Ffermio Bro: Farming in Designated Landscapes

Payment Rates and Technical Specifications Tranche 1 (April 2026) Tranche 2 (September 2026)

Standard Ffermio Bro payment rates will continue to be aligned with payment rates for other Welsh Government schemes. Welsh Government has undertaken an exercise to review existing and develop new payment rates for the new SFS. This document sets out an initial tranche ('Tranche 1') and additional tranche ('Tranche 2') of some of the most common items, where rates have already been reviewed and published.

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Ladder Stile

Item Code: L001

Payment Rate: £259.45 each

This technical note describes the minimum standard of work required in order to receive payments for 'Ladder Stile'. Any variation must be approved by the Welsh Government prior to starting the work.

Ladder stiles are used to allow walkers to cross walls and banks.

You must adhere to the following:

- Construct the ladder stile from pressure treated softwood or hardwood.
- Use timber with dimensions no less than those shown in the diagram. The steps can either be rebated into the 'A' frames or supported by extra pieces of timber. Secure the stile on both sides by burying the ends of the 'A' frame to a sufficient depth in the ground and anchoring them with stubs as shown.
- Construct a platform at the top of the stile to cross over wide walls or banks if needed.
- Ensure the gate is compliant with BS5709:2006, as amended. The least restrictive furniture must be used as possible, e.g. a gate is less restrictive than a stile.

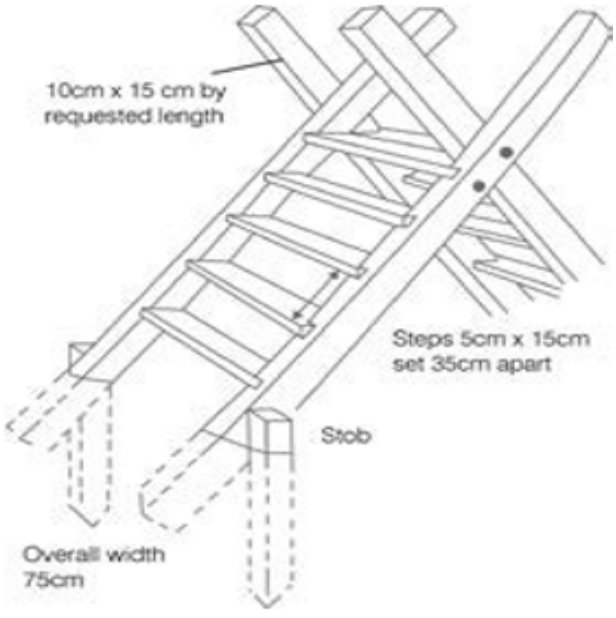
Do not:

- Use ladder stiles on a Public Right of Way (PROW) unless approved by the Welsh Government.
- Use concrete to secure timber supports in the ground.
- Reduce the size of wide walls or banks to enable the ladder to span the boundary. Construct a platform at the top of the stile if needed.

Requirements and guidance in addition to the specifications above:

- Best practice is to bury the ends of the 'A' frame at least 30cm into the ground to anchor the stile.

Example of a step ladder stile



Timber Bridle Gate and Posts

Item Code: L002

Payment Rate: £301.39 each

This technical note describes the minimum standard of work required to receive payments for 'Timber Bridle Gate and Posts'. Any variation must be approved by the Welsh Government prior to starting the work.

Bridle gates are used to allow access for walkers and horse riders.

You must adhere to the following:

- Install Timber Bridle Gates and Posts constructed from either pressure treated softwood or hardwood.
- Install gates that are at least 1.5m wide and 1.3m high. Ensure there is sufficient space on one side of the gate for the horse to stand while the gate is being opened.
- Use a ready-made gate or construct a gate. All gate timbers must meet the following dimensions:
  - Uprights should be at least 10cm x 7.5cm in cross section.
  - All rails should be 7.5cm x 2.5cm in cross section except the top rail which should be 10cm x 7.5cm.
- Hang the gate so that it can be opened from both directions.
- Fit latches that allow the gate to be opened without the rider dismounting.
- Ensure that all post timbers must meet the following dimensions;
  - Hanging posts must be at least 15cm diameter
  - Shutting posts must be at least 12cm in diameter
  - Posts must be set into the ground to a sufficient depth to ensure stability.

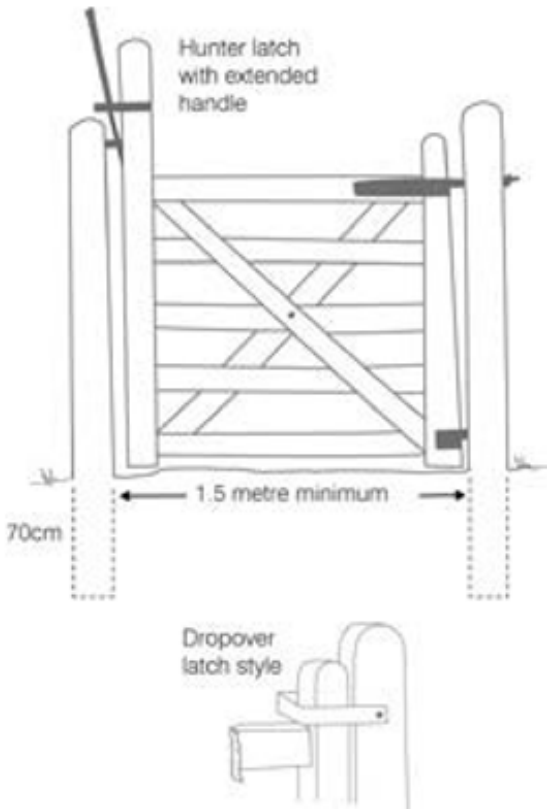
Do not:

- Install bridle gates and posts on Public Rights of Way (PRoW) unless approved by the Welsh Government.
- Use concrete to secure posts in the ground, as it can lead to rotting of posts at ground level.

Requirements and guidance in addition to the specifications above:

- Use an 'extended' or 'drop over' latch to allow gate to be opened without rider dismounting.
- In areas prone to vandalism, top hook can be reversed to prevent the gate being lifted off.
- Best practice is to set the posts at least 70cm into the ground to ensure stability.

Example of a timber bridle gate



Timber Kissing Gate and Posts

Item Code: L003

Payment Rate: £362.00 each

This technical note describes the minimum standard of work required to receive payments for Timber Kissing Gate and Posts. Any variation must be approved by the Welsh Government prior to starting the work.

Kissing gates are used to allow walkers to cross field boundaries.

You must adhere to the following:

- Install Timber Kissing Gates and Posts constructed from either pressure treated softwood or hardwood.
- Install a kissing gate that is stock-proof with the gate in any position, yet allowing free passage for pedestrians.
- Ensure that the kissing gate is an effective barrier against motorcycles and horses.
- Use a ready-made gate, or construct a gate. All gates must meet the following dimensions;
  - The gate must be 1.2m wide and 1.2m high.
  - A 1m cylinder, must be able to pass through. Note that the 'throat' dimension (the narrowest space to pass through when the gate is opened) must be at least 1m.
- Ensure that post and rails meet the following dimensions;
  - Uprights should be at least 10cm x 7.5cm in cross section.
  - Rails should be 7.5cm x 2.5cm in cross section except top rail which should be 10cm x 7.5cm.
  - Hanging posts must be at least 15cm diameter.
  - Shutting posts must be at least 12cm in diameter.
  - Posts must be set into the ground to a sufficient depth to ensure stability.
- Hang the gate so that the gate hooks are 'offset' by 3cm. This will cause the gate to close against one of the side posts when released.
- Ensure the gate is compliant with BS5709:2006, as amended. The least restrictive furniture must be used as possible e.g. a gate is less restrictive than a stile.

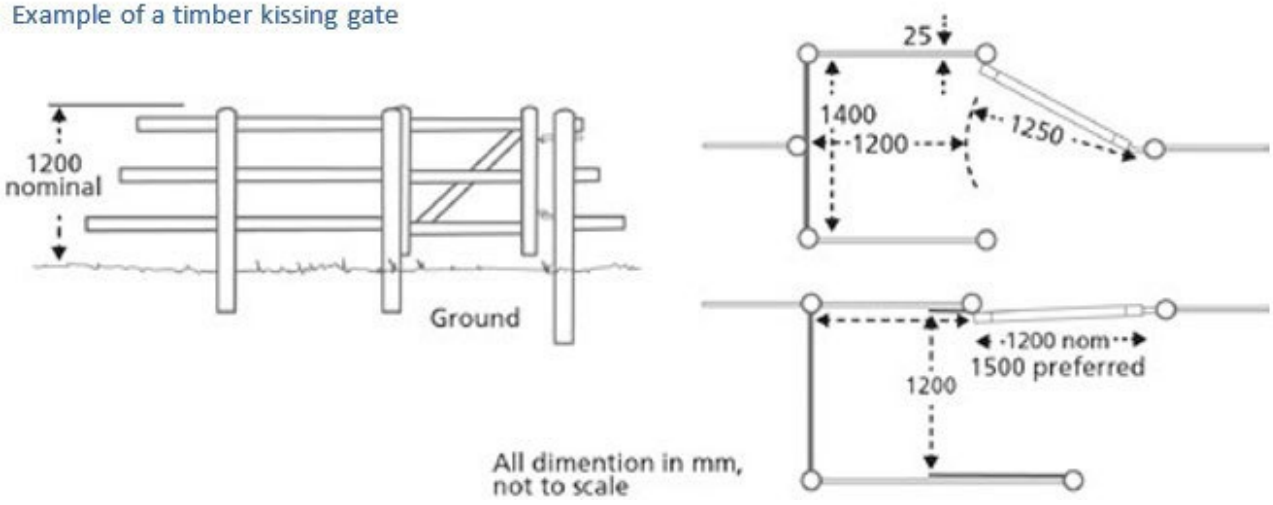
Do not:

- Use concrete to secure posts in the ground, as it can lead to rotting of posts at ground level.
- Use any barbed wire on the kissing gate.

Requirements and guidance in addition to the specifications above:

- For added protection against stock, a self- closing latch can be fitted.
- In areas prone to vandalism, top hook can be reversed to prevent gate being lifted off.
- Best practice is to set the posts at least 70cm into the ground to ensure stability.

Example of a timber kissing gate



Wooden Stiles

Item Code: L004

Payment Rate: £125.01 each

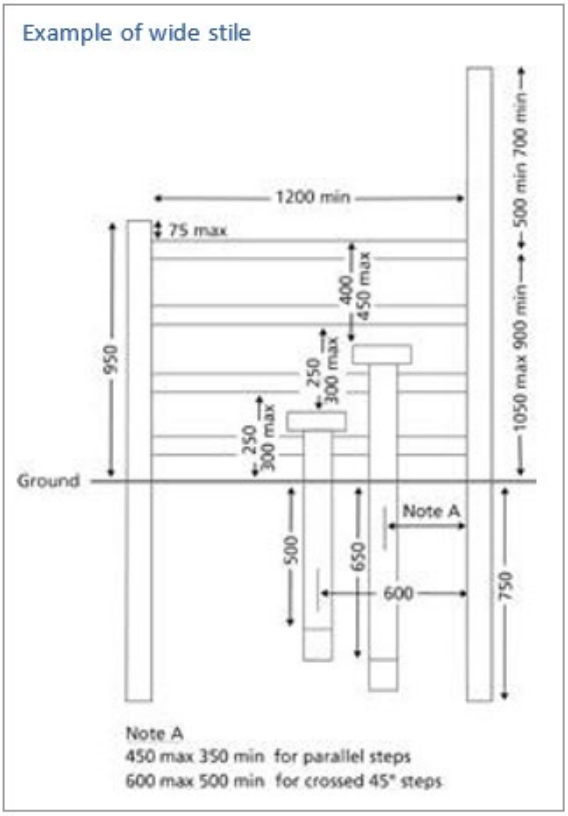
This technical note describes the minimum standard of work required in order to receive payments for 'Wooden Stiles'. Any variation must be approved by the Welsh Government prior to starting the work.
Wooden stiles are used to allow walkers to cross field boundaries.

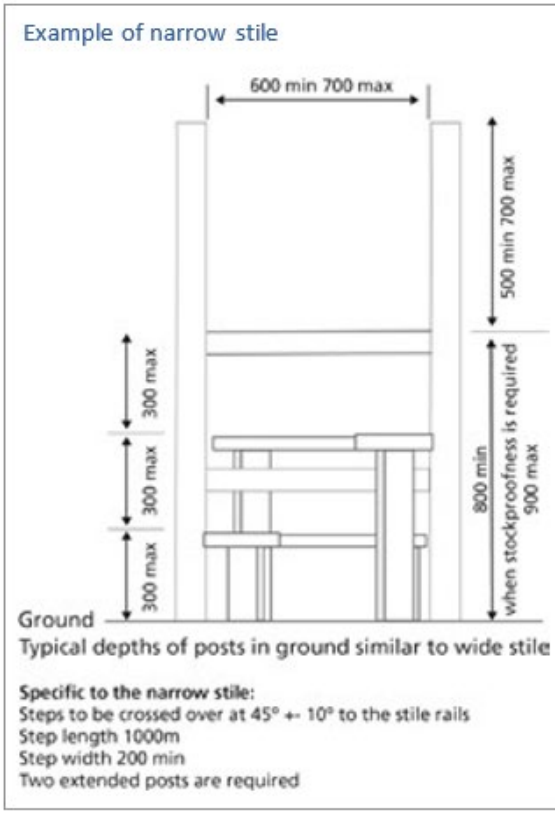
You must adhere to the following:

- Install wooden stiles constructed from either pressure treated softwood or hardwood.
- Use a ready-made stile kit, or construct a stile. For both narrow and wide stiles, they must meet the following dimensions;
- Step width should be 200min
- Hand posts should be 70 to 100mm diameter or across faces
- Posts should be vertical to 1 in 30
- Steps should level in all directions to 1 in 30.
- Install a third step on the downhill side on a steep slope if needed. This step must be twice the width of a standard step and the 300mm step height rule applies.
- Ensure the stile is compliant with BS5709:2006, as amended. The least restrictive furniture must be used as possible e.g. a gate is less restrictive than a stile.

Do not:

- Allow the step tread boards to touch the cross-rails of the stile as a see-saw effect may develop, making the stile unsafe to use.
- Use posts as straining posts for fencing.





Badger Gate

Item Code: L005

Payment Rate: £41.10 each

This technical note describes the minimum standard of work required in order to receive payments for 'Badger Gates'. Any variation must be approved by the Welsh Government prior to starting the work.
Badgers normally follow the same route when moving around their territory. Fencing to manage an area of habitat should take into account established badger runs. Badger gates can be used to allow badgers to cross stock proof boundaries without damaging the fences.

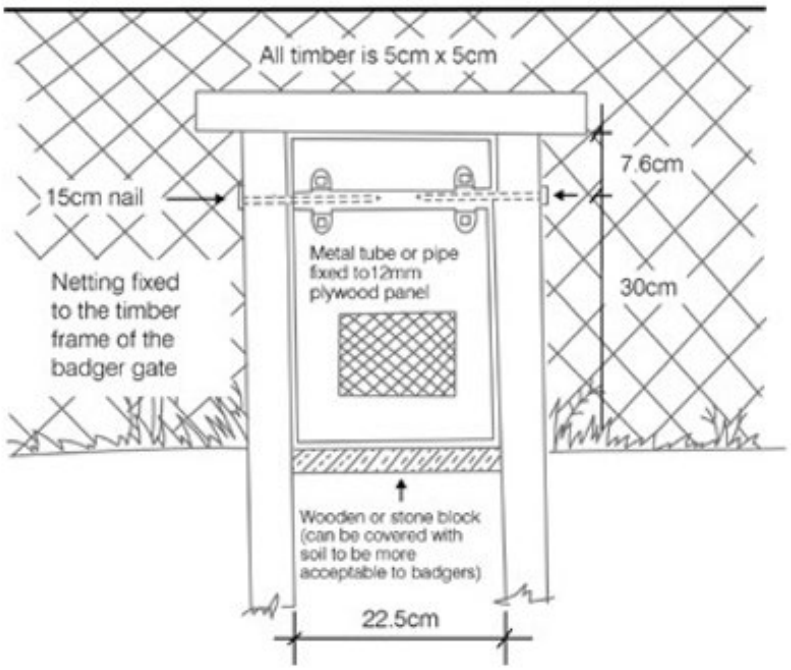
You must adhere to the following:

- Install a badger gate using the same dimensions as shown in the diagram below.
- Gates must be located directly on existing badger runs in order to encourage the use of the gate by badgers.
- Bury the fence on either side of the gate to a sufficient depth into the ground to prevent badgers burrowing around the gate.
- Position a wooden or stone base under the gate to prevent erosion of the ground.

Requirements and guidance in addition to the specifications above:

- Best practice is to bury the fence to a depth of at least 15cm either side of the gate.
- Treat all timbers with a non-toxic, odourless preservative.

Example of a badger gate



Piped Water Supply

Item Code: L006

Payment Rate: £1.39 /m

This technical note describes the minimum standard of work required in order to receive payments for 'Piped Water Supply'. Any variation must be approved by the Welsh Government prior to starting the work.

Piping can be used to supply drinking water to water troughs where stock have been prevented from accessing other water sources by Ffermio Bro activities.

You must adhere to the following:

- Install piping made from medium density blue polyethylene with a minimum external diameter of 2.5 cm.
- Use watertight joints made of brass or plastic.
- Bury pipework to a sufficient depth to prevent damage from surface activities.
- Reinstate disturbed ground to match the surrounding ground once pipework has been completed.
- Protect any pipework above ground from animal or frost damage.
- Ensure any pipes crossing open ditches or tracks are suitably protected. The pipe must be covered by a tubular steel guard or sleeve pipe, laid sufficiently below the ditch to allow space for ditch cleaning. When crossing farm tracks, ensure the pipe is sufficiently protected below the track.
- Control water supply at the point of supply and at each trough by isolating valves/stop cocks. The isolating valves/stop cocks must be protected against frost and damage from stock, and must be easily accessible.
- Where valve/stop cocks are buried, this must be at a minimum of 60cm and access should be available through a covered inspection chamber.
- Ensure that the water is able to supply sufficient cold potable water to continuously refill all the water troughs along its length throughout the year within 10 minutes.
- Ensure all water supply works are compliant with British Standards Codes of Practice BS 6572, as amended.

Do not:

- Damage other services such as water supply, waste, gas, electricity or telephone.

Requirements and guidance in addition to the specifications above:

- Consider combining access to valve positions with field drains to make inspection access easier.
- Consider a range of factors when determining pipe diameter. These include: water pressure, water capacity, variable flow, length of pipe, changes in altitude, volume of water required, number of troughs, number and type of stock using each trough.
- Where joints are buried underground, it is advisable to mark their locations, on fence posts for example, to assist with future maintenance.
- Bury pipework to a minimum depth of 60cm although this may need to be deeper if future deep ploughing or sub-soiling is envisaged.

- Lay pipes by trenching, mole plough or sub-soiler, depending on soil type and machinery available.
- Best practice when laying pipes under a ditch is that it is laid 60cm below the ditch to allow space for ditch cleaning.
- Best practice when laying pipes under farm tracks is to lay the pipe on a 7.5cm bed of sand and then covered by a further 10cm of sand before being overlaid by backfill.

Water Gate

Item Code: L007

Payment Rate: £337.81 each

This technical note describes the minimum standard of work required in order to receive payments for 'Water Gate'. Any variation must be approved by the Welsh Government prior to starting the work. Water gates are required to control stock where fence lines cross rivers and streams. They are especially useful where the water level varies considerably throughout the year.

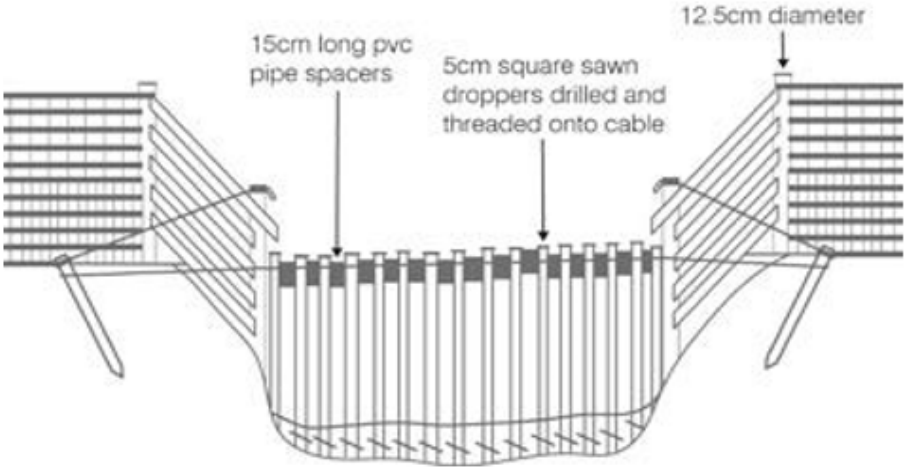
You must adhere to the following:

- Construct a gate comprising a series of wooden droppers attached to a length of cable or a round wooden rail which is suspended horizontally between straining posts. Each gate has to be constructed to fit the profile of the individual stream.
- Ensure the water gate is separated from the main fence line by short lengths of wooden rail or netting, fixed to straining posts that have been suitably positioned.
- Attach droppers that are at least 5cm square in cross section. Droppers must be constructed from sawn untreated timbers. The droppers must be drilled and threaded onto the cable of fencing wire with 15cm lengths of plastic pipe acting as spacers. As a result, each dropper is 15cm apart.
- Increase the dimensions of the droppers to at least 7cm square, where the stream gully is over 1.5m deep. Hang droppers on a round wooden pole using loops of fencing wire.

