other Countryside Stewardship options and supplements relevant to grassland management may be used on the same land area where eligibility rules allow.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Unimproved grassland

To qualify as unimproved grassland, at least 2 of these need to apply:

- cover of both ryegrass and white clover is less than 10%
- the sward is species rich (more than 15 species per square metre, including grasses)
- there is a high cover (more than 30%) of wildflowers and sedges, excluding white clover, buttercup, injurious weeds

Permanent ineligible features may be eligible as part of the option area if registered with a control body.

Further information

See Introduction to Organic Options.

Organic land management - rotational land (OT3)

£65 per ha

Where to use this option

Whole or part parcel

Rotational

Only on:

- land registered as 'fully organic' by a Defra-licensed organic control body
 - land parcels that have been cultivated in the preceding 7 years
-

How this option will benefit the environment

Maintains land under organic management, providing a wide range of environmental and public benefits.

REQUIREMENTS

Comply with organic standards for the life of the agreement.

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- a valid organic certificate and schedule for all the parcels entered into this option with your annual claim

Applicants will have to send the following with their application:

- farm records to show that any permanent grassland parcels entered for this option have been cultivated within the previous 7 years.
- a valid organic certificate and schedule for all the parcels entered into this option

RELATED MID TIER OPTIONS

Other Countryside Stewardship options and supplements relevant to arable and rotational land management may be used on the same land area where eligibility rules allow.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Permanent ineligible features may be eligible as part of the option area if registered with a control body.

Further information

See Introduction to Organic Options.

Organic land management - horticulture (OT4)

£200 per ha

Where to use this option

Whole or part-parcel

Rotational

Only on:

- land registered as 'fully organic' by a Defra-licensed organic control body
 - land parcels that have been cultivated in the preceding 7 years
-

How this option will benefit the environment

Maintains land under organic management, providing a wide range of environmental and public benefits.

If successful you should see these benefits increase and the organic area maintained.

REQUIREMENTS

- comply with organic standards for the life of the agreement
- enter a maximum area of 20ha into the option
- maintain the total hectareage (area) that was committed to at the beginning of the agreement for the whole of the agreement
- keep at least 40% of the area entered for this option in horticultural production with produce for human consumption at any single stage of the rotation
- keep at least 1 horticultural crop in each field parcel (or part parcel) during the agreement

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- a valid organic certificate and schedule for all the parcels entered into this option with your annual claim
- an up-to-date Conversion Plan approved by an organic control body.

Applicants will have to send the following with their application:

- farm records to show that any permanent grassland parcels entered for this option have been cultivated within the previous 7 years.
- a valid organic certificate and schedule for all the parcels entered into this option

RELATED MID TIER OPTIONS

Other Countryside Stewardship options and supplements relevant to arable and rotational land management may be used on the same land area where eligibility rules allow.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Permanent ineligible features may be eligible as part of the option area if registered with a control body.

Further information

See Introduction to Organic Options.

Organic land management - top fruit (OT5)

£300 per ha

Where to use this option

Whole parcel

Only on:

- land registered as 'fully organic' by a Defra-licensed organic control body
- parcels that are managed primarily for the production of top fruit (such as apples, pears and plums) and permanent bush crops (such as gooseberries and redcurrants)
- orchards that are fully stocked at the appropriate spacing for the species and variety of the fruit tree or bush

Where this option cannot be used

- on orchards that are used for the production of alcoholic drinks
- on orchards that are not in commercial production

How this option will benefit the environment

Maintains top fruit orchards under organic management, providing a range of environmental and public benefits.

REQUIREMENTS

- comply with organic standards for the life of the agreement
- keep a 1m diameter circle around the base of all newly planted trees clear of vegetation for at least 3 years after planting
- protect trees to prevent damage from livestock and wild animals
- manage tree guards to prevent any damage to growing trees

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- a valid organic certificate and schedule for all the parcels entered into this option with your annual claim
- sales receipts for fruit crops - submitted with annual claim
- field operations at the parcel level, including associated invoices

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic evidence:

- photographs of the trees entered into this option

Applicants will have to send the following with their application:

- photographs of the trees they are entering into the option with their application
- a copy of a valid organic certificate and schedule for all the parcels entered into this option
- copies of fruit sale receipts to show that the orchards are in commercial production and not used for the production of alcoholic drinks
- conversion plan map showing planting spacing and species

RELATED MID TIER OPTIONS

Other Countryside Stewardship options and supplements relevant to orchard management may be used on the same land area where eligibility rules allow.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Permanent ineligible features may be eligible as part of the option area if registered with a control body.

Further information

See Introduction to Organic Options.

Organic land management - enclosed rough grazing (OT6)

£8 per ha

Where to use this option

Whole parcel

Only on:

- land registered as 'in conversion' or 'fully organic' by a Defra-licensed organic control body
- rough grazing in enclosed parcels that are:
 - less than 15ha
 - within a severely disadvantaged area (SDA)
 - above the moorland line

Where this option cannot be used

- on the same area as any other organic land management or conversion option

How this option will benefit the environment

Maintains organic management of enclosed rough grazing parcels no greater than 15ha within the SDA and above the moorland line. This creates a wide range of environmental and public goods.

If successful applicants should see these benefits increase and organic management maintained.

REQUIREMENTS

Comply with organic standards for the life of the agreement. For land in conversion, comply with organic standards from the start of organic conversion to the end of the agreement.

Keeping records

All agreement holders will need to supply a valid organic certificate and schedule with their annual payment claims.

For any land in conversion - Agreement holders who submitted a Viability Plan with their application must start their organic conversion process and submit a copy of the Conversion Plan (agreed with the organic control body) with their first payment claim. Agreement holders will need to keep up to date and supply on request a Conversion Plan that has been approved by an organic control body.

Applicants will have to send a valid organic certificate and schedule for all the parcels entered into this option with their application.

For any land in Conversion, applicants will have to send with their application, either:

- a copy of the Conversion Plan agreed with the organic control body; or
- a fully completed Viability Plan

RELATED MID TIER OPTIONS

The following options can be located on the same area as this option:

- UP1 - Enclosed rough grazing
- UP2 - Management of rough grazing for birds

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Permanent ineligible features may be eligible as part of the option area if registered with a control body.

Further information

See Introduction to Organic Options.

Cattle grazing supplement (SP6)

£45 per ha

Where to use this supplement

Only in combination with a land management option where cattle grazing is appropriate for delivering the aims of the option.

In Mid Tier with:

- GS5 Permanent grassland with very low inputs in SDAs
- GS6 Management of species rich grassland
- WD4 Management of wood pasture and parkland
- UP2 Management of rough grazing for birds

In Higher Tier with

- a land management option where cattle grazing is appropriate for delivering the aims of the option

Where this supplement cannot be used

With:

- GS17 - Lenient grazing supplement
- SW14 - Nil fertiliser supplement

How this supplement will benefit the environment

There should be:

- a more varied sward structure, which will increase wildlife diversity
- better control of scrub, bracken and coarse vegetation
- better grazing of wet areas and difficult sites such as steep slopes

REQUIREMENTS

- in Higher Tier graze the site according to a stocking calendar agreed with Natural England.
- In Mid Tier at least 60% of the grazing Livestock Units must comprise of cattle.

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- stock records to show grazing activity on parcels

RELATED MID TIER SUPPLEMENTS

This supplement can be located on the same area as the following supplements:

- GS15 – Haymaking supplement
- GS16 – Rush infestation control supplement

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS SUPPLEMENT

The following section gives advice on carrying out this supplement successfully, but does not form part of the requirements for this supplement.

Where to use this supplement

It can be used at sites where:

- cattle are being introduced
- significant changes to the current grazing regime are needed to improve the quality of the habitat

Type of cattle

Many cattle breeds or cross-breeds may be capable of meeting requirements:

- cattle with low nutritional requirements, such as dry suckler cows, are best for sites with fibrous herbage
- mature, placid cattle are best suited for sites where there are ground-nesting birds, as they reduce the risk of trampling

Timing

Graze different habitat types at different times of the year and with a range of cattle numbers.

Threatened species supplement (SP9) Mid Tier

£120 per ha

Where to use this supplement

In Mid Tier this option can only be used with approval from Natural England, and only to support management for brown hairstreak butterfly or corn bunting.

Only in combination with a land management option where either:

- at least 1 **priority species** is present on the site <http://publications.naturalengland.org.uk/publication/4958719460769792>
- the site can be managed to create the right conditions to allow the introduction, re-colonisation or range extension of a named priority species

Use of the supplement needs to have written support from a species specialist for the work.

Where this supplement cannot be used

For any work within the scope of standard options or capital items

How this supplement will benefit the environment

It is for tailored habitat management to benefit identified priority species.

REQUIREMENTS

- include the Mid Tier Wild Pollinator and Farm Wildlife Package in the application;
- for corn bunting use SP9 with AB10 Unharvested cereal headland;
- for brown hairstreak butterfly use SP9 with BE3
- Include AB12 in the application

Keeping records

Agreement holders will need to keep the following records and supply them on request

- field operations at the parcel level, including associated invoices
- If the work is specified in an Implementation Plan or Feasibility Study that Natural England has approved, send a copy of the approved plan or study with the application.

Applicants will need to send the following with their application:

- Priority species specialist report

RELATED SUPPLEMENTS

This supplement can be located on the same area as all other supplements **except:**

- SW14 – Nil fertiliser supplement

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS SUPPLEMENT

For corn bunting, the strip or block of unharvested cereal headland should be at least 24m wide, and should be re-established in the same location for at least 3 years. It should ideally be located within 200m of either AB8 Flower rich margins or AB1 Nectar flower mix.

For brown hairstreak, hedges should be cut on a 3-5 year rotation, with no more than a third of any hedgerow being cut in any one year. Allow suckering blackthorn to develop in sheltered, warm areas.

4m to 6m buffer strip on cultivated land (SW1)

£353 per ha

Where to use this option

On the edges of cultivated fields, between the productive part of the field and an existing feature or habitat (which must be identified on the Farm Environment Record (FER)), such as:

- hedgerows and hedge trees
- remnants of trees on former boundary lines
- stone walls
- woodlands
- ponds, ditches, rivers and streams

It can also be used next to:

- trackways that channel runoff water directly to a watercourse
- fence lines that form links between areas of wildlife habitat identified on the FER

Where this option cannot be used

- overlapping a public right of way (such as a footpath or bridleway)
- from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)

How this option will benefit the environment

A grass buffer strip may provide new habitat, protect existing landscape features, and improve water quality.

Next to existing features, it will provide habitat for wildlife, and form links or corridors between other habitats.

Next to a watercourse, it will also prevent pollutants, such as sediment and nutrients, from being transported in surface water runoff.

REQUIREMENTS

- establish or maintain a 4 to 6m wide grass buffer strip during the first 12 months of the agreement
- once the strip has been established, cut between 1 and 3m of the strip next to the crop edge every year after 15 July
- only cut the remaining width to control woody growth (leaving aside areas containing fallen timber)
- where there are hedgerow trees over 30cm in diameter at breast height, leave fallen timber beneath the canopy, stacking any timber that obstructs management of the buffer strip

Do not:

- remove the limbs (including lower limbs) of any hedgerow trees that are over 30cm in diameter at breast height
- apply any fertilisers or manures
- use the buffer strip as an access route for vehicles or stock
- use pesticides, except for herbicides to weed wipe or spot treat injurious weeds, invasive non-native species, nettles or bracken

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the strips

RELATED MID TIER OPTIONS

The following options can be used on the same area as this option:

- OR3 - Organic conversion - rotational land
- OR4 - Organic conversion - horticulture
- OT3 - Organic land management - rotational land
- OT4 - Organic land management - horticulture

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully, but does **not** form part of the requirements for this option.*

Using this option on existing buffer strips

This option can be used on buffer strips that are already established, unless they are being paid for through another scheme. However, the buffer strip should be on land that can be cultivated (e.g. it cannot be on a very steeply banked strip alongside a boundary).

Buffer strips established under Entry Level Stewardship (ELS) can continue to be managed under a new Countryside Stewardship agreement.

How to choose a site

To protect watercourses, create the buffer strip:

- next to the watercourse
- across the slope on long, steep slopes, to intercept runoff before it builds to a damaging flow

To benefit wildlife, select a location that links habitats, or that is next to:

- watercourses
- hedgerows (particularly hedges with mature hedgerow trees)
- stone walls
- remnants of trees on former boundary lines
- groups of trees in strips along the edge of woodland

To protect archaeological features, create the buffer strip beside:

- archaeological features located above the ground
- historic features
- metal parkland fencing

How to manage the buffer strip

- remove any subsoil compaction where required to prepare a seedbed, except on archaeological features
- control weeds and cut regularly in the first 12 to 24 months of establishment to encourage grasses to tiller
- avoid cutting when the soil is wet, to prevent compaction
- the buffer strip should remain in place and not be re-sown for the duration of the agreement

The buffer strip can be partly covered by a hedge, as long as the hedge is located on land that is eligible for this option. See the Mid Tier Manual section 6.7.

4m to 6m buffer strip on intensive grassland (SW2)

£170 per ha

Where to use this option

On the edges of intensively managed, improved grassland fields receiving more than 100kg/ha of nitrogen per year in the form of fertilisers or manures, between the productive part of the field and a feature or habitat (which must be identified on the Farm Environment Record (FER)), such as:

- hedgerows and hedge trees
- remnants of trees on former boundary lines
- stone walls
- woodlands
- ditches, rivers and streams

This option can also be used:

- next to trackways that channel runoff water directly to a watercourse
- next to fence lines that form links between areas of wildlife habitat identified on the FER

Where this option cannot be used

- overlapping a public right of way (such as a footpath or bridleway)

How this option will benefit the environment

It provides new habitat and protects existing landscape features.

When placed next to existing features, it will provide habitat for wildlife, and form links or corridors between other habitats.

REQUIREMENTS

- establish or maintain a 4 to 6m wide grass buffer strip during the first 12 months of the agreement
- leave an uncut buffer strip 4 to 6m wide around the edge of any fields that will be mown (livestock can graze this strip along with the aftermath)
- only cut the sward to control woody growth
- where there are hedgerow trees over 30cm in diameter at breast height, leave fallen timber beneath the canopy, stacking any timber that obstructs management of the buffer strip

Do not:

- remove the limbs (including lower limbs) of any hedgerow trees that are over 30cm in diameter at breast height
- apply any fertilisers or manures
- use the buffer strip as an access route for vehicles or stock
- use pesticides, except for herbicides to weed wipe or spot treat injurious weeds, invasive non-native species, nettles or bracken

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the strips

Applicants will have to send the following with their application:

- input records showing that the grassland has received more than 100kg of nitrogen per ha per year

RELATED MID TIER OPTIONS

The following options can be used on the same area as this option:

- OR₁ - Organic conversion - improved permanent grassland
- OR₃ - Organic conversion - rotational land
- OT₁ - Organic land management - improved permanent grassland
- OT₃ - Organic land management - rotational land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully, but does **not** form part of the requirements for this option.*

Using this option on existing buffer strips

This option can be used on buffer strips that are already established, unless they are required or being paid for through another scheme.

Buffer strips established under Entry Level Stewardship (ELS) can continue to be managed under a new Countryside Stewardship agreement.

How to choose a site

To benefit wildlife, select a location that links habitats, or that is next to:

- watercourses
- hedgerows (particularly hedges with mature hedgerow trees)
- stone walls
- remnants of trees on former boundary lines
- groups of trees in strips along the edge of woodland

To protect archaeological features, create the buffer strip beside:

- archaeological features located above the ground
- historic features
- metal parkland fencing

How to manage the buffer strip

- remove any subsoil compaction where required to prepare a seedbed, except on archaeological features
- control weeds and cut regularly in the first 12 to 24 months of establishment to encourage grasses to tiller
- avoid cutting when the soil is wet, to prevent compaction

Applicants should consider using option SW11 - Riparian management strip on sloping fields next to a watercourse where there is a risk of soil erosion, runoff or bankside trampling.

In-field grass strips (SW3)

£557 per ha

Where to use this option

- only on cultivated land identified on the Farm Environment Record (FER) as at risk of soil erosion or surface runoff
- only on part parcels that are no more than 30% of the parcel area

Where this option cannot be used:

- from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)

How this option will benefit the environment

Grass areas or strips will help to reduce the quantity of sediment, nutrients and pesticides transported through surface runoff water, both within fields and from field to field.

REQUIREMENTS

- establish or maintain a dense grassy area during the first 12 months of the agreement
- once it has been established, cut the entire area every year after 15 July
- exclude all livestock from the strip

Do not:

- apply any fertilisers or manures
- use the grassed area as an access route for vehicles or stock
- use pesticides, except for herbicides to weed wipe or spot treat injurious weeds, invasive non-native species, nettles or bracken

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

RELATED MID TIER OPTIONS

The following options can be located on the same area as this option:

- OR3 - Organic conversion - rotational land
- OR4 - Organic conversion - horticulture
- OT3 - Organic land management - rotational land
- OT4 - Organic land management - horticulture

ADVICE AND SUGGESTION FOR HOW TO CARRY OUT THIS OPTION

The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.

How to achieve the best results

Water infiltration on the grass strip will be improved through appropriate management of the adjoining land. Strips will trap sediment better if large volumes of overland flow are not coming from surrounding land.

This option can be used at the margins of fields that are vulnerable to erosion to capture sediment or materials carried in runoff water.

Creating breaks, such as hedgerows and woodland, on long, steep slopes will complement the grass strips.

How to choose a site

The grass strip should be created:

- on natural drainage pathways (e.g. the bottom of a valley) - to stop runoff water from creating rills and gullies
- on long, sloping fields, with the strip placed parallel to the slope and alternated with wide, cultivated strips - to slow runoff water and trap sediment and organic material
- not overlapping a public right of way (such as a footpath or bridleway)

How to manage the grass strip

- remove any subsoil compaction where required to prepare a seedbed, except on archaeological features
- control weeds and cut regularly in the first 12 to 24 months of establishment to encourage grasses to tiller
- avoid cutting when the soil is wet, to prevent compaction
- the buffer strip should remain in place and not be re-sown for the duration of the agreement

Where there is a need to implement this option on more than 30% of the parcel, applicants should consider instead using option SW7 - Arable reversion to grassland with low fertiliser input to cover a larger area.

12m to 24m watercourse buffer strip on cultivated land (SW4)

£512 per ha

Where to use this option

- only on cultivated land identified on the Farm Environment Record (FER) as at risk of soil erosion or surface runoff
- only on land next to ditches, rivers or streams

Where this option cannot be used

- overlapping a public right of way (such as a footpath or bridleway)
 - from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)
-

How this option will benefit the environment

It establishes a grass buffer to help reduce the risk of potential pollutants, such as sediment, pesticides and nutrients (mainly phosphate), being transported to watercourses in surface water runoff. It may also provide habitat for wildlife, and form links between other habitats.

REQUIREMENTS

- establish or maintain a 12 to 24m wide grass buffer strip during the first 12 months of the agreement
- cut the 6m next to the crop along the entire length of the buffer strip every year after 15 July, once the strip has been established
- only cut the remainder of the strip to control woody growth
- exclude all livestock from the strip

Do not:

- apply any fertilisers or manures
- use the buffer strip as an access route for vehicles or stock
- use pesticides, except for herbicides to weed wipe or spot treat injurious weeds, invasive non-native species, nettles or bracken

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

RELATED MID TIER OPTIONS

The following options can be located on the same area as this option:

- OR3 - Organic conversion - rotational land
- OR4 - Organic conversion - horticulture
- OT3 - Organic land management - rotational land
- OT4 - Organic land management - horticulture

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Using this option on existing buffer strips

This option can be used on buffer strips that are already established, unless they are required or being paid for through another scheme. The buffer strip should be on land that can be cultivated (e.g. it cannot be on a very steeply banked strip alongside a boundary).

Buffer strips established under Entry Level Stewardship (ELS) can continue to be managed under a new Countryside Stewardship agreement.

How to choose a site

Create the buffer strip adjacent to a watercourse across a long, steep slope, to intercept and slow runoff water before it builds to a damaging flow. Care should be taken to minimise the amount of water that is channelled along the edge of the buffer strip.

How to manage the buffer strip

- remove any subsoil compaction where required to prepare a seedbed, except on archaeological features
- control weeds and cut regularly in the first 12 to 24 months of establishment to encourage grasses to tiller
- avoid cutting when the soil is wet, to prevent compaction
- the buffer strip should remain in place and not be re-sown for the duration of the agreement

The buffer strip can be partly covered by a hedge, as long as the hedge is located on land that is eligible for this option (see the Mid Tier Manual section 6.7).

Enhanced management of maize crops (SW5)

£133 per ha

Where to use this option

- Whole parcel
- Rotational
- only on land where maize is grown

Where this option cannot be used

- on parcels identified in the Farm Environment Record (FER) as at high risk of soil erosion or surface runoff
-

How this option will benefit the environment

It reduces the risk of soil erosion and surface runoff in fields where maize is grown. It will slow runoff water before it builds to a damaging flow, and remove sediment, organic material, nutrients and chemicals carried in the water.

REQUIREMENTS

- harvest the maize crop by 1 October
- establish a quick-growing cover crop by 15 October that will provide a dense cover and protect the land from soil erosion and runoff

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the option area taken on 2 October

RELATED MID TIER OPTIONS

The following options can be located on the same area as this option:

- OR3 - Organic conversion - rotational land
- OT3 - Organic land management - rotational land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Choice of cover crop

- a mix or a single crop can be used, but crops should be suitable for winter sowing, fast growing and frost tolerant to provide adequate cover over winter
- a mixture of seeds, such as vetch, phacelia, barley or mustard, can be sown, but the choice of cover crop will depend on herbicide selected and the rates of application for the previous crop
- choice of cover crop will also depend on the crops grown in the rotation

How to establish the cover crop

- remove any areas of soil compaction but do not subsoil on archaeological features
- sow the cover crop (within 2 weeks of harvesting and no later than 15 October)
- establish by drilling or broadcasting
- sow at a suitable seed rate to provide a dense cover and protect from soil erosion
- nutrients should only be used in line with crop requirements; no more than the recommended amount of slurry or manure should be applied for either the maize or the crop that follows it
- nutrient input must be based on an approved fertiliser management recommendation system (Fertiliser manual RB209 - <http://www.ahdb.org.uk/projects/CropNutrition.aspx> or similar)

Using this option next to a watercourse

For fields next to a watercourse, options SW1 - 4m to 6m buffer strip on cultivated land or SW4 - 12m to 24m watercourse buffer strip on cultivated land should be considered. These field margin options will help to capture any sediment or organic materials carried in the runoff water.

Winter cover crops (SW6)

£114 per ha

Where to use this option

Whole or part parcel

Rotational

Only on one of the following

- cultivated land that is vulnerable to nitrate leaching
- cultivated land, draining directly to a watercourse, that is identified on the Farm Environment Record (FER) as at risk of soil erosion or surface runoff

Where this option cannot be used:

- from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)

How this option will benefit the environment

Cover crops help to reduce nitrate leaching on land that would normally be left bare or down to stubbles during winter. It may also reduce the risk of potential pollutants, such as sediment and nutrients, being carried to neighbouring watercourses.

REQUIREMENTS

- establish a quick-growing cover crop by 15 September that will provide a dense cover and protect the land from soil erosion and runoff
- destroy the cover crop in late January or early February, a maximum of 6 weeks before establishing the following spring crop. When weather conditions delay establishment of a spring crop, the cover crop can be left until mid-March.

Do not:

- apply any fertilisers or manures

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

RELATED MID TIER OPTIONS

The following options can be located on the same area as this option:

- HS3 - Reduced-depth, non-inversion cultivation on historic and archaeological features
- OR3 - Organic conversion - rotational land
- OR4 - Organic conversion - horticulture
- OT3 - Organic land management - rotational land
- OT4 - Organic land management - horticulture

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.

How to choose the right location

This option should be used on vulnerable soil types, particularly light sandy soils within nitrate vulnerable areas.

Choice of cover crop

- a mix or a single crop can be used, but crops should be suitable for winter sowing, fast growing (to mop up N) and frost tolerant to provide adequate cover over winter
- a mixture of seeds, such as rye, vetch, phacelia, barley or mustard, can be sown, or other crops such as ryegrass or tillage radish, but the choice of cover crop will depend on herbicide selected and the rates of application for the previous crop
- choice of cover crop will also depend on the crops grown in the rotation

How to manage the crop

- remove any areas of soil compaction but do not subsoil on archaeological features
- establish the cover crop by 15th September, so it can take up soil nitrate before winter drainage water leaches it below the depth of the developing plant
- establish by drilling or broadcasting
- sow at a suitable seed rate to provide a dense cover and protect from soil erosion
- destroy the cover crop in late January or February, before it is too well developed – if left too late nitrate leaching may increase the following winter
- cover crop destruction may include an application of glyphosate prior to destruction by cultivation for the following crop

Using this option next to a watercourse

On fields next to a watercourse that are at risk of soil erosion and runoff, applicants should also consider creating grass buffer strips. They will help to capture any sediment or organic materials carried in runoff water. Options SW1 - 4m to 6m buffer strip on cultivated land, SW4 - 12m to 24m watercourse buffer strip on cultivated land, or other grass buffer options may be used.

Arable reversion to grassland with low fertiliser input (SW7)

£311 per ha

Where to use this option

Whole or part parcel

Only on one of the following:

- cultivated land that is identified in the Farm Environment Record (FER) as at risk of soil erosion or surface runoff
- cultivated land that has been identified as important for buffering sensitive habitats

Applicants must have support from a Catchment Sensitive Farming (CSF) officer to use this option.

Applicants must meet one of the following conditions (see Mid Tier Manual section 6.7):

- be following a recommended fertiliser management system to plan nutrient inputs across the farm
- plan to adopt a recommended fertiliser management system within 18 months of the start of the agreement
- qualify as a low intensity farmer

How this option will benefit the environment

A dense grass sward in arable fields at risk of soil erosion or surface runoff will stabilise the soil, reduce nutrient losses, and buffer sensitive habitats, such as designated aquatic habitats. It will also reduce surface runoff, which may help to reduce the risk of flooding.

REQUIREMENTS

- where it is necessary to reseed, establish a grass sward by 1 October using a seed mixture of at least 5 species (see the “What to sow” section below)
- from year 2, manage the sward by grazing and/or cutting to achieve an average sward height of between 5cm and 15cm in November. Remove all cuttings
- exclude all livestock from 1 October to 15 March
- make sure that, by year 2, less than 10% of the area is bare ground
- livestock manures may be applied to supply up to 100kg of total nitrogen per ha per year - where livestock manures are not used, nitrogen fertiliser can be used to supply no more than 50kg/ha of total nitrogen per year

Do not:

- use pesticides, except for herbicides to weed wipe or spot treat injurious weeds, invasive non-native species, nettles or bracken
- apply any manure or fertiliser between 15 August and 1 February
- supplementary feed except for mineral blocks (non-energy based).

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- stock records to show grazing activity on parcels

Applicants will have to send the following with their application:

- written endorsement from a CSF officer
- evidence that a recommended fertiliser management system is used or evidence to support low intensity farmer claim - this information can be provided with the application or within 18 months of the start of the agreement, as applicable

RELATED MID TIER OPTIONS

The following options and supplements can be located on the same area as this option:

- OR1 - Organic conversion - improved permanent grassland
- OT1 - Organic land management - improved permanent grassland
- SW14 - Nil fertiliser supplement

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

How to choose the right location

This option should be used in targeted areas to reduce diffuse water pollution. It can be also be used to buffer sensitive habitats (i.e. aquatic habitats designated as Sites of Special Scientific Interest (SSSI)) that are under significant threat from diffuse water pollution. For further advice on where this option should be used, refer to national and regional targeting guidelines.

This option will not be suitable:

- if it will have a damaging effect on sites of archaeological interest
- on sites with pests (e.g. rabbits, mink, thistles and ragwort) that are not under control, and that prevent land management or threaten the established vegetative cover

Where this option is used to buffer sensitive habitats, it may be combined with SW14 - Nil fertiliser supplement.

How to manage the sward

- when preparing a seedbed, remove any subsoil compaction, except on archaeological features
- control weeds and cut regularly in the first 12 to 24 months of establishment to encourage grasses to tiller
- where cutting, avoid doing so when the soil is wet, to prevent compaction
- remove any cuttings that will otherwise damage the sward
- avoid supplementary feeding, except with mineral blocks

What to sow

The choice of grass species should be tailored to the soil type and cutting regime. The following species will grow in most conditions and can form part of a basic grass seed mixture (however, cocksfoot and timothy should be used with care, as they are tussocky, vigorous and can become dominant):

- timothy
- cocksfoot
- crested dogstail
- red fescue
- smooth stalked meadow grass

The environmental benefits can be increased by adding wild flowers. Where adding wild flowers, applicants should ensure that the grass mixture is not too vigorous. Fairly robust flower species should be used, such as:

- ox-eye daisy
- black knapweed
- bird's-foot-trefoil
- common sorrel

Catchment Sensitive Farming

Catchment Sensitive Farming (CSF) operates in parts of country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support - <https://www.gov.uk/guidance/catchment-sensitive-farming-reduce-agricultural-water-pollution> .

Management of intensive grassland adjacent to a watercourse (SW8)

£202 per ha

Where to use this option

Whole parcel

Only on grassland that meets each of the following requirements:

- sloping fields that drain directly into a watercourse
- it receives more than 200kg/ha of nitrogen per year
- it is identified on the Farm Environment Record (FER) as at risk of soil erosion or surface runoff, or has been identified as important for buffering sensitive habitats

Where this option cannot be used

- on parcels within a severely disadvantaged area (SDA)

Applicants must have support from a Catchment Sensitive Farming (CSF) officer to use this option.

Applicants must also meet one of the following conditions (see Mid Tier Manual section 6.7):

- be following a recommended fertiliser management system to plan nutrient inputs across the farm
- plan to adopt a recommended fertiliser management system within 18 months of the start of the agreement
- qualify as a low intensity farmer

How this option will benefit the environment

Reducing stocking density and fertiliser inputs on improved grassland will help reduce soil compaction, surface run-off and risk of diffuse pollution to the watercourse. Reducing surface runoff may help to reduce the risk of flooding. The option may also reduce the risk of nitrate loss to ground and surface water if it is used with SW14 - Nil fertiliser supplement.

REQUIREMENTS

- Where it is necessary to reseed, establish a grass sward by 1 October using a seed mixture of at least 5 species (see the section “What to sow” below)
- from year 2, manage the sward by grazing or cutting to achieve an average sward height of between 5cm and 15cm in November
- where cutting, cut the sward after 15 July – remove all the cuttings
- exclude all livestock from 1 October to 15 March
- make sure that, by year 2, less than 10% of the area is bare ground
- livestock manures may be applied to supply up to 100 kg/ha of total nitrogen per year - where livestock manures are not used, nitrogen fertiliser can be used to supply no more than 50 kg/ha total nitrogen per year

Do not:

- use pesticides, except for herbicides to weed wipe or spot treat injurious weeds, invasive non-native species, nettles or bracken
- apply any manure or fertiliser between 15 August and 1 February

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at parcel level, including associated invoices
- stock records to show grazing activity on each parcel

Applicants will have to send the following with their application:

- written endorsement from a CSF officer
- evidence that a recommended fertiliser management system is used or evidence to support low intensity farmer claim - this information can be provided with the application or within 18 months of the start of the agreement, as applicable
- input records showing that the grassland has received more than 200kg of nitrogen per ha per year

RELATED MID TIER OPTIONS

The following options and supplements can be located on the same area as this option:

- OR1 - Organic conversion - improved permanent grassland
- OT1 - Organic land management - improved permanent grassland
- SW14 - Nil fertiliser supplement

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

How to choose the right location

This option should be used in targeted areas to reduce diffuse water pollution. It can also be used to buffer sensitive habitats (i.e. aquatic habitats designated as Sites of Special Scientific Interest (SSSI)) that are under significant threat from diffuse pollution. For further advice on where this option should be used, refer to national and regional targeting guidelines.

This option will not be suitable:

- if it will have a damaging effect on sites of archaeological interest
- on sites with pests (e.g. rabbits, mink, thistles and ragwort) that are not under control, and that prevent land management or threaten the established vegetative cover

Where this option is used to buffer sensitive habitats, it may be combined with SW14 - Nil fertiliser supplement.

How to manage the sward

- where required to reseed, remove any subsoil compaction except on archaeological features
- control weeds and cut regularly in the first 12 to 24 months of establishment to encourage grasses to tiller
- where cutting, avoid doing so when the soil is wet, to prevent compaction
- remove any cuttings that will otherwise damage the sward
- manure or fertiliser should not be applied between 15 August and 1 February
- avoid supplementary feeding, except with mineral blocks

What to sow

Where required to reseed, the choice of grass species should be tailored to the soil type and cutting regime.

The following species will grow in most conditions and can form part of a basic grass seed mixture (however, cocksfoot and timothy should be used with care, as they are tussocky, vigorous and can become dominant):

- timothy
- cocksfoot
- crested dogstail
- red fescue
- smooth stalked meadow grass

The environmental benefits can be increased by adding wildflowers. Where adding wildflowers, applicants should ensure that the grass mixture is not too vigorous. Fairly robust flower species should be used, such as:

- ox-eye daisy
- black knapweed
- bird's-foot-trefoil
- common sorrel

Catchment Sensitive Farming

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Seasonal livestock removal on intensive grassland (SW9)

£88 per ha

Where to use this option

Whole parcel

Only on grassland that meets each of the following requirements:

- it drains directly to a watercourse
- it receives more than 100kg/ha of nitrogen per year
- it is identified on the Farm Environment Record (FER) as at risk of soil erosion or surface runoff, or has been identified as important for buffering sensitive habitats or species

Where this option cannot be used

- on parcels within a severely disadvantaged area (SDA)

How this option will benefit the environment

Livestock will be removed at particular times of the year from fields adjacent to a watercourse that are prone to waterlogging, compaction or poaching. This will help improve soil structure, reduce surface runoff and risk of diffuse pollution to the watercourse. Reducing surface runoff may help to reduce the risk of flooding.

REQUIREMENTS

- exclude all livestock from the land for 5 and a half consecutive months during the period 1 September to 15 April; this must include excluding all livestock during the period 1 December to 15 March

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- stock records to show grazing activity on each parcel

Applicants will have to send the following with their application:

- input records showing that the grassland has received more than 100kg of nitrogen per ha per year

RELATED MID TIER OPTIONS

The following options can be located on the same area as this option:

- OR1 - Organic conversion - improved permanent grassland
- OT1 - Organic land management - improved permanent grassland

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Storing manures and moving livestock

Applicants should not:

- store manure on the site
- cause soil damage on other parcels by removing livestock from the site
- apply any fertilisers or manures from 15 August to 31 January

as doing so might breach cross compliance and other regulations.

Seasonal livestock removal on grassland in SDA next to streams, rivers and lakes (SW10)

£36 per ha

Where to use this option

Whole parcel

Only on grassland that meets each of the following requirements:

- permanent grassland that drains directly into a watercourse and is prone to waterlogging, compaction or poaching, where it is important to remove livestock during the winter
 - in a severely disadvantaged area (SDA) and below the moorland line
-

How this option will benefit the environment

Livestock will be removed at particular times of the year from fields adjacent to a watercourse that are prone to waterlogging, compaction or poaching. This option will help enhance water quality by reducing the input of nutrients and sediment to streams, rivers and lakes caused by surface runoff and the leaching of nutrients from adjacent farmland.

REQUIREMENTS

- exclude all livestock from the land from 1 October to 15 March

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- stock records to show grazing activity on each parcel

Applicants will have to send the following with their application:

- evidence that the parcel is prone to waterlogging, compacting or poaching and drains directly to a watercourse

RELATED MID TIER OPTIONS

The following options can be located on the same area as this option:

- OR1 - Organic conversion - improved permanent grassland
- OR2 - Organic conversion - unimproved permanent grassland
- OT1 - Organic land management - improved permanent grassland
- OT2 - Organic land management - unimproved permanent grassland

ADVICE AND SUGGESTIONS FOR HOW TO CARRY THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Storing manures and moving livestock

Applicants should not:

- store manure on the site
- cause soil damage on other parcels by removing livestock from the site
- apply any fertilisers or manures from 15 August to 31 January

as doing so might breach cross compliance and other regulations.

Riparian management strip (SW11)

£440 per ha

Where to use this option

Part parcel

Only on land that meets each of the following requirements:

- it is located next to ditches, rivers or streams
- it is grazed

Where this option cannot be used

- adjacent to any other grassland option or adjacent to woodland
- on moorland or unenclosed land
- on designated open access land
- on Sites of Special Scientific Interest (SSSIs) unless approved by Natural England

How this option will benefit the environment

It prevents livestock access to the watercourse and provides a buffer strip. This will help reduce bankside erosion and the transport of pollutants to the watercourse. It will also provide habitat for wildlife and form links between other habitats. As the scrub develops, it may also help to shade and cool the watercourse.

REQUIREMENTS

- keep livestock from the riparian strip, leaving no access the watercourse
- make sure the riparian strip is at least 4m wide, but not more than 12m wide
- control all invasive non-native species, such as Japanese knotweed, giant hogweed or Himalayan balsam
- cut only to control woody growth so that cover is between 50% to 80% of the total area

Do not:

- apply any fertilisers or manures
- apply pesticides, except for herbicides to weed wipe or spot treat injurious weeds, invasive non-native species, nettles or bracken

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

Applicants will have to send the following with their application:

- SSSI approval if required

RELATED MID TIER OPTIONS

The following options can be located on the same area as this option:

- OR1 - Organic conversion - improved permanent grassland
- OR3 - Organic conversion - rotational land

- OT1 - Organic land management - improved permanent grassland
- OT3 - Organic land management - rotational land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

How to choose a site

This option should be used in targeted areas to reduce diffuse water pollution, in particular where livestock access to the watercourse is causing a significant water quality issue.

How to manage the strip

Use permanent fencing to exclude livestock from the strip and watercourse. Include a gate in the fence to provide access to the site for management. Capital grants are available in Mid Tier for a variety of fencing and water supply capital items.

High tensile wire should be used rather than netting if the fence alongside the strip is likely to be flooded. This will help to reduce the chance of debris snagging and therefore will withstand more flood pressure.

Invasive or non-native weeds should be controlled in a way that is not harmful to the stream.

Woody species such as alder, willow and sallow should be encouraged, but not permitted to cover the strip completely. Trees or scrub must be controlled if they start to dominate the strip. This should be carried out in small stages and patches by:

- making scalloped indents along the field or riparian edges
- cutting back isolated sections of larger trees

Nil fertiliser supplement (SW14)

£131 per ha

Where to use this supplement

Whole or part parcel

Only to be used:

- on parcels or part parcels greater than 1ha
- in combination with either SW7 - Arable reversion to grassland with low fertiliser input or SW8 - Management of intensive grassland adjacent to a watercourse

Applicants must have support from a Catchment Sensitive Farming (CSF) officer to use this supplement.

Applicants must also meet one of the following conditions (see Mid Tier Manual section 6.7):

- be following a recommended fertiliser management system to plan nutrient inputs across the farm
- plan to adopt a recommended fertiliser management system within 18 months of the start of the agreement
- qualify as a low intensity farmer

How this supplement benefits the environment

It helps to reduce the risk of nitrate loss to ground and surface water by reducing nutrient inputs to zero.

REQUIREMENTS

Do not:

- apply any fertilisers or manures

Keeping records

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

Applicants will have to send the following with their application:

- written endorsement from a CSF officer
- evidence that a recommended fertiliser management system is used or evidence to support low intensity farmer claim - this information can be provided with the application or within 18 months of the start of the agreement, as applicable

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Enclosed rough grazing (UP1)

£39 per ha

Where to use this option

Whole parcel

Only on land above the moorland line within severely disadvantaged areas (SDA), on parcels less than 25ha in area - parcels must be enclosed.

When this option is targeted at ground nesting birds, parcels must have scrub cover of less than 1% of the area.

Features that can be included in this option

The following features can be included if they're part of the land, even if they are ineligible for the Basic Payment Scheme (BPS):

- bracken
- ditches
- dykes
- scrub including gorse bushes and briar
- scree, rock, outcrops or boulders
- streams less than 4m wide and that take up less than 1 ha of the parcel

How this option will benefit the environment

It maintains and enhances areas of enclosed rough grazing land within an upland farming system.

This land contains extensive areas of moorland vegetation but it does not meet moorland priority habitat status over the majority of the parcel.

If successful there will be:

- benefits to moorland birds such as short eared owl and ring ouzel
- improved breeding and feeding habitat for birds such as golden plover and redshank
- a mosaic of upland rough grazing habitats with diverse sward heights and extended areas of wet, marshy grassland vegetation
- any historic environment features (such as old walls) should be visible, with low dwarf shrub or grassy cover and no bare soil or sodden, trampled land (poaching)

REQUIREMENTS

- contain bracken and common gorse so that they do not spread to new areas of land
- control common gorse by cutting or burning in blocks
- maintain dwarf shrub coverage
- maintain scrub in discrete small patches, lines and occasional individual bushes scattered across the site:
 - where scrub cover is less than 5%, keep the full extent of well-established scrub
 - where scrub cover is more than 5%, keep scrub cover between 5% and 10% of the parcel area
- maintain a sward with a range of heights during the growing season so that at least 20% is less than 7cm high and 20% is more than 7cm high - no height variation needs to be maintained when the field is closed up for a cut of hay or silage
- only use machinery or allow other activities that might disturb breeding birds between 16 July and 14 March
- control dense rush by grazing or cutting every year so that stands do not cover more than 20% of the parcel area and sward heights are less than 20cm high by 30 September

Do not:

- use pesticides, except for herbicides to spot-treat or weed-wipe for the control of injurious weeds, invasive non-natives, nettles and bracken
- apply any lime, fertilisers or manures
- supplementary feed except for mineral blocks
- cut rushes between 15 March and 31 July
- cut more than half of the scrub in any year, except on historic and archaeological features
- use herbicides on ferns other than bracken
- plough, cultivate or re-seed
- carry out any drainage works, including modifying existing drainage, unless Natural England has given written permission before work takes place

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- receipted invoices, consents or permissions connected with the work
- records of all management activity on the option area for each parcel
- timings of herbicide or pesticide applications along with the product used and application rate
- burning and cutting dates and locations
- a monthly record of stock numbers grazing each parcel in this option
- any written agreements from Natural England for drainage works

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- a photographic record of the extent of dwarf shrub, bracken and gorse on the site

RELATED MID TIER OPTIONS

The following options and supplements can be located on the same area as this option:

- HS4 – Scrub control on historic and archaeological features
- OT6 – Organic land management - enclosed rough grazing

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right location

Suitable land includes:

- uncultivated grassland
- unimproved pasture
- allotments that have been historically set aside for the grazing of animals
- steeper or less accessible parcels not routinely used for producing forage
- seasonally wet parcels
- parcels with naturally occurring flushes or rock outcrops

These parcels tend to have unimproved soils that support semi-natural vegetation, priority habitats or [species listed under the Natural Environment and Rural Communities Act]

<http://www.nhm.ac.uk/research-curation/scientific-resources/biodiversity/uk-biodiversity/uk-species/checklists/NHMSYSoo20515439/index.html>

Avoid damaging historic and archaeological features as these are particularly vulnerable in historically uncultivated parcels.

Management of rough grazing for birds (UP2) Mid Tier

£88 per ha

Where to use this option

In Mid Tier this option can only be used with approval from Natural England. The land must be mapped as Upland breeding bird areas for Countryside Stewardship, see MAGIC (www.magic.gov.uk)

Whole or part parcel

Only on permanent grassland parcels of at least 2ha that are within a Less Favoured Area. This includes allotments, intakes, newtakes and semi-improved in-bye that already support (or have the potential to support) breeding waders.

The applicant must also meet at least one of the following conditions to use this option:

- follow a recommended fertiliser management system to plan nutrient inputs across the farm
- adopt a recommended fertiliser management system within 18 months of the start of the agreement
- qualify as a low intensity farmer

Features that can be included in this option

The following features can be included if they are part of the land, even if they are ineligible for the Basic Payment Scheme (BPS):

- ditches, dykes, drains, rivers, streams that are less than 4m wide for the majority of their length in the parcel
- temporary water
- natural unsurfaced roads, tracks, paths and bridleways, as long as the requirements can still be met
- bracken
- areas of scree, rock outcrops and boulders – each area can cover up to 0.1ha
- permanent water up to 0.1ha
- grazed woodland and scrub that allows livestock access and has grass underneath

How this option will benefit the environment

It is for restoring or maintaining upland bird populations. The option brings about water level management and provides the appropriate grassland habitat and sward structure for feeding and nesting.

If successful there will be rough grassland habitat supporting target species. Where appropriate, a water level management regime may also be in place, including scrapes and foot-drains. The water level management will also have enhanced pools or ditches for aquatic plants, invertebrates and other important species.

REQUIREMENTS

- manage the sward by grazing and/or cutting to maintain a varied sward to benefit upland waders by achieving a sward height of less than 5cm over 50% of the parcel area by 15 March
- only graze in line with the agreed stocking calendar (<https://assets.publishing.service.gov.uk/media/5b3a4379e5274a701279ada5/stocking-calendar-for-UP2.pdf>), which includes minimum and maximum stocking rates by grazing animal type by month
- manage scrub to achieve cover of between 1% and 5% of the parcel;
- manage bracken and make sure bracken litter doesn't cover more than 25% cover across any area of bracken

- manage dense rush so that it doesn't cover more than 20% of the parcel and the rush height is less than 20cm by 30 September
- manage field operations to reduce effects on breeding birds
- manage wet features to provide muddy areas for waders to feed.

Do not:

- supplementary feed except for the provision of mineral blocks (non-energy based)

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- stock records to show grazing activity on parcels
- a count of breeding birds in year 5 of the agreement – send this with the final claim

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the management undertaken

Applicants will have to send the following with their application:

- a map and photographs of the extent of bracken on the option area
- a map of the land drainage system
- a stocking calendar
- evidence that a recommended fertiliser management system is used or evidence to support low intensity farmer claim - this information can be provided with the application or within 18 months of the start of the agreement, as applicable

RELATED OPTIONS

The following options and supplements can be located on the same area as this option:

- BE3 – Management of hedgerows
- GS16 – Rush infestation control supplement
- OR2 – Organic conversion – unimproved permanent grassland
- OT2 – Organic land management – unimproved permanent grassland
- OT6 – Organic land management – enclosed rough grazing
- SP1 – Difficult sites supplement (Higher Tier only)
- SP2 – Raised water level supplement (Higher Tier only)
- SP3 – Bracken control supplement (Higher Tier only)
- SP4 – Control of invasive plant species supplement (Higher Tier only)
- SP5 – Shepherding supplement (Higher Tier only)
- SP6 – Cattle grazing supplement
- SP7 – Introduction of cattle grazing on the Isles of Scilly (Higher Tier only)
- SP8 – Native breeds at risk supplement (Higher Tier only)
- SP9 – Threatened species supplement (Higher Tier only)
- WT3 – Management of ditches of high environmental value (Higher Tier only)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

Pick the right location

Choose sites that:

- are open, with any surrounding hedges less than about 2m high
- experience minimal disturbance (from footpaths or public rights of way)
- have no overhead pylons or power lines
- have no in-field trees
- are not next to woodland
- have either an existing high water table or surface water attributes (flushes, ditches, foot drains), or where they could be created

Sites to avoid

Avoid sites that are:

- steep (above 14:1, or 8 degrees)
- less than 2ha and bounded by tall (over 2m) hedgerows, scrub or trees

Vegetation management

Tailor vegetation management to the target species - usually a range of vegetation heights is preferred.

Management of wet features (drains, grips, scrapes)

Provide surface wet features from 1 March to 1 June (such as scrapes, flushes, foot drains or surface standing water). At least 50% of the wet features' edges should have exposed mud at the water's edge to promote invertebrate activity and allow chicks access to feed.

Consider the need to re-profile man-made wet features annually and maintain as required.

Any mechanical operations should be scheduled for the driest period of the year (or after mid-August if breeding snipe are present).

Manage rushes so that they cover no more than 20% of the option land.

Grazing

Use quiet stock on these sites to avoid unnecessary trampling of nests and chicks.

Adequate grazing and appropriate mechanical operations after the breeding season (August to March) are vital to create the desired vegetation mosaic for the following spring.

It is important that there is adequate grazing available which is not in breeding bird options to retain flexibility to manage the breeding bird areas correctly during the breeding season.

Woodland edges on arable land (WD3)

£323 per ha

Where to use this option

Only on arable land immediately adjacent to predominantly native or ancient semi-natural woodland

Where this option cannot be used

- on historic or archaeological features
- from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)

How this option will benefit the environment

If successful a scrub and grass mosaic will develop through natural regeneration between the arable land and existing woodland. New woodland edge habitat will result in an increase in birds, invertebrates, small mammals and other wildlife.

REQUIREMENTS

- allow the woodland edge to grow out for up to 6m
- only cut to maintain the scrub and grass mosaic and for the control of injurious weeds and invasive non-native species
- cut no more than a third of the shrubby growth in any one calendar year

Do not:

- use pesticides, except for herbicides to spot-treat or weed-wipe for the control of injurious weeds, invasive non-natives, nettles and bracken
- apply any fertilisers or manures
- supplementary feed
- cultivate within 6m of the woodland edge
- cut during the bird breeding season (1 March to 31 August)

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices
- stock records to show grazing activity on parcels

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

Agreement holders should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the management undertaken

RELATED MID TIER OPTIONS

The following options can be located on the same area as this option:

- OR3 - Organic conversion - rotational land
- OR4 - Organic conversion - horticulture
- OT3 - Organic land management - rotational land
- OT4 - Organic land management - horticulture

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

The woodland edge should be encouraged to grow 6m out into the field, forming a scrub and grass mosaic. This mosaic should not be allowed to develop into secondary woodland, but should be maintained through controlled grazing and/or cutting.

The option should be placed adjacent to predominantly native woodland, in particular ancient woodland, which may be under active or passive management. It may be used to enhance woodland within the holding, as well as woodland that immediately borders but is not part of the farm.

The option is also eligible where a ditch runs between the woodland and the arable field. It may not be practical, however, if the ditch requires ongoing management or maintenance. Special care is needed to ensure that historic features such as woodbanks are undamaged.

The woodland adjacent to this option may receive funding under woodland options, but there must be no overlap. Buffer strip options may also be located adjacent to this option.

Be aware that the woodlands against which this option is placed may be home to European Protected Species, which could migrate into the scrub and grass land mosaic created. Young scrub, for example, is ideal habitat for dormice.

Management of wood pasture and parkland (WD4) Mid Tier

£46 per ha

Where to use this option

In Mid Tier this option can only be used with approval from Natural England

Only for managing existing lowland wood pasture and parkland in good condition. Recreational parkland is only eligible where it forms part of the farmed environment.

For Mid Tier the land must be mapped on the Priority Habitat Inventory as wood pasture and parkland, see MAGIC (www.magic.gov.uk)

Features that can be included in this option

The following features can be included if they are part of the land, even if they are ineligible for the Basic Payment Scheme (BPS):

- rivers, streams, ditches, drains and dykes or any open water less than 4 metres wide
- ponds or inland standing water less than 100 square metres
- unsurfaced roads such as tracks, paths or bridleways
- small areas of scrub and woodland that do not qualify for specific scrub, woodland or other options

How this option will benefit the environment

It will maintain existing lowland wood pasture and parkland on sites that still support mature and veteran trees.

If successful there will be many of the following, depending on whether the site is predominantly wood pasture, parkland or a combination of both:

- undisturbed standing and fallen deadwood that will provide habitats for invertebrates
- additional semi-mature or mature trees that will provide continuity of the tree population
- newly planted trees, spaced evenly with open crowns or patches of regeneration with space to allow open grown crowns to develop
- open grown scrub covering 10% to 20% of the wood-pasture
- flowering trees and scrub such as hawthorn, crab apple and wild pear that will provide food and nectar sources for wildlife
- well managed unimproved or semi-improved grassland or heathland, grazed by traditional cattle in wood pasture and deer and traditional cattle in parkland
- well maintained historic and archaeological features
- well maintained historic designed landscape planting features

REQUIREMENTS

- graze and/or cut to maintain area of closely grazed turf interspersed with taller tussocks
- retain all mature and veteran standing trees and all standing and fallen deadwood, provided that it is consistent with the National Tree Safety Group document '[Common Sense risk management of trees: Landowner Summary](https://www.forestry.gov.uk/safetreemanagement)', <https://www.forestry.gov.uk/safetreemanagement>. Fallen dead wood must be left uncut and in situ
- protect existing trees to prevent damage from livestock and wild animals. Manage tree guards to prevent any damage to growing trees
- protect parkland features, such as fencing, historic structures, lakes and ponds
- maintain the current water regime and agree all drainage works, including modification to existing drainage in writing with Natural England before undertaking any works

- carry out maintenance works and minor repairs on structural historic or archaeological features on a 'like for like' basis to retain the character of the feature in its local setting

In Mid Tier, Additional clauses may be included to refine the standard requirements. These will be discussed and agreed as part of the approval process.

Do not:

- use apply any fertilisers or manures
- use pesticides, except for herbicides to spot tree or weed-wipe for the control of injurious weeds, invasive non-natives, nettles or bracken
- plough, cultivate or re-seed
- use supplementary feeding
- harrow or roll
- allow damage to existing trees or vegetation or remove deadwood from the site

Keeping records

Agreement holders are likely to need to keep the following records and supply them on request:

- any bank statements, receipted invoices or permissions connected with the work
- photographs of trees and standing and fallen deadwood
- photographs of water levels at certain times of the year for specific water features and water bodies
- photographs of structural, historic and archaeological features - send these with the final claim
- a monthly record of the number of grazing livestock in each parcel
- records of all management activity on the option area for each parcel

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

Applicants will have to send the following with their application:

- photographs of all trees and standing and fallen deadwood
- photographs of any proposed areas to enhance a sward
- a map of the drainage system

For parklands, they are also likely to have to send:

- photographs/records of structural historic and archaeological features

RELATED OPTIONS

The following options and supplements can be located on the same area as this option:

- BE3 – Management of hedgerows
- BE6 - Veteran tree surgery (Higher Tier only)
- GS15 - Haymaking supplement
- GS16 - Rush infestation control supplement
- OR1 - Organic conversion - improved permanent grassland
- OR2 - Organic conversion - unimproved permanent grassland
- OT1 - Organic land management - improved permanent grassland
- OT2 - Organic land management - unimproved permanent grassland
- SP1 - Difficult sites supplement (Higher Tier only)
- SP3 - Bracken control supplement (Higher Tier only)
- SP4 - Control of invasive plant species supplement (Higher Tier only)
- SP6 - Cattle grazing supplement
- SP8 - Native breeds at risk supplement (Higher Tier only)
- SP9 - Threatened species supplement (Higher Tier only)
- WT3 – Management of ditches of high environmental value (Higher Tier only)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.

Veterinary treatments

Avoid applying veterinary treatments on grazing livestock wherever possible. Chemicals from these treatments could harm the insects and fungi that are typical of wood pasture and parkland.

Maintaining wood pasture and parkland

On historic parkland, provide a detailed feasibility study (management plan) tailored to the site, funded through PA2 Feasibility Study item.

Use grazing livestock, preferably traditional breed cattle in wood pasture or traditional bread cattle and deer in parkland, to maintain the site. Avoid compaction around veteran trees.

Continuity of veteran tree/dead wood habitat is a major concern on wood pasture. If sufficient semi-mature trees are present consider the creation of dead wood habitat on trees capital item and encourage new trees through natural regeneration if possible or with planting.

Planting new trees

Try to:

- space out newly planted trees (or patches of natural regeneration) so they are wide enough to grow an open crown
- pick trees that are suitable as eventual replacements for mature or veteran trees
- select tree species appropriate to the historic parkland design but consider varieties/provenances that are resilient to local climate change
- on wood pasture/site with veteran trees maintaining the genetic stock of the veteran trees on site is important. Choose varieties that provide the same ecological wood decay conditions as mature or veteran trees already on the site

Consents and permissions

Be aware that a number of consents and permissions may apply:

- the Tree Preservation Orders (TPO's) and Conservation Orders may apply to the trees on site
- old trees especially can host European Protected Species, such as bats

Read more about useful [tree management and safety information](http://www.forestry.gov.uk/safetreemanagement), <http://www.forestry.gov.uk/safetreemanagement> and felling licences requirements from the Forestry Commission (FC).

Further information

Read the following guidance booklets for more detail on managing ancient or veteran trees:

- [Ancient tree guides \(booklets 1 to 8\)](http://www.ancienttreeforum.co.uk/resources/ancient-tree-guides/), <http://www.ancienttreeforum.co.uk/resources/ancient-tree-guides/>
- Lonsdale, D. (ed) 2014, Ancient and other veteran trees: further guidance on management, Tree Council
- Read, H. (ed) 2000, Veteran trees: a guide to good management

Management of successional areas and scrub (WD7)

£74 per ha

Where to use this option

Whole or part parcel

Only:

- where scrub cover makes up at least 10% of the area

Where this option cannot be used

This option cannot be used:

- where there are historic or archaeological features
- on existing open habitats (where scrub can be included in a relevant option)
- where scrub would be out of character for the area

How this option will benefit the environment

It provides enhanced habitat for a wide range of wildlife and improves the quality of the woodland edge. It also helps prevent soil erosion and holds back water to reduce downstream flood risks.