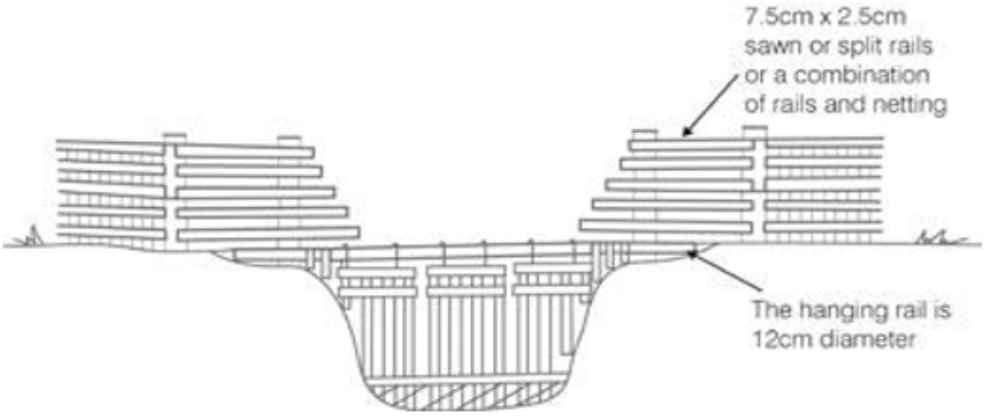
Requirements and guidance in addition to the specifications above:

- Suitable crossing points will have a hard river bottom and reasonable access from both banks. The correct choice of crossing points will make both construction and maintenance easier.
- Hanging the gate separately from the main fence allows the gate to be pulled off during heavy floods without damaging the main fence. Minimum damage will be caused to the gate which can then be recovered, repaired and repositioned.
- It is advisable to create larger water gates in several sections which will reduce the risk of the whole gate being lost or damaged during severe floods.
- It is advisable to periodically clear the base of the water gate, as the accumulation of debris at the base of the water gate will put pressure on both wires and stakes and can result in damage.
- Hang water gates at an angle, with the bottom of the gate resting on the streambed on downstream side. This prevents stock passing underneath when the water level drops.

Examples of water gates



Examples of water gates



Water Troughs

Item Code: L008

Payment Rate: £224.00 each

This technical note describes the minimum standard of work required in order to receive payments for 'Water Troughs'. Any variation must be approved by the Welsh Government prior to starting the work.
Water troughs can be used to supply drinking water to livestock where they have been prevented from accessing other water sources by Ffermio Bro activities.

You must adhere to the following:

- Use water troughs made of galvanised steel, plastic or concrete.
- Install a trough at least 1.8m length. They must either be connected to a water supply or supplied from a bowser on a regular basis, in order to provide sufficient potable water. The standard payment includes the cost of fittings such as ball cocks etc.
- Use water troughs that have been specifically designed for the purpose.
- Install the trough so that it does not spill or leak water – the payment rate includes an allowance for base supports.
- Ensure that water troughs conform to current British Standard Codes of Practice.

Do not:

- Locate water troughs in gateways or near footpaths.
- Locate water troughs in wet ground due to the risk of poaching.

Requirements and guidance in addition to the specifications above:

- Do not locate water troughs in known areas of botanical or wildlife interest.
- Aim to cause least landscape impact by locating the trough at the edge of fields and choose a material that has the minimum impact when viewed as part of the surrounding landscape.
- Install troughs of sufficient size to supply the type and number of stock in the field with their water requirements.

Post and Rail Fencing

Item Code: L009

Payment Rate: £12.54/m

This technical note describes the minimum standard of work required in order to receive payments for 'Post and Rail Fencing'.

Any variation must be approved by the Welsh Government prior to starting the work. Post and rail fencing is generally used where appropriate in the landscape, normally in parkland areas or for stock control along waterside features.

You must adhere to the following:

- Use fencing timber comprising either hardwood or pressure treated softwood.
- Use posts that are at least 1.8m in length, and no less than 12.5cm x 7.5cm cross section.
- Use posts that are square or rectangular.
- Install posts at centres not exceeding 2m (normally 1.8m as the standard length of rails is 3.6m).
- Set posts at a sufficient depth into the ground to ensure stability. The face of the post must be square to the fence line. If the tops of the posts are sawn after setting, the cut surfaces must be treated with a suitable preserving fluid of the same colour as the original timber treatment.
- Attach at least three rails of 3.8cm x 8.7cm sawn timber, skew nailed to the posts. Additional rails may be added where necessary.
- Attach rails on 'stock' side of the posts, to prevent stock pushing rails off posts.
- Alternate joints between rails on the posts, as shown on the diagram.
- Ensure there is at least 1m from the ground to the top of the uppermost rail.

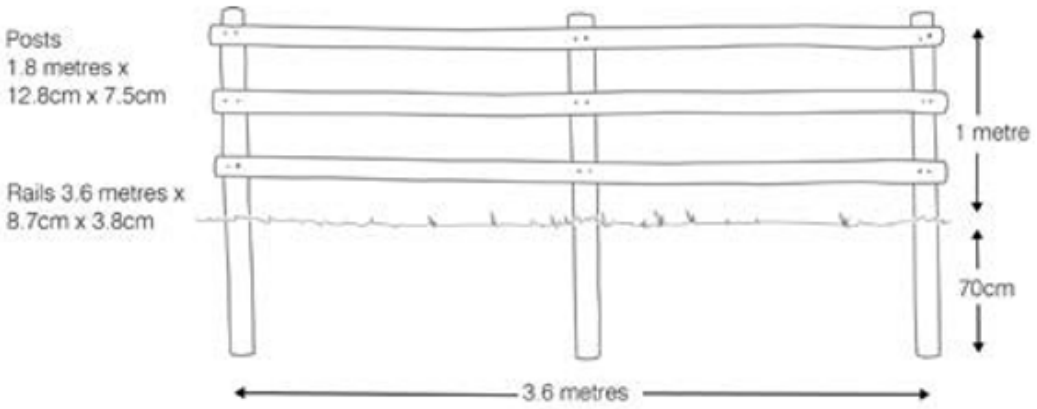
Do not:

- Use trees and shrubs as strainers or fencing posts, or attach wire, staples or netting to them.
- Use concrete to secure posts as it promotes rotting of the posts at ground level.

Requirements and guidance in addition to the specifications above:

- Best practice is to set the posts at least 70cm into the ground to ensure stability, and secure the posts with rammed earth and stone.
- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary water course. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, the permit/consent (or confirmation that a permit/consent is not needed) should be retained and made available on request. See General Rules for more details.
- Where Ffermio Bro activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you obtain approval under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority.

Example of a Post and Rail Fence



Suitable for use with horses and cattle

Post and Wire Fencing

Item Code: L010

Payment Rate: £5.81/m

This technical note describes the minimum standard of work required in order to receive payments for 'Post and Wire Fencing'. Any variation must be approved by the Welsh Government prior to starting the work.

You must adhere to the following:

- Ensure that you have obtained, and adhere to any licences, consents or permissions that are needed.
- Use fencing timber comprising either hardwood or pressure treated softwood.
- Ensure that timbers, wire, netting and galvanised staples consist of new materials.
- Attach at least three lines of wire made up of either galvanised mild steel wire
- (4mm gauge) or two ply twisted barbed wire (2.5mm gauge). The top wires of any fencing erected next to public access routes must consist of plain wire or an additional line of plain wire must be affixed to the outside of the posts closest to the route in question.
- Use straining posts that are a minimum of 12.5cm cross section and at least 2m long. Straining posts must be set into the ground at a sufficient depth to ensure stability. Straining posts must be placed at either end of the fence line and at centres of 100m or less, as well as at every horizontal or vertical change of direction.
- Attach struts at each end of the fence line and at all changes of slope and direction. Struts must have a top diameter of at least 6.5cm and must be supported to prevent them splaying outwards.
- Use intermediate posts that are at least 6.5cm diameter (round posts and sawn timber) and at least 1.7m long. Half round posts are acceptable provided they measure at least 6.5cm from the midpoint of the sawn side to the mid-point of the round side. Intermediate posts must be set at centres of 3m or less.
- Attach wire to posts with galvanised staples.
- Attach the top wire no less than 1.05m from the ground.
- Ensure that the new fencing conforms to British Standards 1722 and 4102, as amended.

Do not:

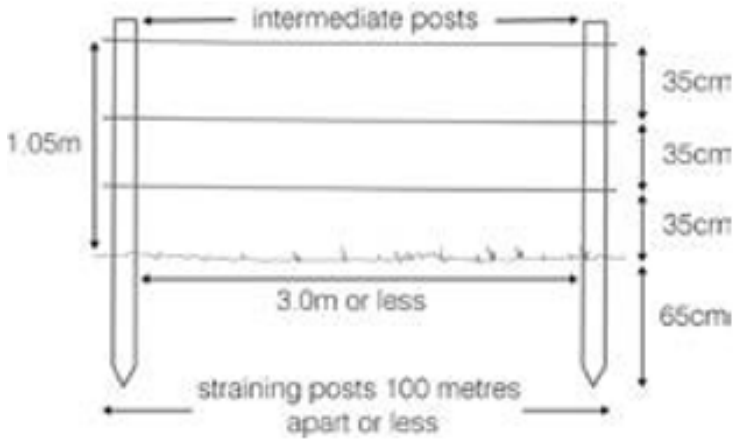
- Use trees and shrubs as strainers or fencing posts, or attach wire, staples or netting to them.

Requirements and guidance in addition to the specifications above:

- Best practice is to set the posts at least 1m into the ground to ensure stability.
- Diagonal struts must be supported with either a base plate or a suitably positioned intermediate post to prevent them splaying outwards.
- Ensure you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if carrying out works near an ordinary water course. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, the permit/consent (or confirmation that a permit/consent is not needed) should be retained and made available on request. See General Rules for more details.

- Where Ffermio Bro activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you obtain approval under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority.

Example Diagram
of Three Line Wire Fence



Timber Field Gates (Hardwood)

Item Code: L011

Payment Rate: £466.22 each

This technical note describes the minimum standard of work required in order to receive payments for 'Timber Field Gates (Hardwood)'. Any variation must be approved by the Welsh Government prior to starting the work.

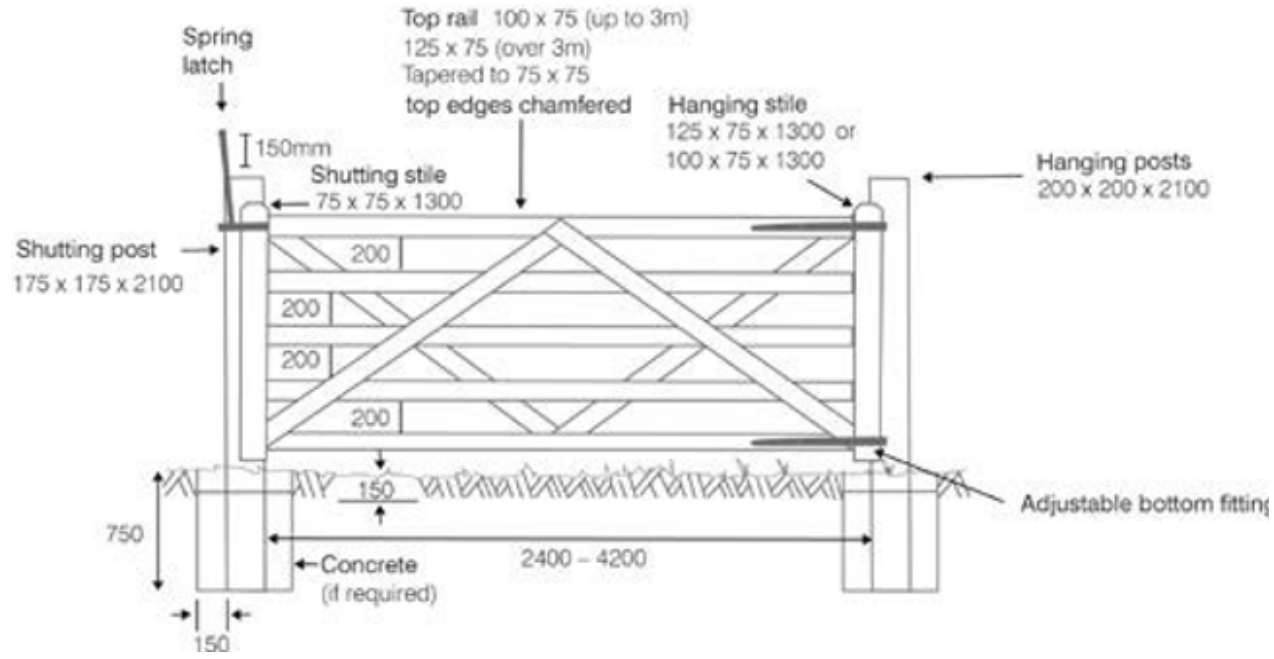
You must adhere to the following:

- Install timber field gates that are at least 2.4m wide, but no more than 4.2m wide. Any openings greater than 4.2m must have two leaves.
- Use timber field gates constructed from hardwood only, which complies with the dimensions set out in the diagram below.
- Use timber field gates that conform to the specifications set out in the diagram below as well as those of British Standard 3470, as amended.
- Hang gates on timber gate posts at least 2.1m long. Hanging posts must be at least 200mm x 200mm in cross section. Shutting posts must be at least 175mm x 175mm in cross section.
- Set gateposts correctly into the ground, using concrete if necessary and fit with appropriate hangings and latches.

Do not:

- Use hanging or shutting posts as straining posts for fencing. A short length of split timber should be used to form a horizontal strut between the gate post and adjacent straining post.
- Use second hand material for constructing gates unless approved in advance by the Welsh Government.

Example of Timber Field Gate (Hardwood)



Timber Field Gates (Softwood)

Item Code: L012

Payment Rate: £225.92 each

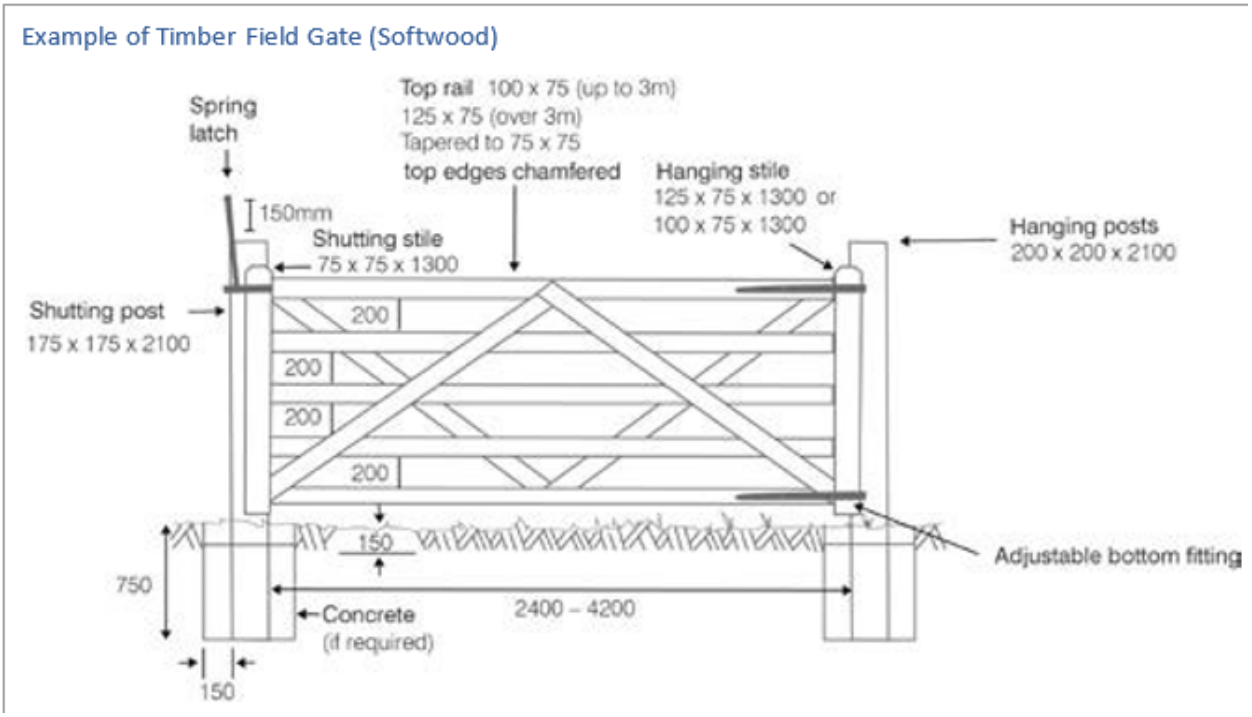
This technical note describes the minimum standard of work required in order to receive payments for 'Timber Field Gates (Softwood)'. Any variation must be approved by the Welsh Government prior to starting the work.

You must adhere to the following:

- Install timber field gates that are at least 2.4m wide, but no more than 4.2m wide. Any openings greater than 4.2m must have two leaves.
- Use timber field gates constructed from hardwood or pressure treated softwood, which complies with the dimensions set out in the diagram below.
- Use timber field gates that conform to the specifications set out in the diagram below as well as those of British Standard 3470, as amended posts must be at least 175mm x 175mm in cross section.
- Set gateposts correctly into the ground, using concrete if necessary and fit with appropriate hangings and latches.

Do not:

- Use hanging posts or shutting posts as straining posts for fencing. A short length of split timber should be used to form a horizontal strut between the gate post and adjacent straining post.
- Use second hand material for constructing gates unless approved in advance by the Welsh Government.



Parkland Tree Stock Guards

Item Code: L013

Payment Rate: £94.40 each

This technical note describes the minimum standard of work required in order to receive payments for 'Parkland Tree Stock Guards'. Any variation must be approved by the Welsh Government.

You must adhere to the following:

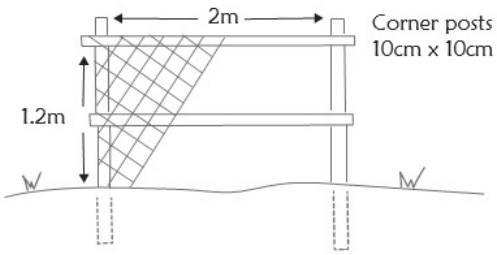
- Install tree guards that are large enough and designed correctly to protect from any livestock that will have access to the land.
- All guards constructed from timber rails must be at least 1.2m high and set at least 1m from the tree to protect against sheep (or 1.5m to protect against cattle and horses). Each of the 4 corner posts should have a minimum diameter of 10cm x 10cm. At least 4 wooden rails with a minimum diameter of 10cm x 5cm should be fixed to the outside of the posts. Galvanised netting should then be fixed around the outside of the structure and held in place with galvanised staples. Triangular shaped enclosures are only acceptable in parklands where sheep are the sole livestock.
- Use fencing timber comprising either hardwood or pressure treated softwood.
- Ensure that timbers, wire, netting and galvanised staples consist of new materials.
- If traditional metal guards are used rather than wooden guards, ensure they are sufficiently sized to protect from all livestock.

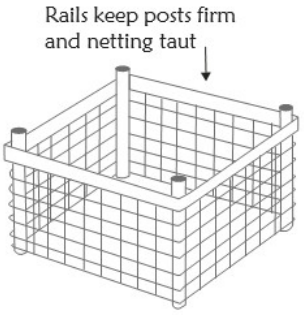
Requirements and guidance in addition to the specifications above:

- The choice of tree guard will depend upon:
    - The size of tree to be protected.
    - The type of damage expected, e.g. browsing, bark stripping, fraying.
    - Type of animal most likely to cause damage.
    - Period of time the tree is at risk from damage.
    - The visual appearance of the guard (UKWAS General Forest Practice 24 Consider the impact of fencing on landscape).
- Use a combination of vertical posts and horizontal rails to build a rigid structure. Fix wire netting around it to prevent access by livestock. The horizontal rails will prevent the posts from being loosened. A variety of stock might have access to the parkland over time so the guard must be strong enough to withstand the worst case scenario. Do not try to increase distance of the top rail from tree by slanting the posts outwards. This will make it difficult to fix the netting securely in place.
- It is not necessary to top the enclosure with barbed wire as this is unlikely to stop animals leaning over, and you will make it more difficult to get into the enclosure to tend the tree. Barbed wire may also cause injury to both you and your livestock.
- Additional sets of rails may also be placed mid-way up the posts to provide additional strength.
- Triangular shaped enclosures are only acceptable in parklands where sheep are the sole livestock. Such enclosures must be at least 1.2m high and set at least
- 1m from the tree to protect against sheep. It is important to remember that as the tree grows it may be necessary to widen the guard.

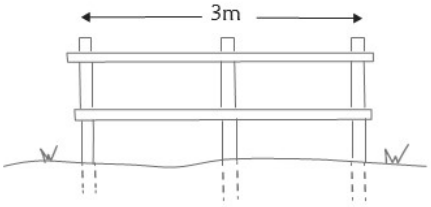
- Traditional metal types of guards are used in long established parklands. It is important that they are checked regularly to ensure that the tree does not grow into the metal work and become deformed.
- Such guards were originally made out of wrought iron but are now available in mild steel.