If successful there will be:

- more scrub growing close to grassland, woodland and other habitats
- birds and invertebrates using the scrub
- less soil erosion in scrub areas
- reduced flooding in scrub areas

REQUIREMENTS

- keep livestock out of the option area from 1 October to 30 April
- only cut to maintain the scrub and grass mosaic and to control the spread of injurious weeds and invasive non-native species
- protect growing trees from livestock and wild animals
- make sure tree guards do not damage growing trees
- keep all mature and veteran trees and all standing deadwood, if safe to do so
- keep all fallen deadwood uncut and in place, stacked in piles
- agree all drainage works (including modifying existing drainage) with Natural England in writing before any works take place

Do not:

- cut more than one-third of shrub growth in any one calendar year
- cut during the bird breeding season (1 March to 31 August)
- apply fertilisers or manures
- plough, cultivate or re-seed
- harrow or roll
- supplementary feed
- use pesticides, except for herbicides to weed wipe or spot treat injurious weeds, invasive non-native species, nettles or bracken

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

- stock records to show grazing activity on parcels
- soil analyses
- any consents or permissions connected with this work

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs the management undertaken

Applicants will have to send the following with their application:

- photographs of trees and standing and fallen deadwood
- a map of the drainage system
- Photograph of existing bracken
- Photograph of scrub location
- Evidence of extent of scrub cover
- Evidence that scrub creation location proposal meets eligibility requirements

RELATED MID TIER OPTIONS AND SUPPLEMENTS

The following supplement can be located on the same area as this option and supplement:

- SP6 – Cattle grazing supplement
- WD9 - Livestock exclusion supplement - scrub and successional areas

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

Pick the right location

This option works best where:

- there is some open ground among the scrub for grasses and non-woody plants to grow
- scrub is next to other habitats such as grassland or heath
- scrub is established by woodland edges
- scrub can hold soils together and slow down surface runoff

Remove livestock

Remove grazing livestock to allow scrub plants to establish. Once established, stop scrub from becoming too dense by cutting on rotation, or grazing.

Establish a variety of scrub

Establish a variety of scrub to provide habitats and food for target species. For example:

- gorse scrub can support birds like the Dartford warbler, stonechat, linnet and yellowhammer
- willow scrub in wetlands can support warblers, reed bunting and willow tits
- buds and berries and caterpillars on scrub are essential food sources for birds

Dead and fallen trees

Leave any trees that die or fall in position, except where it is necessary to remove them for health and safety reasons, see <http://www.forestry.gov.uk/safetreemanagement>

Livestock exclusion supplement - scrub and successional areas (WD9)

£121 per ha

Where to use this supplement

It can be used whole or part parcel

Only when combined with:

- WD7 - Management of successional areas and scrub
- WD8 - Creation of successional areas and scrub (Higher Tier only)

Only on land:

- containing mostly native species of trees and scrubs

Where this supplement cannot be used

- for woodlands with an existing scheme to exclude livestock

How this supplement will benefit the environment

It helps scrub to develop through natural regeneration.

If successful there will be:

- more scrub growing close to grassland, woodland and other habitats
- birds and invertebrates using the scrub
- less soil erosion in scrub areas
- reduced floods in scrub areas

REQUIREMENTS

- keep livestock from the agreed area at all times
- submit an annual return to confirm that no livestock have grazed land under this supplement

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

An annual declaration on your claim form will be required to confirm that no stock have grazed land under this option.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS SUPPLEMENT

*The following section gives advice on carrying out this supplement successfully but does **not** form part of the requirements for this supplement.*

Once scrub has established, grazing can usually be re-introduced. This supplement may not be needed for the full duration of the agreement.

Buffering in-field ponds and ditches in improved grassland (WT1)

£201 per ha

Where to use this option

Only on improved grassland next to ponds.

Where this option cannot be used

- on historic or archaeological features around ponds associated with industrial features such as effluent ponds, balancing ponds or small water supply reservoirs

How this option will benefit the environment

It protects ponds from nutrient leaching and runoff. This will maintain and enhance water quality and wildlife. If successful there will be:

- a grassy strip with a mix of grasses, flowering plants, scrub and trees
- a decrease in the amount of sediment and nutrient entering the pond

REQUIREMENTS

- leave a 10m to 20m wide buffer strip next to the pond
- let tussocky grass and low scrub develop
- only cut to control the spread of woody growth

Do not:

- let scrub develop on more than half of the pond or ditch margin - the southern side of the pond must remain open
- let livestock poach more than a third of the pond margin
- use pesticides, except herbicides to weed wiper or spot treat for the control of injurious weeds, invasive non-native species, nettles or bracken
- apply any fertilisers or manures
- cut between 1 March and 31 August

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the strips

Applicants will need to send the following with their application:

- evidence that the grassland is improved

RELATED MID TIER OPTIONS

These options and supplements can be located on the same area as this option:

- OR1 - Organic conversion - improved permanent grassland
- OT1 - Organic land management - improved permanent grassland

Buffering in-field ponds and ditches on arable land (WT2)

£501 per ha

Where to use this option

Only on arable land next to ponds.

Where this option cannot be used

- on historic or archaeological features
- around ponds associated with industrial features such as effluent ponds, balancing ponds or small water supply reservoirs
- from 1 January 2019, on land already receiving funding for Ecological Focus Areas (EFAs) declared for the Basic Payment Scheme (BPS)

How this option will benefit the environment

It protects ponds from nutrient leaching and runoff. This will maintain and enhance water quality and wildlife.

If successful there will be:

- a grassy strip with a mix of grasses, flowering plants, scrub and trees
- a decrease in the amount of sediment and nutrient entering the pond

REQUIREMENTS

- establish or maintain a 10m to 20m wide buffer strip next to the pond in the first 12 months of the agreement
- let tussocky grass and low scrub develop
- only cut to control the spread of woody growth

Do not:

- let scrub develop on more than half of the pond margin - the southern side of the pond needs to remain open
- use pesticides, except for herbicides to weed-wipe or spot-treat for the control of injurious weeds, invasive non-native species, nettles or bracken
- apply any fertilisers or manures
- cut between 1 March and 31 August

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

On your annual claim you will be asked to declare that you haven't carried out any activities prohibited by the option requirements.

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the strips

RELATED MID TIER OPTIONS

These options and supplements can be located on the same area as this option:

- OR3 - Organic conversion - rotational land
- OR4 - Organic conversion - horticulture
- OT3 - Organic land management - rotational land
- OT4 - Organic land management - horticulture

Management of ditches of high environmental value (WT3)

Mid Tier

£37 per 100 metres for the management of both sides of the ditch

Where to use this option

In Mid Tier this option can only be used with approval from Natural England, and only with options GS9 and GS10

Only on ditches of high environmental value and ditches essential for the management of the following options:

- GS9 - Management of wet grassland for breeding waders
- GS10 - Management of wet grassland for wintering waders and wildfowl
- GS11 - Creation of wet grassland for breeding waders (Higher Tier only)
- GS12 - Creation of wet grassland for wintering waders and wildfowl (Higher Tier only)
- UP2 - Management of rough grazing for birds (Higher Tier only)
- WT6 - Management of reedbed (Higher Tier only)
- WT7 - Creation of reedbed (Higher Tier only)
- WT8 - Management of fen (Higher Tier only)
- WT9 - Creation of fen (Higher Tier only)
- WT10 - Management of lowland raised bog (Higher Tier only)

Features that can be included in this option

The following features can be included if they are part of the land, even if they are ineligible for the Basic Payment Scheme (BPS):

- ditches
 - dykes
 - drains
-

How this option will benefit the environment

It will manage ditches of high environmental value that support target species of plants, birds, mammals and invertebrates. It will also manage ditches that are essential to carrying out the wet grassland and wetland options.

REQUIREMENTS

- manage ditches and banks in a suitable manner and between 1 September and 31 March
- leave one bank or section of the ditch unmanaged, as a refuge for plants and invertebrates
- dispose of spoil in an appropriate manner
- control invasive non-native species, if they're present
- manage ditch water levels appropriately

In Mid Tier, Additional clauses may be included to refine the standard requirements. These will be discussed and agreed as part of the approval process.

Do not:

- re-profile or increase the width or depth of the ditch
- use spoil to fill hollows or low areas within the field, or place spoil on historic or archaeological features

- managing all the ditches in any one year
- fence off ditches

Keeping records

Agreement holders are likely to need to keep the following records and supply them on request:

- field operations at the parcel level, including associated invoices

You should also be aware that at the start of each claim year, a percentage of agreement holders will be asked to take and submit the following photographic records:

- photographs of the ditch

RELATED OPTIONS

If the ditch is partly located on a neighbouring parcel of land, this option can be used with any whole-field options or supplements that can be used on that parcel.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS OPTION

*The following section gives advice on carrying out this option successfully but does **not** form part of the requirements for this option.*

What to do if the work is complex

Maintain a variety of successional stages within the ditch network. These may range from open water to well-developed aquatic plant communities. Draw up an implementation plan specific to the site if the work proposed is particularly complex.

How to manage the ditches

Manage the ditches in a way appropriate to their scale, number and local area (methods of ditch management vary across the country).

Using the option on one side of a ditch

Normally use this option on both sides of a ditch. However, where control is limited to one side of a ditch, use this option if it will bring about the objectives.

Restoring ditches

Restore ditches covered by this option with funding from the appropriate ditch restoration capital item. However, this will need to be agreed with Natural England first.

Protected species

If the ditch contains a protected species, a **wildlife licence** will be required. <https://www.gov.uk/guidance/wildlife-licences>

Section 2: Mid Tier Capital Items

Stone-faced bank repair (BN1)

£31 per metre

Where to use this item

Only on lengths of stone-faced bank where less than 50% of the original height needs to be rebuilt.

How this item benefit the environment

If successful there will be a rebuilt length of stone-faced bank.

REQUIREMENTS

- build the bank back to its original height and profile to reflect other banks found locally
- carefully strip any loose stone back by hand, without disturbing the basal courses, until there are firm stones to build on
- use the original facing stone if it is available
- only use imported stone that matches the type, size and style traditional to the area
- haul the stone only when ground conditions are firm enough to prevent damage to neighbouring fields
- build the stone up in courses, using progressively smaller stones nearer the top, and making sure that the stones sit firmly on the course below
- back-fill each course with earth and small stones, or closely packed small stones
- tamp each course down to form a solid core before continuing with the next course
- stagger joints and incorporate long stones at intervals so that they run lengthways into the middle of the bank as tie stones
- build each face of the bank so it has a slight 'batter' (slope)
- finish off the top with a row of large flat stones, vertical stones or a layer of turf, depending on local practice
- make sure the top line of the bank is level with the ground
- make sure that no healthy mature trees are disturbed
- finish the ends of the bank at gateways with turfing or stone-facing, and protect it from being damaged by livestock and machinery
- retain and restore old features such as creep holes, built granite troughs or stone around gateways
- restore any stiles or gates to their original construction
- remove any surplus earth-fill and stones from the site after completion of the work and restore the ground around it

Do not:

- block or restrict access to open access land - <https://www.gov.uk/right-of-way-open-access-land/use-your-right-to-roam>
- carry out work between 1 March and 31 August if the bank is topped by a hedge
- take stone from other walls, banks or buildings
- remove soil from other banks, even if they are derelict
- damage the roots of mature trees growing on the banks with machinery
- place stone on features of archaeological, historic or wildlife value as identified on your FER, Environmental Information Map or HEFER (where applicable)

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- Photographs during and after work has been completed

Applicants will have to send the following with their application:

- photographs of each length of stone-faced bank entered into the item

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out the item successfully but does **not** form part of the requirements for this item.*

Determine the original height and profile of stone-faced banks by referring to other banks in good condition nearby. These are usually at least 1.3m wide at the base, 1.3m high, and 600mm to 800mm wide at the top.

Stone-faced bank restoration (BN2)

£86 per m

Where to use this item

Only on lengths of stone-faced bank where more than 50% of the original height needs to be rebuilt.

How this item benefit the environment

If successful there will be a rebuilt length of stone-faced bank.

REQUIREMENTS

- build the bank back to its original height and profile to reflect other banks found locally
- carefully strip any loose stone back by hand, without disturbing the basal courses, until there are firm stones to build on
- use the original facing stone if it is available
- only use imported stone that matches the type, size and style traditional to the area
- haul the stone only when ground conditions are firm enough to prevent damage to neighbouring fields
- build the stone up in courses, using progressively smaller stones nearer the top, and making sure that the stones sit firmly on the course below
- back-fill each course with earth and small stones, or closely packed small stones
- tamp each course down to form a solid core before continuing with the next course
- stagger joints and incorporate long stones at intervals so that they run lengthways into the middle of the bank as tie stones
- build each face of the bank so it has a slight 'batter' (slope)
- finish off the top with a row of large flat stones, vertical stones or a layer of turf, depending on local practice
- make sure the top line of the bank is level with the ground
- make sure that no healthy mature trees are disturbed
- finish the ends of the bank at gateways with turfing or stone facing, and protect it from being damaged by livestock and machinery
- retain and restore old features such as creep holes, built granite troughs or stone around gateways
- restore any stiles or gates to their original construction
- remove any surplus earth-fill and stones from the site after completion of the work and restore the ground around it

Do not:

- block or restrict access to open access land - <https://www.gov.uk/right-of-way-open-access-land/use-your-right-to-roam>
- carry out work between 1 March and 31 August if the bank is topped by a hedge
- take stone from other walls, banks or buildings
- remove soil from other banks, even if they are derelict
- damage the roots of mature trees growing on the banks with machinery
- place stone on features of archaeological, historic or wildlife value as identified on your FER, Environmental Information Map or HEFER (where applicable)

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- Photographs during and after work has been completed

Applicants will have to send the following with their application:

- photographs of each length of stone-faced bank entered into the item

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out the item successfully but does **not** form part of the requirements for this item.*

Determine the original height and profile of stone-faced banks by referring to other banks in good condition nearby. These are usually at least 1.3m wide at the base, 1.3m high, and 600mm to 800mm wide at the top.

Earth bank creation (BN3)

£13.50 per m

Where to use this item

Only on sites of former earth banks, as evidenced by historic maps, or where other records show that earth banks are a feature of a specific location or landscape.

How this item benefit the environment

If successful there will be a new length of earth bank which will conserve and enhance landscape character and provide a valuable wildlife habitat.

REQUIREMENTS

- build the bank to reflect the style and profile of other banks in a good condition nearby
- build up moist soil in consolidated layers, allowing it to settle at each stage to make sure it is stable
- build each face of the bank so that it slopes inwards (approximately 0.3m for every 1m in height), to create a 'batter' (slope)
- make the base of the bank wider than the top by roughly 45cm to 60cm on each side
- take turves up to the full height of the new bank in areas where existing banks are faced with turves
- finish off the top with loose soil or turf (unless a hedge is being planted)
- make sure the top line of the bank is level with the ground
- finish the ends of the bank at gateways with turfing or stone facing, and protect it from being damaged by livestock and machinery
- remove any surplus earth-fill and stones from the site after the work has been completed and restore the ground around it

Do not:

- block or restrict access to open access land - <https://www.gov.uk/right-of-way-open-access-land/use-your-right-to-roam>
- remove soil from other banks, even if they are derelict

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- Photographs during and after work has been completed

Applicants will have to send the following with their application:

- photographs to show the planned location for each length of earth bank creation
- historic maps or other records to evidence that the proposed location of the bank creation is on an original footprint, or is a feature of a specific location or landscape

Earth bank restoration (BN4)

£7 per m

Where to use this item

Only on lengths of earth bank that need to be rebuilt to their original height.

How this item benefit the environment

If successful there will be a length of rebuilt earth bank which will conserve and enhance landscape character and provide a valuable wildlife habitat.

REQUIREMENTS

- restore the bank to reflect the style and profile of other banks in a good condition nearby
- rebuild the bank using original soil that has slipped from it
- build up moist soil in consolidated layers, allowing it to settle at each stage to ensure stability
- use subsoil and small stones for the lower layers and topsoil with no stones for the upper layers
- build each face of the bank so that it slopes inwards (approximately 0.3m for every 1m in height), to create a 'batter' (slope)
- make the base of the bank wider than the top by roughly 45cm to 60cm on each side
- take turves up to the full height of the new bank in areas where existing banks are faced with turves
- finish off the top with loose soil or turf (unless a hedge is being planted)
- make sure the top line of the bank is level with the ground
- finish the ends of the bank at gateways with turfing or stone facing, and protect it from being damaged by livestock and machinery
- make sure that no healthy mature trees are disturbed
- restore any stiles and gates to their original construction
- remove any surplus earth-fill and stones from the site after the work has been completed and restore the ground around it

Do not:

- block or restrict access to open access land - <https://www.gov.uk/right-of-way-open-access-land/use-your-right-to-roam>
- carry out work between 1 March and 31 August if the bank is topped by a hedge
- remove soil from other banks, even if they are derelict
- damage the roots of trees growing on the bank with machinery

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- Photographs during and after work has been completed

Applicants will have to send the following with their application:

- photographs of each length of earth bank entered into the item

Hedgerow laying (BN5)

£9.40 per m

Where to use this item

Only on planted boundary lines of shrubs that are:

- over 20m long
 - less than 5m wide between major woody stems at the base
 - formed of at least 80% native shrubs
-

How this item benefit the environment

If successful there will be lengths of hedgerow rejuvenated with new growth to form a continuous hedge.

REQUIREMENT

- carry out work between 30 September and 31 March when the hedge is still dormant
- remove old fencing and wire
- cut and pull out bramble, clematis or other scrambling plants
- cut out elder plants and prevent re-growth of stumps
- partially cut through stems near ground level, laying the pleachers (cut stems) over at an angle from horizontal to form a stock-proof barrier
- remove the uncut heel from each pleacher
- keep pleachers in position by crooking, staking, or staking and binding
- keep all existing hedgerow trees
- remove all cut material from the immediate site after completion of the work
- control weeds during the first growing season after laying
- prevent livestock and grazing animals from damaging the hedge by setting fencing at least 1.2m from the centre of the hedge or, if there is a bank, as close to the base of the bank as possible
- trim the hedge for 3 years after laying, allowing the hedge to become taller and wider at each cut

Do not:

- lay hedges downhill
- obstruct or block access to open access land - <https://www.gov.uk/right-of-way-open-access-land/use-your-right-to-roam>
- disturb breeding birds

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices or bank statements where a receipted invoice is unavailable
- the date, location and method of any weed control undertaken
- the dates of preparation works and laying
- the dates of post-laying trimming
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of each length of hedge entered into the item
- a map showing the location of existing hedgerow trees in each length of hedge (this can be the FER)

RELATED MID TIER ITEMS

This item can be used on the same length as the following items and supplements:

- BN8 - Hedgerow supplement - casting up
- BN10 - Hedgerow supplement - top binding and staking

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out the item successfully but does **not** form part of the requirements for this item.*

Pick the right hedge

Use the hedgerow management cycle - <http://hedgelink.org.uk/index.php> - to help decide what management is needed.

Choose a hedge which:

- has few gaps and enough stems to lay to achieve a continuous length of hedge
- has stems between 5cm to 15cm in diameter - however, it is possible to cut larger stems with a chainsaw
- is tall enough to lay (at least 2.5m, and ideally 4m)

Hedge laying

To undertake hedge laying successfully:

- only cut using hand-tools (including chainsaws)
- lay the hedge in the regional style
- cut each stem as low as possible (no more than 10cm from the ground)
- choose stems which when laid do not leave large gaps
- protect the newly laid hedge from damage by grazing animals - rabbit fencing may be needed if local populations are high
- leave as much side growth on the branches as possible
- lay stems at an angle of about 35 to 45 degrees from horizontal
- keep any existing trees and leave the occasional 'standard' hawthorn or other species if this fits in with the local landscape
- keep deadwood where possible
- plant up gaps using native species to improve the continuity of the hedge

Fencing may only need to be temporary and in place for as long as it takes the hedge to grow sufficiently.

Hedge management

Control competitive weeds (including brambles, nettles and grasses) during the first growing season. These weeds reduce the re-growth rate of the laid stems by competing for soil moisture, nutrients and light.

Encourage dense bushy growth of the newly laid hedge by:

- trimming lightly for 3 years
- never cutting back to the same point, but allowing the hedge to gradually increase in height and width by several centimetres at each cut

In following years the hedge can either be left to grow unchecked until it requires laying or coppicing, or be managed by trimming.

Hedgerow coppicing (BN6)

£4 per m

Where to use this item

Only on planted boundary lines of shrubs that are:

- over 20m long
 - less than 5m wide between major woody stems at the base
 - composed of at least 80% native shrubs
-

How this item benefit the environment

If successful there will be lengths of hedgerow rejuvenated with new growth to form a continuous hedge.

REQUIREMENTS

- carry out work between 30 September and 31 March when the hedge is still dormant
- remove old fencing and wire
- cut and pull out bramble, clematis or other scrambling plants
- cut out elder plants and prevent re-growth of stumps
- encourage vigorous re-growth from the base of the plant by cutting the stems down to ground level (less than 10cm)
- angle cuts so that water can easily run off
- keep all existing hedgerow trees
- cuttings can be placed over newly coppiced stools to prevent browsing by livestock or wild animals, or to leave dead wood for wildlife; however, they must not prevent new growth.
- remove all unused cut branches from the immediate site after completion of the work
- control weeds during the first growing season after laying
- prevent livestock and grazing animals from damaging the hedge by setting fencing at least 1.2m from the centre of the hedge, or, if there is a bank, as close to the base of the bank as possible
- trim the hedge for 3 years after coppicing, allowing the hedge to become taller and wider at each cut

Do not:

- obstruct or block access to open access land - <https://www.gov.uk/right-of-way-open-access-land/use-your-right-to-roam>
- disturb breeding birds

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- the date, location and method of any weed control undertaken
- the dates of preparation works and coppicing
- the dates of post-coppicing trimming
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- a photograph of the each length of hedge entered into the item
- a map showing the location of existing hedgerow trees in each length of hedge (this can be the FER)

RELATED MID TIER ITEMS

This item can be used on the same length as the following supplement:

- BN8 - Hedgerow supplement - casting up

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out the item successfully but does **not** form part of the requirements for this item.*

Pick the right hedge

Use the hedgerow management cycle - <http://hedgeline.org.uk/index.php> - to help decide what management is needed.

Choose a hedge which:

- is gappy and has too few stems to lay
- has stems too large to lay (more than 15cm diameter)
- is too short to lay (less than 2.5m tall)

Most woody species coppice well, stimulating dense growth from the cut stems, apart from:

- holly
- mature beech
- mature hawthorn which is showing signs of rot

Hedge coppicing

To undertake hedge coppicing successfully:

- keep any existing trees and leave the occasional 'standard' hawthorn or other species when this fits in with the local landscape
- keep deadwood where possible
- plant up gaps at the same time as coppicing to improve the continuity of the hedge - plant native species that already occur in hedgerows in the local area
- protect the newly coppiced hedge from damage by grazing animals - rabbit fencing may be needed if local populations are high

Fencing may only need to be temporary and in place for as long as it takes the hedge to grow sufficiently.

Hedge management

Control competitive weeds (including brambles, nettles and grasses) during the first growing season.

These weeds reduce the re-growth rate of the coppiced stems by competing for soil moisture, nutrients and light.

Encourage dense bushy growth of the newly coppiced hedge by:

- trimming lightly for 3 years
- never cutting back to the same point, instead allowing the hedge to gradually increase in height and width by several centimetres at each cut. In following years the hedge can either be left to grow unchecked until it requires coppicing or laying, or be managed by trimming.

Hedgerow gapping-up (BN7)

£9.50 per m

Where to use this item

Only on planted boundary lines of shrubs that are:

- over 20m long
- less than 5m wide between major woody stems at the base
- composed of at least 80% native shrubs

Where this item cannot be used

On lengths of hedge managed under the BE3 - Management of hedgerows option.

How this item benefit the environment

If successful there will be lengths of hedgerow with gaps planted up to create a continuous length of hedge.

REQUIREMENTS

- carry out work between 1 November and 31 March when the hedge is still dormant
- prepare the ground along a 1.5m wide strip to provide good soil conditions and as little competition from other vegetation as possible
- apply any herbicide to the 1.5m strip in the August or September prior to planting
- Plants must be:
 - 2-year-old transplants
 - at least 450mm to 600mm high
 - native species, with no one species making up more than 70% of the total
 - planted in a staggered double row 40cm apart with a minimum of 6 plants per metre
 - kept clear of weeds until they are established
- prevent livestock and grazing animals from damaging the hedge by setting fencing at least 1.2m from the centre of the hedge, or, if there is a bank, as close to the base of the bank as possible
- remove individual guards and tree shelters once the plants are established
- replace all failures in the following planting season

Do not:

- obstruct or block access to open access land - <https://www.gov.uk/right-of-way-open-access-land/use-your-right-to-roam>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- the date, location and method of any weed control undertaken
- the dates of planting
- details of age, height and species planted
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- Photographs during and after work has been completed

Applicants will have to send the following with their application:

- a photograph of the each length of hedge entered into the item

RELATED MID TIER ITEMS

This item can be used on the same length as the following supplement:

- BN8 - Hedgerow supplement - casting up

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

When to plant

November is generally the best time to plant; however, if planting into clay soils wait until March. Planting should not be undertaken in freezing weather or waterlogged ground. If planting into a newly restored earth bank, plant the following autumn.

Planting

To undertake hedge gapping-up successfully:

- prepare the ground so the soil becomes friable (has a crumbly texture) and is free of other growth
- plant native species that already grow in the local area
- take care of roots before planting by keeping them covered at all times, especially when it is sunny or windy
- avoid opening more than one bag of plants at a time

Consider planting new hedgerow trees if they are characteristic of the local landscape.

Control weeds

Control competitive weeds (including brambles, nettles and grasses) during the first growing season. These weeds reduce the growth rate of the new plants by competing for soil moisture, nutrients and light. Avoid using a strimmer as these can damage the plants.

Protect the plants

Fence off the plants if sheep, cattle or horses graze the land. Keep fences far enough away so the hedgerow can grow at least 1.5m in width.

Rabbit netting may be needed, either on its own or with stock fencing, if there is a known problem with rabbits or hares.

Avoid using spiral guards as they limit the amount of dense growth at the base of each plant, are unsightly and difficult to remove.

Hedgerow supplement - casting up (BN8)

£3 per m

Where to use this supplement

Only on hedgerows which are both:

- being restored using options BN5 - Hedgerow laying or BN6 - Hedgerow coppicing
 - being cast-up by machine
-

How this supplement will benefit the environment

If successful there will be lengths of hedgerow which have been re-profiled and had slipped soil replaced.

REQUIREMENTS

- cast up the bank to reflect the local style and build it back to its original profile (this must be established by reference to other banks in good condition nearby)
- rebuild the bank using the original soil that has slipped from it
- build each face of the bank so that it slopes inwards (approximately 0.3m for every 1m in height), to create a 'batter' (slope)
- make the base of the bank wider than the top by roughly 45cm to 60cm on each side
- ensure the top line of the bank is level with the ground
- make sure that no healthy mature trees are disturbed
- restore any stiles and gates to their original construction
- remove any surplus earth-fill and stones from the site after completion of the work and restore the ground around it

Do not:

- cast up between 1 March and 31 August
- remove soil from other banks, even if they are derelict
- bury newly laid or coppiced material in deep earth
- damage the roots of trees growing on the bank with machinery

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of each length of hedge entered into the supplement

RELATED MID TIER ITEMS

This supplement can be used on the same length as the following items and supplements:

- BN5 - Hedgerow laying
- BN6 - Hedgerow coppicing
- BN10 - Hedgerow supplement - top binding and staking

Hedgerow supplement - top binding and staking (BN10)

£3.40 per m

Where to use this supplement

Only on hedgerows being restored using BN5 - Hedgerow laying.

How this supplement will benefit the environment

If successful there will be lengths of hedgerow rejuvenated with new growth to form a continuous hedge.

REQUIREMENTS

- use stakes made of straight and clean lengths of hazel, ash or sweet chestnut
- use binders made of straight lengths of hazel, ash or willow, with no side shoots

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of each length of hedge entered into the supplement

RELATED MID TIER ITEMS

This supplement can be used on the same length as the following items and supplements:

- BN5 - Hedgerow laying
- BN6 - Hedgerow coppicing
- BN7 - Hedgerow gapping-up
- BN8 - Hedgerow supplement - casting up

Planting new hedges (BN11)

£11.60 per m

Where to use this item

Only on:

- sites of former hedgerows - as evidenced by historic maps or other records OR
 - sites where creation would extend or link existing lengths of hedgerow OR
 - sites where creation will help reduce soil erosion and runoff
-

How this item will benefit the environment

If successful there will be new lengths of hedgerow planted with locally occurring native species.

REQUIREMENTS

- carry out work between 1 November and 31 March
- prepare the ground along a 1.5m wide strip to provide good soil conditions and as little competition from other vegetation as possible
- apply any herbicide to the 1.5m strip in the August or September prior to planting only
- Plants must be:
 - 2-year-old transplants
 - at least 450mm to 600mm high
 - native species, with no one species making up more than 70% of the total
 - planted in a staggered double row 40cm apart with a minimum of 6 plants per metre
 - kept clear of weeds until they are established
- remove individual guards and tree shelters once the plants are established
- replace all failures in the following planting season
- trim the newly planted hedge in at least the first 2 years to encourage bushy growth, allowing the hedge to become taller and wider at each cut
- prevent livestock and grazing animals from damaging the hedge by setting fencing at least 1.2m from the centre of the hedge, or, if there is a bank, as close to the base of the bank as possible

Do not:

- obstruct or block access to open access land - <https://www.gov.uk/right-of-way-open-access-land/use-your-right-to-roam>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- the date, location and method of any weed control undertaken
- the dates of planting
- details of age, height and species planted
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs to show the planned location for each length of hedge planting
- historic map or other records as evidence that the proposed location of the hedge planting is on an original footprint or extends existing hedges or contributes to the reduction of soil erosion and run-off.

RELATED MID TIER ITEMS

This item can be used on the same length as the following supplement:

- BN8 - Hedgerow supplement - casting up

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

When to plant

November is generally the best time to plant; however, if planting into clay soils wait until March. Planting should not be undertaken in freezing weather or waterlogged ground. If planting into a newly restored earth bank, plant the following autumn.

Planting

To undertake hedge planting successfully:

- prepare the ground so the soil becomes friable (has a crumbly texture) and is free of other growth
- plant native species that already grow in the local area
- take care of roots before planting by keeping them covered at all times, especially when it is sunny or windy
- avoid opening more than one bag of plants at a time

If the landscape is characterised by a single-species hedgerows then the planting mix should reflect this. If not, then one of the following species should make up at least 70% of the planting mix:

- hawthorn
- blackthorn
- hazel

Other native shrub species used should be intermixed randomly with the main species, rather than planted in a block or blocks.

Consider planting new hedgerow trees if they are characteristic of the local landscape.

Control weeds

Control competitive weeds (including brambles, nettles and grasses) during the first growing season. These weeds reduce the growth rate of the new plants by competing for soil moisture, nutrients and light. Avoid using a strimmer as these can damage the plants.

Protect the plants

Fence off the plants if sheep, cattle or horses graze the land. Keep fences far enough away so the hedgerow can grow at least 1.5m in width.

Rabbit netting may be needed, either on its own or with stock fencing, if there is a known problem with rabbits or hares.

Avoid using spiral guards as they limit the amount of dense growth at the base of each plant, are unsightly and are difficult to remove.

Further information

New hedgerow planting can help control soil erosion and runoff. Hedgerows planted along contours will decrease slope length, reduce the force of surface flow, and encourage infiltration.

Hedges planted alongside watercourses are also effective.

Look out for signs of soil damage and erosion such as capping, rilling and brown water runoff on long or steep slopes (particularly on sandy soils) and prioritise areas of high erosion risk, in particular areas adjacent to watercourses.

Stone wall restoration (BN12)

£25 per m

Where to use this item

Only on walls where at least one-third of the original height has to be dismantled and rebuilt in order to complete the restoration.

Where this item cannot be used

On walls that are in receipt of stone wall protection and maintenance (EB11) or stone wall protection and maintenance on or above the moorland line (UB11) under live ELS or UELS agreements.

How this item will benefit the environment

If successful there will be a rebuilt stone wall which will help to control livestock and conserve traditional landscapes.

REQUIREMENTS

- rebuild walls to their original height in the local style - refer to the height and style of other stone walls nearby that are in good condition
- dismantle (by hand) the existing structure back to a sound construction
- rebuild the wall so there is an even top line, a consistent batter (slope), and no bulges or depressions along the face of the wall
- add a filling of solid rocks with each course where it is part of the traditional construction
- keep all existing wall-side trees and saplings. A wall-side tree is one that forms part of the boundary feature or is attached to it such that livestock do not pass between it and the wall
- any gaps left in the wall to allow for tree growth should be made stockproof with wooden rails
- rebuild stone features into the wall such as sheep creeps, troughs and stiles
- use original stone where it is available
- make sure imported stone matches the ones traditional to the area in type, size and style
- haul stone only when ground conditions are firm enough to prevent damage to the fields next to the wall
- remove any leftover materials used to complete the wall from the site, and restore the ground where the work has been carried out

Do not:

- disturb foundation stones unless it is necessary to create a firm base
- use topsoil, earth, sand or fine gravel as filling between courses
- use concrete or mortar
- take stone from other walls, banks or buildings on the holding
- place stone on features of archaeological, historic or wildlife value as identified on the Farm Environment Record (FER), Environmental Information Map or HEFER (where applicable)

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable

- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of each length of wall to be restored
- a map showing the location of any wall-side trees, saplings and stone features (this can be the FER)

RELATED MID TIER ITEMS

This item can be used on the same length as the following items:

- BN13 - Top wiring – stone walls
- BN14 - Stone wall supplement - stone from quarry

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

Choose the right style for the wall

Restore the wall so that it matches the stone types and wall styles in the immediate area. There can be distinctive local variations, often in relatively small areas. The style is determined by the composition, shape and size of the stone used and the way it can be split and shaped. Using the right type of stone will ensure that the required style can be matched.

Restoring the wall

Agreement holders are advised to:

- dismantle the existing structure by hand, separating and sorting copings (covering stones), through stones and building stones for reuse
- lay stones level and pack under each one so that it will not move
- if using filling, always bring up the level of the middle of the wall for each course before going to the next one - it should not be possible to see daylight through the wall
- place through stones where the wall is double-faced (they cannot stick out more than 15cm), so weight and stresses are spread evenly
- place stones next to each other so they touch as much as possible, covering joints below as you build (e.g. 1 stone on 2, then 2 stones on 1)
- place each stone with its length reaching well into the wall, not along the outside
- pack coping stones (stones placed along the top of the wall, 'capping' it) as firmly as possible to tie the whole wall together
- finish the entrances and wall ends with a well-built cheek end

The sides of the wall should slant evenly on both sides, creating an even 'batter' from a wide base to a narrower top of the wall. Avoid creating bulges as it weakens the wall and may cause collapse.

Top wiring - stone walls (BN13)

£3.60 per m

Where to use this item

Only on:

- walls being rebuilt with the BN12 - Stone wall restoration item
 - or
 - to exclude stock from new woodland planting or other land management options.
-

How this item will benefit the environment

If successful there will be a rebuilt stone wall with top-wiring which will help to control livestock and conserve traditional landscapes.

REQUIREMENTS

- use round timber posts with a top diameter of 75mm
- set the posts at centres no wider than 3m (for mild steel wire) or 10m (for high-tensile wire)
- use posts long enough so that the top wire can be fixed at no more than 300mm above the top of the wall
- use timber that is fully peeled and tanalised or treated with an appropriate preservative
- knock the posts into the ground and either set them leaning against the wall or set them alternately on opposite sides of the wall
- secure the posts
- staple either half height sheep netting or 2 lines of steel wire 200mm apart to the upright posts
- use 4mm diameter mild steel or 3.15mm diameter high tensile steel line wire
- ensure the wire is properly strained and fastened with galvanised staples

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of the lengths of wall you plan to be top-wired

RELATED MID TIER ITEMS

This supplement can be used on the same length as the following items and supplements:

- BN12 - Stone wall restoration
- BN14 - Stone wall supplement - stone from quarry

Stone wall supplement - stone from quarry (BN14)

£44 per m

Where to use this supplement

Only on walls being rebuilt using the BN12 - Stone wall restoration item.

How this supplement will benefit the environment

If successful there will be a rebuilt stone wall on sites where there was insufficient re-usable stone on the farm.

REQUIREMENTS

- use imported stone that matches the type, size and style of the wall being restored
- restore the wall as specified by the BN12 - Stone wall restoration item
- remove all surplus stone from the site after work has been completed

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of each length of wall to be restored

RELATED MID TIER ITEMS

This supplement can be used on the same length as the following items:

- BN12 - Stone wall restoration
- BN13 - Top wiring – stone walls

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS SUPPLEMENT

*The following advice is to help you successfully carry out this supplement, but does **not** form part of the requirements for this item.*

Choose the right style for the wall

Restore the wall so that it matches the stone types and wall styles in the immediate area. There can be distinctive local variations, often in relatively small areas. The style is determined by the composition, shape and size of the stone used and the way it can be split and shaped. Using the right type of stone will ensure that the required style can be matched.

Fencing (FG1)

£4.00 per m

Where to use this item

Only:

- in conjunction with a habitat management or creation option where new fencing is required to meet the option grazing requirements

OR

- to prevent water pollution in areas targeted for the reduction of water pollution caused by farming

OR

- to protect environmental features

Where this item cannot be used

- on historic or archaeological features as identified in the HEFER
- on a site where a fence has previously received a grant

How this item will benefit the environment

If successful this item will help control livestock and protect environmental features. It will also help to manage habitats.

REQUIREMENTS

- remove all old fencing material before putting up the new fencing
- use softwood timber that is fully peeled coated with wood preservative and pressure treated, or treated with an approved preservative. Untreated durable timber can be used as set out in the Forestry Commission guide to forest fencing.
- put up a fence at least 1.05m high
- use strands of galvanised 4mm mild plain steel wire or 2.5mm barbed wire
- use enough strands to control the livestock
- use straining posts that are at least 125mm by 125mm square (or have a 100mm top diameter) and are at least 1.87m long
- set the straining posts at least 750mm into the ground and no more than 150m apart
- place a straining post at every change of direction (horizontal or vertical) and at each end of the fence
- use struts that are 75mm by 75mm square, or have a 65mm top diameter, and 1.87m long
- set the struts at least 450mm into the ground and mortise them into the straining post
- use intermediate posts that are 75mm by 75mm square (or have a 65mm top diameter) and 1.75m long
- set the intermediate posts at least 600mm in the ground and no more than 3.5m apart
- make sure that all the materials meet the relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Do not:

- attach the fence to trees or hedgerows
- block or restrict access to open access land - <https://www.gov.uk/right-of-way-open-access-land/use-your-right-to-roam>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of the existing site

RELATED MID TIER ITEMS

This item can be used on the same length as the following supplement:

- FG4 - Rabbit fencing supplement

Sheep netting (FG2)

£4.90 per m

Where to use this item

Only:

- in conjunction with a habitat management or creation option
- OR
- in areas targeted for the reduction of water pollution caused by farming
- OR
- to protect environmental features

Where this item cannot be used

- on historic or archaeological features as identified in the HEFER
- on a site where a fence has previously received a grant

How this item will benefit the environment

If successful there this item will protect environmental features from livestock. It will also help manage habitats.

REQUIREMENTS

- remove all old fencing material before putting up the new fencing
- use softwood timber that is fully peeled coated with wood preservative and pressure treated, or treated with an approved preservative. Untreated durable timber can be used as set out in the Forestry Commission guide to forest fencing.
- put up a steel wire mesh fence at least 1.05m high
- use additional strands of galvanised steel wire (plain or barbed) if you need extra height
- use straining posts that have a top diameter of at least 125mm, or are 100 by 100mm in cross-section when sawn
- make sure the straining posts are 1.85m long if set in concrete and 2.15m long otherwise
- place the straining posts no more than 150m apart if using mild steel line wire, or 300m apart for high tensile wire
- use a straining post at every change of direction (horizontal or vertical) and at each end of the fence
- use struts that have a top diameter of at least 80mm, or are 75mm by 75mm when sawn
- make sure the struts are 1.6m if set in concrete and 1.9m long otherwise
- notch struts into the straining post at an angle of no more than 45 degrees
- use intermediate posts that have a top diameter of at least 65mm, or are 75mm by 75mm when sawn
- make sure the intermediate posts are 1.7m long and space them no further than 3.5m apart
- make sure that all the materials you use meet the relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Do not:

- attach the fence to trees or hedgerows
- block or restrict access to open access land - <https://www.gov.uk/right-of-way-open-access-land/use-your-right-to-roam>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of the existing site

RELATED MID TIER SUPPLEMENTS

This item can be used on the same feature as the following supplement:

- FG4 - Rabbit fencing supplement

Permanent electric fencing (FG3)

£4.90 per m

Where to use this item

Only:

- where new fencing is required to meet option grazing requirements

OR

- in areas affected by water pollution caused by farming

OR

- to protect environmental features

Where this item cannot be used

- on historic or archaeological features as identified in the HEFER
- on a site where a fence has previously received a grant

How this item will benefit the environment

If successful this item will help control livestock and protect environmental features. It will also help to manage habitats.

REQUIREMENTS

- erect wire fencing at least 1050mm high using a minimum of 4 mild steel or high tensile plain wires
- use straining posts with a top diameter of at least 150mm and 2150mm long, spaced according to the type of wire used
- use struts with a top diameter of least 80mm and 2100mm long, notched into straining posts
- use intermediate posts with a top diameter of at least 63mm and 1700mm long, spaced according to the type of wire used
- install a mains-operated energiser in accordance with the Institute of Electrical Engineers IEEE Regulations
- make sure that all the materials meet the relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Do not:

- block or restrict access to open access land - <https://www.gov.uk/right-of-way-open-access-land/use-your-right-to-roam>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of the existing site

RELATED MID TIER ITEMS

This item can be used on the same length as the following item:

- FG4 - Rabbit fencing supplement

Rabbit fencing supplement (FG4)

£2.50 per m

Where to use this supplement

Only with:

- FG1 - Fencing
 - FG2 - Sheep netting
 - FG3 - Permanent electric fencing
-

How this supplement will benefit the environment

If successful this item will help control rabbits and protect environmental features. It will also help to manage habitats.

REQUIREMENTS

- use galvanised, 18 gauge, 31mm hexagonal wire mesh to construct the rabbit fence
- attach the netting to a pair of 2.65mm, high tensile, spring steel straining wires using galvanised netting rings
- one of the straining wires should be at the bottom of the fence and one at the top
- bury the bottom edge of the netting to a depth of 150mm, or lap the netting on the surface of the ground towards the rabbit threat
- anchor lapped netting at 1m intervals
- make sure that all the materials meet the relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of the existing site

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS SUPPLEMENT

*The following advice is to help you successfully carry out this supplement, but does **not** form part of the requirements for this item.*

Use this supplement on a site where there is evidence of damage caused by rabbits, such as significant burrowing or crop damage.

Wooden field gate (FG12)

£390 per gate

Where to use this item

Only along with a management option or boundary restoration item

Where this item cannot be used

- where gate posts are placed on historic or archaeological features identified in the HEFER
- to replace an existing gate or wooden wings

How this item will benefit the environment

Wooden gates will help stock management, or stop livestock from accessing an area where they may cause damage, such as a historic or archaeological feature.

Wooden wings for gates stockproofs ditch crossing points by linking the gate to the ditch edge.

REQUIREMENTS

Wooden field gate

- construct the gate out of timber in a style that is traditional to the local area
- if there is no local gate style then construct the gate to these specifications:

Section	Gates up to 3m wide	Gates 3m and over wide
Top rail	100mm by 75mm	125mm by 75mm
Top rail tapered to	75mm by 75mm	75mm by 75mm
Under rails	75mm by 25mm	75mm by 25mm
Braces	75mm by 25mm	75mm by 25mm
Hanging style	100mm by 75mm	125mm by 75mm
Shutting style	75mm by 75mm	75mm by 75mm

- hang and clap all styles of gate separately from an adjoining fence line – do not use the hanging post as an end strainer
- *either* set gate posts at least 900mm into the ground and surround with concrete at least:
 - 450mm by 450mm wide
 - 600mm deep
- *or* erect gate posts without concrete surrounds and set at least 1.1m below the ground surface, with the soil compacted around the posts in 150mm layers
- weather cap the top of the gate posts

Wooden wings for gates

- install wings on both sides of the gate
- each wing must consist of at least 3 wooden rails fixed between 2 posts
- do not fix the rails to the hanging post of the gate
- rails must be at least 38mm by 87mm
- posts must be at least:
 - 100mm diameter half round
 - 1.8m long
 - sunk 0.7 m into the ground

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of the proposed location for the gates or wings

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

Constructing the gates

Frame the gates soundly and use wooden materials. All gates should match in height with the adjoining fence and have the appropriate fittings for their operation.

If gateways need widening during wall or bank restoration, or to create a new opening, planning permission may be needed. Consult the Local Planning Authority or the National Park Authority about hedgerow regulations and the permission needed.

Using wooden wings

Wooden wings can be used to extend the stockproof width of the gate where this is necessary, for example where a gateway is over a culvert or adjacent to a ditch or dyke.

These are only likely to be necessary where they are already a feature of the landscape, such as on grazing marshes.

Badger gate (FG14)

£135 per gate

Where to use this item

Only on currently used badger routes restricted by a new fence line being funded through Countryside Stewardship

Where this item cannot be used

- in existing fence lines
- in newly erected fences supporting wet grasslands for breeding waders

How this item will benefit the environment

This item will minimise damage to fence lines (themselves being installed to benefit habitats through appropriate grazing, etc.) by reducing damage from badgers, and allowing them to pass freely through the fence.

REQUIREMENTS

- construct the badger gate to the following dimensions:
 - flap - 250mm by 200mm by 40mm
 - lintel - 285mm by 40mm by 40mm
 - floor block - 205mm by 40mm by 40mm
 - two uprights - 450mm by 40mm by 40mm
- use wood treated with a non-toxic, low odour, preservative product
- make sure no nails or rough sawn edges are left exposed
- fit the gate frame and floor block into the fence, stapling the wire to the wooden frame
- sink the frame into the ground until the floor block sits at ground level
- allow a period for the badgers to use the open gate, and then fit the wooden flap, holding it at the top on a pivot, so it can open and close freely both ways
- alternatively, fit the flap with the rest of the gate and hold it open with wire until the badgers start using the gate regularly
- only use materials that meet the relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- Photographs during and after work has been completed

Applicants will need to send the following with their application:

- photographs of the existing site
- item specification if required.

RELATED MID TIER ITEMS

This item can only be used on the same area and in conjunction with one or more of the following items and supplements:

- FG1 - Fencing
- FG2 - Sheep netting
- FG4 - Rabbit fencing supplement

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully, but does **not** form part of the requirements for this item.*

How to choose a site

Before putting up a fence, the proposed fence line should be carefully checked for badger runs or paths. Runs will be most clearly visible during the spring, when badger activity is high and vegetation is not at full height. Well-used paths will often be distinct and relatively clear of vegetation because of repeated trampling.

Before installing the gate

- cut a gap in the netting approximately 200mm wide by 300mm high where the fence crosses a badger run
- leave the gap open until badgers are regularly using it
- cut extra holes in any places along the fence where damage occurs (for extra gates to be installed)

The gate(s) should be installed in the gap(s) once badgers have become used to the fence.

How to maintain the gate

The gate should be checked regularly to make sure it does not become blocked or fall into disrepair.

Further information

Find out how to avoid harming badgers and whether a licence is needed - <https://www.gov.uk/guidance/badgers-protection-surveys-and-licences>.

Water gates (FG15)

£240 per gate

Where to use this item

Only:

- in areas targeted for the reduction of water pollution caused by farming
 - on fence lines across streams in conjunction with other stock control items
-

How this item will benefit the environment

This item will prevent livestock from entering watercourse channels. It will also stop livestock from trampling waterside banks and will leave bankside vegetation lush and unbroken by livestock paths.

REQUIREMENTS

- fit a gate across the river or stream, and ensure that the gate:
 - is framed and made of wood
 - fits the profile of the river or stream
 - matches the height of the fence next to it
 - uses timber that is fully peeled and tanalised or treated with an approved preservative
 - can float up and down as the water levels rise and fall
 - has an approach fence that is either post-and-rail or fixed netting
 - is separate (along with the approach fencing) from the main fence line
 - meets the relevant British Standards - examine copies of the most up-to-date standards - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>
- the gate must consist of a series of wooden droppers attached to a length of wire cable, or a round wooden rail suspended horizontally between straining posts. The droppers must be:
 - at least 50mm square in cross section
 - made from sawn, untreated timber that has been drilled and then threaded on to the cable or rail
 - separated by 150mm lengths of plastic pipe
- if the stream gully is more than 1.5m deep, the gate can be constructed in several sections. The droppers must be:
 - made of untreated timber
 - at least 70mm square
 - hung on round wooden poles using loops of fencing wire

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants must contact the Environment Agency before applying for this item. Applicants will have to send a copy of their advice, and any permits, with their application.

Applicants will also have to send:

- photographs of the existing site

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- BN7 - Hedgerow gapping-up
- BN12 - Stone wall restoration
- BN13 - Top wiring – stone walls
- BN14 - Stone wall supplement - stone from quarry
- FG1 - Fencing
- FG2 - Sheep netting
- RP5 - Cross drains

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to get flood defence consent

Flood defence consent (FDC) may be needed to use this item near a watercourse or within 10m (this varies with some local byelaws) of the top of a riverbank.

Get FDC from:

- the Environment Agency (for main rivers)
- local flood authorities (for ordinary watercourses)

If applicants think they need FDC they should contact the Environment Agency first.

Hard bases for livestock drinkers (LV3)

£110 per base

Where to use this item

Only in areas targeted for the reduction of water pollution caused by farming, on sites where livestock have been excluded from stream or surface waters

Where this item cannot be used

- under livestock housing, roofs or cattle handling facilities that are not associated with feeding or drinking
- within 10m of ditches, streams or waterways
- on historic or archaeological features identified in the HEFER

How this item will benefit the environment

This item will provide hard bases where livestock can stand when drinking. This will reduce the risk of runoff and water pollution from mobilised sediments and organic manures.

REQUIREMENTS

- dig the soil to a depth of at least 150mm, or down to a naturally occurring hard surface
- extend the dug area around the drinking trough to a width of at least 2.5m
- lay a geotextile membrane over the area before placing the hardcore
- compact the hardcore to a depth of at least 150mm, making sure it is well compacted
- blind the finished hardcore to a depth of at least 50mm
- edge the hard base with timber boards
- make sure the base meets relevant British Standards - examine copies of the most up-to-date standards - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Applicants will have to send the following with their application:

- photographs of the site before the work takes place

RELATED MID TIER ITEMS

This item can be used on the same area as the following items

- LV7 - Livestock troughs
- LV8 - Pipework associated with livestock troughs

ADVICE AND SUGGESTION FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

- make sure the area chosen is a suitable size for the numbers of livestock

Hard bases for livestock feeders (LV4)

£170 per base

Where to use this item

Only in areas targeted for the reduction of water pollution caused by farming.

Where this item cannot be used

- under livestock housing, roofs or cattle handling facilities that are not associated with feeding or drinking within 10m of ditches, streams or waterways
- on historic or archaeological features identified in the HEFER

How this item will benefit the environment

This item will provide hard bases where livestock can stand when feeding. This will reduce the risk of runoff and water pollution from mobilised sediments and organic manures.

REQUIREMENTS

- dig the soil to a depth of at least 150mm, or down to a naturally occurring hard surface
- extend the dug area around the feeder to a width of at least 2.5m
- lay a geotextile membrane over the area before placing the hardcore
- compact the hardcore to a depth of at least 150mm, making sure it is well compacted
- blind the finished hardcore to a depth of at least 50mm
- edge the hard base with timber boards
- make sure the base meets relevant British Standards - examine copies of the most up-to-date standards -

<http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Applicants will have to send the following with their application:

- photographs of the site before the work takes place

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- LV7 - Livestock troughs
- LV8 - Pipework associated with livestock troughs

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item:*

- make sure the area chosen is a suitable size for the numbers of livestock

Pasture pumps and associated pipework (LV5)

£220 per pump

Where to use this item

Only:

- in areas targeted for the reduction of water pollution caused by farming, where livestock have been excluded from stream or surface waters

OR

- in Higher Tier, to encourage grazing to help manage and restore habitats (with the agreement of Natural England)

Where this item cannot be used

- to replace existing equipment in the same location

How this item will benefit the environment

This item will provide livestock with an alternative to drinking from watercourses. It will reduce bank erosion, sediment pollution and the faecal contamination of watercourses.

REQUIREMENTS

- install a low-lift, animal-operated pasture pump
- secure the pump to robust, preserved timber
- construct a hardstanding area around the pump of at least 1m by 1m
- dig the hardstanding area to a depth of at least 150mm, or down to a naturally occurring hard surface
- compact hardcore on a geotextile liner to a depth of at least 150mm
- edge the hardstanding area with preserved timber (no smaller than 150mm by 50mm)
- use medium-density polyethylene pipework with an external diameter of at least 25mm
- make sure that all the joints are made out of brass or plastic and that they are watertight
- make sure that the pump meets relevant British Standards - examine copies of the most up-to-date standards -

<http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Applicants will have to send the following with their application:

- photographs of the site before the work takes place

RELATED MID TIER OPTIONS AND ITEMS

This item can be used on the same area as the following options and items:

- LV8 - Pipework associated with livestock troughs
- SW1 - 4m to 6m buffer strip on cultivated land
- SW2 - 4m to 6m buffer strip on intensive grassland
- SW11 - Riparian management strip

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How many cattle the pump can serve

Pasture pumps can lift water up to around 5m and pump to a distance of up to 50m. One pump can serve 10 to 15 cattle.

How to get best results from the pump

It may be necessary to train livestock to use the pump.

What to do with the pump in the winter

- remove the pump and store it during the winter to guard against frost damage
- make sure the pump is available for inspection after it is removed

Ram pumps and associated pipework (LV6)

£1,480 per pump

Where to use this item

Only:

- in areas targeted for the reduction of water pollution caused by farming, where livestock have been excluded from stream or surface waters

OR

- in Higher Tier, to encourage grazing to help manage and restore habitats (with the agreement of Natural England)

Where this item cannot be used

- to replace existing equipment in the same location

How this item will benefit the environment

This item will provide livestock with an alternative to drinking from watercourses. It will reduce bank erosion, sediment pollution and the faecal contamination of watercourses.

REQUIREMENTS

- set the ram pump on a firm base made out of a 150mm thick slab of concrete or a 150mm layer of consolidated hardcore
- install a suitable water collection facility, sediment tank (if necessary), drive pipe (supplying pump), pump chamber, pump, and delivery pipe
- make sure that all the works meet the relevant British Standards - examine copies of the most up-to-date standards - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Applicants will have to send the following with their application:

- photographs of the site before the work takes place

RELATED MID TIER OPTIONS AND ITEMS

This item can be used on the same area as the following options and items:

- LV8 - Pipework associated with livestock troughs
- SW1 - 4m to 6m buffer strip on cultivated land
- SW2 - 4m to 6m buffer strip on intensive grassland
- SW11 - Riparian management strip

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to use a ram pump

A ram pump uses the power of flowing water to pump a smaller quantity of water at a much higher pressure. Ram pumps do not need fuel or electricity as they run entirely on water. Use a ram pump to pump fresh water from a stream to a head tank or reservoir.

Where to install the pump

Install the pump on a site with enough hydraulic head and a consistent water supply throughout the year.

How to operate the pump

Ram pumps can pump over large distances, but they need a buffer tank at the top of the system. The water entering the pump must have a low sediment content, or the resulting abrasion will lead to excessive wear and tear. Reduce the amount of sediment by using a sedimentation tank.

Livestock troughs (LV7)

£110 per trough

Where to use this item

Only:

- in areas targeted for the reduction of water pollution caused by farming

OR

- where grazing is being reintroduced as part of a Countryside Stewardship management option

Where this item cannot be used

- under housing or roof structures
- within 10m of ditches, streams or waterways
- within 6m of historic or archaeological features identified in the HEFER
- on areas vulnerable to soil erosion as identified on the FER

How this item will benefit the environment

This item will provide livestock with an alternative to drinking from watercourses and ponds. It will reduce bank erosion, sediment pollution and the faecal contamination of watercourses.

REQUIREMENTS

- make sure the trough is made of galvanised steel, or concrete, spray-moulded glass-reinforced cement (GRC), or polyethylene
- connect the trough to a water supply or to supply water from a bowser on a regular basis
- make sure the trough has a ball valve and service box and complies with BS3445
- meet the Water Supply (Water Fittings) Regulations 1999 - <http://www.legislation.gov.uk/uksi/1999/1148/contents/made> - if using a mains water supply
- make sure the trough meets relevant British Standards - examine copies of the most up-to-date standards - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of the site before the work takes place

RELATED MID TIER OPTIONS AND ITEMS

This item can be used on the same area as the following options and items:

- LV5 - Pasture pumps and associated pipework
- LV6 - Ram pumps and associated pipework
- LV8 - Pipework associated with livestock troughs
- SW1 - 4m to 6m buffer strip on cultivated land
- SW2 - 4m to 6m buffer strip on intensive grassland
- all other livestock grazing options

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to choose a site

Place the trough:

- on hard-standing or on well-drained soil to avoid unnecessary trampling (poaching), erosion or runoff
- away from features through which organic manures and sediment could enter waterways

How to maintain the site

To meet scheme requirements, do not:

- allow overflow or leaks to contribute to runoff, ponding or erosion in the field
- damage historic or environmental features identified in the HEFER

Pipework associated with livestock troughs (LV8)

£2.65 per m

Where to use this item

Only:

- in areas targeted for the reduction of water pollution caused by farming, where livestock have been excluded from stream or surface waters

OR

- with a Countryside Stewardship management or creation option, on a site where a new trough is needed to meet grazing requirements

Where this item cannot be used

- to replace existing equipment in the same location
- under housing or roof structures
- within 10m of watercourses
- on areas vulnerable to soil erosion as identified on the Farm Environment Record (FER)
- within 6m of historic or archaeological features identified in the HEFER

How this item will benefit the environment

This item will provide livestock with an alternative to drinking from watercourses. It will reduce bank erosion, sediment pollution and the faecal contamination of watercourses.