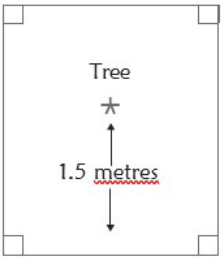
Examples of Parkland Tree Guards





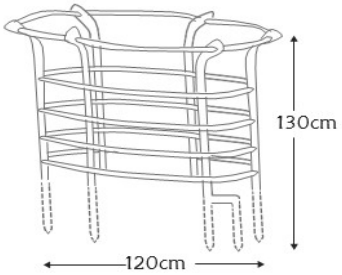
a) Suitable for use with

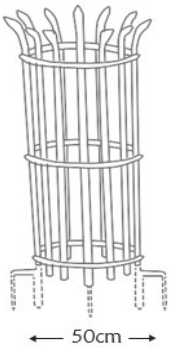




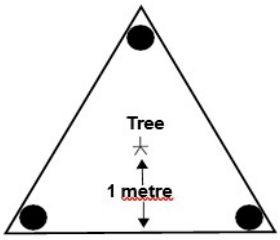
b) Suitable for use with horses and

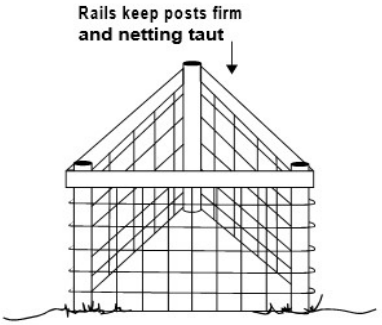
3. Traditional Metal Types





2. Traditional Tree Guard





Tree Shelter (60cm With Stake)

Item Code: L014

Payment Rate: £2.21 each

This technical note describes the minimum standard of work required in order to receive payments for 'Tree Shelter (60cm with stake)'. Any variation must be approved by the Welsh Government prior to starting the work.

Newly planted trees and shrubs only need protection where animals or machinery might damage them. Fencing will usually provide more economic protection for groups of trees and shrubs against machinery or large browsing animals, in combination with spiral rabbit guards to protect against rabbits and hares.

Individual tree shelters and stakes can also be used where lengths of fencing would be unsightly, for example in parklands.

You must adhere to the following:

- Insert a stake vertically into the ground next to each newly planted tree. The stake should have a diameter of 2.5cm x 2.5cm on sheltered sites and 3cm x 3cm on more exposed sites.
- Fix all tree shelters to the stake with wire or plastic cable clips.
- Ensure that the stake is no taller than the shelter.

Do not:

- Allow weeds to grow inside the shelters.

Requirements and guidance in addition to the specifications above:

- Tree shelters to protect young trees are translucent plastic tubes up to 2m in height, with a diameter of up to 12cm. They are constructed of twin wall polypropylene.
- Each shelter should provide support and protection for some 5 -10 years before it bio-degrades.
- Although shelters come in a range of colours, there is little difference between them in terms of tree growth. When planting under established trees, where light intensity is likely to be low, it is generally better to use clear translucent tubes.
- Tree shelters need to be above the browse height of the animal. This can vary from 60cm for rabbits and hares, to 2m for Roe deer. Sheep can browse at 1.2m-1.5m high.
- The removal of weeds around trees and in shelters is crucial as the weeds can compete for nutrients and light. Trees in tree shelters must be weeded for the first 2-3 years of life. Weeds growing inside the tree shelter must also be removed. This can be done by lifting the shelter slightly and carefully pulling the weeds out from the tube by hand.
- Any plants that have been loosened or partly lifted by winds and winter frosts should be trodden back in carefully. Regularly inspect fencing, tree guards, stakes and tree ties (loosen tight ties as these will constrict tree growth) and prevent trees growing through or chafing against tree guards.

Trees - Standards

Item Code: L015

Payment Rate: £24.35 each

This technical note describes the minimum standard of work required in order to receive payments for 'Trees Standards (no fencing)'. Any variation must be approved by the Welsh Government.

Growing trees remove carbon dioxide from the atmosphere (which has a positive impact on climate change) and absorb a lot of water, reducing the amount of water running off farmland. Standard trees in hedgerows are also standout features in the landscape and provide many benefits for our native biodiversity.

You must adhere to the following:

- Plant sturdy plants, which are at least 1.8m in height.
- Plant only native species as shown on the table below.
- Trees and shrubs need to be UK grown and ideally from Plant Healthy stock for biosecurity reasons.

Do not:

- Plant ash trees as part of any planting mix due to ash dieback disease (Hymenoscyphus fraxinea).
- Allow damage from machinery or browsing animals (including wild animals).

Requirements and guidance in addition to the specifications above:

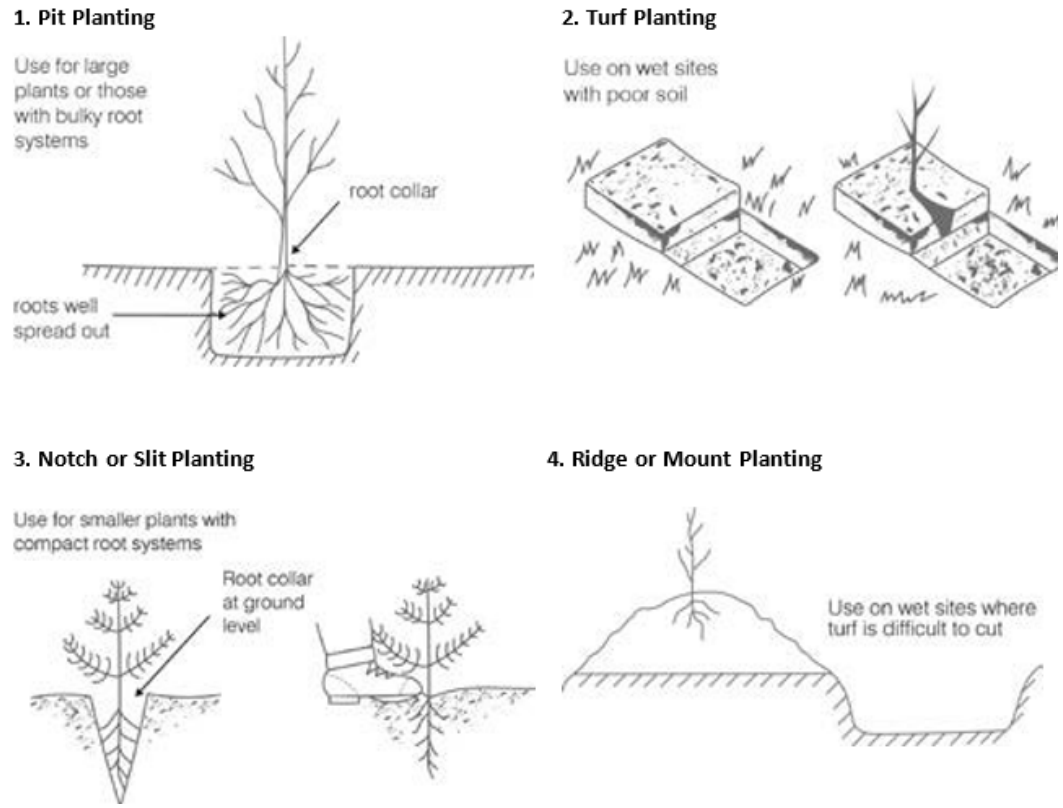
- Standard trees in new hedgerows should be established individually, ideally at approximately 50m – 100m spacings.
- You must protect the standard trees from browsing using a tree shelter (see L014 Tree Shelter (60cm With Stake)) and the tree planting must be carried out within the newly created hedgerow.
- Ensure you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Also, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary water course. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, the permit/consent, or confirmation that a permit/consent is not needed, should be retained, and made available on request. See General Rules for more details.
- If undertaking any spraying as part of this activity ensure you have obtained any consents that may be necessary.
- Where Ffermio Bro activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you obtain approval under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority. This will ensure that when the trees are grown, they will not shade the surface of the pond.
- Consideration should also be given when establishing scrub and tree cover to avoid any impact on water supply for ponds or the likelihood of damaging any pond lining.

- The planting season normally runs from 1 October to 30 April. In practice, frost and snow usually divides this period into two planting spells: October to December; and during March. At higher altitudes, planting can be extended into early April.
- Autumn planting is preferred for broadleaved trees and shrubs, as roots will grow in warm spells and lessen the effect of any subsequent spring drought. In exposed sites or areas where winter storms are likely, spring planting may be preferable.
- Order as far in advance as possible to ensure the correct trees are available. Request that plants are delivered as close as possible to the planting date. It is best to choose an established local nursery, because they will usually have a reputation to maintain the trees and your transport costs should be lower. In addition, the plants will be out of the ground for the minimum length of time.
- Wherever possible, try to obtain plants grown from locally obtained seeds or cuttings (native provenance), since these will do better under local conditions and are more valuable for wildlife than imported stock.
- Try to be on hand when plants arrive so you can ensure they are in good physical condition. Keep the roots covered at all times before planting to prevent damage and drying out. Whilst cold is unlikely to be harmful, hot sun and any form of drying, such as wind, can very quickly cause damage or kill the plants.
- If immediate planting is not possible, dig a trench before delivery and store plants in this with the roots covered so they are kept moist and cool. Protect the plants from animals, including small mammals.
- There are four main methods of planting using a spade, which are illustrated at the end of the tree planting notes. More specialised tools are available for use on large scale plantings.
- Annual maintenance is essential to ensure both survival and healthy growth. Plants should be watered both regularly and liberally during prolonged dry spells. It is advisable to apply water slowly, so it has time to soak into the ground adjacent to the tree. A mulch may serve to reduce the frequency with which watering is needed.
- Plants should be kept clear of competing weeds and grasses (weeding will also reduce mouse and vole damage). Control can be achieved with a thick mulch of bark chippings or by using a 500-gauge black polythene sheet and pegging down securely. Alternatively, carefully cut back grass and other vegetation in the area above the tree roots.
- Weeding is advisable twice in the first year after planting and once a year thereafter, until the tree is clear of surrounding vegetation. Cut weeds by hand or use herbicides to control grasses, docks, thistles, and ragwort. If using a strimmer, take care to protect the tree stem from damage. Any chemicals used must have a label recommendation for use on the target species and for the intended method of application. All manufacturers label recommendations regarding method of application must be strictly adhered to.
- Any plants that have been loosened or partly lifted by winds and winter frosts should be trodden back in carefully. Regularly inspect fencing, tree guards, stakes, and tree ties (loosen tight ties as these will constrict tree growth) and prevent trees growing through or chafing against tree guards.

For an extensive list of trees native to Wales, see Forest Research's *Using Local Stock for Planting Native Trees and Shrubs* (zones 303 and 304 apply).

Suggested Native Trees and Shrubs Suitable for Planting			
Alder	Cherry (Wild & Bird)	Guelder Rose	Rowan (Mountain Ash)
Aspen	Crab Apple	Hawthorn	Scots Pine
Beech	Dog Rose	Hazel	Spindle
Birch (Silver & Downy)	Elder	Holly	Willow (Crack, Goat & Grey)
Blackthorn	Field Maple	Lime (Small & large leaved)	White Poplar
Black Poplar		Oak (Sessile & Pedunculate)	Yew

Example of the four main methods of planting using a spade



Trees and Shrubs (Transplants)

Item Code: L016

Payment Rate: £2.03 each

This technical note describes the minimum standard of work required in order to receive payments for 'Trees and Shrubs (Transplants)'. Any variation must be approved by the Welsh Government prior to starting the work.

Planting small areas of woodland can provide benefits for wildlife and landscape. Growing trees removes carbon dioxide from the atmosphere (which has a positive impact on climate change) and absorbs a lot of water, reducing the amount of water running off farmland into rivers.

You must adhere to the following:

- Plant sturdy plants, which are at least 50cm in height.
- Plant only native species, as shown on the table below.
- Trees and shrubs need to be UK grown and ideally from Plant Healthy stock for biosecurity reasons

Do not:

- Plant ash trees as part of any planting mix due to ash dieback disease (Hymenoscyphus fraxineus).
- Allow damage from machinery or browsing animals (including wild animals).

Requirements and guidance in addition to the specifications above:

- You can establish trees individually or in groups of trees.
- If you are planting trees in groups, they must be established at a planting density equivalent to 400 to 2500 trees per hectare. The width of the area used to plant a group of trees can be up to a maximum width of 10m wide in any field parcel. The 10m maximum width limit will be taken from the mapped fence line to the mapped field boundary, which may already include an existing field boundary, such as a hedge, so you may have to include this when establishing the 10m width. You must protect the trees from browsing using spiral rabbit guards or tubes and the area of tree planting must also be fenced to exclude livestock.
- Ensure you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Also, ensure you have the appropriate Ordinary Watercourse Consent if you are carrying out works near an ordinary watercourse. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, the permit/consent, or confirmation that a permit/consent is not needed, should be retained and made available on request. See General Rules for more details.
- If undertaking any spraying as part of this activity, ensure you have obtained any consents that may be necessary.
- Where Ffermio Bro activities include the installation of access furniture, such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you obtain approval under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority.

- Transplants are 1-2 year old plants with a large proportion of root in relation to shoot, which gives them good powers of survival, especially in poor soils and on exposed sites. They will generally outgrow whips in a few years to produce healthier, better-formed trees.
- A high degree of protection from machinery and animals is needed.
- Careful maintenance during first few years is essential. They are considerably cheaper than whips and standards and are usually purchased in bulk.
- Where possible, trees or shrubs should not be planted within 15 metres of ponds. This will ensure, when the trees are grown, they will not shade the surface of the pond. Consideration should also be given when establishing scrub and tree cover to avoid any impact on water supply for ponds or the likelihood of damaging any pond lining.
- The planting season normally runs from 1 October to 30 April. In practice, frost and snow usually divides this period into two planting spells: October to December and during March. At higher altitudes, planting can be extended into early April.
- Autumn planting is preferred for broadleaved trees and shrubs, as roots will grow in warm spells and lessen the effect of any subsequent spring drought. In exposed sites or areas, where winter gales are likely, spring planting may be preferable.
- Order as far in advance as possible to ensure the correct trees are available. You should request plants are delivered as close as possible to the planting date. It is best to choose an established local nursery because your transport costs should be lower. In addition, the plants will be out of the ground for the minimum length of time.
- Wherever possible, try to obtain plants grown from locally obtained seeds or cuttings (native provenance), since these will do better under local conditions and are more valuable for wildlife than imported stock.
- Try to be on hand when plants arrive so you can ensure they are in good physical condition. Keep the roots covered at all times before planting to prevent damage and drying out. Whilst cold is unlikely to be harmful, hot sun and any form of drying such as wind, can very quickly cause damage or kill the plants.
- If immediate planting is not possible, dig a trench before delivery and store plants in this with the roots covered so they are kept moist and cool. Protect the plants from animals, especially small mammals.
- There are four main methods of planting using a spade, which are illustrated in this note. More specialised tools are available for use on large-scale plantings.
- Use individual tree guards and stakes where lengths of fencing would be uneconomic or unsightly, such as single or widely spaced trees in parklands, or where damage from machinery is possible.
- Annual maintenance is essential to ensure both survival and healthy growth. Plants should be watered, both regularly and liberally, during prolonged dry spells. It is advisable to apply water slowly so it has time to soak into the ground adjacent to the tree. A mulch may serve to reduce the frequency with which watering is needed.
- Plants should be kept clear of competing weeds and grasses (weeding will also reduce mouse and vole damage). Control can be achieved with a thick mulch of bark chippings or by using a 500-gauge black polythene sheet and pegging

down securely. Alternatively, carefully cut back grass and other vegetation in the area above the tree roots.

- Weeding is advisable twice in the first year after planting and once a year thereafter, until the tree is clear of surrounding vegetation. Cut weeds by hand or use herbicides to control grasses, docks, thistles and ragwort. If using a strimmer, take care to protect the tree stem from damage. Any chemicals used must have a label recommendation for use on the target species and for the intended method of application. All manufacturers label recommendations regarding method of application must be strictly adhered to.
- Any plants that have been loosened or partly lifted by winds and winter frosts should be trodden back in carefully. Regularly inspect fencing, tree guards, stakes and tree ties (loosen tight ties as these will constrict tree growth) and prevent trees growing through or chafing against tree guards.

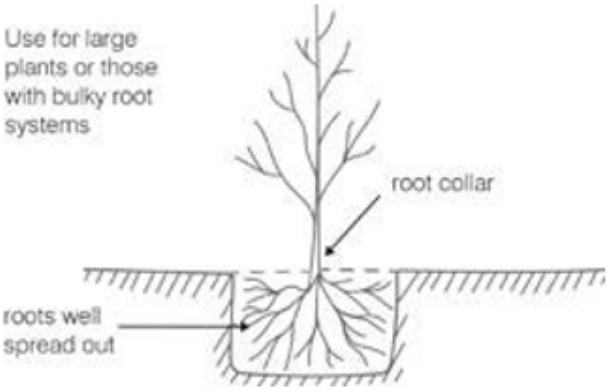
Suggested Native Trees and Shrubs Suitable for Planting			
Alder	Cherry (Wild & Bird)	Guelder Rose	Rowan (Mountain Ash)
Aspen	Crab Apple	Hawthorn	Scots Pine
Beech	Dog Rose	Hazel	Spindle
Birch (Silver & Downy)	Elder	Holly	Willow (Crack, Goat & Grey)
Blackthorn	Field Maple	Lime (Small & large leaved)	White Poplar
Black Poplar		Oak (Sessile & Pedunculate)	Yew

For an extensive list of trees native to Wales, see Forest Research's *Using Local Stock for Planting Native Trees and Shrubs* (zones 303 and 304 apply).

Example of the four main methods of planting using a spade

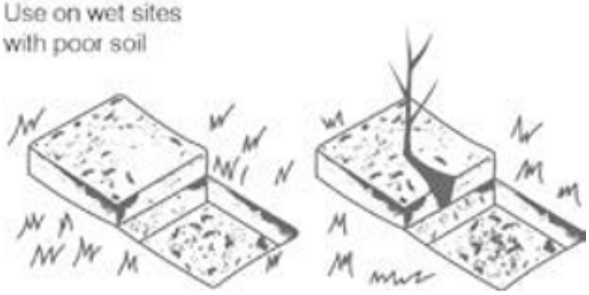
1. Pit Planting

Use for large plants or those with bulky root systems



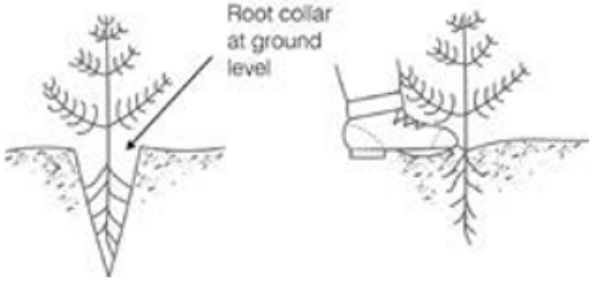
2. Turf Planting

Use on wet sites with poor soil

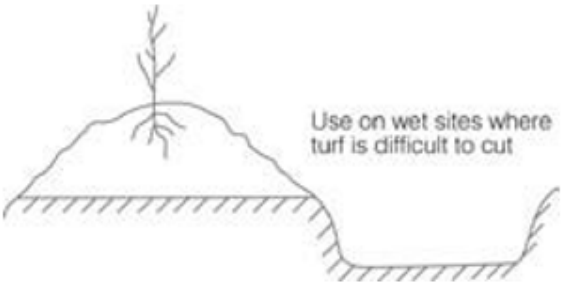


3. Notch or Slit Planting

Use for smaller plants with compact root systems



4. Ridge or Mount Planting



Trees and Shrubs - Whips

Item Code: L017

Payment Rate: £6.32 each

This technical note describes the minimum standard of work required in order to receive payments for 'Trees and Shrubs – whips'. Any variation must be approved by the Welsh Government.

Planting small areas of woodland can provide benefits for wildlife and landscape. Growing trees removes carbon dioxide from the atmosphere (which has a positive impact on climate change) and absorbs a lot of water, reducing the amount of water running off farmland.

You must adhere to the following:

- Plant sturdy plants, which are at least 1m in height.
- Plant only native species as shown on the table below.
- Trees and shrubs need to be UK grown and ideally from Plant Healthy stock for biosecurity reasons

Do not:

- Plant ash trees as part of any planting mix due to ash dieback disease (Chalara fraxinea).
- Allow damage from machinery or browsing animals (including wild animals).

Requirements and guidance in addition to the specifications above:

- You can establish trees individually or in groups of trees.
- If you are planting trees in groups, they must be established at a planting density equivalent to 400 to 2500 trees per hectare. The width of the area used to plant a group of trees can be up to a maximum width of 10m wide in any field parcel. The 10m maximum width limit will be taken from the mapped fence line to the mapped field boundary, which may already include an existing field boundary, such as a hedge, so you may have to include this when establishing the 10m width. You must protect the trees from browsing using spiral rabbit guards or tubes and the area of tree planting must also be fenced to exclude livestock.
- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary water course. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, the permit/consent, or confirmation that a permit/consent is not needed, should be retained and made available on request. See General Rules for more details.
- If undertaking any spraying as part of this activity ensure you have obtained any consents that may be necessary.
- Where Ffermio Bro activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you

obtain approval under Section 147 of the Highways Act,1980, from the appropriate Highway Authority.

- Whips are used for individual tree planting and for hedgerow trees – trees of 1m or taller with little branching. These should be used occasionally, in specific circumstances.
- Although more expensive and less sturdy than transplants, they are cheaper and easier to establish than standards.
- Usually short enough not to require stakes and ties, they are tall enough to prevent the leading shoots being damaged by hares and are easier to protect from rabbits than transplants. Weeding is less critical but they will need protection from browsing animals and machinery.
- Where possible, trees or shrubs should not be planted within 15 metres of ponds. This will ensure that when the trees are grown they will not shade the surface of the pond. Consideration should also be given when establishing scrub and tree cover to avoid any impact on water supply for ponds or the likelihood of damaging any pond lining.
- The planting season normally runs from 1 October to 30 April. In practice, frost and snow usually divides this period into two planting spells: October to December; and during March. At higher altitudes, planting can be extended into early April.
- Autumn planting is preferred for broadleaved trees and shrubs, since roots will grow in warm spells and lessen the effect of any subsequent spring drought. In exposed sites or areas where winter gales are likely, spring planting may be preferable.
- Order as far in advance as possible to ensure the correct trees are available. Request that plants are delivered as close as possible to the planting date. It is best to
- choose an established local nursery because they will usually have a reputation to maintain and your transport costs should be lower. In addition, the plants will be out of the ground for the minimum length of time.
- Wherever possible try to obtain plants grown from locally obtained seeds or cuttings (native provenance), since these will do better under local conditions and are more valuable for wildlife than imported stock.
- Try to be on hand when plants arrive so you can ensure they are in good physical condition. Keep the roots covered at all times before planting to prevent damage and drying out. Whilst cold is unlikely to be harmful, hot sun and any form of drying such as wind, can very quickly cause damage or kill the plants.
- If immediate planting is not possible, dig a trench before delivery and store plants in this with the roots covered so they are kept moist and cool. Protect the plants from animals, including small mammals.
- There are four main methods of planting using a spade, which are illustrated at the end of this note. More specialised tools are available for use on large scale plantings.
- Use individual tree guards and stakes where lengths of fencing would be uneconomic or unsightly, such as single or widely spaced trees in parklands, or where damage from machinery is possible.
- Annual maintenance is essential to ensure both survival and healthy growth. Plants should be watered both regularly and liberally during prolonged dry spells. It is advisable to apply water slowly so it has time to soak into the ground

adjacent to the tree. A mulch may serve to reduce the frequency with which watering is needed.

- Plants should be kept clear of competing weeds and grasses (weeding will also reduce mouse and vole damage). Control can be achieved with a thick mulch of bark chippings or by using a 500-gauge black polythene sheet and pegging down securely. Alternatively, carefully cut back grass and other vegetation in the area above the tree roots.
- Weeding is advisable twice in the first year after planting and once a year thereafter, until the tree is clear of surrounding vegetation. Cut weeds by hand or use herbicides to control grasses, docks, thistles and ragwort.
- If using a strimmer take care to protect the tree stem from damage. Any chemicals used must have a label recommendation for use on the target species and for the intended method of application. All manufacturers label recommendations regarding method of application must be strictly adhered to.
- Any plants that have been loosened or partly lifted by winds and winter frosts should be trodden back in carefully. Regularly inspect fencing, tree guards, stakes and tree ties (loosen tight ties as these will constrict tree growth) and prevent trees growing through or chafing against tree guards.

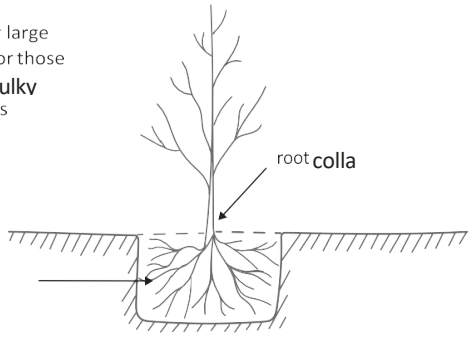
Suggested Native Trees and Shrubs Suitable for Planting			
Alder	Cherry (Wild & Bird)	Guelder Rose	Rowan (Mountain Ash)
Aspen	Crab Apple	Hawthorn	Scots Pine
Beech	Dog Rose	Hazel	Spindle
Birch (Silver & Downy)	Elder	Holly	Willow (Crack, Goat & Grey)
Blackthorn	Field Maple	Lime (Small & large leaved)	White Poplar
Black Poplar		Oak (Sessile & Pedunculate)	Yew

For an extensive list of trees native to Wales, see Forest Research's *Using Local Stock for Planting Native Trees and Shrubs* (zones 303 and 304 apply).

Example of the four main methods of planting

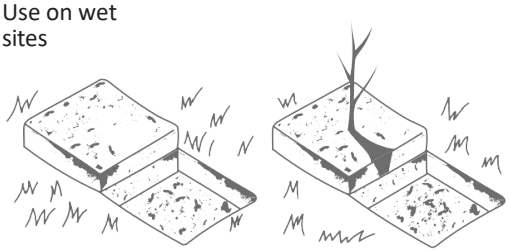
1. Pit Planting

Use for large plants or those with bulkv systems



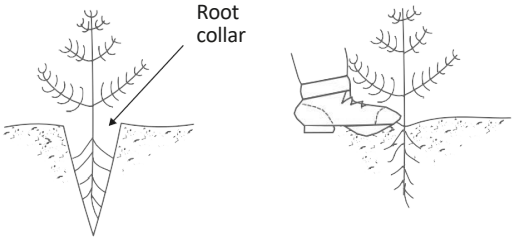
2. Turf Planting

Use on wet sites

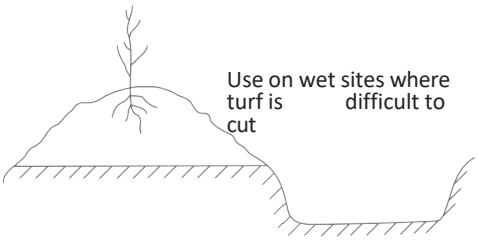


3. Notch or Slit Planting

Use for smaller plants with compact root systems



4. Ridge or Mount Planting



Sabre Planting

Item Code: L018

Payment Rate: £6.94 each

This technical note describes the standard of work required in order to receive payments for 'Sabre Planting'. Any variation must be approved by the Welsh Government.

Pioneered by an independent local charity 'Bugeiliaid y Coed' (Tree Shepherds), The No Fence Planting' technique mimics the way in which self-sown trees establish themselves naturally on grazed farmland.

Trees over 1m in height can be 'sabre-planted' perpendicular to steep ground (rather than pointing straight up) so that the leading shoots cannot be reached by browsing sheep and cattle. Such trees typically have a 'sabre- shaped' profile and can be seen growing in most valleys in Wales.

You must adhere to the following:

- Plant sturdy plants, which are at least 1m in height
- Plant at an angle perpendicular to the slope on steep ground
- Plant only native species as shown on the table below.
- Trees and shrubs need to be UK grown and ideally from Plant Healthy stock for biosecurity reasons

Do not:

- Plant ash trees as part of any planting mix due to ash dieback disease (Chalara fraxinea).

Requirements and guidance in addition to the specifications above:

- Trees can be planted amongst gorse.
- Steep and broken ground with bracken is ideal for 'Sabre Planting'.
- Other no-fence methods include the planting of 1.5m-2m trees.
- Where possible, trees or shrubs should not be planted within 15 metres of ponds. This will ensure that when the trees are grown they will not shade the surface of the pond. Consideration should also be given when establishing scrub and tree cover to avoid any impact on water supply for ponds or the likelihood of damaging any pond lining.
- The planting season normally runs from 1 October to 30 April. In practice, frost and snow usually divides this period into two planting spells: October to December; and during March. At higher altitudes, planting can be extended into early April.
- Autumn planting is preferred for broadleaved trees and shrubs, since roots will grow in warm spells and thus lessen the effect of any subsequent spring drought. In exposed sites or areas where winter gales are likely, spring planting may be preferable.
- Order as far in advance as possible to ensure the correct trees are available. Request that plants are delivered as close as possible to the planting date. It is best to choose an established local nursery because they will usually have a

reputation to maintain and your transport costs should be lower. In addition, the plants will be out of the ground for the minimum length of time.

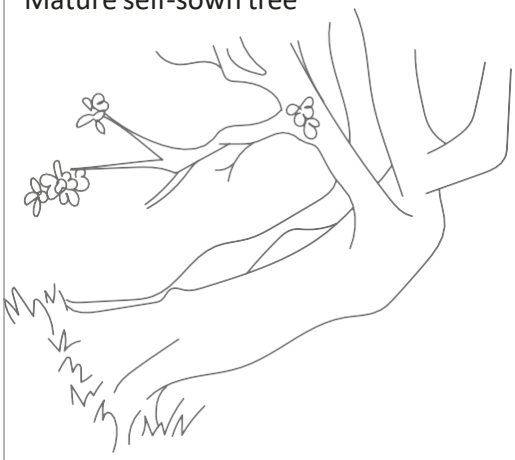
- Wherever possible try to obtain plants grown from locally obtained seeds or cuttings (native provenance), since these will do better under local conditions and are more valuable for wildlife than imported stock.
- Try to be on hand when plants arrive so that you can ensure they are in good physical condition. Keep the roots covered at all times before planting to prevent damage and drying out. Whilst cold is unlikely to be harmful, hot sun and any form of drying such as an east wind, can very quickly cause damage or kill the plants.
- If immediate planting is not possible, dig a trench before delivery and store plants in this with the roots covered so they are kept moist and cool. Protect the plants from animals, including rabbits and hares.

Suggested Native Trees and Shrubs Suitable for Planting			
Alder	Cherry (Wild & Bird)	Guelder Rose	Rowan (Mountain Ash)
Aspen	Crab Apple	Hawthorn	Scots Pine
Beech	Dog Rose	Hazel	Spindle
Birch (Silver & Downy)	Elder	Holly	Willow (Crack, Goat & Grey)
Blackthorn	Field Maple	Lime (Small & large leaved)	White Poplar
Black Poplar		Oak (Sessile & Pedunculate)	Yew

For an extensive list of trees native to Wales, see Forest Research's *Using Local Stock for Planting Native Trees and Shrubs* (zones 303 and 304 apply).

Examples of Sabre Planted trees

Mature self-sown tree



Young Sabre Planted tree



Spiral Rabbit Guards

Item Code: L019

Payment Rate: £0.58 each

This technical note describes the minimum standard of work required in order to receive payments for ‘’Spiral Rabbit Guards’.

Any variation must be approved by the Welsh Government prior to starting the work. Spiral rabbit guards are the most widely used form of tree protection against rabbits and voles.

You must adhere to the following:

- Ensure each spiral rabbit guard is supported by a bamboo cane.

Do not:

- Use guards that are taller than the tree it is to protect at the time of planting.

Requirements and guidance in addition to the specifications above:

- Spiral rabbit guards are made from a plastic material and are available in three sizes, (45cm, 60cm and 75cm).
- Ideally the bamboo cane should be pushed into the ground next to the newly planted tree. The guard is then wound or spiralled around both tree and cane so that small mammals are excluded.

New Hedge Planting

Item Code: L020

Payment Rate: £9.39/m

This technical note describes the minimum standard of work required in order to receive payments for 'New Hedge Planting'. Any variation must be approved by the Welsh Government prior to starting the work.

You must adhere to the following:

- Plant native trees and shrubs in a mix of at least three hedging species, with no one component of the mix comprising more than 75% of the total.
- Plant hedge plants that are at least 45-60cm high, which should have a strong leader shoot.
- Plant new hedgerows at a density of 7 plants per metre in a staggered double row, with 20cm between each row.
- Prevent new plants from being killed by shading out from excessive weed growth.
- Protect newly planted hedges from livestock.
- Replace any dead plants.
- Ensure there is at least 1m between new planting and protective fencing.
- Ensure that the hedge is able to grow to a 3m width. There must be a gap of at least 3m between double fences. Where a new hedge is planted beside a road, a 1.5m gap from the centre of the hedge to the fence is permissible. The fence must be located on the field side of the hedge.
- Obtain your neighbour's written consent to place a fence on their land if you are planting a new hedge on their boundary.

Do not:

- Plant any ash trees as part of any planting mix due to ash dieback disease (*Hymenoscyphus fraxineus*).
- Use trees and shrubs as strainers or fencing posts, or use them to support fencing wire, staples or netting.
- Cause damage to any existing historic hedge banks during ground preparation, planting or fencing.

Requirements and guidance in addition to the specifications above:

- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary watercourse. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, the permit/ consent (or confirmation that a permit/ consent is not needed) should be retained and made available on request. See General Rules for more details.
- If undertaking any spraying as part of this activity ensure you have obtained any consents that may be necessary.
- Where Ffermio Bro activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you

obtain approval under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority.

- Ensure the best chances of survival, by planting new hedgerow plants in the winter months from November to March. Keep root balls damp during planting, and water liberally in dry spells until established.
- Select plants with well-developed root systems. Plants which are 3 – 4 years old are recommended
- Prepare the ground for planting by either rotovating, ploughing or digging over during the previous summer. Avoid damaging historic banks during ground preparation by digging manually.
- You may incorporate some well-rotted manure if planting hedge plants on poor soils.
- Plant locally common native species where possible. Plants should be derived from locally collected seed or cuttings if possible as these are likely to survive better and support more species of native wildlife.
- Control weeds by using a mulch of wood chippings or by securely pegging down a 500-gauge black polythene sheet, 1-2m wide at the base of the transplants. Chemical control of grasses, thistles, docks and ragwort may be undertaken.
- Any chemical used must have a label recommendation for use on the listed species and for the intended method of application. All manufacturers label recommendations regarding application of the herbicide must be strictly adhered to.
- Encourage new growth by trimming the transplant back.
- Establish at least 1 – 2 hedgerow trees per 100m. Either plant new saplings (at least 1m tall), or identify existing plants that can develop into trees. It is sensible to tag the tree to avoid accidental damage when hedge trimming. Choose native tree species that grow well in local hedges, as they will contribute to an attractive landscape and can increase the wildlife value of the hedge.
- Spiral guards can be used to protect the hedge from rabbits, although in certain areas rabbit fencing may be a more effective deterrent.

Hedge Coppicing and Gapping Up

Item Code: L021

Payment Rate: £8.82/m

This technical note describes the minimum standard of work required in order to receive payments for 'Hedge Coppicing and Gapping- up'. Any variation must be approved by the Welsh Government prior to starting the work.
Please note, hedge trimming with a flail cutter does not meet the technical specification necessary to fulfil the requirement of coppicing the hedge at the level set out below. Hedge Coppicing and Gapping-up projects where a hedge has only been trimmed back, will be rejected.

Coppicing
Hedge coppicing must only be carried out on traditional hedgerows. It should not be carried out on lines of trees, such as riparian woodlands. Coppicing is generally undertaken when a hedge stem is too wide (more than 10cm in width) to lay properly. In some circumstances, the stems may be so wide that you may need to obtain a Felling Licence from Natural Resources Wales. It is your responsibility to check whether or not this is the case.

You must adhere to the following:

- Coppice the hedge to within 7.5cm or less of ground level to allow re-shooting.
- Retain all large, mature trees where undertaking hedgerow renovation work, particularly those with features such as holes, splits, cracks or dense ivy cover; as these provide roosting sites for bats.
- Plant native trees and shrubs in a mix of at least three hedging species, with no one component of the mix comprising more than 75% of the total.
- Plant hedge plants that are at least 45cm – 60cm high and have a strong leader shoot.
- Plant new hedgerows at a density of 7 plants per metre in a staggered double row, with 20cm between each row.
- Prevent new plants from being killed by shading out from excessive weed growth.
- Protect newly planted hedges from livestock.
- Replace any dead plants
- Ensure all redundant fencing or wire is removed.
- Ensure there is at least 1m between new planting and protective fencing.
- Ensure the hedge is able to grow to a 3m width. There must be a gap of at least 3m between double fences. Where a hedge is coppiced beside a road, a 1.5m gap from the centre of the hedge to the fence is permissible. The fence must be located on the field side of the hedge.
- Obtain your neighbour's written consent to place a fence on their land if you are planting a new hedge on their boundary.

Do not:

- Plant ash trees as part of any planting mix due to ash dieback disease (*Hymenoscyphus fraxineus*), in any planting mix, either for woodlands or when establishing or restoring hedgerows.

- Cause damage to any existing hedge banks during ground preparation, planting or fencing.
- Use trees and shrubs as strainers or fencing posts, or use them to support fencing wire, staples or netting.

Requirements and guidance in addition to the specifications above:

- Depending on the volume of timber felled you may need to obtain a felling licence from Natural Resources Wales.
- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary watercourse. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, the permit/consent (or confirmation that a permit/consent is not needed) should be retained and made available on request. See General Rules for more details.
- If undertaking any spraying as part of this activity ensure you have obtained any consents that may be necessary.
- Where Ffermio Bro activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you obtain approval under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority.
- Carry out hedge restoration work between dates permitted by Cross Compliance rules.
- Restricting the hedge restoration dates further to between November and March will be even more beneficial to wildlife such as dormice.
- Ensure the best chances of survival, by planting new hedgerow plants in the winter months from November to March. Keep root balls damp during planting, and water liberally in dry spells until established.
- An additional 1 metre at the base between hedge and fence (on top of the minimum 3 metre width) will create additional wildlife habitat.
- Increasing the species mix beyond the minimum requirement of a 3 species mix will provide a greater selection of food sources for wildlife.
- Select plants with well-developed root systems. Plants which are 3 – 4 years old are recommended.
- Holly and blackthorn are both suitable species to use. Prepare the ground for planting by either rotovating or digging over during the previous summer. Avoid damaging historic banks during ground preparation by digging manually.
- You may incorporate some well-rotted manure if planting hedge plants on poor soils.
- Plant locally common native species where possible. Plants should be derived from locally collected seeds or cuttings if possible as these are likely to survive better and support more species of native wildlife.
- No one component of the mix should comprise more than 75% of the total.
- In previously un-coppiced hedges gaps should be thoroughly cleared of vegetation and hedges cut back to allow healthy growth on both sides.
- Control weeds by using a mulch of wood chippings or by securely pegging down a 500-gauge black polythene sheet, 1m – 2m wide at the base of the transplants. Chemical control of grasses, thistles, docks and ragwort may be

undertaken. Any chemical used must have a label recommendation for use on the listed species and for the intended method of application. All manufacturers label recommendations regarding application of the herbicide must be strictly adhered to.

- Encourage new growth by trimming the transplant back.
- Establish at least 1 – 2 hedgerow trees per 100m. Either plant new saplings (at least 1m tall), or identify existing plants that can develop into trees. It is sensible to tag the tree to avoid accidental damage when hedge trimming. Choose native tree species that grow well in local hedges, as they will contribute to an attractive landscape and can increase the wildlife value of the hedge.
- Spiral guards can be used to protect the hedge from rabbits, although in certain areas rabbit fencing may be a more effective deterrent.
- Retain all large mature trees where undertaking hedgerow renovation work, as these can provide roosting sites for bats.
- Where work is required to a tree that has been identified as a bat roost (either because bats are known to be present or where positive signs of bat use have been found), a Habitats Regulations licence from Natural Resources Wales must be obtained.

Hedge Laying

Item Code: L022

Payment Rate: £15.38/m

This technical note describes the minimum standard of work required in order to receive payments for 'Hedge Laying'. Any variation must be approved by the Welsh Government prior to starting the work.

You must adhere to the following:

- Ensure that all redundant fencing or wire is removed.
- Lay the hedge by partially cutting through suitable stems at ground level, at an angle of approximately 30°.
- Lay the cut stems as close to ground level as possible, and secure in place with stakes.
- Retain all large, mature trees where undertaking hedgerow renovation work, particularly those with features such as holes, splits, cracks or dense ivy cover as these provide roosting sites for bats.
- Ensure there is at least 1m between new planting and protective fencing.
- Ensure that the hedge is able to grow to a 3m width. There must be a gap of at least 3m between double fences. Where a new hedge is planted beside a road, a 1.5m gap from the centre of the hedge to the fence is permissible. The fence must be located on the field side of the hedge.
- You must ensure the entire width of the hedge is layed. If part of the width of a hedge falls outside your boundary, you should not include this hedge, unless you obtain the written consent from your neighbour to do so.
- Obtain your neighbour's written consent to place a fence on their land if you are planting a new hedge on their boundary.