REQUIREMENTS

- use pipework made of medium-density blue polyethylene with an external diameter of at least 25mm
- make sure that all the joints are made of brass or plastic and that they are watertight
- bury the pipework below cultivation depth and to at least 600mm (or as determined by the local water supplier)
- cover the pipe with a tubular steel guard or sleeve pipe if it crosses an open ditch
- lay the pipe 600mm below the ditch to allow for ditch cleaning
- lay the pipe on a 75mm bed of sand if it crosses farm tracks and then cover it with a further 100mm of sand, before overlaying it with backfill
- make sure that the pipe meets the relevant British Standards - examine copies of the most up-to-date standards - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Applicants will have to send the following with their application:

- photographs of the site before the work takes place

RELATED MID TIER OPTIONS AND ITEMS

This item can be used on the same area as the following options and items:

- LV5 - Pasture pumps and associated pipework
- LV6 - Ram pumps and associated pipework
- LV7 - Livestock troughs
- SW1 - 4m to 6m buffer strip on cultivated land
- SW2 - 4m to 6m buffer strip on intensive grassland
- all other livestock grazing options

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to maintain the site

To meet scheme requirements, do not:

- allow overflow or leaks to contribute to runoff, ponding or erosion in the field
- damage any historic or environmental features identified in the HEFER

Resurfacing of gateways (RP1)

£92 per gateway

Where to use this item

Only in areas targeted to reduce water pollution from agriculture

Where this item cannot be used

- where there are archaeological or historic features identified in the HEFER
- where a public right of way passes through the gateway without relevant advice or consent from the Highways Authority

How this item will benefit the environment

This item will provide a strengthened surface at the field gateway. This will reduce ponding on either side of the gateways caused by soil compaction. If successful there will be reduced surface runoff, soil erosion and risk of diffuse water pollution.

REQUIREMENTS

- excavate the full width of the gateway by the full length which the gate opens into the field when it is at 90 degrees
- excavate to a minimum depth of 150mm or until there is a naturally occurring hard surface
- remove the excavated soil from the gateway area and spread it on the verges of the field track, allowing for drainage
- overlay the excavated area with a geotextile membrane, then fill with aggregate (hard core) to a minimum consolidated depth of 150mm
- all capital works carried out must meet the relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Do not:

- spread the excavated soil on any environmental or historic features as identified in the HEFER

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of the existing gateway
- a copy of advice or consent received from the Highways Authority if a public right of way passes through the gateway

RELATED MID TIER ITEMS

This item can be used on the same area as the following item:

- RP2 - Gateway relocation

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

Materials and area of resurfacing

When carrying out the work:

- the area to be resurfaced should be appropriate for the size of the gateway and the type of traffic that will move through it
- compact each layer of hard core well down before adding another layer, making sure each layer is no more than 150mm thick
- advice should be taken from the Environment Agency (EA) if road planings, waste or recycled materials will be used as hard core

Further information

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>.

Gateway relocation (RP2)

£340 per gateway

Where to use this item

Only where all of the following apply:

- in areas targeted for the reduction of water pollution from agriculture
- where a gateway is acting as a conduit for water movement
- to move gateways associated with farm machinery or livestock

Where this item cannot be used

Without relevant advice or consent if the existing or new gateway provides access to:

- a historic routeway
 - a Public Right of Way
 - a highway
 - a byway open to all traffic (BOAT)
-

How this item will benefit the environment

This item will move the gateway to a suitable location where it will not act as a pathway for water runoff. This will prevent polluted surface water from leaving fields through gateways and help to reduce risk of soil erosion and diffuse pollution.

REQUIREMENTS

- leave the existing gate posts where they are, keeping any existing stone or slate posts that are traditional landscape or historic features
- re-route the existing trackways associated with the gateway and make good the disused sections
- gap up the old gateway using materials that match the character of the rest of the boundary
- use new hanging and shutting posts in the new gateway
- all capital works carried out must meet the relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work
- Consents and/or advice for works if required

Applicants will have to send the following with their application:

- photographs of the site before the work takes place
- written advice from a historic environment specialist if the gateway is on a historic routeway
- a copy of advice and consents from the local planning authority if the new gateway provides access to public highways, or byways open to all traffic
- a copy of advice or consent from the Highways Authority if a public right of way passes through the existing or new gateway

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- BN1 - Stone-faced bank repair
- BN2 - Stone-faced bank restoration
- BN3 - Earth bank creation
- BN8 - Hedgerow supplement - casting up
- BN10 - Hedgerow supplement - top binding and staking
- BN11 - Planting new hedges
- FG1 - Fencing
- FG2 - Sheep netting

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to reduce surface water flows

Applicants may need to carry out other work to reduce surface water runoff, including:

- relieving compaction
- cultivating crops across slopes
- using temporary water storage areas to capture surface flows
- positioning new trackways where they do not attract surface water flows
- positioning cross-drains along the track if new trackways cannot be created

How to maintain the local character

Restore the old gateway so that it blends in with the rest of the boundary. For example, new hedging should match the species mix of the existing hedge.

Further information

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Watercourse crossings (RP3)

£300 per crossing

Where to use this item

Only in areas targeted to reduce water pollution from agriculture

Where this item cannot be used

- where there are environmental, archaeological or historic features identified on the Farm Environment Record (FER), the Environmental Information Map or the HEFER
- without relevant advice or consents from the Environment Agency or Local Planning Authority

How this item will benefit the environment

Providing a watercourse crossing for livestock and machinery will reduce the disturbance to the watercourse, which will help reduce sedimentation.

REQUIREMENTS

- construct a ford at least 4m wide
- include a semi-circular, straight or oblique group of toe stones keyed into the riverbed on the downstream edge to form a gravel trap
- key the stones down to at least 600mm below the existing level of the bed or below the known scour level (whichever is deeper)
- make sure the stones do not stand clear of the water during low summer flows and that they do not form a weir
- make sure the approach slope gradient is no steeper than 1 in 4
- make sure that livestock cannot access the sides of the ford approaches
- Include rock revetment to protect the ford approaches on the river side
- protect the base of the entrance and the exit ramp, (to avoid bankside erosion) with one of the following:
 - rock armouring using cobble-sized rocks to create as flat a surface as possible and filling any gaps with coarse gravel or hardcore
 - coarse gravel or hardcore:
- with treated retaining boards (50mm by 230mm) along the ramp (parallel to the river flow) and spaced 1m apart
- hold the boards in position with treated posts (100mm by 100mm) that are 1m apart
- drive the posts into the bank and trim them at an angle of 1 in 4 (parallel to the slope)
- drive the posts at least 50mm below the line of the boards to avoid tripping
- compact the bed of the ramp to provide a stable footing for livestock
- all capital works carried out must meet the relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Applicants must obtain Flood Defence Consent on a main river and contact the local planning authority about the plans before applying for this item. Applicants will have to send the following with their application:

- a copy of any advice or consent received from the EA or the local planning authority
- photographs of the existing site

RELATED MID TIER ITEMS

This item can be used on the same area as the FG15 - Water gates item.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to choose a location

It is generally best to build watercourse crossing points at existing stock crossing locations, as the banks are usually less steep.

Agreement holders should choose a site that needs the minimum amount of excavation work. This will produce less spoil, cause less disruption and reduce the amount of sediment entering the watercourse.

The crossing should not be constructed on a watercourse bend, as this can lead to silt deposition on the inside of the bend and erosion on the outside.

Further information

Further information about watercourse crossings is available from the Rivers Trust -

http://www.riverstrust.org/pinpoint/info_sheets/Pinpoint%20-%2014.0%20Infrastructure%20Management%20-%20Stream%20crossings.pdf

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Livestock and machinery hardcore tracks (RP4)

£33 per m

Where to use this item

Only:

- in areas targeted to reduce water pollution from agriculture and with the support of Natural England or a Catchment Sensitive Farming (CSF) officer

OR

- in combination with options for the management and restoration of habitats or features with the support of a Natural England adviser

Where this item cannot be used

- to repair potholes or upgrade existing tracks and farm drives
- on historic or archaeological features or areas of existing wildlife interest identified on the Farm Environment Record (FER), the Environmental Information Map or the HEFER
- without relevant advice or consents from the Highways Authority, where a Public Right of Way passes through the gateway

How this item will benefit the environment

A new farm track will reduce soil compaction and erosion caused by livestock and machinery. The new track will also help reduce channeling of surface runoff and the risk of sediment and other pollutants entering a watercourse.

REQUIREMENTS

- all capital works must meet the relevant British Standard - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Hardcore tracks

- excavate a trench at least 2.4m wide and at least 150mm deep, or down to a naturally occurring hard surface
- profile the edge of the track with the excavated soil
- overlay the area with a geotextile membrane if the base of the trench lies on subsoil (a geotextile membrane is not needed if the base is bedrock or chalk)
- fill the trench with stone or hardcore to a depth of at least 150mm, and compact it
- finish the top of the track with a finer material (of 18mm to dust) to a depth of 25 to 50mm, and compact it into a convex camber
- direct any track runoff to a ditch or other stable drainage outlet, or divert it on to grassland

Hardcore tracks using concrete sleepers

- excavate a trench following the instructions above and in addition:
 - invert the concrete sleepers and lay them slightly proud of the ground
 - lay the sleepers directly on to a level, firm surface and butt them up against each other to form a track (a geotextile membrane is not required)

Hardcore tracks on peaty soils

- excavate a trench 2.4m wide and at least 300mm deep, or 500mm on deep peats
- dig out soft pockets in the profile, drain them, fill them with well compacted hardcore and cap them with clay
- lay a geotextile membrane to the full width of the track, folding up the sides of the trench
- lay the membrane on to a surface that will not puncture the material
- allow at least 300mm for any overlap of the membrane
- fill the trench to within 50mm of the top with stone or hardcore (from 40mm to dust)
- profile and compact the track to produce a convex camber
- top off the track with a wearing course (18mm to dust) to a depth of 25 to 50mm, and compact it to produce a convex camber
- make sure the geotextile membrane is fully covered – if necessary grass turf may be used to prevent exposure of the membrane at the edge of the track

Do not:

- use general, ungraded building rubble

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Where this item is to be used on a public right of way, applicants must consult the local highways authority (LHA) before applying. Applicants will have to send the following with their application:

- a copy of any advice or consent received from the local highways authority
- photographs of the existing site
- written support from a CSF officer or Natural England adviser

RELATED MID TIER ITEMS

This item can be used on the same area as the RP5 - Cross drains item.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to choose a location

It is best to:

- construct the tracks alongside field boundaries rather than across the middle of the field - this will help preserve the appearance of the landscape
- avoid placing the tracks where they will cause runoff or lead to erosion
- camber the tracks so water sheds continuously off them
- use cross drains or bunds if the tracks cannot be cambered
- use cross drains, if necessary, on sloping tracks or tracks that lead on to a highway

When to add a geotextile membrane

A geotextile membrane does not need to be used for all types of soil. It is not usually needed on firm shale and some limestone or chalk soils except on a steep slope. Clay soils and peats will need a greater depth of stone to make up the track layers.

Tracks used by machinery may need a geotextile membrane and base layer of stone, depending on the type of soil. Concrete sleepers alone are not adequate for machinery tracks.

How to maintain the tracks

Any material lost to potholes and erosion should be replaced and compacted. Successful applicants should keep the track dry and firm and deal with any problems as soon as they arise.

Permanent ineligible features

Constructed farm tracks may be classed as permanent ineligible features and excluded from area payment schemes.

Further information

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>.

Cross drains (RP5)

£245 per drain

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- where a farm track is acting as a conduit for water runoff or pollution
- in farmyards to redirect clean water

Where this item cannot be used

- to manage or redirect heavily polluted effluents and slurries
 - without relevant advice or consent if track is identified as a historic routeway in the HEFER
-

How this item will benefit the environment

This item will provide a drain to intercept and conduct surface runoff away from farm tracks and yards. The drain will help reduce channeling of surface runoff and the risk of sediment and other pollution entering a watercourse.

REQUIREMENTS

- position the cross drain so it catches the water on the uphill side of the track or yard and transfers it to an outfall where it will not cause new erosion or runoff issues
 - redirect water from the cross drain to a stable drainage outlet such as a ditch, culvert or other outfall - low flows can be directed to a field or field margin
 - construct the drain either by digging a partially covered channel to collect sediment and redirect surface water, or by constructing a low hump to direct surface flows
 - maintain drains and drainage outfalls or the areas around humps by removing built-up sediment or other clogging materials
 - either construct an open channel:
 - excavate a channel across the width of the track or in a yard to a depth of at least 100mm and 100mm to 250mm wide
 - line the channel with concrete and install a gridded top that must be at least 150mm wide
 - or construct a raised hump:
 - excavate a foundation trench across the track or yard to a depth of at least 300mm
 - fill it with concrete
 - key in kerbstones across the trench so they protrude 60 to 100mm above the surrounding surface
 - all capital works carried out must meet the relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>.
- Do not:
- direct any runoff towards any biodiversity, historic or archaeological features (identified on the FER, the Environmental Information Map or the HEFER), or damage them in any other way
 - allow polluted water from drains to reach a watercourse or pond

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of the site before the work takes place
- written advice from a historic environment specialist if the track is a historic routeway

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP1 - Resurfacing of gateways
- RP4 - Livestock and machinery hardcore tracks
- RP7 - Sediment ponds and traps
- RP11 - Swales
- RP15 - Concrete yard renewal

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

Using this item with other measures

Agreement holders should use this item with other measures, such as buffer strips, sediment traps, swales and dams, to slow the velocity of water across the land and prevent pollutants travelling to a watercourse. Follow best practice for reducing soil erosion and increasing water infiltration in fields.

How to choose a site for the drain

Any water draining from the surrounding land should be diverted before it flows on to the track or yard. This can be done by using breaks such as hedges, ditches or buffers.

Cross drains should be placed at intervals across sloping tracks. The number of drains will increase with the length or steepness of the slope. The distance between the drains will vary according to the site, but they must be close enough to collect heavy surface flows.

How to manage drain outfall

Outfall from the drains should be directed to a specially created temporary water storage area. This will allow water to infiltrate the ground and will protect existing watercourses. It is essential to do this if the water is likely to be polluted (e.g. if livestock use the track or yard). Direct low flows to a well-managed, tussocky grass field margin. Additional capital items (for example, silt traps or swales) can be used to create a temporary water storage area.

How to maintain structures

The structures should be checked for a build-up of sediment or other clogging pollutants after heavy rainfall. They should also be checked after agricultural activities have taken place that are likely to shift soil to the track (e.g. the movement of muddy machines or livestock).

Where to position tracks

If possible, position tracks so they do not run directly downhill or carry pollutants directly between farmyard or fields and watercourses.

Consider using this item when using item RP4 - Livestock and machinery hardcore tracks in a place where runoff is still likely to be a problem.

Further information

Improve the management of water on the land by using Rural Sustainable Drainage Systems (RSuDS) - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/291508/schoo612buwh-e-e.pdf.

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Installation of piped culverts in ditches (RP6)

£340 per culvert

Where to use this item

Only:

- in areas targeted to reduce water pollution from agriculture

OR

- in combination with options for the management and restoration of habitats or features with the support of a Natural England adviser

Where this item cannot be used

- to replace an existing culvert structure
- where it may damage an environmental, historical or archaeological feature identified on the Farm Environment Record (FER), the Environmental Information Map or the HEFER
- where it will restrict the movement of migratory fish or eels
- without relevant advice or consents from the Environment Agency (EA) or flood defence consenting authority

How this item will benefit the environment

This watercourse crossing will provide access for farm machinery or livestock. This will reduce the disturbance to the watercourse which will help reduce sedimentation and bacterial levels in the water.

If successful there will be:

- an adequate flow of water
- runoff of expected flows diverted under a track so farm machinery and livestock can cross
- farm machinery or livestock crossing tracks safely

REQUIREMENTS

- install a concrete pipe at least 450mm in diameter following the manufacturer's instructions
- ensure that pipes have a positive joint to preserve alignment
- make sure that the pipe lengths give a useable width at ground level that is appropriate for the traffic using the crossing:
 - minimum width of 4m for wheeled traffic
 - less than 4m acceptable for livestock footpaths and bridleways
- set the pipes on a firm bed and in true alignment
- make sure that the pipe gradient approximates to that of the ditch bed
- make sure that the pipe invert (the level of the inside bottom of the pipe) at the upstream end is fractionally below the bottom of the true ditch bed
- grade the ditch bed downstream if any deepening is needed to accommodate the culvert
- maintain the culvert for the duration of the agreement, removing debris that builds up so as to maintain flow

- where the above standard specifications for the culvert are not suitable for the weight of machinery using the crossing, applicants must obtain advice from a drainage or bridge engineer and complete the works in accordance with their advice - applicants are responsible for ensuring the culvert does not collapse
- ensure that all work:
 - meets relevant British Standards, i.e. culverts must be constructed using concrete pipes that comply with BS 5911 and BS EN 1916, pipework must be laid in accordance with BS 8000; examine copies of the most up-to-date standards for guidance - <http://shop.bsigroup.com/ProductDetail/?pid=00000000030262061>
 - complies with the culvert design and operation guide (C689) - <http://www.ciria.org/ItemDetail?iProductcode=C689&Category=BOOK>

Do not:

- place any resulting spoil on environmental, historic or archaeological features as identified on the FER, the Environmental Information Map or the HEFER

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.
- If required, advice from a drainage or bridge engineer

Applicants will have to send the following with their application:

- photographs of the site before the work takes place
- a copy of advice and consents from the Environment Agency and flood defence consenting authority if required

RELATED MID TIER ITEMS

This item can be used on the same area as RP4 - Livestock and machinery hardcore tracks.

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

Consider location and alignment

- avoid active river areas, particularly meander bends
- avoid depositional areas
- make the crossing perpendicular to the river
- consider floodplain crossings

- reduce the risk of pollution (such as the release of fine sediments) to protected species and their habitats
- where necessary, minimise erosion by installing protection measures (such as stone pitching or slabs) downstream of the culvert and on the sides of the ditch

Embedding and maintaining culverts

- pack a stone-free filling tightly at the sides of the pipe and at least 300mm above it
- build up the filling in layers up to 150mm thick, making sure it is thoroughly consolidated before adding the next layer
- follow the manufacturer's guidance on how deep to cover backfill
- leave the finished backfill surface so it is crowned above the surrounding levels

Consider using a concrete pad to stabilise the bridge or track over the culvert. Make sure the pad is at least 150mm thick, adding an extra 300mm if the total depth of fill cover over the pipes is less than its diameter.

Try using sloping earth ends as headwalls where appropriate, with the slopes no steeper than 1 in 5. There should be a 1m extension on either end of the culvert beyond the required width of expected traffic.

Further information

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Sediment ponds and traps (RP7)

£10 per square m

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- in conjunction with a Feasibility Study or a CSF commissioned design plan for ponds or traps over 25 square metres

Where this item cannot be used

- to collect dirty water, effluents and slurries
- on historic or archaeological features or areas of existing wildlife interest identified on the Farm Environment Record (FER), the Environmental Information Map or the HEFER
- where it will restrict the movement of migratory fish or eels
- without relevant advice or consents from the Environment Agency (EA), Local Planning Authority or flood defence consenting authority

How this item will benefit the environment

A sediment pond or trap will provide an area where muddy run-off from fields or tracks is allowed to pond so sediment will settle out. This will help reduce the risk of sediment and other pollutants entering a nearby watercourse.

REQUIREMENTS

- ensure that all work meets relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://shop.bsigroup.com/ProductDetail/?pid=00000000030262061>

For sediment ponds or traps (less than 25 square metres):

- excavate to an appropriate depth, creating gently sloping banks
- spread any excess soil thinly across the land, away from the excavated pond area

For larger sediment ponds or traps (greater than 25 square metres):

- follow the requirements set out in the Feasibility Study (PA2) or CSF design plan (Water-Holding Feature Management Plan).

Do not:

- place spoil on any historic or archaeological feature or wildlife area identified on the FER, the Environmental Information Map or the HEFER

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Before applying, applicants must seek advice from the Environment Agency, Local Planning Authority and where relevant the Internal Drainage Board to check if consent is required to carry out the planned work.

Applicants will have to send the following with their application:

- a copy of any advice or consent received from the EA, Local Planning Authority and (where relevant) the Internal Drainage Board
- photographs of the existing site
- a copy of the Feasibility Study or CSF design plan (Water-Holding Feature Management Plan) for ponds or traps over 25 square metres

RELATED MID TIER OPTIONS AND ITEMS

This item can be used on the same area as the following options and items:

- SW1 - 4m to 6m buffer strip on cultivated land
- SW2 - 4m to 6m buffer strip on intensive grassland
- SW4 - 12m to 24m watercourse buffer strip on cultivated land
- SW7 - Arable reversion to grassland with low fertiliser input
- SW8 - Management of intensive grassland adjacent to a watercourse
- SW11 - Riparian management strip
- WD3 - Woodland edges on arable land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

Using this item with other measures

This item should be used with other farm measures to reduce surface runoff and water pollution. Good soil management will encourage the filtration of surface water and minimise runoff. This will reduce the need for sediment ponds on the farm.

How to construct barriers

The CSF design plan (Water-Holding Feature Management Plan) may provide site-specific information, including where to place barriers and how to construct them.

Creating multiple ponds or traps

It is likely that several ponds or traps will be needed for successful reduction of sediment loads to the watercourse.

Checking ponds and traps for silt

Sediment ponds and traps can collect a considerable amount of silt and need to be regularly checked and de-silted.

Further information

The management of water on the land can be improved by using Rural Sustainable Drainage Systems (RSuDS). See the guide to RSuDS for more information - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/291508/schoo612buwh-e-e.pdf.

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Earth banks and soil bunds (RP9)

£155 for each unit (100m of bund)

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture or to help address flood risk
- on sites identified in either a Feasibility Study, an Implementation Plan or a CSF commissioned design plan

Where this item cannot be used

- on historic or archaeological features or areas of wildlife value as identified on the Farm Environment Record (FER), the Environmental Information Map or the HEFER
- without relevant advice or consents from the Environment Agency (EA), or Local Planning Authority, or Internal Drainage Board

How this item will benefit the environment

An earth bank or soil bund can be used to:

- slow the movement of water, protecting streams and rivers from pollutants
- slow flows during high rainfall and reduce downstream flooding
- control water levels to aid raised water levels for habitat creation and restoration

REQUIREMENTS

- complete the construction as set out in the Feasibility Study, Implementation Plan or CSF design plan (Water-Holding Feature Management Plan)

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Before applying, applicants must seek advice from the Environment Agency, and where relevant the Internal Drainage Board to check if consent is required to carry out the planned work.

Applicants will have to send the following with their application:

- a copy of any advice or consent received from the EA or the Internal Drainage Board
- photographs of the existing site
- a copy of the Feasibility Study or CSF design plan (Water-Holding Feature Management Plan)

RELATED MID TIER OPTIONS AND ITEMS

This item can be used on the same area as the following options and items:

- RP7 - Sediment ponds and traps
- RP11 - Swales
- SW1 - 4m to 6m buffer strip on cultivated land
- SW2 - 4m to 6m buffer strip on intensive grassland
- SW3 - In-field grass strips
- SW7 - Arable reversion to grassland with low fertiliser input

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

Pick a location

Position bunds or banks on land that can support damp, vegetated habitat. Ideally on:

- tracks
- small, lightly contaminated yards
- hard standing
- the bottom of slopes

This item also works on grassland and arable fields, as single entities or to support buffer strips.

Design and construction

Details of the design and construction of the earth bank or soil bund will be in the management plan. Agreement holders are likely to need to:

- form infiltration basins into 'V', 'U' or 'C' shapes
- measure bunds in a continuous length of 100m per unit with up to a 250m² runoff store
- dig down 0.8m in depth
- grade side slopes to no more than 1 in 3
- ensure half the stored water can empty within 24 hours
- flatten the soil when damp to strengthen the structure
- plant grass species in banks that can withstand wet and dry conditions
- establish vegetation on the basin floor to reduce clogging
- build bay silt traps where soil erosion is high to stop the basin from clogging
- regularly remove excess sediment from banks and bunds, reapplying it back to the field (contact the Environment Agency to check if a waste exemption is required)

To enhance buffer strips

- place soil bunds at the field edge of buffer strips, to slow runoff
- build bunds 300mm to 500mm high by 600mm to 1000mm wide
- place larger bunds where complex field slopes divert runoff to pinch points

Establishing soil bunds

Compact down soil bunds and then sow a seed mixture at a rate of 24g/m². Form the seed mix from grass, legumes and wildflowers, e.g.:

- creeping red fescue (70%)
- smooth meadow-grass (20%)
- creeping bent (10%)

Building weirs and outlets

Weirs and outlets can be built into the design as they can discharge more water than pipes and are less likely to block up.

The water should be directed on to stones or boulders to slow flow for piped overflows, or weirs in ditches and ponds.

Further information

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Silt filtration dams or seepage barriers (RP10)

£75 per unit

Where to use this item

Only:

- in ditches in areas targeted for the reduction of water pollution from agriculture and for the reduction of flood risk
- in conjunction with a Feasibility Study, an Implementation Plan or a Catchment Sensitive Farming (CSF) commissioned design plan agreed with Natural England

Where this item cannot be used

- on historic or archaeological features or areas of existing wildlife interest identified on the Farm Environment Record (FER), the Environmental Information Map or the HEFER
 - where it will restrict the movement of migratory fish or eels
 - without relevant advice or consents from the Environment Agency (EA) or Internal Drainage Board
-

How this item will benefit the environment

Silt filtration barriers and seepage barriers will slow the movement of water in ditches, to allow pollutants to settle out. This will help improve water quality and may reduce downstream flooding.

REQUIREMENTS

- complete the constructions as set out in the approved Feasibility Study, Implementation Plan or CSF design plan (Water-Holding Feature Management Plan)

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Before applying, applicants must seek advice from EA and where relevant the Internal Drainage Board to check if consent is required to carry out the planned work. Applicants will have to send the following with their application:

- a copy of any advice or consent received from the EA and (where relevant) the Internal Drainage Board
- photographs of the existing site
- a copy of the Feasibility Study, Implementation Plan or CSF design plan (Water-Holding Feature Management Plan)
- written support from a CSF officer

RELATED MID TIER ITEMS

This item can be used on the same area as the following item:

- RP11 - Swales

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

The Feasibility Study, Implementation Plan or CSF design plan should include site-specific guidance for locating and constructing the barriers. However, it is likely that several barriers will be required for successful slowing of flows throughout the length of the water course.

Design and construction

The design of the structure and the materials used will depend on the conditions set out in the plan. A range of materials could be used which include:

- timber piling or horizontal planks (with gaps between the boards to allow water flow)
- stone filled gabions
- recycled plastic drainage material, e.g. Aquadyne
- willow stakes and woven branches for a more natural appearance
- dams that allow for overflows in the centre (this prevents scouring of the ends of the barrier or dam)

Using willow stakes will help anchor the structure, as they may grow. This style of construction may not last very long so allow time for repair or reconstruction during the agreement.

The main function of the barrier is to slow and filter water flow through ditches or temporary water-holding features, rather than dam and hold water. Other capital items are available to dam or hold water.

Remove trapped silt

Trapped silt should be monitored and removed at least once a year. It must only be disposed of in areas that have been set out in the agreement. The maintenance must be done carefully and regularly to avoid polluting sensitive bodies of water downstream or sensitive habitats on land.

Use this item with other measures

This item should be used as part of a package of measures to reduce surface water runoff and related water pollution problems on farm.

Further information

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>.

Swales (RP11)

£5.95 per square m

Where to use this item

Only in areas targeted for the reduction of water pollution from agriculture

Where this item cannot be used

- to collect dirty water, effluents, or slurries
- on historic or archaeological features or areas of existing wildlife interest identified on the Farm Environment Record (FER), the Environmental Information Map or the HEFER
- where it will restrict the movement of migratory fish or eels
- without relevant advice or consents from the Environment Agency (EA), or Local Planning Authority, or Internal Drainage Board

How this item will benefit the environment

A swale (channel) will collect surface runoff water or lightly contaminated water from farmyards or tracks. The collected water is conveyed to a watercourse or stored to infiltrate into the ground.

This item will help to reduce runoff and risk of soil erosion and water pollution. Swales can also slow water flows during heavy rainfall and reduce downstream flooding.

REQUIREMENTS

- *either* follow the requirements set out in the Feasibility Study or CSF design plan (Water-Holding Feature Management Plan)
- *or* construct the swale as follows:
 - construct a channel along a contour or on a slope gradient of no more than 2 degrees
 - mark the layout of the swale on the ground
 - excavate the swale bed to a depth of 750mm
 - stockpile the topsoil separately, to use on the bed and side slopes of the swale
 - construct the side slopes with a gradient of no more than 1 in 3
 - excavate a further 150 to 250mm and place the topsoil on the bed
 - establish a dense grass sward on the bed and sides of the swale

Do not:

- place any excavated spoil on historic or archaeological features or areas of wildlife value identified on the FER, the Environmental Information Map or the HEFER

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Before applying, applicants must seek advice from the Environment Agency, Local Planning Authority and where relevant the Internal Drainage Board to check if consent is required to carry out the planned work. Applicants will have to send the following with their application:

- a copy of any advice or consent received from the EA, Local Planning Authority and (where relevant) the Internal Drainage Board
- photographs of the existing site
- Water holding feature Management plan, Feasibility or Implementation Plan(s) if required

RELATED MID TIER OPTIONS AND ITEMS

This item can be used on the same area as the following options and items:

- RP10 - Silt filtration dams or seepage barriers
- RP12 - Check dams
- SW1 - 4m to 6m buffer strip on cultivated land
- SW2 - 4m to 6m buffer strip on intensive grassland
- SW4 - 12m to 24m watercourse buffer strip on cultivated land
- SW7 - Arable reversion to grassland with low fertiliser input
- SW8 - Management of intensive grassland adjacent to a watercourse
- SW11 - Riparian management strip
- WD3 - Woodland edges on arable land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

Use this item with other measures

This item should be used with other farm measures to reduce surface runoff and water pollution. Good soil management will encourage the filtration of surface water and minimise runoff.