Do not:

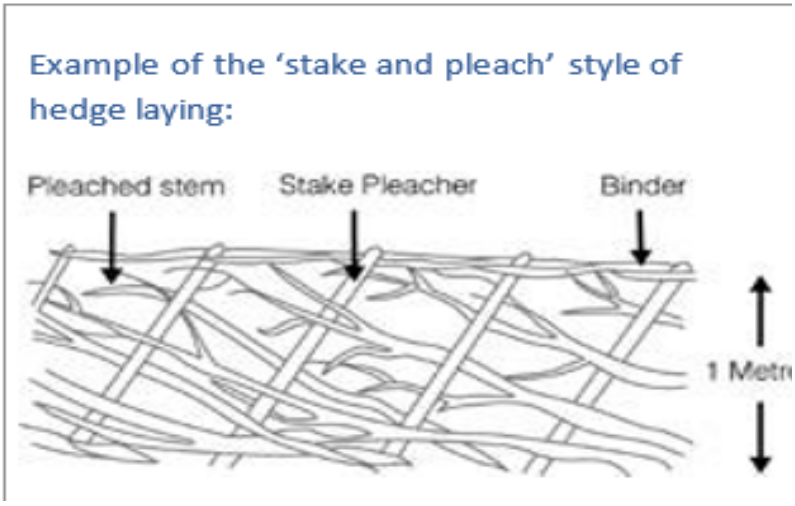
- Use wire or baler twine to secure either the stakes or cut stems.
- Plant any ash trees as part of any planting mix due to ash dieback disease (Hymenoscyphus fraxineus), in any planting mix, either for woodlands or when establishing or restoring hedgerows.
- Cause damage to any existing hedge banks during ground preparation, planting or fencing.
- Use trees and shrubs as strainers or fencing posts, or use them to support fencing wire, staples or netting.

Requirements and guidance in addition to the specifications above:

- Depending on the volume of timber felled you may need to obtain a felling licence from Natural Resources Wales.
- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary water course. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, the permit/consent (or confirmation

that a permit/consent is not needed) should be retained and made available on request. See General Rules for more details.

- If undertaking any spraying as part of this activity ensure you have obtained any consents that may be necessary.
- Where Ffermio Bro activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you obtain approval under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority.
- Carry out hedge restoration work between dates permitted by Cross Compliance rules.
- Restricting the hedge restoration dates further to between November and March will be even more beneficial to wildlife such as dormice.
- Stems for laying should be about 5cm – 10cm thick at the base, and 2.5m – 3.5m in height. Beyond this stage coppicing should be considered as a more suitable alternative.
- An additional 1 metre at the base between hedge and fence (on top of the minimum 3 metre width) will create additional wildlife habitat.
- If planting any gaps, using the widest selection of species available will provide a greater selection of food sources for wildlife.
- Aim to lay hedges in the winter months between November and March.
- Whenever possible follow local traditional methods and customs.
- In the interest of biodiversity, remove only as much elder as is necessary and cut back any bramble, briar or other climbing growth where this impedes laying operations.
- Hedge laying should aim to be upslope and in the same direction wherever possible.
- Maintain existing ash trees where possible.
- Retain all large mature trees where undertaking hedgerow renovation work, as these can provide roosting sites for bats.
- Where work is required to a tree that has been identified as a bat roost (either because bats are known to be present or where positive signs of bat use have been found), a Habitats Regulations licence from Natural Resources Wales must be obtained.



Cross Drains

Item Code: L023

Payment Rate: £178.20/m

This technical note describes the minimum standard of work required in order to receive payments for 'Cross Drains'. Any variation must be approved by the Welsh Government prior to starting the work.

The purpose of a cross drain is to help separate clean and dirty water on and around farmyards and tracks. Many streams and rivers in Wales are affected by pollution from agricultural runoff, impacting on biodiversity, fisheries and drinking water quality. Preventing clean water from diluting dirty water at farmyard level means that clean water can be captured for later use, and dirty water remains at more manageable quantities to be properly captured and dealt with appropriately.

Cross drains can be used to intercept clean water from clean tracks and yards upslope of the dirty track/yard areas. This clean water can be diverted into an existing ditch, swale, or sediment trap. Alternatively, cross drains can be used to intercept foul water downslope of yards/ tracks. This foul water must be diverted into an appropriate slurry store. The open channel of the cross drain is easy to clear of accumulated silt and debris. Foul water must not be diverted into watercourses, drains or onto land.

If you are installing cross drains in farmyards to intercept clean water, you should consider whether you also need to apply for Option 910 Rainwater Goods – Guttering and Option 911 Rainwater Goods – Downpipes.

You can apply for multiple cross drains to span the whole width of wider tracks/yard areas or to install multiple tiers of cross drains across tracks carrying large volumes of water horizontally.

You must adhere to the following:

- Install purposely constructed cross drains, which can be cleared of debris and which can support slow moving heavy machinery.
- Ensure that all cross drains consist of new materials.
- Concrete work should be carried out in accordance with the relevant British Standards BS 8000 and BS 8500, as amended.
- Ensure that clean water from the cross drain is directed to a stable drainage outlet such as a ditch, swale or sediment trap.
- Ensure that foul water is discharged into an appropriate slurry store.

Requirements and guidance in addition to the specifications above:

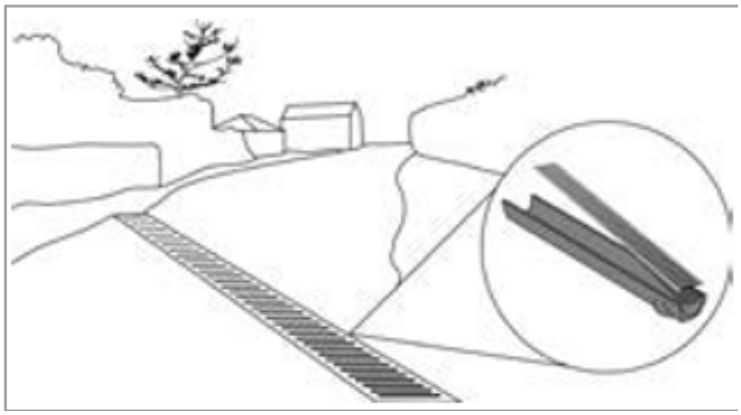
- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary water course. What may be considered a ditch may be an ordinary watercourse, so consent may be

required. As such, the permit/consent (or confirmation that a permit/consent is not needed) should be retained and made available on request. See General Rules for more details.

How to install a cross drain – best practice

The work will include the purchase and installation of a polychannel drainage system with grating. The channel once installed should be able to support the weight of slow moving heavy machinery, and can easily be cleared of accumulated silt and debris.

- Excavate a trench across the width of the track or along part of the farm yard, allowing sufficient depth and width for the concrete bed and surround.
- Make sure the outlet of the trench runs into a suitable ditch or swale.
- Slope the bed of the trench towards the outlet, following the depth of the proposed channel.
- Ensure that any arrows on the side of the channel point towards the outlet i.e. in the direction of flow.
- Set levels and lay out the channels alongside the trench, always starting at the outlet point.
- Pour bedding – begin at the outlet position, a good quality concrete bedding should be poured into the trench.
- Working away from the outlet, lower the channels into position following the manufactures instructions.
- Check alignment of channel.
- The grating should be loosely laid and wrapped in plastic, spanning the channel joints to ensure a clean final installation.
- The concrete surround can now be poured into the trench, taking care not to disturb the line of the run. This should finish 3mm above the channel and grating top surface.
- Once the concrete has set, lift out gratings and remove the protective plastic.
- To support heavy slow moving machinery a minimum concrete bed and surround of 200mm is required, unless specified otherwise with polychannel installation instructions.



Kerbing

Item Code: L024

Payment Rate: £52.94/m

This technical note describes the minimum standard of work required in order to receive payments for 'Kerbing'. Any variation must be approved by the Welsh Government prior to starting the work.

What is the purpose of this activity?
The purpose of installing kerbs on and around farmyards and alongside tracks is to help separate clean and dirty water. Many streams and rivers in Wales are affected by pollution from agricultural run-off, impacting on biodiversity, fisheries and drinking water quality.

Kerbs can be used to divert dirty water away from on-yard gullies or other areas where it may contribute to run-off and potential pollution.

The dirty water can then be channelled into an appropriate store or slurry store.

Alternatively, kerbs can be used to divert clean water away from dirty track/yard areas. Preventing clean water from diluting dirty water at farm yard level means that clean water can be captured for later use, and dirty water remains at more manageable quantities to be appropriately captured in slurry stores and dealt with properly.

If you are installing kerbs in farmyards to intercept clean water, you should consider whether you also need to apply for Option 910 Rainwater Goods – Guttering and Option 911 Rainwater Goods – Downpipes.

You must adhere to the following:

- Install kerbing with new kerbstones measuring 900mm x 255mm x 125mm (half battered)
- Concrete work should be carried out in accordance with the relevant British Standards BS 8000 and BS 8500, as amended.
- Ensure that clean water from the kerbing is directed to a stable drainage outlet such as a ditch, swale or sediment trap.
- Ensure that foul water is discharged into an appropriate slurry store.

Requirements and guidance in addition to the specifications above:

- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary watercourse. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, the permit/consent or confirmation a permit/consent is not needed, should be retained and made available on request. See General Rules for more details.

Kerbing – best practice

- Kerbing is likely to be more stable if a trench is excavated in the existing track to a minimum depth of 300mm.
- Fill with concrete and key in pre-cast concrete kerb stones protruding from the surface.
- Tamper the concrete on the outer side to the top edge of the kerb stone.
- Leave concrete on the inner side (the side that will divert the water) flat, below the top of the kerbstone.

Sleeping Policemen

Item Code: L025

Payment Rate: £38.60/m

This technical note describes the minimum standard of work required in order to receive payments for 'Sleeping Policemen'. Any variation must be approved by the Welsh Government prior to starting the work.

What is the purpose of this activity?
The purpose of a sleeping policeman is to help separate clean and dirty water on and around farmyards and tracks. Many streams and rivers in Wales are affected by pollution from agricultural run-off, impacting on biodiversity, fisheries and drinking water quality.

Preventing clean water from diluting dirty water at farm yard level means that clean water can be captured for later use, and dirty water remains at more manageable quantities to be appropriately captured in slurry stores and dealt with properly.

Sleeping policemen can be used to intercept clean water from clean tracks and yards upslope of the dirty track/yard areas.
Alternatively, they can be used to intercept foul water downslope of yards/tracks. This foul water must be diverted into an appropriate store or slurry store.

Installing sleeping policemen across farm tracks can also intercept and divert surface run-off, reducing flow rates at down slope locations and therefore helping to prevent erosion on farm track surfaces. By taking action to slow run-off you can reduce water damage to tracks, minimise soil erosion and reduce the risk of water pollution.

If you are installing sleeping policemen in farmyards to intercept clean water, you should consider whether you also need to apply for Option - Rainwater Goods – Guttering and Option - Rainwater Goods – Downpipes.

You must adhere to the following:

- Create sleeping policemen to a height of at least 150 mm above track level, which can support slow moving heavy machinery.
- Concrete work should be carried out in accordance with the relevant British Standards BS 8000 and BS 8500, as amended.
- Ensure that clean water from the sleeping policemen is directed to a stable drainage outlet such as a ditch, swale or sediment trap.
- Ensure that foul water is discharged into an appropriate slurry store.

Requirements and guidance in addition to the specifications above:

- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary water course. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, the permit/consent (or confirmation

- that a permit/consent is not needed) should be retained and made available on request. See General Rules for more details.
- Sleeping policemen are likely to be more stable if a trench is excavated in the existing track to a minimum depth of 100mm, and then key concrete into the trench and up to a height of at least 150mm.

Rainwater Goods (Guttering)

Item Code: L026

Payment Rate: £17.42/m

This technical note describes the minimum standard of work required in order to receive payments for 'Rainwater Goods – Guttering'. Any variation must be approved by the Welsh Government prior to starting the work.

What is the purpose of this activity?
The purpose of new rainwater goods is to help separate clean rain water from dirty water on and around farmyards. Many streams and rivers in Wales are affected by pollution from agricultural run-off, impacting on biodiversity, fisheries and drinking water quality. Preventing rainwater from diluting dirty water at farmyard level means that dirty water remains at more manageable quantities to be appropriately captured in slurry stores and dealt with properly.

Guttering can be used to intercept and capture rainwater from farm building roofs. This clean water can be diverted into an existing clean water drain or discharged to an existing ditch, swale, or sediment trap. Alternatively it may be captured for later on-farm use.

Payments are available for the provision and installation of new rainwater goods (guttering and downpipes), where existing ineffective or non-existent rainwater goods discharge clean water onto fouled yard areas.

This option is for existing buildings, traditional or modern, within the farmyard that currently do not have rainwater goods or which have existing rainwater goods that are beyond their serviceable life and need replacement. Non-agricultural buildings and houses are not eligible.

Rainwater goods on proposed new buildings are not eligible for a grant as they should already have rainwater goods built into the design.

Listed buildings are not eligible for this option.

You must adhere to the following:

- Use guttering, typically 150mm half round PVC guttering, and appropriate brackets. All goods must satisfy all relevant British Standards, as amended, such as BS EN 607, BS EN12200 and BS EN 1462.
- Installation work should satisfy all relevant British Standards, as amended, such as BS 5502 and BS EN1917.
- Ensure that all rainwater goods consist of new materials.

Do not:

- Install plastic rainwater goods on Listed Buildings.

Rainwater Goods – Downpipe

Item Code: L027

Payment Rate: £13.73/m

This technical note describes the minimum standard of work required in order to receive payments for 'Rainwater Goods – Downpipe'. Any variation must be approved by the Welsh Government prior to starting the work.

What is the purpose of this activity?
The purpose of new rainwater goods is to help separate clean rain water from dirty water on and around farmyards. Many streams and rivers in Wales are affected by pollution from agricultural run-off, impacting on biodiversity, fisheries and drinking water quality. Preventing rainwater from diluting dirty water at farm yard level means that dirty water remains at more manageable quantities to be appropriately captured in slurry stores and dealt with properly.

Downpipes can be used to intercept and capture rain water from farm building roofs. This clean water can be diverted into an existing clean water drain or discharged to an existing ditch, swale, or sediment trap. Alternatively, it may be captured for later on-farm use.

Payments are available for the provision and installation of downpipes where existing ineffective or non-existent rainwater goods discharge clean water onto fouled yard areas.

This option is for existing buildings, traditional or modern, within the farmyard that currently do not have rainwater goods or which have existing rainwater goods that are beyond their serviceable life and need replacement. Non-agricultural buildings and houses are not eligible.

Rainwater goods on proposed new buildings are not eligible for a grant as they should already have rainwater goods built into the design.

Listed buildings are not eligible for this option.

You must adhere to the following:
- Use 110mm downpipe and brackets that satisfy all relevant British Standards, as amended, such as BS EN 607, BS EN12200 and BS EN 1462.
- Installation work should satisfy all relevant British Standards, as amended, such as BS 5502 and BS EN1917.
- Ensure that all rainwater goods consist of new materials.
- Any underground drainage works should comply with all relevant British Standards, as amended, such as BS 8000, BS EN 752 and BS EN 1610.

Do not:
- Install plastic rainwater goods on Listed Buildings.

Requirements and guidance in addition to the specifications above:

- Where rainwater goods are at risk of being damaged by livestock, suitable protection should be installed.

New Hedge Planting for Pollinators

Item Code: L028

Payment Rate: £9.39/m

This technical note describes the minimum standard of work required in order to receive payments for 'New Hedge Planting'.

Any variation must be approved by the Welsh Government prior to starting the work.

You must adhere to the following:

- Plant native trees and shrubs in a mix of at least three hedging species. At least 90% of the planting mix must comprise of the following species; blackthorn, hawthorn, crab apple, wild plum or wild cherry. No one component of the mix should comprise more than 75% of the total.
- Plant hedge plants that are at least 45-60cm high which should have a strong leader shoot.
- Plant new hedgerows at a density of 7 plants per metre in a staggered double row, with 20cm between each row.
- Prevent new plants from being killed by shading out from excessive weed growth.
- Protect newly planted hedges from livestock.
- Replace any dead plants.
- Ensure there is at least 1m between new planting and protective fencing.
- Ensure that the hedge is able to grow to a 3m width. There must be a gap of at least 3m between double fences.

Do not:

- Plant any ash trees as part of any planting mix due to ash dieback disease (Hymenoscyphus fraxineus).
- Cause damage to any existing historic hedge banks during ground preparation, planting or fencing.
- Use trees and shrubs as strainers or fencing posts, or use them to support fencing wire, staples or netting.

Requirements and guidance in addition to the specifications above:

- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary water course. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, the permit/consent, or confirmation that a permit/consent is not needed, should be retained and made available on request.
- If undertaking any spraying as part of this activity ensure you have obtained any consents that may be necessary.
- Where Ffermio Bro activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you

obtain approval under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority.

- Ensure the best chances of survival, by planting new hedgerow plants in the winter months from November to March. Keep root balls damp during planting, and water liberally in dry spells until established.
- Select plants with well-developed root systems. Plants which are 3 – 4 years old are recommended
- Prepare the ground for planting by either rotovating, ploughing or digging over during the previous summer. Avoid damaging historic banks during ground preparation by digging manually.
- You may incorporate some well-rotted manure if planting hedge plants on poor soils.
- Plant locally common native species where possible. Plants should be derived from locally collected seed or cuttings if possible as these are likely to survive better and support more species of native wildlife.
- Control weeds by using a mulch of wood chippings or by securely pegging down a 500-gauge black polythene sheet, 1-2m wide at the base of the transplants. Chemical control of grasses, thistles, docks and ragwort may be undertaken.
- Any chemical used must have a label recommendation for use on the listed species and for the intended method of application. All manufacturers label recommendations regarding application of the herbicide must be strictly adhered to.
- Encourage new growth by trimming the transplant back.
- Establish at least 1 – 2 hedgerow trees per 100m. Either plant new saplings (at least 1m tall), or identify existing plants that can develop into trees. It is sensible to tag the tree to avoid accidental damage when hedge trimming. Choose native tree species that grow well in local hedges, as they will contribute to an attractive landscape and can increase the wildlife value of the hedge.
- Spiral guards can be used to protect the hedge from rabbits, although in certain areas rabbit fencing may be a more effective deterrent.

Dry Stone Wall Restoration

Item Code: L029

Payment Rate: £33.42/m2

This technical note describes the minimum standard of work required in order to receive payments for 'Dry Stone Wall Restoration'.

Any variation from the standards set out must be approved by the Welsh Government prior to starting the work.

Dry stone walls are an important landscape feature which can be an important record of historical land use, as well as important features for biodiversity and stock shelter.

Dry stone walls may not follow straight lines, a factor that contributes to both their landscape and historic importance.

Vehicle damage, theft and rubbing by livestock can all cause damage to the wall.

You must adhere to the following:

Restore degraded dry stone walls so that the height and the line of the restored wall follow that of the existing feature. Best practice guidelines for restoring dry stone walls are described below.

All stone used to restore dry stone walls must match the stones in existing features.

Retain and/or rebuild all stone stiles, sheep creeps, culverts and other traditional features.

All surplus stone and earth should be removed from site on completion and the adjacent ground returned to the original vegetation.

Requirements and guidance in addition to the specifications above:
Where Ffermio Bro activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you obtain approval

under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority.

Local stone should be used wherever possible, but do not raid stone from inappropriate places such as ruins or other walls. Imported stone should be of local provenance where possible.

Decide if top wiring is to be incorporated before wall restoration commences.

Footings/foundations – the first layer of large stones at the base. Footings should consist of two rows of the largest stones available laid in a trench 15cm to 30cm deep. In very soft conditions a deeper foundation may be required. The gaps at the centre of the footings should be packed with irregular stones. The footings should be about 7.5cm wider than the base of the wall. When rebuilding a wall the old footings must be carefully checked and replaced if they are insecure, out of line, tilted, or if the stone has crumbled.

Batter – the inward taper of the wall from base to top. The wall should taper evenly on both sides to the top. The amount of batter may depend on the type of stock grazing next to the wall.

For a 1.3m high wall, the base should be 70cm to 90cm wide, tapering to a width of 30cm to 40cm under the coping, depending on the size and type of stone of local style.

Face stones – Walls should be built with two even faces which follow the batter. Face stones should be placed with the following rules in mind:

use the largest stones at the bottom, grading to the smallest at the top

build in even courses (unless style of building is not coursed)

place stones with their longest dimension running into the wall

each gap between stones must be securely covered by a stone in the next course so that there are no vertical breaks in the wall

stones must not slope into the wall

the face must be even with no stones protruding from the wall except ‘through stones’

stones must be laid horizontally along the line of the wall even when walling on a slope

wedges (small stones to secure larger stones) must only be placed on the inside and not the face of the wall.

Hearting – small stones used as filling and packing. Gaps in the middle of the wall between face stones must be packed with smaller, irregular stones. Soil and other fine material must not be used as it will wash out. Each course must be hearted before starting the next.

Through stones – heavy, large stones placed at intervals to tie the sides together. Ideally two rows of ‘through stones’ should be placed at 45cm and 90cm above ground level with 100cm between adjacent ‘through stones’ for a 1.3m high wall.

If there is insufficient suitable stone a single row of ‘through stones’ should be placed at between 60cm and 75cm above ground level. The ‘through stones’ must be at least the full width of the wall and may protrude a few centimetres from the wall.

Coping – top stones to give weight and protection. The top of the wall should be built to an even height and properly hearted. Coping stones must be the full width of the wall and should be 20cm to 30cm high. Normally, stones that are wider than the wall should be trimmed but where there is no grazing stock on one side the coping stones may protrude up to 5cm on that side. The coping stones must be carefully placed so that they pack tightly together and provide weight onto every top face stone.

Wall heads – vertical ends to a length of wall. They should be built of alternate courses of ties (‘through stones’ tying both sides of the wall together) and runners (long stones placed in line with the face). The end coping stone must be large and heavy enough to support the remainder of the coping. There must not be any stones protruding from the wall head which could be rubbed by stock.

Building a retaining wall – Retaining walls are built into the face of a bank to prevent soil moving down slope. Retaining walls should be built in the same way as free standing walls with two faces. The inner face need not be even, as is required for a free standing wall. The inner face should be vertical, with a normal batter on the outer face. Where necessary, provision should be made for drainage.

Mortar – Where walls are to be built next to busy roads, particularly those used by heavy vehicles, it may be necessary to use mortar to stop the wall being damaged by the vibration. In such situations, the hearting throughout the wall and the coping stones could be mortared, leaving an external appearance of a dry stone wall. Where coping stones are likely to be dislodged because of people climbing the wall (e.g. next to a picnic site) the coping stones can be mortared. This should not be done for at least one year after a wall is built to allow it to settle.

Top wiring – Wooden posts can be set into the wall to support a line of barbed along the length of the wall to prevent stock climbing the wall and causing damage.

The finished wall must be solid with tight facing stones, on impact there should be no movement of the wall or heartings.

Earth Bank Restoration

Item Code: L030

Payment Rate: £10.89/m2

This technical note describes the minimum standard of work required in order to receive payments for 'Earth Bank Restoration'.

Any variation from the standards set out must be approved by the Welsh Government prior to starting the work.

Earth banks are an important landscape feature which can be an important record of historical land use, as well as important features for biodiversity and stock shelter.

They may or may not have hedgerows planted on top. Old hedges and banks may not follow straight lines, a factor that contributes to both their landscape and historic importance.

Prolonged bad weather, trampling by livestock and burrowing by rabbits can all cause damage to the bank.

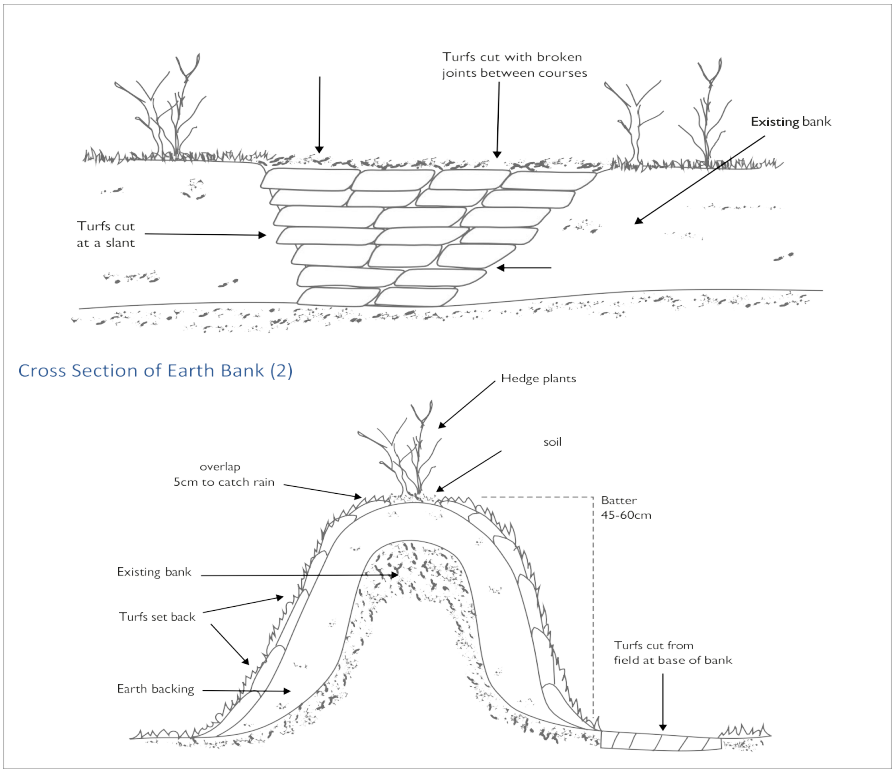
You must adhere to the following:

- Restore degraded earth banks so that the height and the line of the restored bank follow that of the existing feature. Best practice guidelines for restoring earth banks are described below.
- Ensure that grazing animals do not damage restored banks.
- Fill any trenches or pits from which soil has been taken with loose earth or discarded turfs. The area on both sides of the newly restored bank should be left level and tidy.

Requirements and guidance in addition to the specifications above:

- Where Ffermio Bro activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you obtain approval under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority.
- Ideally, turfs cut from the adjacent field should be used to re-surface the earth bank, however, if natural regeneration is taking place when the claim is submitted and geo-tagged 'after' photos show this, that would be acceptable.
- Excavate all loose turf and earth from the area to be repaired until a firm foundation is available. Retain loose soil for use during rebuilding. The cleaned area should slope inwards slightly as well as being wider at the top than the bottom (v–shaped or trapezoid in face view), as this will allow the repair work to key into the existing bank on both sides. Tamp down the newly formed foundation with a suitable hand tool to achieve as firm a surface as possible. (See diagram 1).

- Replacement turfs, where used, should be cut from the field at the foot of the bank. Smaller turfs are more likely to knit together once they have been placed in their new position.
- Turfs less than 30cm square are easier to handle and turfs cut on a slant will knit together more easily than those with squared edges (See diagram 1).
- Proper backing for the new turfs must be provided before they are placed in position. Use the previously retained earth together with any loose soil left in the trench, from which the newly cut turfs were removed. Keep the backing well filled and slightly above the level of each course of turfs as they are put in place. The backing should be keyed into the old bank and tamped down firmly to reduce the risk that heavy rain or a severe frost will cause the new work to slip away. (See diagram 2).
- Best practice is to place turfs in a series of layers or courses. Break the joints between alternate courses as in brickwork. Turfs should slope inwards slightly with each turf tamped well down to eliminate as far as possible the visible joints between the courses. Set each course very slightly back from the course below by about 1-2.5cm. Together with the inward slope this will allow for some movement outwards when tamping down, and for rainwater to run into the root areas of each turf. (See diagrams 1 & 2).
- Finish with loose soil on the top of the bank, to just above the level of the turf to allow for settlement. The batter (the slope back from the vertical) may be varied according to the site and conditions, but the base of the bank will normally be some 45–60cm wider than the top.
- Infilling any large gaps with well compacted soil before replacing the surface turf will help prevent further erosion taking place. The short turf covering a well-maintained earth bank helps to maintain the shape of the structure.



Stone-Faced Earth Bank Restoration

Item Code: L031

Payment Rate: £28.10 /m2

This technical note describes the minimum standard required in order to receive payments for 'Stone Faced Earth Banks Restoration'. Any variation from the standards set out must be approved by the Welsh Government prior to starting the work.

Stone faced earth banks are an important landscape feature which can be an important record of historical land use, as well as important features for biodiversity and stock shelter. They may or may not have hedgerows planted on top. Old hedges and banks may not follow straight lines, a factor that contributes to both their landscape and historic importance. Prolonged bad weather, trampling by livestock and burrowing by rabbits can all cause damage to stonework and underlying bank.

You must adhere to the following:

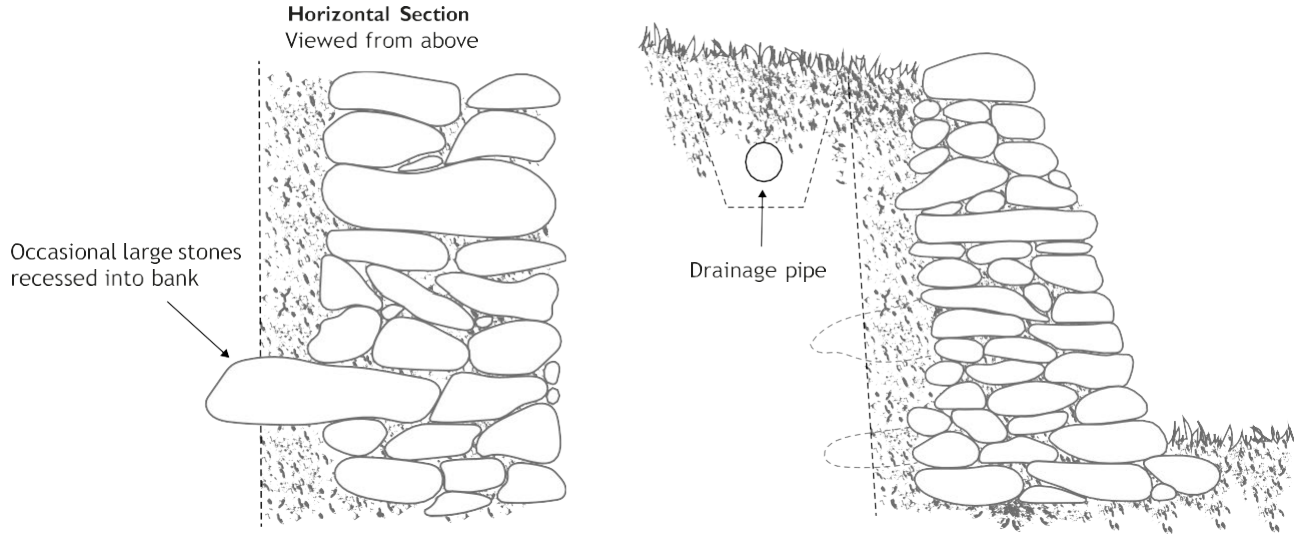
- Restore degraded stone-faced banks so that the height and the line of the restored bank follow that of the existing feature. Best practice guidelines for restoring stone faced earth banks are described below.
- Ensure that grazing animals do not damage restored banks.
- All surplus stone and earth should be removed from site on completion and the adjacent ground returned to the original vegetation.

Requirements and guidance in addition to the specifications above:

- Where Ffermio Bro activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you obtain approval under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority.
- Local stone should be used wherever possible, but do not raid stone from inappropriate places such as old ruins or other walls.
- **Footings and Foundations** – Loose stones and earth fill must be cleared out until a good, sound earth bank is encountered. Replace the previously removed stones and earth in stages. During this work the earth infill should be allowed to settle at various stages before completion. This settling process will be sped up if it rains during rebuilding.
- Where complete restoration is specified, all of the stone facings should be removed down to the foundations and rebuilt from this level. Sound foundations or footings will consist of at least one row of the largest stones available, laid in a trench 15–20cm deep. Gaps between footings should be packed with smaller stones. The footings themselves should be at least 7.5cm wider than the base of the wall. (See diagram).
- **Batter** – Batter is the term given to the inward taper of the wall from the base to the top. If the stone facing is 70–90 cm wide at the base it should be 30–40 cm wide at the top. There must be sufficient batter to ensure a stable wall. The batter can be straight, 'A'-shaped or a concave depending upon the local style.

- **Drainage** – Where surface water runoff is liable to endanger the stability of the wall, a 40–60cm deep drain should be installed as shown in the diagram. Pipes should be laid in the trench bottom before refilling with loose stone.
- **Mortar** – Where stone faced earth banks are built next to busy roads or picnic sites, it may be necessary to use lime mortar in places, especially between the coping stones on the top. Mortar should not be used throughout the structure as this can cause drainage problems. The external appearance should be of a dry stone wall.
- Once restored, stone-faced earth banks must be regularly maintained to prevent deterioration.

Stone Faced Earth Banks



Slate Fence Restoration

Item Code: L032

Payment Rate: £28.55 /m2

This technical note describes the minimum standard of work required in order to receive payments for 'Slate Fencing Restoration of Existing'. Any variation from the standards set out must be approved by the Welsh Government prior to starting the work.

Slate fences are a feature in the landscape in areas where the slate has been quarried commercially, notably at Nantlle, Waunfawr, Llanberis and Bethesda in North Wales.

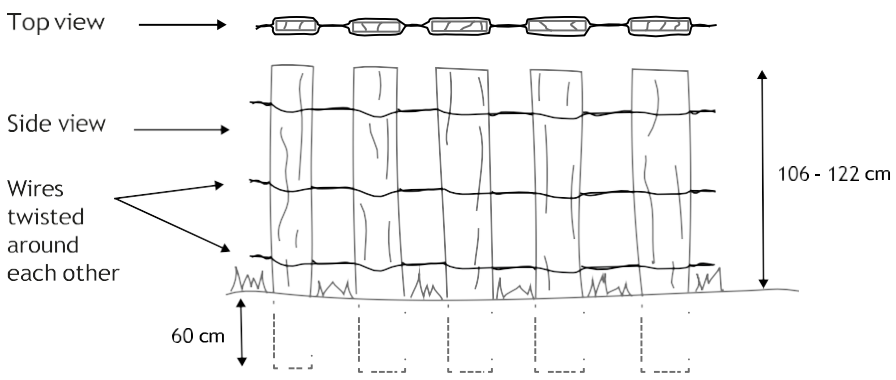
You must adhere to the following:

- Restore existing slate fences only.
- Restore the fence so that there are at least three vertical slates per metre run.
- Set slates into the ground to a sufficient depth to ensure stability.
- Ensure that the top of the slates are at least 106cm from the ground.
- Wire individual slates together by drilling the slates and using at least 3 lines of wire (top, middle and bottom of the slate fence). Two wires should be used on each line and loops twisted around the slates, as shown in the diagram below. Where slates are spaced more widely, the individual slates should be drilled and the wire strained as in a standard post and wire fence using wooden straining posts.
- All slate used to restore slate fences must match the slates in existing features.

Requirements and guidance in addition to the specifications above:

- Where Ffermio Bro activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you obtain approval under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority.
- Best practice is to set slates at least 60cm into the ground to ensure stability.

Example diagram of a slate fence



Top Wiring on Stone Walls

Item Code: L033

Payment Rate: £2.49/m

This technical note describes the minimum standard of work required in order to receive payments for 'Top Wiring on Stone Walls'.

Any variation from the standards set out must be approved by the Welsh Government prior to starting the work.

You must adhere to the following:

- Use fencing timber comprising either hardwood or pressure treated softwood.
- Ensure that timbers, wire and galvanised staples consist of new materials.
- Use posts with at least 6.5cm top diameter. Posts must be set at centres of 3m or less. Posts should be set within the wall.
- Attach at least one line of wire (4mm gauge plain or 2.5mm two ply barbed) to the posts with galvanised staples.
- Remove any existing derelict fencing.

Do not:

- Use trees and shrubs as strainers or fencing posts, or attach wire, staples or netting to them.

Requirements and guidance in addition to the specifications above:

- Where Ffermio Bro activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you obtain approval under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority.

Fruit Trees Plus Guard and Stake

Item Code: L034

Payment Rate: £125 each

This technical note describes the minimum standard of work required in order to receive payments for planting 'Fruit Trees with a Guard and Stake'. Any variation must be approved by the Welsh Government.

In the past, nearly every farm would have grown varieties of fruit for domestic use and for marketing locally. As the trees aged, they were not replaced; the few surviving examples are a distinctive feature in the countryside and often have a high wildlife value.

The retention of old fruit trees should take priority over re-planting, as old trees are important for their biodiversity value and can be pruned to prolong their life.

You must adhere to the following:

- Use either M25 or MM111 rootstocks to give a traditional 'standard' size tree at maturity.
- Plant trees at a maximum density of 100 trees per hectare and space the trees throughout the area to be planted.
- Stake young trees and protect from grazing livestock by using a guard.
- All guards constructed from timber rails must be at least 1.2m high and set at least 1m from the tree to protect against sheep (or 1.5m to protect against cattle and horses). Each of the 4 corner posts should have a minimum diameter of 10cm x 10cm. At least 4 wooden rails with a minimum diameter of 10cm x 5cm should be fixed to the outside of the posts. Galvanised stock netting should then be fixed around the outside of the structure and held in place with galvanised staples.
- Triangular shaped enclosures are only acceptable where sheep are the sole livestock. Such enclosures must be at least 1.2m high and set at least 1m from the tree to protect against sheep. It is important to remember that as the tree grows it may be necessary to widen the guard.
- Use fencing timber comprising either hardwood or pressure treated softwood.
- Ensure that timbers, wire, netting and galvanised staples consist of new materials.

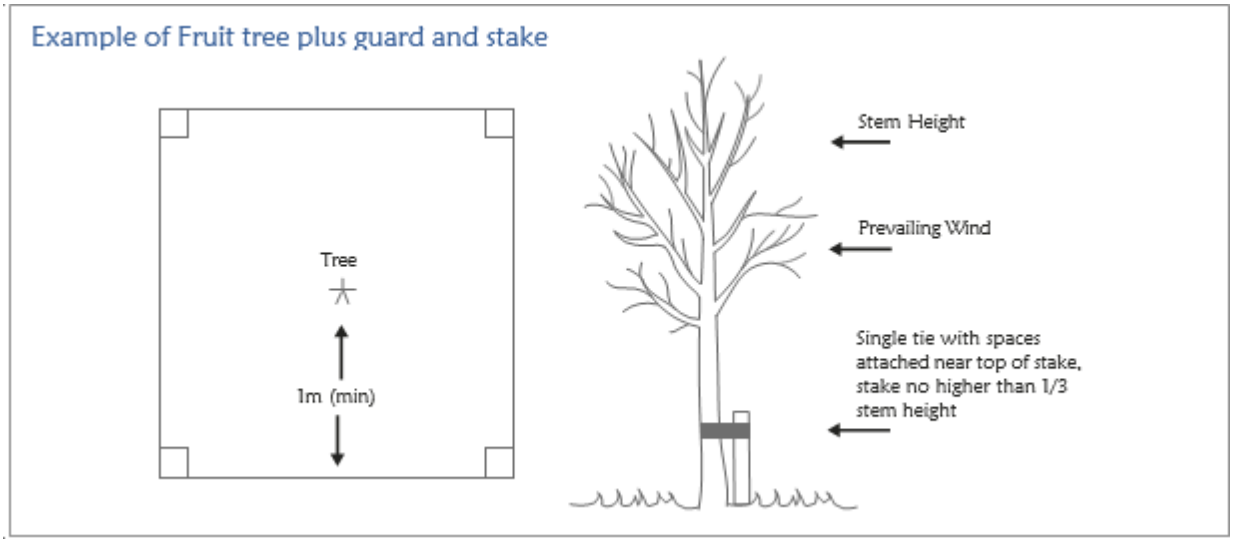
Do not:

- Use dwarfing rootstocks.

Requirements and guidance in addition to the specifications above:

- Plant a selection of trees including early and late flowering varieties, to assist with pollination and to reduce problems caused by frost or disease. The addition of a small number of plums, damsons or pears, as well as apple trees will add diversity.
- As a guide, trees should not be planted less than 6m apart.

- When constructing the guards, use a combination of vertical posts and horizontal rails to build a rigid structure. Fix wire netting around it to prevent access by livestock. The horizontal rails will prevent the posts from being loosened. A variety of stock might have access over time so the guard must be strong enough to withstand the worst case scenario. Do not try to increase the distance of the top rail from the tree by slanting the posts outwards. This will make it difficult to fix the netting securely in place.
- It is not necessary to top the enclosure with barbed wire, as this is unlikely to stop animals leaning over, and you will make it more difficult to get into the enclosure to tend the tree.
- Additional sets of rails may also be placed mid-way up the posts to provide additional strength.



Maintenance of Gateways with Hardcore

Item Code: L035

Payment Rate: £9.36/m2

This technical note describes the minimum standard of work required in order to receive payments for 'Maintenance of Gateways'. Any variation must be approved by the Welsh Government prior to starting the work.

What is the purpose of this activity?
Gateways and other areas which are frequently used by livestock and farm vehicles can be at increased risk of compaction and erosion. Compaction leads to poor drainage where water collects and pools.

Gateways can also act as exit points for run off from a field. Many streams and rivers in Wales are affected by pollution from agricultural runoff, which impacts on biodiversity, fisheries and drinking water quality. Installing hardcore in gateways will help reduce compaction, erosion and any resulting run off.

You must adhere to the following:

- Lay stone to a minimum depth of 200mm across the gateway and approach to create a flat even hardcore pad.
- Repair any damage or excessive wear such as that caused by harvesting or natural events to area of hardcore immediately.

Do not:

- Use concrete to set the stone in place.
- Use the hardcore pad as a location for feeders, drinking troughs or to store vehicles and machinery.

Requirements and guidance in addition to the specifications above:

- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary water course. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, the permit/ consent (or confirmation that a permit/ consent is not needed) should be retained and made available on request. See General Rules for more details.

Post and Wire Fencing with Netting

Item Code L036

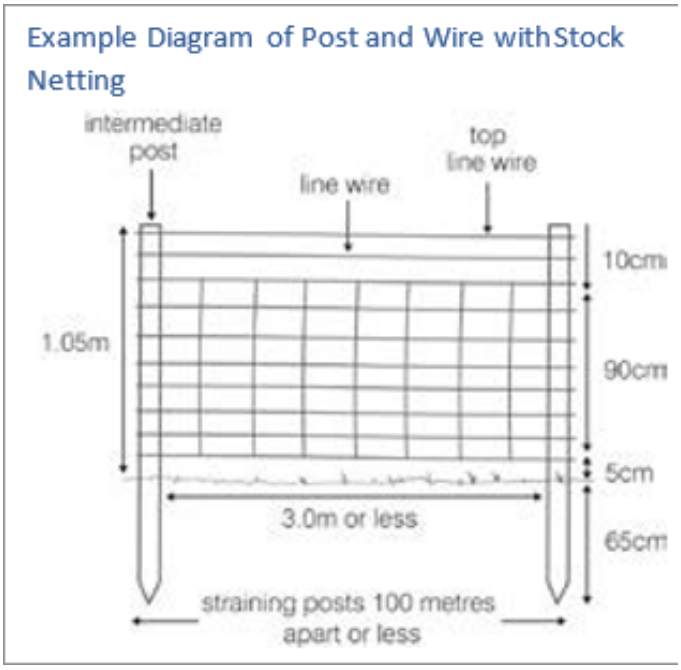
Payment rate £8.33/m2

This technical note describes the minimum standard of work required in order to receive payment for `Post and Wire Fencing with Stock Netting'. Any variation must be approved by the Welsh Government prior to starting the work.