Use check dams or silt barriers

Capital items such as check dams or silt filtration barriers can be used in swales to help slow water flow and encourage infiltration.

How to prepare a seed mixture

To establish the sward, for best results sow a seed mixture at a seed rate of 25g per square metre. The mixture should be a multi-species grass mix, such as creeping red fescue (70%), smooth meadow-grass (20%) and creeping bent (10%).

Further information

The management of water on the land can be improved by using Rural Sustainable Drainage Systems (RSuDS). See the guide to RSuDS for more information - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/291508/schoo612buwh-e-e.pdf.

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Check dams (RP12)

£42 for each dam

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- in conjunction with a Feasibility Study or a Catchment Sensitive Farming (CSF) commissioned design plan

Where this item cannot be used

- where it will restrict the movement of migratory fish or eels
 - without relevant advice or consents from the Environment Agency (EA) or Internal Drainage Board
-

How this item will benefit the environment

Check dams or woody debris dams in woodland will slow the movement of water in small natural streams and ditches. They will slow surface water, allowing sediment and other pollutants to settle out, helping to improve water quality and reduce downstream flooding.

REQUIREMENTS

- follow the requirements set out in the Feasibility Study or CSF Design Plan

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Before applying, applicants must seek advice from the Environment Agency and where relevant the Internal Drainage Board to check if consent is required to carry out the planned work.

Applicants will have to send the following with their application:

- a copy of any advice or consent received from the EA, and (where relevant) the Internal Drainage Board
- photographs of the existing site
- a copy of the Feasibility Study or CSF design plan (Water-Holding Feature Management Plan)

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP11 - Swales
- SW1 - 4m to 6m buffer strip on cultivated land

- SW2 - 4m to 6m buffer strip on intensive grassland
- SW4 - 12m to 24m watercourse buffer strip on cultivated land
- SW7 - Arable reversion to grassland with low fertiliser input
- SW8 - Management of intensive grassland adjacent to a watercourse
- SW11 - Riparian management strip
- WD3 - Woodland edges on arable land

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.

Use several dams

It is likely that several dams will be needed to manage water flows successfully. On small streams, a series of multiple dams should be used that are between 5 to 7 times wider than the channel. This will prevent woody debris becoming dislodged during floods.

Check the dams for silt

The dam must be checked and de-silted regularly to prevent it collecting large amounts of silt.

Design and construction

Agreement holders are likely to need to:

- construct the dam from local soils with a high clay content, timber or stone, as appropriate to the local landscape
- excavate a trench 200 mm deep across the width of the swale
- build up the check dam using 100mm to 600mm grade broken stone, wooden boards, gabions or earth to a height of 500 to 750 mm above the floor of the swale
- build the check dam at the down slope end of the trench and leave the upslope end of the trench empty
- side slopes of the check dam must be a gradient 1 in 2
- check dams must be built into the sides of the swale to avoid water bypassing the structure
- at least 1m to 2m downstream must be protected to dissipate energy from the dam
- place an overflow in the centre of the dam to prevent any scouring of the ends of the dam

Further information

The management of water on the land can be improved by using Rural Sustainable Drainage Systems (RSuDS). See the guide to RSuDS for more information - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/291508/schoo612buwh-e-e.pdf.

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Yard - underground drainage pipework (RP13)

£5.50 per m

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- with support from a Catchment Sensitive Farming (CSF) officer

Where this item cannot be used

- on covered or indoor yards
- on environmental, historic or archaeological features identified on the Farm Environment Record (FER), the Environmental Information Map or the HEFER
- without relevant advice, consents or permissions from the Environment Agency (EA), or Local Planning Authority from the Environment Agency (EA), or Local Planning Authority

How this item will benefit the environment

This item will improve existing outdoor yards to reduce the risk of runoff and water pollution.

REQUIREMENTS

- install 100mm or 150mm (internal diameter) drains
- excavate trenches that are at least the width of the pipe's outside diameter plus 300mm
- lay pipes on clay or sand that is at least 100mm thick
- to avoid settlement of solids or semi-solid material in dirty water drains, lay pipes to a fall of:
 - no less than 1 in 60 for 100mm internal diameter pipes
 - no less than 1 in 100 for 150mm internal diameter pipes
- place inspection pits at no more than 90m apart in straight lines
- use only uPVC pipes with sealed joints, and jointed according to the manufacturer's instructions
- when the pipe is laid, backfill to at least:
 - 600mm in areas without traffic
 - 900mm in areas with traffic
- use compacted excavated material such as smooth stone, clay or sandy soil for backfill and remove any surplus
- where it is not possible to backfill to 600mm or 900mm in areas with traffic then the pipes must be wrapped in plastic sheeting and encased in at least 150mm of concrete
- ensure that all work meets relevant British Standards - examine copies of the most up-to-date standards for guidance -
<http://shop.bsigroup.com/ProductDetail/?pid=00000000030262061>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work

- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Before applying, applicants must seek advice from the EA and Local Planning Authority to check if consent is required to carry out the planned work. Applicants will have to send the following with their application:

- a copy of any advice or consent received from the EA and Local Planning Authority (where relevant)
- photographs of the existing site
- written support from a CSF officer

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP5 - Cross drains
- RP14 - Yard inspection pit
- RP15 - Concrete yard renewal

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

The existing uncovered yards should be made from:

- concrete
- hard core
- tarmac
- bare earth

Further information

The Rivers Trust has further guidance on dirty water separation -

<http://www.riverstrust.org/media/2017/04/Pinpoint-Water-Management-.pdf>

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>.

Yard inspection pit (RP14)

£200 per unit

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- with support from a Catchment Sensitive Farming (CSF) officer

Where this item cannot be used

- on covered or indoor yards
 - without relevant advice or consents from the Environment Agency (EA)
-

How this item will benefit the environment

This item will improve existing outdoor yards to reduce the risk of runoff and water pollution.

REQUIREMENTS

- ensure that all work meets relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://shop.bsigroup.com/ProductDetail/?pid=00000000030262061>
- build an inspection pit or a catch pit:
 - make sure the internal area of the pit is at least 0.36 square metres
 - build the pit onto a concrete base that is at least 250mm thick, with block walls rendered internally and externally
- construct the pit walls with:
 - solid concrete blocks at least 200mm thick
 - engineering brickwork at least 200mm thick
 - proprietary precast reinforced concrete
 - proprietary plastic or uPVC liner with a concrete surround at least 150mm thick
- make sure block walls are rendered internally and externally
- install all proprietary items according to the manufacturer's instructions to support the weight of traffic going over it
- design the cover and frame to carry a load appropriate to its situation, e.g. in high traffic areas this must be at least 10 kilo newtons per square metre
- embed the cover and frame securely so it is level with or is below the surrounding surface
- build at least 10m from a slurry or silage store if this item has an open grating

Inspection pits

- the inspection pit channel must be benched half round, equal in diameter to the largest inlet pipe and extending the full length of the pit
- the side connections must discharge in the direction of flow of the main channel

Catch pits

- make sure the pit opening is at least 150mm by 150mm, or 150mm in diameter
- install a pluggable catch pit and sump (at least 450mm deep with a submersible pump) at the point where clean drainage water leaves the yard
- monitor the drainage water for contaminants

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Before applying, applicants must seek advice from EA to check if consent is required to carry out the planned work. Consent may be required if the works are designed to transfer slurry or silage effluent and need to meet water resources control of water pollution regulations - <https://www.gov.uk/guidance/storing-silage-slurry-and-agricultural-fuel-oil>. Applicants will have to send the following with their application:

- a copy of any advice or consent received from EA
- photographs of the existing site
- written support from a CSF officer

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP5 - Cross drains
- RP13 - Yard - underground drainage pipework
- RP15 - Concrete yard renewal

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

The existing uncovered yards should be made from:

- concrete
- tarmac
- hard core
- bare earth

More detailed information about using this item is available through CSF. Applicants may also be able to request an infrastructure audit, slurry and manure handling plan, or pesticide handling or washdown facilities design plan.

Further information

The Rivers Trust (RT) has further guidance on dirty water separation -

<http://www.theriverstrust.org/media/2017/04/Pinpoint-Water-Management-.pdf>

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Concrete yard renewal (RP15)

£27.14 per square m

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- with support from a Catchment Sensitive Farming officer

Where this item cannot be used

- on covered or indoor yards
- manure, silage or slurry stores
- areas housing livestock
- on environmental, historic or archaeological features identified on the Farm Environment Record (FER), the Environmental Information Map or the HEFER

How this item will benefit the environment

It improves or upgrades existing outdoor (uncovered) yard drainage to reduce foul drainage volumes, runoff and risk of water pollution.

REQUIREMENTS

- construct an upgraded concrete base so that silage effluent cannot escape
- construct the base with concrete (a minimum of 150mm thick) on compacted and blinded hardcore that is at least 150mm thick
- reinforce the concrete base to minimise cracking and distribute the loads exerted by livestock or farm vehicles
- lay the concrete in bays and treat all joints with sealant that is resistant to effluent damage
- only fully load the concrete when it achieves its design strength (equivalent to 28 day strength)
- ensure that all work meets relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://shop.bsigroup.com/ProductDetail/?pid=00000000030262061>

Do not:

- roof over (even at own expense) an outside yard receiving aid through this item

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Before applying, applicants must seek advice from the Local Planning Authority to check if consent is required to carry out the planned work. Applicants will have to send the following with their application:

- a copy of any advice or consent received from the Local Planning Authority
- photographs of the existing site
- written support from a CSF officer

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP5 - Cross drains
- RP13 - Yard - underground drainage pipework
- RP14 - Yard inspection pit

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

This item can be used:

- in high traffic areas or in livestock movement and loafing areas
- on uncovered outdoor yards made of concrete, hardcore, tarmac or bare earth
- to reduce foul drainage volumes, runoff and risk of water pollution
- to help separate clean and dirty water

Get more advice

More detailed information about using this item is available through Catchment Sensitive Farming (CSF). Applicants may also be able to request an infrastructure audit or a slurry and manure handling plan.

Keep clean and dirty water separate

Foul or dirty water should not be allowed to contaminate clean water. Plan how to manage any additional runoff from the impermeable concrete area. Some restructuring of clean and dirty drains may be needed, which may include adding:

- cross drains
- catchpits
- gulleys
- kerbs
- sleeping policemen

Further information

The Rivers Trust has further guidance on dirty water separation -

<http://www.riverstrust.org/media/2017/04/Pinpoint-Water-Management-.pdf>

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Rainwater goods (RP16)

£11.40 per m

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- on existing buildings without guttering and downpipes or with ones that are no longer serviceable and need to be replaced

Where this item cannot be used

- for guttering and downpipes on proposed new buildings
- on covered or indoor yards

How this item will benefit the environment

New guttering and downpipes (rainwater goods) will prevent the discharge of clean water on to fouled yard areas, which will help reduce risk of water pollution.

REQUIREMENTS

- install new guttering and downpipes on existing farm yard buildings
- direct clean water from rainwater goods into a clean water drain
- ensure that all work meets relevant British Standards - examine copies of the most up-to-date standards for guidance -

<http://shop.bsigroup.com/ProductDetail/?pid=00000000030262061>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of the existing building

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP13 - Yard - underground drainage pipework
- RP14 - Yard inspection pit
- RP15 - Concrete yard renewal
- RP17 - Storage tanks underground
- RP18 - Above ground tanks
- RP19 - First flush rainwater diverters and downpipe filters

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.

Listed and historic buildings

This item could be detrimental if used close to a historic farmstead or listed building. The nature and historic value of the existing surfaces should be taken into consideration. Get advice on whether listed building consent is needed.

Further information

Read more on:

- implementing a water management plan - <http://www.leafuk.org/eblock/services/resources.ashx/000/533/575/Waterwise.pdf>
- effective use of water on dairy farms - <http://dairy.ahdb.org.uk/technical-information/environment/water-use/>

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Storage tanks underground (RP17)

£350 per cubic m

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- with support from a Catchment Sensitive Farming (CSF) officer

Where this item cannot be used

- Without relevant advice or permission from the Local Planning Authority
 - on historic or archaeological features
-

How this item will benefit the environment

The underground storage tank will collect and contain rainwater and help to keep clean and dirty water separate. This will provide free clean water, which may be suitable to use for a number of tasks around the farm such as yard washing, instead of wasting potable water supplies.

REQUIREMENTS

- agree with a CSF officer where to install the tank and pump
- follow the manufacturer's instructions when installing the tank and pump
- use tanks made from either glass-reinforced plastic (GRP) or pre-cast concrete
- backfill with concrete to cover the tank and make good
- ensure that all work meets relevant British Standards - examine copies of the most up-to-date standards for guidance -

<http://shop.bsigroup.com/ProductDetail/?pid=00000000030262061>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Before applying, applicants must seek advice from the Local Planning Authority to check if consent is required to carry out the planned work. Applicants will have to send the following with their application:

- a copy of any advice or consent received from the Local Planning Authority
- photographs of the existing site
- written support from a CSF officer

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP16 - Rainwater goods
- RP18 - Above ground tanks
- RP19 - First flush rainwater diverters and downpipe filters

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.

Installing the storage tank

The work normally includes:

- installing the tank and pump
- a site excavation
- creating a hardstanding or concrete base for the tank
- installing connecting pipework

Water management

Throughout the work make sure that foul or dirty water does not contaminate the clean water collected.

Applicants must also check if restrictions apply to using harvested rainwater in your supply chain. Contact the farm assurance scheme and purchasers of produce.

High water table

These tanks are not suitable in ground with a high water table unless further structural work is undertaken to prevent such tanks from floating. Seek advice from the manufacturer.

Historic and archaeological features

- get listed building consent if used close to a historic farmstead or listed building, as this option may have negative effects on it
- consider the effect of the option on the fabric and setting of the historic buildings, as well as the nature and historic value of the existing surfaces

Dirty water

This item is not intended to be used for collecting dirty water, effluents and slurries.

Further information

Read more on:

- implementing a water management plan - <http://www.leafuk.org/eblock/services/resources.ashx/ooo/533/575/Waterwise.pdf>
- effective use of water on dairy farms - <http://dairy.ahdb.org.uk/technical-information/environment/water-use/>

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Above ground tanks (RP18)

£100 per cubic m

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- with support from a Catchment Sensitive Farming officer

Where this item cannot be used

- without relevant advice or permission from the Local Planning Authority
 - on historic or archaeological features
-

How this item will benefit the environment

The above ground storage tank will collect and contain rainwater and help to keep clean and dirty water separate. This will provide free clean water, which may be suitable to use for a number of tasks around the farm such as yard washing, instead of wasting potable water supplies.

REQUIREMENTS

- agree with your CSF officer where to install the tank and pump
- install a new above-ground storage tank on hardstanding or concrete following the manufacturer's instructions
- ensure that all work meets relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://shop.bsigroup.com/ProductDetail/?pid=00000000030262061>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Before applying, applicants must seek advice from the Local Planning Authority to check if consent is required to carry out the planned work.

Applicants will have to send the following with their application:

- a copy of any advice or consent received from the Local Planning Authority
- photographs of the existing site
- written support from a CSF officer

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP15 - Concrete yard renewal
- RP16 - Rainwater goods

- RP17 - Storage tanks underground
- RP19 - First flush rainwater diverters and downpipe filters

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.

Installing the storage tank

There are no generic specifications for above-ground storage tanks since they are pre-made tanks supplied as fit for purpose, but the work normally includes:

- installing the tank and pump
- creating a hardstanding or concrete base for the tank
- installing connecting pipework

Water management

Throughout the work make sure that foul or dirty water does not contaminate the clean water collected.

Applicants must also check if restrictions apply to using harvested rainwater in your supply chain.

Contact the farm assurance scheme and purchasers of produce.

Historic and archaeological features

- get listed building consent if used close to a historic farmstead or listed building, as this item may have negative effects on it
- consider the effect of the item on the fabric and setting of the historic buildings, as well as the nature and historic value of the existing surfaces

Dirty water

This item is not intended to be used for collecting dirty water, effluents and slurries.

Further information

Guidance on implementing a water management plan -

<http://www.leafuk.org/eblock/services/resources.ashx/000/533/575/Waterwise.pdf>

Guidance about the effective use of water on dairy farms -

<http://dairy.ahdb.org.uk/technical-information/environment/water-use/>

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>.

First flush rainwater diverters and downpipe filters (RP19)

£125 per unit

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- with a rainwater harvesting system
- with support from a Catchment Sensitive Farming officer

Where this item cannot be used

- without relevant advice or permission from the Local Planning Authority

How this item will benefit the environment

It diverts and filters potentially contaminated roof water to keep leaves, debris and other contaminants out of diverters, clean water drains and water storage tanks. This will help provide clean water that can be used for a number of tasks around the farm such as yard washing, instead of wasting potable water supplies.

REQUIREMENTS

- install individual rainwater diverters and filters, wall-mounted diverters or stand-alone diverters (depending on the volumes to be treated) according to the manufacturer's guidelines
- make sure that contaminated water is not diverted to a clean water drain or discharged to ditches or watercourses
- ensure that all work meets relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://shop.bsigroup.com/ProductDetail/?pid=00000000030262061>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Before applying, applicants must seek advice from the Local Planning Authority to check if consent is required to carry out the planned work. Applicants will have to send the following with their application:

- a copy of any advice or consent received from the Local Planning Authority
- photographs of the existing site
- written support from a CSF officer

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP16 - Rainwater goods
- RP17 - Storage tanks underground
- RP18 - Above ground tanks

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

Improve water quality

- collect rainwater from roofs and buildings and use it for tasks around the farm such as yard washing - fitting a first flush rainwater diverter is critical to good quality water
- know that water diverters improve water quality, reduce tank maintenance and protect pumps by preventing the first flush of water, which may contain contaminants from the roof, from entering the tank
- use downpipe filters to keep leaves, debris and other contaminants out of diverters, clean water drains and water storage tanks - the work includes the supply and installation of downpipe filters

Agreement holders must also check if restrictions apply to using harvested rainwater in your supply chain. Contact the farm assurance scheme and purchasers of produce.

Historic and archaeological features

- get listed building consent if used close to a historic farmstead or listed building, as this item may have negative effects on it
- consider the effect of the item on the fabric and setting of the historic buildings, as well as the nature and historic value of the existing surfaces

Further information

Guidance on implementing a water management plan -

<http://www.leafuk.org/eblock/services/resources.ashx/000/533/575/Waterwise.pdf>

Guidance about the effective use of water on dairy farms -

<http://dairy.ahdb.org.uk/technical-information/environment/water-use/>

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Relocation of sheep dips and pens (RP20)

£3,675 per unit

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- with support from a Catchment Sensitive Farming (CSF) officer

Where this item cannot be used

- to build new, permanent sheep dips and holding pens on a farm where there are no existing dipping facilities
- to replace existing equipment in the same location
- without relevant advice or consents from the Environment Agency (EA) or Local Planning Authority

How this item will benefit the environment

This item will install replacement sheep dips in new locations. Pollution from sheep dips can cause damage to people and aquatic wildlife. Relocating sheep dips can help reduce the risk of diffuse water pollution.

REQUIREMENTS

- install a new sheep dip bath and holding pens
- dip baths must be impermeable, have no drain outlet and must comply with the Groundwater Protection Code - <https://www.gov.uk/guidance/sheep-dip-groundwater-protection-code>
- dip baths and drain pens must be installed at least:
 - 10m from watercourses (including streams, ditches, land drains and wetlands)
 - 30m from watercourses that drain into protected conservation sites (such as Sites of Special Scientific Interest (SSSIs))
 - 50m from any spring, well or borehole
- meet relevant British Standards - examine copies of the most up-to-date standards for guidance: <http://shop.bsigroup.com/ProductDetail/?pid=00000000030262061>

Do not:

- install the dip baths and pens on a slope, or at the top of one, where there is a risk that spillage might drain to a watercourse, road or track

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Before applying, applicants must seek advice from the EA and Local Planning Authority to check if consent is required to carry out the planned work.

Applicants will have to send the following with their application:

- a copy of any advice, permit or consent received from the EA or Local Planning Authority
- photographs of the existing site and current dipping facilities
- written support from a CSF officer

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP22 - Sheep dip drainage aprons and sumps
- RP23 - Installation of livestock drinking troughs (in draining pens for freshly dipped sheep)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to get a permit to discharge sheep dip

Agreement holders will need an environmental permit to discharge sheep dip to land - <https://www.gov.uk/guidance/check-if-you-need-an-environmental-permit>. A variation to an existing permit may also be required if the location of the discharge area has changed.

How to construct the dip baths

The most effective dip baths should:

- be circular or rectangular
- be of one-piece construction
- be UV-resistant if they are made of plastic
- have splash screens and lips, if needed, to prevent splashing
- have a roof to prevent clean water from yards, roofs or land running into them

More information is available on designing dip baths -

<http://adlib.everysite.co.uk/adlib/defra/content.aspx?doc=11356&id=11365>.

How to construct the drain pens

The most effective drain pens should:

- be large enough to hold sheep for at least 10 minutes after dipping
- have properly sealed floors and built-in slopes (allowing excess dip to drain back to the bath, rather than soaking into the ground, soil or a surface water drain)
- have concrete areas that are impermeable, with watertight sealed joints
- have a filter or trap to prevent dirt and dip draining back into the bath

How to avoid polluting the water supply

The back-siphoning of dip during filling can lead to water pollution. Make sure the hose for filling the bath:

- is not submerged in the bath
- has a double check valve to prevent back-siphoning
- is not used for domestic water supply purposes

How to protect the historic environment

Agreement holders should avoid using this item:

- close to a historic farmstead or listed building (get advice on listed building consent)
- on sites of archaeological or historic importance as identified in the HEFER (get advice on Scheduled Monument consent from Historic England, before using this item on such sites)

Agreement holders should also consider the character of the landscape when constructing new fencing lines. This particularly applies in designated landscapes or historic parkland.

Agreement holders must consult Natural England if intending to install the dip on an SSSI.

Further information

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Relocation of sheep pens only (RP21)

£1,830 per unit

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- with support from a Catchment Sensitive Farming (CSF) officer

This item can also be used to move a static holding pen used in conjunction with a mobile sheep dip.

Where this item cannot be used

- to build new, permanent sheep dip facilities on a farm where there are no existing dipping facilities
- to replace existing equipment in the same location
- without relevant advice or consents from the Environment Agency or Local Planning Authority

How this item will benefit the environment

This item will install new sheep dipping pens in new locations. Pollution from sheep dips can cause damage to people and aquatic wildlife. Relocating sheep pens can help reduce risk of diffuse water pollution.

REQUIREMENTS

- new sheep holding pens must be installed at least:
 - 10m from watercourses (including streams, ditches, land drains and wetlands)
 - 30m from watercourses that drain into protected conservation sites (such as Sites of Special Scientific Interest (SSSIs))
 - 50m from any spring, well or borehole
- install new pens and comply with the Groundwater Protection Code - <https://www.gov.uk/guidance/sheep-dip-groundwater-protection-code>
- meet relevant British Standards - examine copies of the most up-to-date standards for guidance: <http://shop.bsigroup.com/ProductDetail/?pid=00000000030262061>

Do not:

- install the pens (or any dip baths) on a slope, or at the top of one, where there is a risk that spillage might drain to a watercourse, road or track

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Before applying, applicants must seek advice from the EA and Local Planning Authority to check if consent is required to carry out the planned work.

Applicants will have to send the following with their application:

- a copy of any advice, permit or consent received from the EA or Local Planning Authority
- photographs of the existing site and current dipping facilities
- written support from a CSF officer

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP20 - Relocation of sheep dips and pens
- RP22 - Sheep dip drainage aprons and sumps
- RP23 - Installation of livestock drinking troughs (in draining pens for freshly dipped sheep)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to get a permit to discharge sheep dip

Agreement holders will need an environmental permit to discharge sheep dip to land - <https://www.gov.uk/guidance/check-if-you-need-an-environmental-permit>. A variation to an existing permit may also be required if the location of the discharge area has changed.

How to construct the drain pens

The most effective drain pens should:

- be large enough to hold sheep for at least 10 minutes after dipping
- have properly sealed floors and built-in slopes (allowing excess dip to drain back to the bath, rather than soaking into the ground, the soil or a surface water drain)
- have concrete areas that are impermeable, with watertight sealed joints
- have a filter or trap to prevent dirt and dip draining back into the bath

How to protect the historic environment

This item should not be used:

- close to a historic farmstead or listed building (get advice on listed building consent)
- on sites of archaeological or historic importance as identified in the HEFER (get advice on Scheduled Monument consent from Historic England, before using this item on such sites)

Agreement holders should also consider the character of the landscape when constructing new fencing lines. This particularly applies in designated landscapes or historic parkland.

Agreement holders must consult Natural England if intending to install the dip on an SSSI.

Further information

Follow this guidance when designing dip baths -

<http://adlib.everysite.co.uk/adlib/defra/content.aspx?doc=11356&id=11365>

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Sheep dip drainage aprons and sumps (RP22)

£18.25 per square m

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- with support from a Catchment Sensitive Farming (CSF) officer

This item can be used to move a static holding pen used in conjunction with a mobile sheep dip.

Where this item cannot be used

- build new, permanent sheep dips facilities on a farm where there are no existing dipping facilities
- replace existing equipment in the same location
- without relevant advice or consents from the Environment Agency or Local Planning Authority

How this item will benefit the environment

It will install a new sheep dip drainage apron and sump in new locations. Pollution from sheep dips can cause damage to people and aquatic wildlife. Relocating sheep dips and pens can help reduce risk of diffuse water pollution.

REQUIREMENTS

- design the drainage aprons to redirect drainage water from the pen area back to the dip bath
- the apron must be made of impermeable concrete
- design the residue sump to catch debris, such as wool and faeces, and prevent it from re-entering the dipping tank
- construct the sump of engineering brick walls set on a concrete base
- install a drainage apron and sump which complies with the Groundwater Protection Code - <https://www.gov.uk/guidance/sheep-dip-groundwater-protection-code>
- meet relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Before applying, applicants must seek advice from the EA and Local Planning Authority to check if consent is required to carry out the planned work.

Applicants will have to send the following with their application:

- a copy of any advice, permit or consent received from the EA or Local Planning Authority
- photographs of the existing site and current dipping facilities
- written support from a CSF officer

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP21 - Relocation of sheep pens only
- RP23 - Installation of livestock drinking troughs (in draining pens for freshly dipped sheep)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to get a permit to discharge sheep dip

Agreement holders will need an environmental permit to discharge sheep dip to land - <https://www.gov.uk/guidance/check-if-you-need-an-environmental-permit>. A variation to an existing permit may also be required if the location of the discharge area has changed.

Where to install drain pens

New drain pens should be located at least:

- 10m from watercourses (including streams, ditches, land drains and wetlands)
- 30m from watercourses that drain into protected conservation sites (such as Sites of Special Scientific Interest (SSSIs))
- 50m from any spring, well or borehole

Dip baths and pens should not be installed on a slope, or at the top of one, where there is a risk that spillage might drain to a watercourse, road or track.

How to get best results

Drain pens should preferably have a roof to prevent clean water from yards, roofs or land running into them.

How to protect the historic environment

Agreement holders should avoid using this item:

- close to a historic farmstead or listed building (get advice on listed building consent)
- on sites of archaeological or historic importance as identified in the HEFER (get advice on Scheduled Monument consent from Historic England, before using this item on such sites)

Agreement holders should also consider the character of the landscape when constructing new fencing lines. This particularly applies in designated landscapes or historic parkland.

Agreement holders must consult Natural England if intending to install the dip on an SSSI.

How to construct the drain pens

The most effective drain pens should:

- be large enough to hold sheep for at least 10 minutes after dipping
- have properly sealed floors and built-in slopes (allowing excess dip to drain back to the bath, rather than soaking into the ground, the soil or a surface water drain)
- have concrete areas that are impermeable, with watertight sealed joints
- have a filter or trap to prevent dirt and dip draining back into the bath

Further information

Follow this guidance when designing dip baths -

<http://adlib.everysite.co.uk/adlib/defra/content.aspx?doc=11356&id=11365>

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Installation of livestock drinking troughs (in draining pens for freshly dipped sheep) (RP23)

£68 per unit

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- with support from a Catchment Sensitive Farming (CSF) officer

This item can be used to move a static holding pen used in conjunction with a mobile sheep dip

Where this item cannot be used

- in conjunction with the installation of new permanent sheep dip and holding pens on a farm where there are no existing dipping facilities
- to replace existing equipment in the same location
- without relevant advice or consents from the Environment Agency or Local Planning Authority

How this item will benefit the environment

This item will install new livestock drinking troughs in relocated sheep dip facilities. Pollution from sheep dips can cause damage to people and aquatic wildlife. Relocating sheep dips and pens can help reduce risk of diffuse water pollution.