You must adhere to the following:

- Ensure that you have obtained, and adhere to any licences, consents or permissions that are needed.
- Use fencing timber comprising either hardwood or pressure treated softwood.
- Ensure that timbers, wire, netting and galvanised staples consist of new materials.
- Use straining posts that are a minimum of 12.5cm cross section and at least 2m long. Straining posts must be set into the ground at a sufficient depth to ensure stability. Straining posts must be placed at either end of the fence line and at centres of 100m or less, as well as at every horizontal or vertical change of direction.
- Attach struts at each end of the fence line and at all changes of slope and direction. Struts must have a top diameter of at least 6.5cm and must be supported to prevent them splaying outwards. Use intermediate posts that are at least 6.5cm diameter (round posts and sawn timber) and at least 1.7m long. Half round posts are acceptable provided they measure at least 6.5cm from the midpoint of the sawn side to the midpoint of the round side. Intermediate posts must be set at centres of 3m or less.
- Attach netting to posts with galvanised staples.
- Attach wire to posts with galvanised staples with the distance from the ground to the top wire no less than 1.05m. In cases where there is heavy pressure from sheep or cattle, a second line wire on top of the netting as well as an additional wire at the bottom should be added. The top wires of any fencing erected next to public access routes must consist of plain wire or an additional line of plain wire must be affixed to the outside of the posts closest to the route in question.
- Ensure that the new fencing conforms to British Standards 1722 and 4102, as amended.

- Use trees and shrubs as strainers or fencing posts, or attach wire, staples or netting to them.



Requirements and guidance in addition to the specifications above:

- Best practice is to set the posts at least 1m into the ground to ensure stability.
- Diagonal struts must be supported with either a base plate or a suitably positioned intermediate post to prevent them splaying outwards.
- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary water course. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, the permit/consent (or confirmation that a permit/consent is not needed) should be retained and made available on request. See Terms and Conditions for more details.
- Where INRS activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you obtain approval under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority

Supplement for Rabbit Fence Netting

Item Code: L037

Payment Rate: £2.37/m

This option is supplementary and can only be used against the following options where they are also being installed:

L009 – Post and Rail Fence
L010 – Post and Wire Fence
L013 – Parkland Tree Guard

This technical note describes the minimum standard of work required in order to receive payments for 'Supplement for Rabbit Fence Netting'. Any variation must be approved by the Welsh Government prior to starting the work.

Rabbit fencing can be specifically used to prevent damage to specific landscape features such as newly planted trees and hedgerows.

You must adhere to the following:

- Attach all wire and netting to posts with galvanised staples.
- Use galvanised wire netting at least 1.05m high, with a mesh no larger than 3cm.
- Ensure the top edge of the netting is at least 0.75m above ground level.
- Ensure that timbers, wire, netting and galvanised staples consist of new materials.
- Ensure that the netting is fastened to the fencing with the bottom edge of the netting buried in the ground to a sufficient depth to prevent rabbits burrowing underneath.
- Where required, fix strands of line wire to support the rabbit fence.
- Ensure any gates used in rabbit fences are appropriately proofed to prevent rabbit/hare access.
- Ensure that the new fence conforms to British Standards 1722 and 4102, as amended.

Do not:

- Use trees and shrubs as strainers or fencing posts, or attach wire, stables or netting to them.

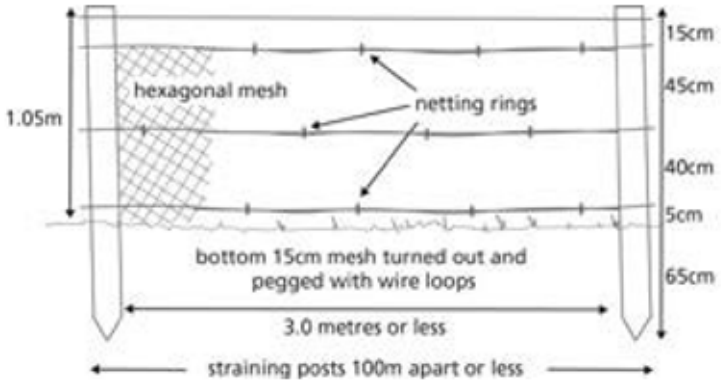
Requirements and guidance in addition to the specifications above:

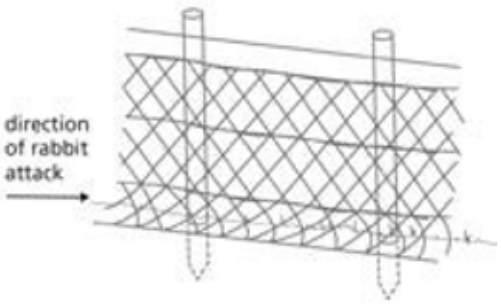
- Prevent rabbits burrowing underneath by ensuring that the netting is buried in the ground to a depth of 15cm and then turned outwards a further 15cm and anchored securely.
- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary water course. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, the permit/ consent (or confirmation that a permit/

consent is not needed) should be retained and made available on request. See General Rules for more details.

- Where Ffermio Bro activities include the installation of access furniture such as stiles or gates on a Public Right of Way, it is your responsibility to ensure you obtain approval under Section 147 of the Highways Act, 1980, from the appropriate Highway Authority.

Example of Rabbit Fencing





In-Ditch Wetland

Item Code: L082

Payment Rate: £244.28 each

This technical note describes the minimum standard of work required in order to receive payments for 'In-ditch Wetland'. Any variation must be approved by the Welsh Government prior to starting the work.

In-ditch wetlands are ditches that have been widened to create a broader shallower wetland area. They are designed so vegetation slows the flow of water, to increase sediment deposition from field surface runoff, field drains, and ditches.

The purpose of an in-ditch wetland is to:

Improve water quality: In-ditch wetlands trap sediment carried in runoff from fields and farmland, which could otherwise pollute rivers and lakes downstream.
Reduce flooding: In-ditch wetlands slow the flow of water by providing valuable space where runoff can disperse, providing storage for floodwater which helps reduce flooding downstream.
Create a wildlife habitat: In-ditch wetlands provide additional positive benefits to the nature conservation (nesting habitat for wetland birds in particular reed buntings, reed, sedge and Cetti's warbler) and landscape value at the farm scale.

You must adhere to the following:

- Choose a location within existing man-made field ditches with a low gradient, where the land on either side is within your control. These are otherwise known as Stage 1 ditches which do not have continuous flow year round. The diagram below shows a typical ditch network.
- Widen the chosen area to a minimum of 10m in length and to a maximum of 3m wide and flatten the bed.
- Create a soil bund with a pipe at the lower end of the ditch to act as an outflow. The bund should be made wider than the ditch. The top should be level and at least 50cm above the intended water line. The bund should have slightly sloping sides.
- Insert one or two pipes within the bund to act as an outflow. The pipes should be between 8 –10'' in diameter and located 30cm (12") below the top of the bund.
- Extend the pipe beyond the bund base on the downstream side of the bund to prevent the outflow eroding the bund.
- Plant up the bed with native sedge, rush or reed species, or with willow or Alder. For reed, rush and sedge species, plant at a density of 3 plants/m2.

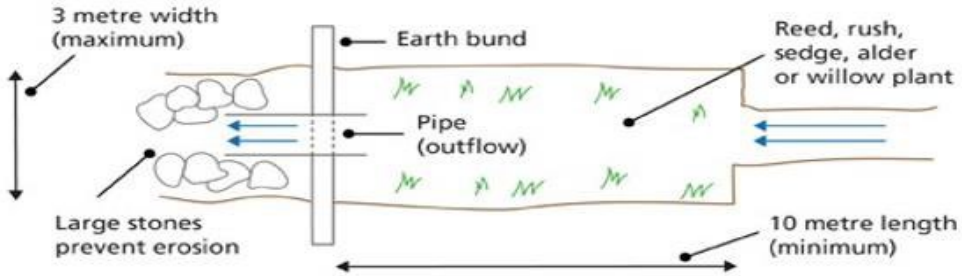
Do not:

- Locate in-ditch wetlands on natural watercourses.
- Damage other habitats such as reed beds to create in-ditch wetlands.
- Create this option between 1 March and 31 August.

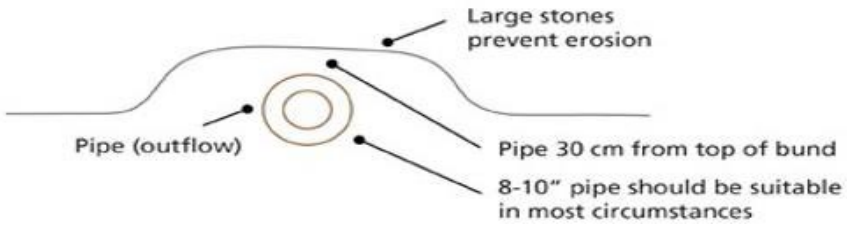
Requirements and guidance in addition to the specifications above:

- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting on fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary watercourse. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, **the permit/consent (or confirmation that a permit/consent is not needed) should be retained and made available on request**. See Terms and Conditions for more details.
- This option must not be used on natural watercourses, due to legislation requiring fish passage to be ensured at all times.
- Carry out this activity when ground conditions are as dry as possible between September and February. Temporarily bund the water flow into this area if needed, which will improve access for excavating and planting.
- Spread the excavated material thinly over the top of the banks so as to prevent weeds such as common nettle, creeping thistle etc., from dominating. Ensure the silt cannot run straight back into the in-ditch wetland.
- When constructing the bund, remove topsoil and scarify the subsoil to improve the seal between the dam and the ground surface. Build the bund slowly in layers 15cm thick and compact each layer in turn.
- Take care during completion of the activity to ensure no sediment laden water is allowed to enter the receiving watercourse.
- Do not plant with willow or alder if sedimentation is likely to be high.
- Plant up the bed with plant species already found in the local area. Do not collect protected plant species, or collect from a Site of Special Scientific Interest (SSSI). This is in line with Cross Compliance Regulations.
- For willow species plant at a density of 1 plant per m2 and for alder species at 2m2 spacing.
- Coppice willow and alder species every 3-5 years. Reed, rush and sedges plants should be cut every other year to prevent them from dominating the wetland. Cut in early spring before bird nesting to provide maximum roosting cover in the winter.
- This activity should be sited and managed to ensure no risk of flooding results.

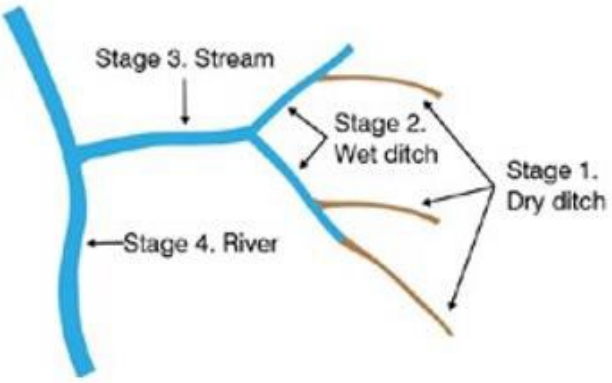
In-ditch wetland (aerial view)



In-ditch wetland (x-sectional view of earth bund)



Watercourse stages



Soft Engineering of River Banks

Item Code: L083

Payment Rate: £ 115.96 /m

This technical note describes the minimum standard of work required in order to receive payments for 'Soft Engineering of River Banks'. Any variation must be approved by the Welsh Government prior to starting the work.

What is the purpose of this activity?

Riverbanks and the riparian zones immediately behind the bank top provide valuable wildlife habitat that can support a wide range of plant and animal species. They supply shelter, food and shade and protect the river from surface runoff. Riverside vegetation and the fibrous roots of that vegetation help to maintain the stability of the bank and prevent downstream flooding and further erosion by reducing the river's energy.

Naturally occurring erosion of riverbanks is an important river process that reduces the energy of river flows, redistributes sediment and provides nesting locations for birds such as sand martins and kingfishers. However, human activity can increase erosion. Livestock, for example, can destabilise banks through poaching and removing vegetation, while river engineering such as gravel removal, re-profiling and hard engineering works can increase the energy of the river and increase erosion.

Soft engineering (or bioengineering) measures utilise natural processes to reduce future negative erosion whilst allowing the area to re-vegetate and stabilise. Compared with traditional 'hard' defences (e.g. rock, concrete, gabions) woody materials create more diverse habitats for plants, invertebrates and fish. Soft engineering measures are more resilient in the long term as the materials used are flexible, so they absorb and dissipate the erosive forces rather than simply reflect energy as per hard defences. Furthermore, areas of soft engineering can be coppiced in the future to supply a ready and freely available source of materials for use on neighbouring sites.

River engineering is difficult and it is worth obtaining expert advice on the most appropriate techniques. Your local rivers trust, the River Restoration Centre (river advice, consultation, projects, RRC | the River Restoration Centre) or Natural Resources Wales may all be able to recommend the most appropriate approach, or supply further guidance.

You must adhere to the following:

- Install the correct quantity of river bank soft engineering on damaged or eroding watercourses, using sufficient stakes and withies to ensure a stable and robust structure. Guidelines for choosing and constructing the correct style of soft engineering are laid out below.

Do not:

- Graze the area of soft engineering.
- Use soft engineering as a retaining structure.
- Allow soft engineering to block water flow in small river channels.

Requirements and guidance in addition to the specifications above:

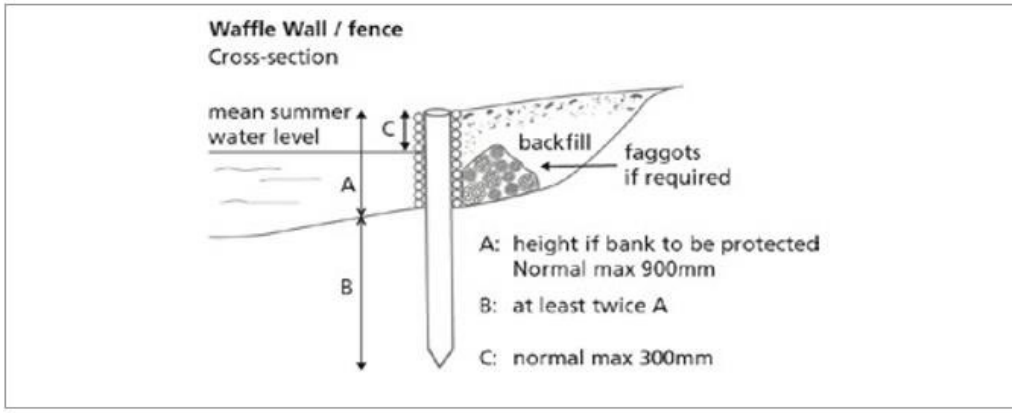
- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure. Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary water course. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, **the permit/consent (or confirmation that a permit/consent is not needed) should be retained and made available on request**. See Terms and Conditions for more details.
- There are different bank protection techniques using live and dead woody material that may be suitable depending on the site. Select which of these techniques (or combination) is suitable for your site, and follow the guidance below.
    - Willow spiling is a traditional technique used to stabilise eroding banks. It involves weaving live willow rods (withies) between vertical live willow stakes set into the affected bank at regular intervals to create a living fence like structure, or ‘revetment’. The space behind the willow fence to the existing bank is then filled with soil to provide an area for the willow roots to grow. There are 2 types of spiling – producing a tighter weave for revetments below water level, and a looser weave for revetments above water level.
    - Hurdles can be used instead of spiling where the nature of the site makes it dangerous or unsuitable to create spiling in situ.
    - Faggoting (brushwood or brashings tied in bundles) can be used by themselves or in conjunction with spiling or hurdles depending on the nature of the site. Faggots (or fascines) are bundles of willow or brushwood, bound together and used for various stabilisation and revetment purposes. Faggots slow the flow of moving water and trap silt and sediment, and the buried branches then help consolidate the sediments against renewed erosion. Do not use in locations where other habitat is present that could be harmed by increased willow cover e.g. fens, wet unimproved grassland, wet heath, rhos pasture, bogs, or areas where you know ground nesting birds such as lapwing or curlew nest.

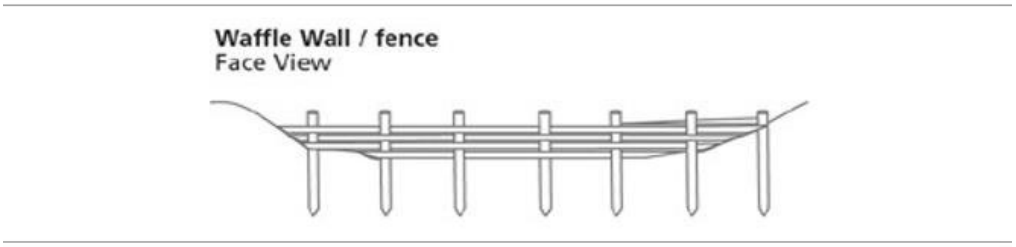
Spiling

1a: A tight weave spiling for revetments below water level.

- Installing revetments below water level may require specialist contractors.
- Use vertical stakes of 65-100mm (2.5-4”) diameter for spilings up to 600mm high. For spilings up to 900mm (3’) high, thicker stakes of 100-130mm (4-5”) diameter will be needed.
- Use crack willow (*Salix fragilis*) or white willow (*Salix alba*) to produce the best material for stakes.
- Knock the stakes in vertically along the line of the revetment, about half a metre apart and so that two-thirds of the finished height of the stake is below soil level, then cut the tops to the finished height.

Example of tight weave spilling below water level



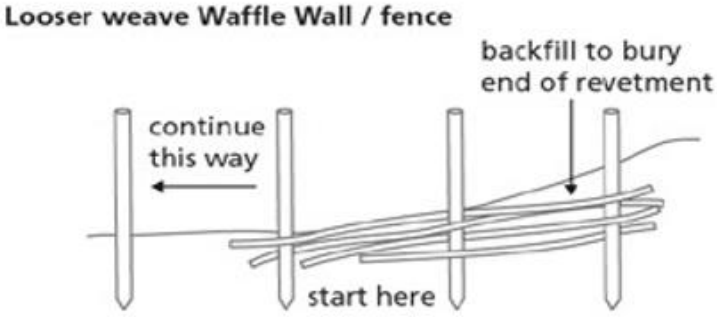


- Use withies which have a butt diameter of 10-20mm (0.25-0.75”) and be of a length equivalent to five times the stake spacing, to give a close, tight weave. Use osier (*Salix viminalis*), goat willow (*Salix caprea*) or grey willow (*Salix cinerea*) to produce the best material for withies. Weave the withies between the stakes, alternating the direction of the butt ends and tucking both ends in so they don’t protrude.
  At the end of each length of revetment, the spiling should be run into the bank so the last two to three stakes are completely buried after backfilling. Backfill to the required bank profile with soil once stakes and withies are securely placed. Place faggots (see below) behind spiling where there is a risk of backfill washing out. Undertake spiling between November and March (when average temperatures are below 2°c).
  Use freshly cut willow for the vertical stakes and horizontal withies, so that they will sprout and produce a living revetment.
  Pollarding or coppicing of bank side willow, or pruning of earlier sapling, will produce suitable material of the sizes mentioned above. Where willow is unavailable, alder can be used as an alternative. Willow or alder should be of local origin where possible. Stakes and withies can be stored between November and February for up to three weeks, provided they are kept cool and damp. Outside this season, they are best used within 48 hours of cutting and are always best having been soaked immediately before use. Where there is a risk of vandalism wire down the top withies and secure to the stake with a staple. It is advisable to exclude stock for at least 2 or 3 years until the willow structures have established and the ground has become stabilised.

1b: A looser weave spiling for revetments above water level

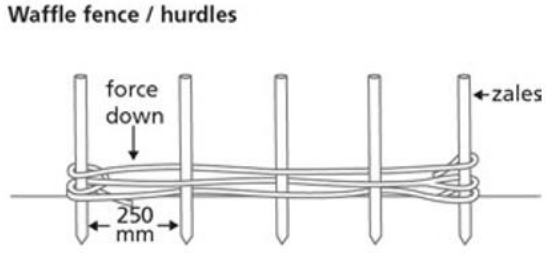
- Insert the stakes as described for 1a above.
- Start weaving the withies between the second and third stake from one end. Push the end of the withy into the ground, and then weave between the stakes towards the end stake. Push the next withy into the ground and weave it alongside the first. The withies will root at the ends.
- Continue weaving along the stakes, until the withies reach the top of the stakes.
- Ensure the top withies are tightly woven to secure the spiling.
- Where there is a risk of vandalism wire along the top or down through the spiling.
- It is advisable to exclude stock for at least 2 or 3 years until the willow structures have established and the ground has become stabilised.