REQUIREMENTS

- install the water trough on a level hard base in either the draining pen or a fenced area
- the trough must be made of galvanised steel, concrete, spray-moulded glass-reinforced cement (GRC) or polyethylene
- connect the trough to a water supply or supply water from a bowser (if using mains water supply, applicants must comply with the Water Supply (Water Fittings) Regulations 1999 - <http://www.legislation.gov.uk/ukxi/1999/1148/contents/made>)
- make sure that pipework is medium-density blue polyethylene (with an external diameter of at least 25mm)
- make sure all joints on the pipework are watertight and made of brass or plastic
- bury the pipework below cultivation depth, to at least 600mm, or as determined by the local water supplier
- meet relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Before applying, applicants must seek advice from the EA and Local Planning Authority to check if consent is required to carry out the planned work.

Applicants will have to send the following with their application:

- a copy of any advice, permit or consent received from the EA or Local Planning Authority
- photographs of the existing site and current dipping facilities
- written support from a CSF officer

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP20 - Relocation of sheep dips and pens
- RP21 - Relocation of sheep pens only
- RP22 - Sheep dip drainage aprons and sumps
- RP28 - Roofing (sprayer washdown area, manure storage area, livestock gathering area, slurry stores, silage stores)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

Sheep dip, baths and pens

For more details on installing dip baths and pens, and on discharging sheep dip, please refer to RP20 - Relocation of sheep dips and pens, RP21 - Relocation of sheep pens only and RP22 - Sheep dip drainage aprons and sumps.

How to protect the historic environment

This item should not be used:

- close to a historic farmstead or listed building (get advice on listed building consent)
- on sites of archaeological or historic importance as identified in the HEFER (get advice on Scheduled Monument consent from Historic England, before using this item on such sites)

Further information

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Lined biobed plus pesticide loading and washdown area (RP24)

£118 per square m

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- with support from a Catchment Sensitive Farming (CSF) officer

Where this item cannot be used

- within 10m of a watercourse
- within 50m of a spring, borehole or well
- within 250m of a borehole used to supply water for producing domestic food without prior agreement from the Environment Agency (EA)
- on historic or archaeological features or areas of wildlife value identified on the Farm Environmental Record (FER), the Environmental Information Map or the HEFER
- without relevant advice, consents or waste exemption from the Environment Agency (EA)

How this item will benefit the environment

This item will contain and collect sprayer and applicator washings and degrade them in a biobed. This will help prevent pesticides from entering drains or water bodies, which will help reduce the risk of water pollution.

REQUIREMENTS

- meet the requirements of the T32 waste exemption
- meet relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Loading and washdown area

- install a concrete bunded loading area, holding tanks, and fixed pumps and pipes to remove washings from the tank, as follows:
 - remove topsoil and excavate an area for the washdown area and tank
 - remove or divert any field drains that cross the site
 - cover the site with 140mm to 160mm of well compacted hardcore and at least 25mm of sand blinding
 - lay a damp-proof membrane weighing at least 1200g
 - lay a reinforced concrete slab at least 150mm thick to falls of at least 1:100
 - construct a concrete bund around the perimeter of the slab, making sure that all concrete joints are sealed with a proprietary sealant
 - make sure the bund is at least 100mm high, so that it can contain liquids
 - make sure the concrete bunded area is as wide as the sprayer plus 2m, and as long as the sprayer plus 1.5m

- make sure the bunded concrete slab contains a slotted-cover type drain connected to a silt trap with a removable cover that has a nominal capacity of 250mm below the inlet
- alternatively, lay the concrete so it is sloping 4 ways to a drain in the centre of the slab - the drain should have a silt trap within it
- direct the drain containing the silt trap to a tank or chamber (no larger than 1500 litres) from which pesticide washings can be pumped and disposed of
- make sure the holding tank is made from seamless polyethylene, glass-reinforced plastic (GRP) or pre-cast concrete
- make sure the holding tank is sized according to local rainfall and the area of concrete (if there is no roof or cover)
- make sure the whole structure is impermeable

Biobed

How to construct a biobed

- to construct a below-ground biobed:
 - excavate an area for the biobed
 - remove and block off any field drains
 - compact the sides of the earth bank to a slope of 30 to 35 degrees (about 1 in 1.5) towards the base
 - lay an impermeable synthetic liner at least 1.2mm thick (pesticide grade) on top of a geotextile membrane underlay (190g per square m) and 25mm of sand blinding
- to construct an above-ground biobed:
 - use pre-cast or reinforced concrete and a 1.2mm thick liner, or an impermeable pesticide grade container
 - follow the liner manufacturer's installation instructions
- any necessary holding tanks, pumps and pipes must then be installed for the below or above-ground biobed

How to install a biobed outlet

To construct a biobed outlet (except for evaporation systems):

- either insert a drain through the liner to create a 100mm bonded outlet at the lowest point of excavation
- alternatively:
 - create an internal sump when digging the biobed pit
 - lay the liner to incorporate the sump
 - make sure the liner is not perforated
 - insert a central, permeable, vertical access tube (0.5m in diameter) to allow water to flow into the sump base
 - install a pump within the tube, operated by a float switch setting
 - place a ring of perforated drainage pipe into the base of the biobed on top of the liner to assist the pump flow
- install pumps to carry the treated discharge from the biobed to a vegetated area for irrigation; or pump it to a storage tank for irrigation or re-use

How to prepare the biomix

- mix one part peat-free compost, one part topsoil and 2 parts straw (wheat or barley) by volume
- allow the biomix to compost for 30 to 90 days before using it to fill the biobed to an effective depth of 1m, topping it up if there is any settlement
- use at least 1 cubic m of biomix for every 1000 litres of liquid treated in any 12 month period
- turf over the biomix (except for evaporation systems)
- lay perforated pipes to distribute pesticide washings across the surface

The biobed does not need a cover or roof, unless it is an evaporation system.

How to use evaporation systems (biobeds designed to work by evaporation)

- cover the biobed with roof sheeting, using side ventilation to allow evaporation to occur without rainfall entering the system
- prepare the biomix as detailed for a non-evaporation system, but with a 50:50 ratio of soil and straw, and without turfing over it
- base the treatment volumes on evaporation calculations
- get advice on design and volume calculations from specialists with experience in these systems

Offset biobeds

- collect pesticide washings from an existing pesticide loading and washdown area in a storage tank
- pump them for treatment in the offset biobed

Drive-over biobeds

- construct a bunded drive-over grid above the biobed, with supporting foundations
- make sure the grid and its foundations are suitable for the loading of any equipment driven over the grid

Do not:

- treat more than 15,000 litres of pesticide washings (excluding rainfall) in any 12 month period

Keeping records

Agreement holders will need to keep the following records and supply them on re request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Before applying, applicants must seek advice from the EA and obtain any consent that may be required to carry out the planned work. Applicants must check whether they are in a Groundwater

Source Protection Zone 1 area - <http://apps.environment-agency.gov.uk/wiyby/37833.aspx>. Applicants will have to send the following with their application:

- photographs of the existing site
- a copy of any advice, permit or consent received from the EA
- documents associated with the exemption for the treatment of waste in a biobed or biofilter (exemption T32), issued by the EA - <https://www.gov.uk/guidance/waste-exemption-t32-treatment-of-waste-in-a-biobed-or-biofilter>
- written support from a CSF officer

RELATED MID TIER ITEMS

This item can be used on the same area as RP28 - Roofing (sprayer washdown area, manure storage area, livestock gathering area, slurry stores, silage stores).

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to get further design advice

Further design advice is available on how to size the loading and washdown area and holding tanks, and on pesticide washing volume calculations, from Catchment Sensitive Farming - <https://www.gov.uk/guidance/catchment-sensitive-farming-reduce-agricultural-water-pollution> - and in the Biobed Manual on the Voluntary Initiative website - <http://www.voluntaryinitiative.org.uk/en/water/biobeds>. Payment rate is £118 per square metre of the bunded area.

How to choose a location

The biobed should be constructed in an area set aside for pesticide loading and washing operations, and where there is no other traffic.

It can be constructed on the same area as the following features, even though they are ineligible for the Basic Payment Scheme:

- farmyards
- areas of land, or farm buildings, not used for production

How to maintain the biobed

Add fresh, pre-composted biomix to the biobed every year to maintain 1m depth. Replace the biomix every 5 years. A U10 (https://www.gov.uk/search?q=U10+exemption&filter_organisations%5B%5D=environment-agency) or U11 (https://www.gov.uk/search?q=U11+exemption&filter_organisations%5B%5D=environment-agency) exemption for spreading waste will be required to spread the biomix to land. Hazardous waste must not be treated in the biobed or biofilter.

What to do with pesticide washings

The pesticide washings from the loading and washdown area collected in the holding tank should be pumped before the tank reaches capacity using a pump float switch. Transfer the washings to the biobed for treatment.

How to main the slab, bund and pumps

Inspect the concrete slab and bund regularly and repair any damage or deterioration. The pumps will also need to be checked regularly to make sure they are operating properly.

Also ensure that:

- the area is not used for any purpose other than pesticide handling operations
- the concrete is not damaged so that the area becomes impermeable
- the storage tank does not overflow

Further information

More information about pesticide handling areas and biobeds, including sizing and volume calculations, is available from the Voluntary Initiative - <http://www.voluntaryinitiative.org.uk/en/water/biobeds>.

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. CSF provides farmers with free advice and training. See guidance for further information on CSF support at <https://www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution>.

Lined biobed with existing washdown area (RP25)

£77 per square m

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- with support from a Catchment Sensitive Farming (CSF) officer

Where this item cannot be used

- within 10m of a watercourse
- within 50m of a spring, borehole or well
- within 250m of a borehole used to supply water for producing domestic food without prior approval from the Environment Agency (EA)
- on historic or archaeological features or areas of wildlife value identified on the Farm Environment Record (FER), the Environmental Information Map or the HEFER
- without relevant advice, consents or waste management licence from the Environment Agency (EA)

How this item will benefit the environment

A lined biobed will treat the pesticide residues that arise from pesticide handling activities. This will help prevent pesticides from entering drains or water bodies, which will help reduce the risk of water pollution.

REQUIREMENTS

- meet relevant British Standards - examine copies of the most up-to-date standards for guidance: <http://shop.bsigroup.com/ProductDetail/?pid=00000000030262061>
- meet the requirements of the T32 waste exemption

Biobed

- follow the requirements as set out in RP24 – Lined biobed plus pesticide loading and washdown area under **Biobed**

Do not:

- treat more than 15,000 litres of pesticide washings (excluding rainfall) in any 12 month period

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Before applying, applicants must seek advice from the EA and obtain any consent that may be required to carry out the planned work. Applicants must check whether they are in a Groundwater Source Protection Zone 1 area - <http://apps.environment-agency.gov.uk/wiyby/37833.aspx>. Applicants will have to send the following with their application:

- photographs of the existing site
- a copy of any advice, permit or consent received from the EA
- documents associated with the exemption for the treatment of waste in a biobed or biofilter <https://www.gov.uk/waste-exemption-t32-treatment-of-waste-in-a-biobed-or-biofilter> (exemption T32), issued by the EA
- written support from a CSF officer

RELATED MID TIER ITEMS

This item can be used on the same area as RP27 - Sprayer or applicator load and washdown area

ADVICE AND SUGGESTIONS FOR HOW TO USE THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to choose a location

The biobed should be constructed in an area set aside for pesticide loading and washing operations, and where there is no other traffic.

It can be constructed on the same area as the following features, even though they are ineligible for the Basic Payment Scheme:

- farmyards
- areas of land, or farm buildings, not used for production

How to maintain the biobed

Add a fresh, pre-composted biomix to the biobed every year to maintain 1m depth. Replace the biomix every 5 years. A waste exemption U10 (<https://www.gov.uk/waste-exemption-t32-treatment-of-waste-in-a-biobed-or-biofilter>) will be required to spread the biomix. Hazardous waste must not be treated in the biobed or biofilter.

What to do with pesticide washings

The pesticide washings collected in the holding tank should be pumped before the tank reaches capacity. Use a pump float switch to dispose of the washings (a T32 exemption will be required for this) or to transfer them to a biobed or biofilter for treatment.

Further information

More information about pesticide handling areas and biobeds, including sizing and volume calculations, is available from the Voluntary Initiative at <http://www.voluntaryinitiative.org.uk/en/water/biobeds>

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support <https://www.gov.uk/guidance/catchment-sensitive-farming-reduce-agricultural-water-pollution>.

Biofilters (RP26)

£990 per unit

Where to use this item

Only in areas targeted for the reduction of water pollution from agriculture

Where this item cannot be used

- within 10m of a watercourse
- within 50m of a spring, borehole or well
- within 250m of a borehole used to supply water for producing domestic food without prior approval from the Environment Agency (EA)
- on historic or archaeological features or areas of wildlife value identified on the Farm Environment Record (FER), the Environmental Information Map or the HEFER
- without relevant advice, consents or waste management licence from the Environment Agency (EA)

How this item will benefit the environment

The biofilter will degrade pesticide residues that arise from pesticide handling activities. This will help prevent pesticides from entering drains or water bodies, which will help reduce the risk of water pollution.

REQUIREMENTS

Agreement holders will need to install a biofilter. This should be constructed either as set out in the approved Feasibility Study or Implementation Plan, or as described below and which to meet the T32 exemption.

To construct a biofilter applicants must:

- use 3 new, chemical-resistant impermeable containers - these will typically be 1000 litre intermediate bulk containers (IBCs) stacked vertically
- store pesticide washings in additional containers next to the IBCs, either before or after treatment
- alternatively, pump the washings directly from an underground storage tank that collects washings from a pesticide handling area
- cut the tops off the IBCs, leaving the corners intact
- insert wire mesh lining in the base of each one
- cover the lining with a permeable membrane
- install a layer (at least 10cm) of pea gravel over the membrane so that the drainage outlet to the container below is not blocked
- make a biomix by mixing one part peat-free compost, 1 part topsoil and 2 parts straw (wheat or barley) by volume
- allow the biomix to compost for 30 to 90 days before filling the IBCs
- fill the IBCs with biomix, leaving a 10cm gap at the top for piping
- allow the biomix to settle, then top up to a volume of at least 0.5 cubic metres of biomix in each one

- stack the 3 IBCs vertically into a tower on a flat concrete base
- if the biofilter is not covered, replace the top of the uppermost container to prevent rainfall from getting in
- install pumps, pipes and a hose to pump washings from the initial storage tank to the top biofilter container and on to the biomix through a piped ring distribution system
- allow the washings to flow by gravity through the pipes to the containers below
- pump discharge from the bottom container to a storage tank, or for direct irrigation through a perforated hose on a vegetated area
- build a concrete bund at least 100mm high around the biofilter
- meet the requirements of the T32 waste exemption
- meet relevant British Standards - examine copies of the most up-to-date standards at <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/> for guidance

Do not:

- treat more than 15,000 litres of pesticide washings (excluding rainfall) in any 12 month period

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Before applying, applicants must seek advice from the EA and obtain any consent that may be required to carry out the planned work. Applicants must check whether they are in a Groundwater Source Protection area with EA at <http://apps.environment-agency.gov.uk/wiyby/37833.aspx> Applicants will have to send the following with their application:

- photographs of the existing site
- a copy of any advice, permit or consent received from the EA
- documents associated with your exemption for the treatment of waste in a biobed or biofilter <https://www.gov.uk/waste-exemption-t32-treatment-of-waste-in-a-biobed-or-biofilter> (exemption T32), issued by the EA

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP27 - Sprayer or applicator load and washdown area
- RP28 - Roofing (sprayer washdown area, manure storage area, livestock gathering area, slurry stores, silage stores)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.

How to choose a location

The biofilter should be situated where it can be used safely, for example:

- away from thoroughfares
- on a flat concrete base
- against a wall or other surface where it will be well-supported

The biofilter can be placed in a farmyard or building or under a roof. It can also be placed on areas of land, or farm buildings, that are not used for production. For best results, it should be located close to the pesticide handling and washdown area.

How to maintain the biofilter

Fresh, pre-composted biomix should be added to the biofilter to maintain its depth. The biomix should remain moist, using irrigation if necessary. Care must be taken not to allow the container to overflow. The biomix should be replaced every 5 years. A U10 (https://www.gov.uk/search?q=U10+exemption&filter_organisations%5B%5D=environment-agency) or U11 (https://www.gov.uk/search?q=U11+exemption&filter_organisations%5B%5D=environment-agency) exemption for spreading waste will be required to spread the biomix. The biofilter should not be used to treat hazardous waste.

Further information

More information about pesticide handling areas and biobeds, including sizing and volume calculations, is available from the Voluntary Initiative <http://www.voluntaryinitiative.org.uk/en/water/biobeds>

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support <https://www.gov.uk/guidance/catchment-sensitive-farming-reduce-agricultural-water-pollution>.

Sprayer or applicator load and washdown area (RP27)

£40 per square m

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture with support from a Catchment Sensitive Farming (CSF) officer

Where this item cannot be used

- within 10m of a watercourse
- within 50m of a spring, borehole or well
- within 250m of a borehole used to supply water for producing domestic food without relevant advice from the Environment Agency (EA)
- on historic or archaeological features or areas of wildlife value identified on the Farm Environmental Record (FER), the Environmental Information Map or the HEFER

How this item will benefit the environment

This item will contain and collect washings from sprayers or applicators. These will then be degraded in a biofilter or biobed, which will help reduce the risk of water pollution.

REQUIREMENTS

- follow the requirements as set out in RP24 – Lined biobed plus pesticide loading and washdown area under Loading and washdown area
- meet relevant British Standards - examine copies of the most up-to-date standards for guidance: <http://shop.bsigroup.com/ProductDetail/?pid=00000000030262061>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Applicants must check whether they are in a Groundwater Source Protection Zone 1 area - <http://apps.environment-agency.gov.uk/wiyby/37833.aspx>. Applicants will have to send the following with their application:

- a copy of any advice received from the EA
- photographs of the existing site

- written support from a CSF officer

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- RP26 - Biofilters
- RP28 - Roofing (sprayer washdown area, manure storage area, livestock gathering area, slurry stores, silage stores)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to get further design advice

Further design advice is available on how to size the loading and washdown area and holding tanks and on pesticide washing volume calculations, from Catchment Sensitive Farming - <https://www.gov.uk/guidance/catchment-sensitive-farming-reduce-agricultural-water-pollution> and in the Biobed Manual on the Voluntary Initiative website - <http://www.voluntaryinitiative.org.uk/en/water/biobeds>

How to choose a location

The item should be constructed in an area set aside for pesticide loading and washing operations where there is no other traffic.

It can be constructed on the same area as the following features, even though they are ineligible for the Basic Payment Scheme:

- farmyards
- areas of land, or farm buildings, not used for production

What to do with pesticide washings

The pesticide washings collected in the holding tank should be pumped before the tank reaches capacity using a pump float switch. To dispose of the washings transfer them to a biobed or biofilter for treatment (a T32 waste exemption will be required for this - <https://www.gov.uk/guidance/waste-exemption-t32-treatment-of-waste-in-a-biobed-or-biofilter>). Alternatively, pesticide washings can be disposed of via a registered waste carrier to a suitably permitted disposal site or to a permitted area approved by the Environment Agency on the farm.

How to main the slab, bund and pumps

The concrete slab and bund regularly and repair any damage or deterioration. The pumps will also need to be checked regularly to make sure they are operating properly.

Also ensure that:

- the area is not used for any purpose other than pesticide handling operations
- the concrete is not damaged so that the area becomes impermeable
- the storage tank does not overflow

Further information

More information about pesticide handling areas, biobeds and biofilters, including sizing and volume calculations, is available from the Voluntary Initiative - <http://www.voluntaryinitiative.org.uk/en/water/biobeds>.

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support <https://www.gov.uk/guidance/catchment-sensitive-farming-reduce-agricultural-water-pollution>.

Roofing (sprayer washdown area, manure storage area, livestock gathering area, slurry stores, silage stores) (RP28)

£62 per square m

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- with support from a Catchment Sensitive Farming (CSF) officer

This item can be used for roofing a sprayer washdown area but only where a bunded concrete pad is being used and all pesticide washings drain to a holding tank (sump), without an associated drive-over biobed.

Where this item cannot be used

- to cover a livestock housing unit
- to cover a biobed
- to repair or replace existing roofing to cover concrete funded under RP15 Concrete yard renewal or concrete funded under a current Catchment Sensitive Farming agreement
- without relevant advice or consents from the Environment Agency or Local Planning Authority

How this item will benefit the environment

This item will provide new roofing to reduce water pollution by preventing rainfall from getting into:

- sprayer washdown areas
- manure storage areas
- livestock gathering areas
- slurry and silage stores

REQUIREMENTS

- build a roof structure impermeable to rainwater
- install guttering and drains to direct roof water to a clean water drain
- make sure that drainage works meet any building and local authority requirements
- meet the requirements of the silage, slurry and agricultural fuel oil (SSAFO) regulations 2010 - <https://www.gov.uk/guidance/storing-silage-slurry-and-agricultural-fuel-oil>
- meet relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- a copy of any advice, permit or consent received from the EA or the Local Planning Authority
- photographs of the existing site
- written support from a CSF officer

Before applying, applicants must seek advice from:

- the Environment Agency to check what is required as new and significantly altered stores may have to meet the silage, slurry and agricultural fuel oil (SSAFO) regulations 2010 - <https://www.gov.uk/guidance/storing-silage-slurry-and-agricultural-fuel-oil>
- the local planning authority, to check whether planning permission is required to carry out the planned works

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to get more detailed advice

Further design advice, such as an infrastructure audit, slurry and manure handling plan, or pesticide handling report, may be available from CSF.

How to separate clean and dirty water

Foul or dirty water should not be permitted to contaminate clean waste. Plan how to manage any additional runoff from the impermeable roofed area. The restructuring of clean and dirty drains may be required, or additional works such as:

- cross drains
- catch pits
- gulleys
- kerbs
- sleeping policemen

Make sure channels and pipes meet the relevant regulations

Any foul or dirty water (including slurry or manure residues), and any associated channels and pipes, should meet the SSAFO regulations. Channels and pipes should have a minimum design life of 20 years (with maintenance).

What this item can be used to cover

This item should be used within existing yard areas that lie between or immediately adjacent to existing infrastructure

This item can cover:

- manure stores (proof will be needed that a pollution problem exists)
- yards where animals are handled, feed, drink or exercise
- slurry and silage stores (make sure the existing floors, walls and effluent collection are not a pollution risk - contact the EA for advice)
- silage self-feeding sites

It can be used over pesticide sprayer or applicator loading and washdown areas, providing:

- the roof covers the bunded wash-down area and the drain to the holding tank
- there is a minimum 1m overhang on each side
- the bunded area is a minimum of the sprayer transport width (with the booms folded) plus 2m, and the sprayer length plus 1.5m
- the foundations and structural supports are secure and do not breach the bund, so that no pesticide washings can escape

Side walls and shades can also be built with the roof, though only at the applicant's own expense and as long as it does not breach any consents or permits.

Further information

More information about separating clean and dirty water is available from the Rivers Trust. -

<http://www.riverstrust.org/media/2017/04/Pinpoint-Water-Management-.pdf>

More information about pesticide handling areas and biobeds, including sizing and volume calculations, is available from the Voluntary Initiative - <http://www.voluntaryinitiative.org.uk/en/water/biobeds>

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support <https://www.gov.uk/guidance/catchment-sensitive-farming-reduce-agricultural-water-pollution>.

Self supporting covers for slurry stores (RP29)

£30.50 per square m

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- for roofing an existing above ground circular store
- with support from a Catchment Sensitive Farming (CSF) officer

Where this item cannot be used

- for existing square or rectangular slurry stores
 - for floating covers
 - to cover any structure other than a slurry store
 - without relevant advice or consents from the Environment Agency (EA) or Local Planning Authority
-

How this item will benefit the environment

This item will provide a self-supporting cover to an existing circular slurry store. This will stop rainwater from entering slurry stores and reduce the volume of dirty water that needs to be stored and spread.

REQUIREMENTS

- install a self-supporting cover with a minimum design life of 20 years (with maintenance)
- install a rainproof, self-supporting cover, supported above the slurry store and fastened by tensioners to the side of the tank
- make sure the tank is able to support the cover
- install the cover when the store is empty
- direct the rainwater away from the slurry store into a clean water drain or rainwater harvesting system
- display appropriate signs to warn of the dangers of confined spaces and fragile covers
- meet the requirements of the SSAFO regulations 2010 (<https://www.gov.uk/guidance/storing-silage-slurry-and-agricultural-fuel-oil>) and Nitrate Vulnerable Zone (NVZ) (<https://www.gov.uk/guidance/nutrient-management-nitrate-vulnerable-zones>) requirements
- meet relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Before applying, applicants must seek advice from:

- the Environment Agency, to check what is required as new and significantly altered stores may have to meet the silage, slurry and agricultural fuel oil (SSAFO) regulations 2010 - <https://www.gov.uk/guidance/storing-silage-slurry-and-agricultural-fuel-oil>
- the local planning authority, to check whether planning permission is required to carry out the planned works

Applicants will have to send the following with their application:

- a copy of any advice, permit or consent received from the EA or the Local Planning Authority
- photographs of the existing site
- written support from a CSF officer

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to get more detailed advice

Further design advice is available on how to size the loading and washdown area and holding tanks, and on pesticide washing volume calculations, from CSF - <https://www.gov.uk/guidance/catchment-sensitive-farming-reduce-agricultural-water-pollution>.

Consult an engineer before using this item

Before work is carried out, a structural or civil engineer must check that the existing store is able to support a cover. A specialist supplier or tank manufacturer should be consulted.

Further information

More information about separating clean and dirty water is available from the Rivers Trust - <http://www.riverstrust.org/media/2017/04/Pinpoint-Water-Management-.pdf>

More information on using covers on circular slurry stores is available at <http://adlib.everysite.co.uk/adlib/defra/content.aspx?doc=11356&id=11370>

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support <https://www.gov.uk/guidance/catchment-sensitive-farming-reduce-agricultural-water-pollution>.

Floating covers for slurry stores and lagoons (RP30)

£5.60 per square m

Where to use this item

Only:

- in areas targeted for the reduction of water pollution from agriculture
- on existing slurry stores or lagoons

Where this item cannot be used

- without relevant advice or consents from the Environment Agency (EA) or Local Planning Authority
-

How this item will benefit the environment

A floating cover for slurry stores and lagoons will help to reduce the volume of dirty water that needs to be stored and spread.

REQUIREMENTS

- install a floating cover with a minimum design life of 5 years (with maintenance)
- install a rainproof floating cover on a slurry store or tank
- make sure the tanks or the lagoon's earth banks are able to support the cover and fastening implements
- install the cover when the store is empty
- direct the rainwater away from the cover into a clean water drain or rainwater harvesting system
- display signs to warn of the dangers of confined spaces and fragile covers
- secure the cover to avoid wind damage and to prevent rainwater running off and mixing with contaminated effluent
- place the cover on floats if needed
- meet the requirements of the SSAFO regulations 2010 (<https://www.gov.uk/guidance/storing-silage-slurry-and-agricultural-fuel-oil>) and Nitrate Vulnerable Zone (NVZ) (<https://www.gov.uk/guidance/nutrient-management-nitrate-vulnerable-zones>) requirements
- meet relevant British Standards - examine copies of the most up-to-date standards for guidance - <http://www.bsigroup.com/en-GB/standards/british-standards-online-database/>

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- a copy of any advice, permit or consent received from the EA or the Local Planning Authority
- photographs of the existing site

Before applying, applicants must seek advice from:

- the Environment Agency, to check what is required as new and significantly altered stores may have to meet the silage, slurry and agricultural fuel oil (SSAFO) regulations 2010 - <https://www.gov.uk/guidance/storing-silage-slurry-and-agricultural-fuel-oil>
- the local planning authority, to check whether planning permission is required to carry out the planned works

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to get more detailed advice

Further design advice is available on how to size the loading and washdown area and holding tanks, and on pesticide washing volume calculations, from CSF at <https://www.gov.uk/guidance/catchment-sensitive-farming-reduce-agricultural-water-pollution>

Regulations for slurry stores

The slurry stores should meet the SSAFO regulations which cover the design, construction and maintenance of the stores.

How to maintain the drains

Drains should take rainwater from the cover, making sure it does not mix with effluent, and transport it to clean water ditches and drains. A pump may be needed to help transport the water.

Further information

More information about separating clean and dirty water is available from the Rivers Trust at <http://www.riverstrust.org/media/2017/04/Pinpoint-Water-Management-.pdf>

More information on using covers on circular slurry stores is available at <http://adlib.everysite.co.uk/adlib/defra/content.aspx?doc=11356&id=11370>

Catchment Sensitive Farming (CSF) operates in parts of the country where there are water quality issues linked to farming. The scheme provides farmers with free advice and training. See guidance for further information on CSF support <https://www.gov.uk/guidance/catchment-sensitive-farming-reduce-agricultural-water-pollution>.

Planting standard hedgerow tree (TE1)

£8.80 per tree

Where to use this item

In hedgerows on agreement land

How this item will benefit the environment

Hedgerow trees provide shelter, food, nesting sites and song posts, as well as stepping stones between woodland habitats, and make a valuable contribution to the landscape.

REQUIREMENTS

- carry out work between 30 September and 31 March when the hedge is still dormant
- plant into gaps in the hedge - if there is no suitable gap then plant into a notch cut into the hedgerow
- plant each tree in a pit deep and wide enough to contain the full depth and width of the root system
- plant native species at least 2 metres tall
- plant trees in irregular spacing with at least 20m between them to allow for full crown development
- tag each tree with a brightly coloured durable material
- drive a clearly visible stake into the hedgerow on either side of the tree
- stake and tie each tree securely, using material appropriate to the size and species of the tree
- use rubber flexible and adjustable tree ties to prevent wind damage
- maintain stakes and ties until the tree is established
- remove ties when the tree is established and no longer needs support
- prevent livestock and wild animal damage
- control weeds until the trees have established
- replace any dead trees in the following planting season

Do not:

- plant beneath or within 20m of overhead power lines or other overhead and underground services
- let tree guards damage the growing tree

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- the date, location and method of any weed control undertaken
- the dates of planting
- details of age, height and species planted
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- a record of where hedgerow trees are to be planted
- photograph of the location of where each tree will be planted

RELATED MID TIER ITEMS

This item can be used with the following items:

- BN5 - Hedgerow laying
- BN6 - Hedgerow coppicing
- BN7 - Hedgerow gapping-up
- BN11 - Planting new hedges
- TE6 - Tree guard (tube and mesh)
- TE7 - Tree guard (wood post and rail)
- TE8 - Tree guard (wood post and wire)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out the item successfully but does **not** form a part of the requirements for this item.*

Plant the trees

Planting should not be undertaken:

- during frost
- during a drought
- in waterlogged ground

When planting:

- only use native trees already present in the local area
- space the trees far enough to let crowns develop without competing or producing too much shade
- space far enough apart so the gaps between trees can be easily trimmed with a mechanical flail
- use irregular spacing to create a more natural landscape - look at the local landscape to see what is appropriate

Make the trees visible

The biggest threat to young hedgerow trees is flailing. Hand-trimming a hedge 1m either side of young trees is an effective way to make them more visible. Also warn machine operators to look out for them.

Planting fruit trees (TE3)

£22.50 per tree

Where to use this item

Only with: BE3 - Management of hedgerows
BE4 - Management of traditional orchards
BE5 - Creation of traditional orchards (Higher Tier only)

How this item will benefit the environment

It will ensure the continuation of fruit trees in hedgerows where it is characteristic of the local landscape.

REQUIREMENTS

- apple, pear and cherry trees must be at least 2 years old and have a well-branched head supported by 2m of clear stem
- plum or damson trees must be at least 2 years old and have 1.5m of clear stem
- maiden fruit trees must be 1-year-old grafted trees with a single stem
- rootstocks must be:
 - M25 for apples
 - seedling pear for pears
 - Brompton or Myrobalan B for plums
 - F12.1 for cherries
- plant bare-rooted fruit trees between November and March, while they are not in leaf
- remove all grass and weeds in a 1m diameter circle around each tree station before planting
- plant the trees in a pit deep and wide enough to contain the full depth and width of the root system with room to spare
- make sure the tree's graft union is at least 75mm above ground level
- stake standard trees and tie them securely (maiden trees can be established successfully without staking)
- tie the tree to the stake above the grafting union so that it is held firmly upright but some movement is allowed
- use flexible and adjustable rubber tree ties to prevent wind damage
- maintain the stakes and ties until the tree is established, loosening the ties if they cut into the tree
- remove the ties once the tree is established and no longer requires support
- protect the trees from grazing animals
- make sure guards allow access to the tree for:
 - carrying out formative pruning
 - applying mulch
 - clearing vegetation around the base
- replace planted trees that die in the following planting season
- at the end of the agreement, there must be a living tree in good condition

Do not:

- fasten guards to the tree itself
- allow guards to cause damage to the growing tree

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of the location of planting

RELATED MID TIER ITEMS

This item can be used with the following items:

- TE6 - Tree guard (tube and mesh)
- TE7 - Tree guard (wood post and rail)
- TE8 - Tree guard (wood post and wire)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out the item successfully but does **not** form part of the requirements for this item.*

Weed control

Weed control is essential to successful fruit tree planting. To reduce competition for water and nutrients, keep a 1m diameter circle around the tree clear of all vegetation for at least the first 3 years after planting.

Tree guard (tube and mesh) (TE6)

£4 per guard

Where to use this item

Only on trees within a parcel managed with one of the following options or items:

- BE3 - Management of hedgerows
- BE4 - Management of traditional orchards
- BE5 - Creation of traditional orchards (Higher Tier only)
- WD4 - Management of wood pasture and parkland
- WD5 - Restoration of wood pasture and parkland (Higher Tier only)
- WD6 - Creation of wood pasture and parkland (Higher Tier only)
- WD7 - Management of successional areas and scrub
- WD8 - Creation of successional area and scrub (Higher Tier only)

Where this item cannot be used

With the following items:

- TE7 - Tree guard (wood post and rail)
- TE8 - Tree guard (wood post and wire)

How this item will benefit the environment

If successful this item will protect trees from damage caused by grazing animals and wild animals.

REQUIREMENTS

- erect tree guards at least 1.5 metres high and made of a tree tube and stake
- use chicken wire to prevent animals from grazing or rubbing against the tree - barbed wire can be fastened around the chicken wire to provide extra protection.
- the design of the tree guard must allow access for:
 - carrying out formative pruning
 - applying a mulch
 - clearing vegetation around the base of each tree

Do not:

- fasten guards to the tree
- attach guards so that they rub against, constrict or damage the tree in any way

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of existing trees to be protected

RELATED MID TIER ITEMS

This item can be used with the following items:

- TE1 - Planting standard hedgerow tree
- TE3 - Planting fruit trees
- TE2 -Planting standard parkland tree (Higher Tier only)

Tree guard (wood post and rail) (TE7)

£59.50 per guard

Where to use this item

Only on trees within a parcel managed with one of the following options:

- BE3 - Management of hedgerows
- BE4 - Management of traditional orchards
- BE5 - Creation of traditional orchards (Higher Tier only)
- WD4 - Management of wood pasture and parkland
- WD5 - Restoration of wood pasture and parkland (Higher Tier only)
- WD6 - Creation of wood pasture and parkland (Higher Tier only)
- WD7 - Management of successional areas and scrub
- WD8 - Creation of successional area and scrub (Higher Tier only)

Where this item cannot be used

With the following items:

- TE6 - Tree guard (tube and mesh)
- TE8 - Tree guard (wood post and wire)

How this item will benefit the environment

If successful this item will protect trees from damage caused by grazing animals and wild animals.

REQUIREMENTS

- erect tree guards at least 2m high which have:
 - 4 treated timber corner posts
 - 5cm diameter top and middle rails
 - a bottom rail if grazing animals are likely to get underneath the guard
 - posts placed so that grazing animals cannot reach within 1m of the tree stem
 - a single strand of barbed wire along the top rail to prevent animals rubbing against the guard
- sheep netting or 3 strands of taut plain or barbed wire should be fastened:
 - to the corner posts between the middle and top rails
 - between the middle rail and the bottom rail
- use sheep netting instead of barbed wire between the middle rail and the bottom rail if sheep are likely to graze the parcel
- the design of the tree guard must allow access for:
 - carrying out formative pruning
 - applying a mulch
 - clearing vegetation around the base of each tree

Do not:

- fasten guards to the tree
- attach guards so that they rub against, constrict or damage the tree in any other way

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of existing trees to be protected

RELATED MID TIER ITEMS

This item can be used with the following items:

- TE1 - Planting standard hedgerow tree
- TE3 - Planting fruit trees
- TE2 - Planting standard parkland tree (Higher Tier only)

Tree guard (wood post and wire) (TE8)

£84 per guard

Where to use this item

Only on trees within a parcel managed with one of the following options:

- BE3 - Management of hedgerows
- BE4 - Management of traditional orchards
- BE5 - Creation of traditional orchards (Higher Tier only)
- WD4 - Management of wood pasture and parkland
- WD5 - Restoration of wood pasture and parkland (Higher Tier only)
- WD6 - Creation of wood pasture and parkland (Higher Tier only)
- WD7 - Management of successional areas and scrub
- WD8 - Creation of successional area and scrub (Higher Tier only)

Where this item cannot be used

With the following items:

- TE6 - Tree guard (tube and mesh)
- TE7 - Tree guard (wood post and rail)

How this item will benefit the environment

If successful this item will protect trees from damage caused by grazing animals and wild animals.

REQUIREMENTS

- erect tree guards at least 1.5 m high with posts placed far enough apart that grazing animals cannot reach within 1m of the tree stem
- the design of the tree guard must allow access for:
 - carrying out formative pruning
 - applying a mulch
 - clearing vegetation around the base of each tree
- tree guards need to be constructed in one of two ways, either:
 - with at least 3 treated timber corner posts, and top and bottom rails that are 5cm in diameter
 - with sheep netting attached between the top and bottom rails
 - increase the height of the guard if needed, using longer posts and an additional strand of wire strung above the sheep netting
 - wrap 2 strands of plain or barbed wire spirally around the guard to prevent animals from rubbing against it
- or alternatively:
 - use at least 2 stakes placed at least 0.5m apart
 - one stake must be at least 1.5m high, and the other at least 0.5m high

- use strong weld mesh wire, at least 1.5m high, wrapped around and securely fastened to the outside of the stakes at least 0.25m from the trunk
- to prevent the trunk rubbing against the metal, either bend the vertical strands of the wire mesh so they face outwards; or push a piece of rubber tubing slit lengthways on to the top of the wire circle
- wrap 2 strands of barbed wire spirally around the guard to prevent livestock from rubbing against it

Do not:

- fasten guards to the tree
- attach guards so that they rub against, constrict or the damage the tree in any other way

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- Photographs during and after work has been completed

Applicants will have to send the following with their application:

- photographs of existing trees to be protected

RELATED MID TIER ITEMS

This item can be used with the following items:

- TE1 - Planting standard hedgerow tree
- TE3 - Planting fruit trees
- TE2 - Planting standard parkland tree (Higher Tier only)

Coppicing bankside trees (TE10)

£52 per tree

Where to use this item

Only on trees along a streamside or riverbank that are not currently managed under a regular coppicing programme.

How this item will benefit the environment

The coppicing of bankside trees increases the longevity and health of these features, provides valuable habitat and habitat corridors in river valley and wetland landscapes and in the right location can help stabilise river and ditch banks.

REQUIREMENTS

- coppice trees between 1 September and 1 March
- cut trees between 7.5cm and 15cm above ground level
- protect cut stools from livestock, deer and rabbits to allow re-growth
- control the growth of nettle, thistle, dock, ragwort and other weed species; any herbicide applications must be by spot treatment or weed wiping only

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of the trees to be to be coppiced

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

Picking the right location

This item can be used for individual or small groups of trees along a streamside or riverbank. It can be used to bring trees into a coppicing programme or for the selection of single stems to grow on to become mature trees.

The short-term visual impact on the landscape should be considered when determining the percentage of trees to be coppiced along any stretch of watercourse.

Management

Angle cuts away from the centre of the crown when coppicing to allow water to run off.

Cut material can be disposed of by stacking in piles on site, removing it from the site, or burning. Leave material in as large pieces as possible and do not stack against the trees that have been cut.

Small branches and twigs (under 10cm in diameter) can be burnt on site provided trees are not damaged. Avoid disposal on sensitive habitats or historic features.

Fire sites should be a minimum of 10m from the canopy of any tree.

Tree surgery (TE11)

**£96.50 per tree when cutting limbs up to and including 20cm in diameter.
£200 per tree when cutting limbs over 20cm in diameter.**

Where to use this item

Only:

- for tree surgery on mature, fully grown trees, with higher payment rate for where cutting of limbs over 20cm diameter is required

Where the cutting of limbs of over 20cm diameter is required, the applicant must obtain a written assessment and advice on the work required from an appropriately qualified arboricultural expert, which addresses and is aimed at delivering:

- the intended outcome
 - long term health and viability of the tree(s) to be cut
 - any requirements for subsequent management
-

How this item will benefit the environment

Maintain and enhance the character of the landscape by managing and/or restoring mature trees, to prolong their lives, and maintain their wildlife and/or historic value.

If successful, mature trees in danger of collapse will have been stabilised and established pollards will have been re-pollarded. In cases where it will enhance the character of the landscape, new pollards will have been created on established trees with a diameter at breast height of less than 40cm (less than 20cm for oak and beech, as larger diameter trees are likely to fail).

REQUIREMENTS

- carry out tree surgery between 1 September and 1 March
- where cutting limbs over 20cm diameter, carry out the work in accordance with the advice received
- cut the tree cleanly at sufficient height to prevent grazing of re-growth
- only carry out first pollarding on trees with a diameter at breast height of less than 40cm (20cm for oak and beech)
- control injurious weeds as the site regenerates, but do not apply any pesticides within 10 m of the tree, except for herbicides to spot treat or weed wipe
- remove cut material from the site or tidy it into piles

Do not:

- use this item for work required for health and safety purposes

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable

- records of when the tree surgery was done and by whom, and details of any spot spraying or weed wiping
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will have to send the following with their application:

- photographs of the trees to be managed

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to manage the site

Tree surgery and working at height require specialist skills. Read more about useful tree management and safety information from the Forestry Commission (FC) at

<http://www.forestry.gov.uk/safetreemanagement>

Advice from an appropriately qualified arboricultural expert should be sought – this is a requirement for all work that involves cutting limbs of over 20cm diameter, as is a written assessment.

When reintroducing pollarding on mature trees after a long gap, adopting some of the same techniques that are applied to veteran pollards should be considered - in a group of pollards, trial on an individual tree and/or leave longer stubs to test the response. Limbs that branch from below the height of the first pollard cut do not need to be cut.

Be aware that there is a separate option available in Higher Tier only, BE6 - Veteran tree surgery.

Where practical, angle cuts away from the centre of the crown during tree surgery to allow water to run off.

Cut material can be disposed of by stacking in piles on site or removing it from the site. Leave material in as large pieces as possible and do not stack against the trees that have been cut. Small branches and twigs (under 10cm in diameter) can be burnt on site provided trees are not damaged. Avoid disposal on sensitive habitats or historic features. Fire sites should be a minimum of 10m from the canopy of any tree.

Consents and permissions

Be aware that a number of consents and permissions may apply:

- the Tree Preservation Orders (TPOs) and Conservation Orders may apply to the trees on site
- old trees especially can host European Protected Species, such as bats

Small wildlife box (WB1)

£28.50 per box

Where to use this item

Only:

- with options HS1 and HS8 in Mid Tier (can be used in other circumstances in Higher Tier)
- for tree sparrow, dormouse, targeted bat species or invertebrate pollinators (these are the 'target species'), unless an RSPB, Buglife or Natural England specialist supports its use for another species
- when the other year-round target species' requirements (summer and winter foraging habitat) are being met on the holding or nearby

How this item will benefit the environment

It provides artificial nesting, roosting and hibernation sites for specific mammals, birds and invertebrates.

REQUIREMENTS

Agreement holders will need to agree with Natural England a specification for the box. Each box should be sited in the agreed location and cleaned out in the autumn (October and November), unless it is a bee box, or hibernating or roosting bats are using it. Each box must be maintained in good condition, with any damage or losses made good during the agreement term.

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- the date that the nest boxes are cleaned out (unless used by bats or invertebrates)
- please see the record keeping and inspection requirements as set out in the Higher Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will need to send the following with their application:

- photographs of the proposed site for the wildlife box

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

Location

Keep the box in its original location, but if it is not being used after year 3, ask Natural England for relocation advice.

Dormice

Boxes should be:

- in ancient woodlands or large hedgerows - avoid isolated trees
- in batches of at least 10 (ideally over 50), spaced 10m to 20m at around 30 boxes per hectare
- 1.5m to 2m above the ground, and over 3m if public have access
- away from footpaths
- made of untreated timber
- based on the [PTES box construction guidance, http://ptes.org/wp-content/uploads/2014/12/Box_specification_front_fixing.pdf](http://ptes.org/wp-content/uploads/2014/12/Box_specification_front_fixing.pdf)

Tree sparrows

Boxes should be:

- on farm buildings or hedgerow trees, ideally near permanent water such as ponds
- away from places cats and squirrels can easily access, with a secure lid
- out of the midday sun
- weatherproof with small drainage holes in the floor
- made from wood at least 15mm thick with a 28mm entrance hole - follow the [RSPB, http://www.rspb.org.uk/forprofessionals/farming/advice/details.aspx?id=204045](http://www.rspb.org.uk/forprofessionals/farming/advice/details.aspx?id=204045) and [British Trust for Ornithology guidance http://www.bto.org/about-birds/nbw/make-a-nest-box](http://www.bto.org/about-birds/nbw/make-a-nest-box)

Bats

Boxes should be:

- large enough for a maternity colony to cluster to conserve heat
- dry, rainproof and draught-free, with no gaps where the sides and top join
- entered by a slit at the base (front or back) no more than 15mm to 20mm wide - follow the [Bat Conservation Trust guidance, http://www.bats.org.uk/pages/bat_boxes.html](http://www.bats.org.uk/pages/bat_boxes.html)
- preservative-free if made of wood
- out of the midday sun
- close to a hedgerow or tree line
- placed with other boxes facing in different directions to offer a range of temperature conditions

Solitary bees

Boxes should be:

- in a dry, sunny and sheltered position on farm buildings, a post, or freestanding with a raised base to prevent rising damp
- near pollen and nectar forage
- 50cm by 50cm and 20cm deep, open fronted but with a back
- made of untreated timber
- weatherproof with small drainage holes in the floor
- contain at least four compartments, packed tightly with drilled hardwood blocks, bamboo stem sections and reed stems or paper drinking straws

Further information

Bats and their roosts are protected under the Wildlife and Countryside Act 1981 - it is an offence to disturb, handle or kill bats. A licence from Natural England is needed to inspect bat boxes that have been or are being used by bats.

Medium wildlife box (WB2)

£39.00 per box

Where to use this item

Only:

- with options HS1 and HS8 in Mid Tier (can be used in other circumstances in Higher Tier)
 - for tree sparrow (as a triple box) or for bats (these are the 'target species'), unless RSPB or a Natural England bird specialist support its use for another species
 - when the other year-round target species' requirements (summer and winter foraging habitat) are being met on the holding or nearby
-

How this item will benefit the environment

It provides artificial nesting, roosting and hibernation sites for specific mammals and birds. This includes tree sparrow and targeted bat species.

REQUIREMENTS

Agreement holders will need to agree with Natural England a specification for the box. Each box should be sited in the agreed location and cleaned out in the autumn (October and November), unless hibernating or roosting bats are using it. Each box must be maintained in good condition, with any damage or losses made good during the agreement term.

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- the date that the nest boxes are cleaned out (unless used by bats or invertebrates)
- please see the record keeping and inspection requirements as set out in the Higher Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will need to send the following with their application:

- photographs of the proposed site for the wildlife box

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

Each box must be maintained in good condition, with any damage or losses made good during the agreement term.

Location

Keep the box in its original location if it is being used. If it is not being used after year 3, ask Natural England for relocation advice. Boxes should be strapped to trees with wire and hose or rubber to prevent tree damage.

Tree sparrows

Boxes should be:

- in farm buildings or hedgerow trees, ideally near permanent water such as ponds or ditches
- away from bird feeders or places cats and squirrels can easily access, with a secure lid
- out of the midday sun
- weatherproof with small drainage holes in the floor
- made from wood at least 15mm thick with a 28mm entrance hole - follow the [RSPB](http://www.rspb.org.uk/forprofessionals/farming/advice/details.aspx?id=204045), <http://www.rspb.org.uk/forprofessionals/farming/advice/details.aspx?id=204045> and [British Trust for Ornithology](http://www.bto.org/about-birds/nbw/make-a-nest-box) guidance <http://www.bto.org/about-birds/nbw/make-a-nest-box>

Bats

Boxes should be:

- large enough for a maternity colony to cluster to conserve heat
- dry, rainproof and draught-free, with no gaps where the sides and top join
- entered by a slit at the base (front or back) no more than 15mm to 20mm wide - follow the [Bat Conservation Trust](http://www.bats.org.uk/pages/bat_boxes.html) guidance, http://www.bats.org.uk/pages/bat_boxes.html
- where bats are known to feed
- preservative-free if made of wood
- sheltered from strong winds and sun for at least part of day
- close to a hedgerow, tree line or other linear vegetation feature
- placed with one or two other boxes facing in different directions to offer a range of temperature conditions

Further information

Bats and their roosts are protected under the Wildlife and Countryside Act 1981 - it is an offence to disturb, handle or kill bats. A licence from Natural England is needed to inspect bat boxes that have been or are being used by bats.

Large wildlife box (WB3)

£100 per box

Where to use this item

Only:

- with options HS1 and HS8 in Mid Tier (can be used in other circumstances in Higher Tier)
- for barn owls or kestrels (these are the 'target species'), unless there is support from the RSPB or a Natural England bird specialist for another species
- when the other year-round requirements (summer and winter foraging habitat) for the target species are being met on the holding or nearby

How this item will benefit the environment

This item provides artificial nesting and roosting sites for large birds, in particular barn owls and kestrels.

REQUIREMENTS

Agreement holders will need to agree with Natural England a specification for the box. Each box should be sited in the agreed location and cleaned out in the autumn (October and November), unless hibernating or roosting bats are using it. Each box must be maintained in good condition, with any damage or losses made good during the agreement term.

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- the date that the nest boxes are cleaned out (unless used by bats or invertebrates)
- please see the record keeping and inspection requirements as set out in the Higher Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the completed work

Applicants will need to send the following with their application:

- photographs of the proposed site for the wildlife box

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

Each box must be maintained in good condition, with any damage or losses made good during the agreement term.

Location

This item can be used anywhere on the holding. Ideally it should be used with other habitat options such as moorland, rough grassland, boundary field margins, in-field or boundary trees, or historic buildings.

Keep the box in its original location if it is being used. If it is not being used after year 3, ask Natural England for relocation advice.

Construction

Natural England will give location and design guidance as well as the specification, which is likely to include:

- box design and materials
- preferred location
- maintenance requirements

The Barn Owl Trust has [information on the best locations and how to construct a box](http://www.barnowltrust.org.uk/barn-owl-nestbox/barn-owl-nestboxes/), <http://www.barnowltrust.org.uk/barn-owl-nestbox/barn-owl-nestboxes/> (kestrel boxes generally follow similar construction guidance). The [RSPB](https://www.rspb.org.uk/makeahomeforwildlife/advice/helpingbirds/nestboxes/owlskestrels/) also has information on barn owl and kestrel boxes. <https://www.rspb.org.uk/makeahomeforwildlife/advice/helpingbirds/nestboxes/owlskestrels/>

The box should be at least 1km away from any motorway, dual carriageway or similar major road. It should have entrance holes:

- at least 100mm diameter or 100mm by 100mm square
- that are, ideally, 100mm by 130mm
- and are at most 150mm by 150mm (up to 210mm by 300mm for kestrels)

It should also:

- have a nest chamber floor area of at least 0.16 square metres (that is, sides at least 40cm x 40cm), ideally 0.2 to 0.4 square metres
- be at least 46cm from the bottom of entrance hole to the nest (but only 10cm for kestrels)
- have an external platform below the entrance hole or perch with enough room for an entire brood of owlets or young kestrels to exercise and await food deliveries
- be easy to clean
- have wire straps with hose, nylon bolts or aluminium nails to secure the box to the tree or building to prevent damage
- have its tree fixings adjusted each year so they do not cut into the growing tree or cause the box to 'explode' off the bolts
- be sturdy yet light enough to allow safe erection using basic equipment
- be covered with thick roofing felt if outside

Pond management (first 100 sq m) (WN5)

£270 per pond

Where to use this item

Only:

- on ponds of up to 1 hectare
- in combination with a pond buffer strip option, if the pond is next to cultivated land or intensive grassland
- for pond restoration, where an assessment of existing biological interest and historic features is submitted with the application

Where this item cannot be used

- to create ponds within 6m of a historic or archaeological feature identified in the HEFER
- within areas of wildlife habitat identified on the FER except with the written agreement of Natural England

How this item will benefit the environment

This item will create networks or complexes of at least 3 ponds and restore the wildlife value of ponds that have become degraded.

REQUIREMENTS

Pond creation

- peg out the outline of the pond before excavations start, making sure that the pond has an irregular edge
- create a variety of water depths, from very shallow margins to pools of up to 1m to 1.5m deep and at least 7m by 7m square
- make sure that the majority of the margin is gently sloping, to create a large drawdown zone and extensive shallows
- use mechanical means or a weed wiper to control injurious weeds that colonise the spoil
- place any fencing at least 1m away from the bank top

Do not:

- link the pond to inflowing water from ditches and streams
- plant around the pond
- use spoil to form a mound or bank around the pond or to fill and level neighbouring wet areas
- dispose of spoil on historic or archaeological features as identified in the HEFER
- introduce any plants or animals to the pond, or feed wildfowl in or around it

Pond restoration

- carry out the work within the dates determined by the pre-application assessment
- remove woody cover from at least three-quarters of the pond margin, especially the southern side, so the pond receives the morning sun over a large area
- remove fallen trees and trees growing in the water to create open water
- keep features of historic or archaeological interest identified in the pre-application assessment
- remove sources of water pollution

- place cut vegetation far enough away from the top of the bank to prevent decaying material and run-off from falling in and polluting the pond
- use mechanical means or a weed wiper to control injurious weeds that colonise the spoil
- place any fencing at least 1m away from the bank top

Do not:

- re-profile or cut deeper than the original profile
- use spoil to form a mound or bank around the pond or to fill and level adjacent wet areas
- dispose of spoil on historic or archaeological features as identified in the HEFER
- use herbicides to control aquatic plants and bankside vegetation
- introduce any plants or animals to the pond, or feed wildfowl in or around the pond
- plant the pond banks following restoration, or plant trees or shrubs around the southern margin of the pond or anywhere around a pond within an open landscape

Keeping records

Agreement holders will need to keep the following records and supply them on request:

- any consents or permissions connected with the work
- receipted invoices, or bank statements where a receipted invoice is unavailable
- please see the record keeping and inspection requirements as set out in the Mid Tier manual for more detail

Agreement holders will need to keep the following records and supply them with the claim:

- photographs of the site during the different stages of construction or contracts, invoices or other documents confirming the technical specification for the completed works;
- photographs of the completed works in place and installed.

Applicants will need to send the following with their application:

- photographs showing the pond (or the location of a new pond) before the works begin
- an assessment of existing biological interest and historic features for ponds to be restored

RELATED MID TIER ITEMS

This item can be used on the same area as the following items:

- WN6 - Pond management (areas more than 100 sq m)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to choose a site

Create ponds in low input, semi-natural habitats that have small catchments and are unconnected to other water bodies (to protect them from pollution). To encourage biodiversity, aim to create a variety of pond types (e.g. in depth, size and age) close to other freshwater habitats.

How to manage the site

Manage only part of the pond at any one time and always keep some of the existing habitat as it is including some of the leaf litter, logs and woody debris. If there are a number of ponds on a site, do not use the same management plan on all of them at the same time. Aim to maintain diversity

in the pond complex. If the pond contains a protected species, a wildlife licence will be required - <https://www.gov.uk/guidance/wildlife-licences>.

Further information

More information about creating ponds is available from the Freshwater Habitats Trust at <http://freshwaterhabitats.org.uk/projects/million-ponds/pond-creation-toolkit/>

Pond management (areas more than 100 sq m) (WN6)

£170 per 100 square m

Where to use this item

Only:

- on ponds of up to 1 hectare
- in combination with a pond buffer strip option, if the pond is next to cultivated land or intensive grassland
- for pond restoration, where an assessment of existing biological interest and historic features is submitted with the application

Where this item cannot be used

- to create ponds within 6m of a historic or archaeological feature identified in the HEFER
- within areas of wildlife habitat identified on the FER except with the written agreement of Natural England

How this item will benefit the environment

This item will create networks or complexes of at least 3 ponds and restore the wildlife value of ponds that have become degraded.

REQUIREMENTS

See WN5 - Pond management (first 100 sq m)

Keeping records

Agreement holders will need to keep the following records and supply them on request:

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- an assessment of existing biological interest and historic features for ponds to be restored

RELATED MID TIER ITEMS

This item can be used on the same area as the following item:

- WN5 - Pond management (first 100 sq m)

ADVICE AND SUGGESTIONS FOR HOW TO CARRY OUT THIS ITEM

*The following section gives advice on carrying out this item successfully but does **not** form part of the requirements for this item.*

How to choose a site

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Department
for Environment
Food & Rural Affairs



The European
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Rural Development:
Europe investing in
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