Example of tight weave spiling below water level



Hurdles

- Construct hurdles from hazel and willow.
- Construct hurdles to a maximum size that can be safely moved into position. Typically, a hurdle is 1.8m (6') long by 1m (3.5') high.
- Construct the hurdle from a series of upright 'zales' which should be at least 90cm tall, and no more than 25cm (10") apart, interwoven with tightly packed series of horizontal rods. A typical construction method is described below.
- Use two 1.5m (5') stakes for each hurdle, knock the stakes into position on the outer side of the revetment and wire the hurdles to the stakes to hold them in place.
- Backfill the hurdle with faggots and/or spoil.
- Construct hurdles off-site if working conditions at the bankside are difficult, however, ensure the hurdles are of a size and weight that you are able to transport. The structure should be strong enough to survive handling and positioning.
- If possible, use split hazel for the uprights or 'zales', as they hold the laterals better than round poles. Willow is also acceptable and is more suitable for the horizontal weaving.
- Push 900mm (3') 'zales' about 300mm (1') into the ground, evenly spaced in a straight line as shown.
- Weave hazel or willow rods between the 'zales', tucking each end back under itself to lock the wands in place. Force the wands down with your foot to give a tight weave. It may be necessary to wire or tie the top wands to discourage vandalism.
- Lift out the sections for transport to the site. Place the hurdles in position, overlapping as shown, below, and drive them in as far as the lower wands.



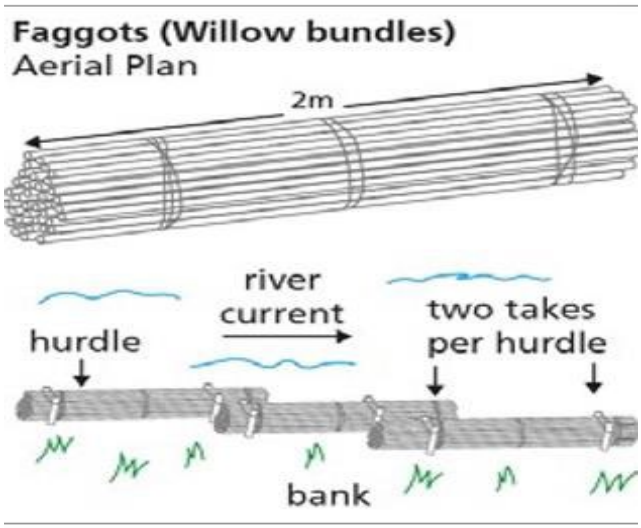
Faggots

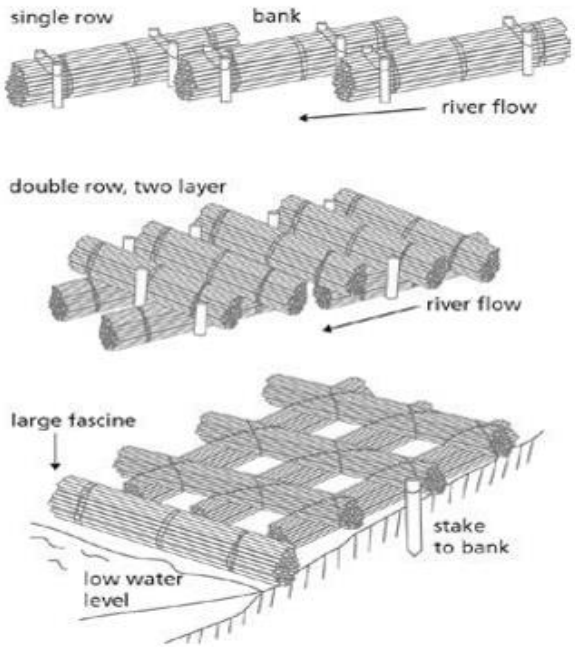
- Construct faggots to a maximum size that can be safely moved by two people. Typically, the traditional size is about 2m (7') long and 300mm (1') diameter, bound at three points.
- Bind the faggots with twisted willow, baler twine or wire.
- Secure the positioned faggots by attaching them to stakes knocked well down into the bank.

  Secure the faggot to the stake with wire. The faggots should be positioned as shown in the

  diagrams below, or placed behind hurdles, or spiling revetments. Consider using live willow cut in the winter as this is likely to root and grow. Growing willows are beneficial as their roots help to stabilise bank material and their shoots provide protection against bank scour.

- To stabilise a bank, the faggots can be laid in a single or double row, secured by stakes and wire as shown. As necessary, another layer can be added crosswise.
- Smaller faggots, of about 100mm diameter can be bound together to form 'mattresses', for laying on banks, subject to boat wash or strong flows. A large faggot at the base absorbs some of the wave energy.




single row
bank
river flow
double row, two layer
river flow
large fascine
stake
to bank
low water
level

Pond Restoration

Item Code: L084

Payment Rate: £7.88 /m

This technical note describes the minimum standard of work required in order to receive payments for 'Pond Restoration'. Any variation must be approved by the Welsh Government prior to starting the work.

Ponds and other small water bodies are important for freshwater biodiversity and storing water. Areas with large numbers of ponds can be particularly important because they provide habitats for a wider range of plants and animals.

Ponds are particularly vulnerable to nutrient enrichment, siltation and domination by invasive plants. Causes of this include nutrient-rich runoff from fields and farmyards, high stock densities causing overgrazing and poaching of margins, feeding of waterfowl and stocking with fish.

Invasive species may spread naturally or by deliberate or accidental introduction.

There are many different kinds of 'good' pond and you should not try to make all ponds on your farm look the same. A range of different sorts of ponds provide the widest range of habitats and can support some of our most threatened animals and plants.

If you have more than one pond, managing vegetation and silt on a staggered rotation of about 10 years will provide a range of different habitats.

Nevertheless, there are some general rules. Good ponds tend to have:

- Extensive areas of shallow water;
- Not too many fish or water birds;
- Clear water;
- A range of different water plants with no invasive species;
- Lightly grazed margins with no more than about half the pond shaded.

Ponds do not need to contain water all year, and some rare animals and plants need temporary ponds where predators cannot survive. However, water levels must be allowed to vary naturally, but the pond should contain water for at least 6 months per year.

Do not introduce animals or plants to your pond, especially from a garden pond, or a garden centre. Native pond species are good dispersers, and will arrive in healthy ponds by themselves.

The following types of pond are not suitable for this Ffermio Bro pond restoration option:

- A significant inflow or outflow 1m, or more, wide. This is because watercourses often carry silt and/or pollutants.

- Significant water quality problems that cannot be addressed by the restoration measures of this option. If there is serious pollution, disposal of material can be problematic and restoration is much less likely to be effective.
- Constructed wetlands or other traps for dirty water. These ponds are designed to trap pollution.
- Ponds with large numbers of fish or ducks make poor habitat for wildlife due to heavy predation.
- Ornamental ponds or ponds with non-native invasive species. These ponds make poor habitat for wildlife and restoration activities may encourage spread of invasive animals and plants.

You must adhere to the following:

Maintain a buffer strip of long vegetation between the pond and any upslope intensively managed land.

Ensure you have prevented any sources of pollution and nutrients from reaching the pond including any run offs that may contain fertilisers, slurries, manures, silage effluent or other nutrients.

Remove any scrap, redundant fencing or any other rubbish such as plastic wrap.

Spread any removed silt on adjacent land in compliance with waste exemption U10 and waste exemption D1.

Exclude all stock from accessing the pond by ensuring there is at least 1 metre between the fence and water's edge. Stock access can be permitted to 10% of the pond area.

Create a mixed pattern of trees and shrubs around the pond by coppicing some scrub to allow more light onto the surface of the water and reducing leaf drop into the pond.

Do not:

- Restore ponds between March and August.
- Dredge more than one third of the surface area of a pond at any time. Allow dredged silt to run back into the pond. Dredged material must be spread down slope from the pond, but not where it may run into adjacent watercourses.
- Create islands in the pond.
- Allow stock drinking access for more than 10% of the pond.
- Remove any old trees from around the pond as they may contain bird nesting sites, bat roosts and rare mosses and lichens.

Requirements and guidance in addition to the specifications above:

- Ensure that you have the appropriate Flood Risk Activity Permit if you are planting or fencing near a main river, flood plain or flood defence structure.

Alternatively, ensure you have the appropriate Ordinary Water Course Consent if you are carrying out works near an ordinary watercourse. What may be considered a ditch may be an ordinary watercourse, so consent may be required. As such, **the permit/consent (or confirmation that a permit/consent is not needed) should be retained and made available on request**. See Terms and Conditions for more details.

- Ensure that you apply for a European Protected Species licence from Natural Resources Wales (NRW) if you have Great Crested Newts in or close to the pond. This should not normally prevent restoration works since these will generally be beneficial to newts, but it is important to include sufficient time for the application process.
- This Ffermio Bro project includes dredging a maximum of one third of the pond. The remaining two thirds should be dredged in rotation in future years, but this is not included within this Ffermio Bro project. This ensures that invertebrate populations are not totally removed.
- Do not damage ponds that are considered existing habitat such as reed beds, fens or ponds on unenclosed land. It may be possible to obtain grants for pond restoration on existing habitat but this will require further discussion and/or consultation with Natural Resources Wales to ensure that no damage is being done to a Section 7 Habitat or Species, protected species or feature of a Protected Site.
- To minimise impacts on wildlife, restore ponds between September and January. Aim to do work in dry weather when pond levels are low and machinery will run less risk of poaching the soil.

Removing silt from the pond is appropriate when:

- No submerged aquatic plants can be seen, either because the water is very turbid or because the bed is clearly covered by a deep, loose layer of silt or leaf litter.
- The sediment is completely black and smells of rotten eggs, and large bubbles of gas can be seen bubbling up occasionally.

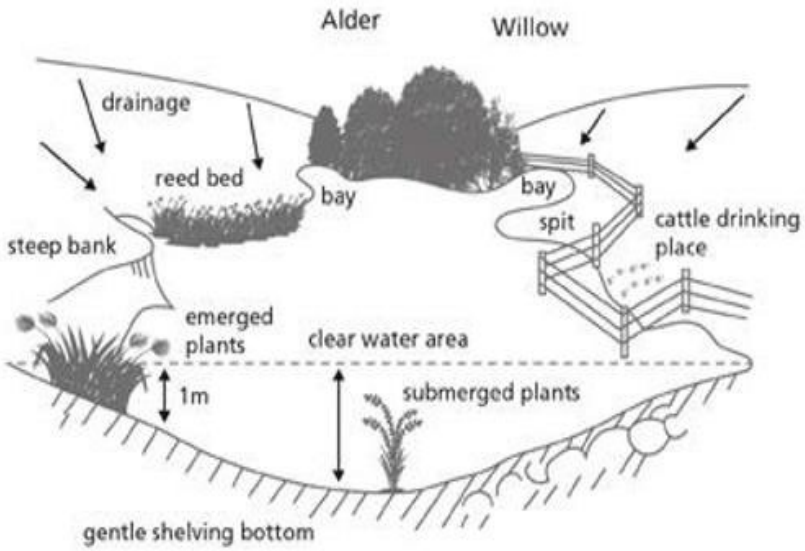
- If removing from the pond, scrape out loose sediment until a firmer layer such as clay, marl or other firmer sediment is reached. Take care not to break the natural seal of the pond bed.
- Do not create artificial islands as they encourage gulls and waterfowl, resulting in poor water quality.
- If there is a danger of leaching from adjacent intensively managed fields, consider establishing a strip of long vegetation adjacent to the pond which can act as a buffer strip.
- The Million Ponds website also has useful information regarding restoring ponds for other protected species such as Great Crested Newts and Water Vole:

  PondNet eDNA surveys - Projects - Freshwater Habitats Trust

- More information on ghost ponds can be found at Ghost Ponds : Resurrecting lost ponds and species to assist aquatic biodiversity conservation | Bringing lost ponds and their communities back to the land of the living.

- More information on waste exemption U10 (U10: spreading waste to benefit agricultural land - GOV.UK)
- More information on waste exemption (U10: spreading waste to benefit agricultural land - GOV.UK) D1 and registering waste exemptions.

Diagram – Cross Section of Pond



Bramble/Scrub Control – Hand-held or Knapsack Spraying
Item Code: L085

Payment Rate: £0.029/m2

This technical note describes the minimum standard of work required in order to receive payments for control of 'Bramble/ Scrub Control – Hand-held or Knapsack Spraying'. Any variation must be approved by the Welsh Government prior to starting the work.
Bramble is a successful and invasive native species. It can produce dense thickets and can have a negative impact on other vegetation. Bramble will prevent new trees from establishing, so will have to be cleared before tree planting takes place. Before using pesticides (including herbicides) always consider whether control can be undertaken using non-chemical measures.

You must adhere to the following:
Treat a sufficient area of bramble to allow tree planting to be carried out and the trees to establish unhindered by bramble.
Ensure you use a product approved for hand-held or knapsack application on bramble/scrub. Product labels should be adhered to, retained and made available on request.
Anyone applying plant protection products (pesticides) as part of their work must hold a recognised specified training certificate. Users, or those who cause or permit use, must ensure that all reasonable precautions are taken to protect human health and the environment, applications are confined to target areas and the amount used and frequency of use is as low as reasonably practicable.

Requirements and guidance in addition to the specifications above:

Do not:
Use a knapsack to control vegetation higher than waist height, or for clearing large areas. It will be tiring to keep the boom above the bramble and coverage will be impaired.
All manufactures label recommendations regarding herbicide application should be strictly adhered to.

More useful information may be found at the following locations: Code of Practice for Using Plant Protection Products - HSE

UKFS Guidelines: General Forest Practice The UK Forestry Standard - GOV.UK

Use of Herbicides
In all cases, the herbicide used must have a label recommendation for your intended use, and for the intended method of application.

Bracken Control (Mechanical Two Cuts/Year)
Item Code: L086

Payment Rate: £0.0059/m2

This technical note describes the minimum standard of work required in order to receive payments for 'Bracken control (Mechanical cutting)'. Any variation must be approved by the Welsh Government prior to starting the work.
Bracken is a vigorous perennial fern which grows from an underground rhizome system. Above ground, bracken fronds are fully open from about mid-June to August and it is at this time that the plants have deployed most of their nutrient reserves. This option is available to clear areas of bracken so that ground flora can develop or to allow new trees and hedgerows to be established. This option is preferred where chemical control of bracken is not appropriate.

You must adhere to the following:
Control the bracken by bruising, crushing or cutting only.
Control bracken at least twice during the growing season. Additional guidance on the best time to control bracken is listed below.

Do not:
Control bracken using chemicals such as 'Asulam'.
Control bracken by burning.

Requirements and guidance in addition to the specifications above:
Crushing and cutting should be timed so that the fully extended frond is taken out before the plant has time to translocate food reserves from the frond back to the rhizome. The plant has expended considerable food reserves in producing the frond and well-timed removal causes substantial weakening. The period from May to mid-August will generally be the best time to crush or cut depending on weather conditions.
This method is strongly recommended, especially where it is necessary to avoid chemical damage to water courses or sensitive plants such as other ferns.
Cutting should ideally be followed up by grazing of heavy stock such as cattle before tree planting, since this will help to prevent frond regrowth.
It is important to bear in mind that stands of bracken can contribute to landscape diversity and may well be of considerable value to wildlife in their own right. Where intermixed with scattered trees and shrub, bracken is often important for birds such as whinchat, yellowhammer and nightjar. Open bracken with an understorey of violets may support populations of fritillary butterflies. Even dense stands with heavy litter may provide cover for overwintering birds of prey such as hen harrier and short eared owl, as well as mammals such as bank vole, badger and deer.

Mixed Leys
Item Code: L087

Payment Rate: £341.00/ha

Establish a mixed ley, comprising minimum 5 grass species, 3 legume species and 3 herb species.

(Species not individual varieties within species)

Minimum seed rate 25 kg / ha.

Maximum Ryegrass (including ryegrass hybrids/cultivars) content 6 kg / ha

Maximum other grass seed content 9 kg / ha (Maximum total grass seed content 15 kg / ha)

Minimum requirements:

• Soil test carried out or undertaken in the 3 years prior to application. (Minimum requirement is to test for the P, K and pH levels). Action taken to rectify any immediate deficiencies identified in P, K and pH levels prior to establishment.

• Only use certified seed at the recommended seed rate.

• The choice and mix of species must be appropriate to the location.

• Minimum area of 1 ha. (You can split the minimum 1ha area across one or more land parcels, provided the area is at least 0.1ha).

Establishment:

• Do not plough or cultivate land before 1 March.

• Sow between 1 April and 31 August.

• Crop can be established through ploughing, traditional cultivations and drilling, minimum tillage or direct drilling.

• Mix the seed in the hopper immediately before sowing a seed mix to stop an uneven spread of crops.

• Seed can be broadcast or drilled, but no deeper than 1cm.

• Roll after sowing to retain moisture.

• If using minimum tillage or direct drilling, the use of an appropriate, approved herbicide to spray off an existing grass sward is required. (This requirement not applicable for farmers certified as organic).

• Once established, do not use pesticides, except herbicides to spot treat or weed-wipe injurious weeds* or invasive non-native species, soft and hard rush, nettles or bracken.

• Do not use inorganic fertilisers containing nitrogen following establishment until the following spring. (It is recommended that nitrogen fertiliser use is avoided to achieve maximum agronomic and environmental benefits from the diverse ley.)

• Maintain a 1m grass buffer strip adjacent to a hedge, earth bank or watercourse.

Management:

• Established sward to be managed to maintain sward diversity, to encourage the flowering and seeding of the mixed ley and to avoid poaching.

• A record of all field activity, including sowing date, evidence of fertiliser and pesticide applications, closed period and grazing or cutting dates should be kept for inspection.

Barn Owl Nest Boxes

Item Code: L088

Payment Rate: £120.50 each

This technical note describes the minimum standard of work required to receive payments for 'Barn Owl Nest Boxes'. Where there are local traditional methods or styles that vary from this standard, these may be used, but the Welsh Government must approve any significant variation.

The barn owl hunts small mammals, especially voles, over rough grassland. It uses quiet barns and cavities in trees for nesting and roosting where its presence is often given away by pellets and droppings. Since barn owls are sensitive to disturbance, it's best to place boxes in quiet locations. You can provide a box inside barns or on trees or the outside of buildings.

Barn owls are listed under Schedule 1 of the Wildlife and Countryside Act (1981) making it an offense to disturb an active nest containing, eggs, or dependent young. While normal activities within the building can take place, checking the contents can only take place under licence from NRW Natural Resources Wales / Bird licensing.

You must adhere to the following: Indoor Boxes

Construction

These should be constructed from 9mm plywood as shown in the diagram. The lift-off lid allows access for cleaning after the chicks and parents have left.

Positioning

- Fix as high up in the building as possible, but leaving enough room to remove the lid. A height of 3m is ideal.
- Position the box in a completely dry position so that the owl will have a clear flight path from the point at which it is most likely to enter the building.
- If possible, position the box so that emerging nestlings will be able to walk on beams or other flat surfaces. The landing tray on the front of the box will also provide space for the nestlings
- There is no need to put any lining into the box as the eggs will be laid on the pellet material regurgitated by the owl.

Outdoor Boxes

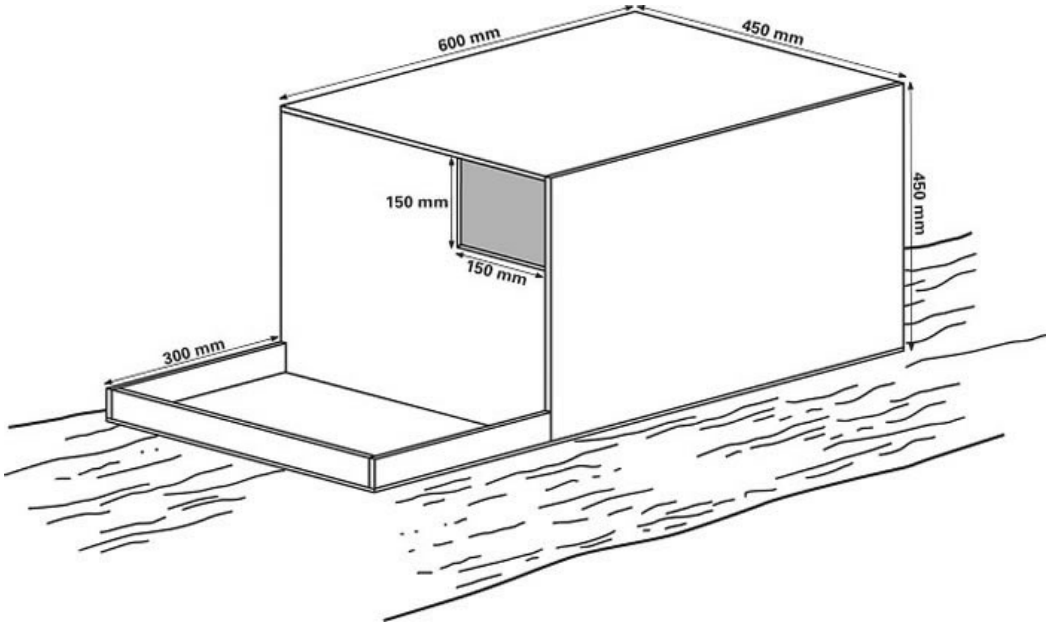
Construction

- These should be constructed from 15–20mm plywood that has been given 2 coats of preservative before assembly. Marine or exterior grade plywood should be used for boxes that will be erected outside of buildings.
- As you make up the A-frame box, attach a 200 x 485mm piece of rough-sawn timber to the inside of the back panel. The fixing to the tree will go through this reinforcement.
- Don’t attach the front panel until the box is hung up.

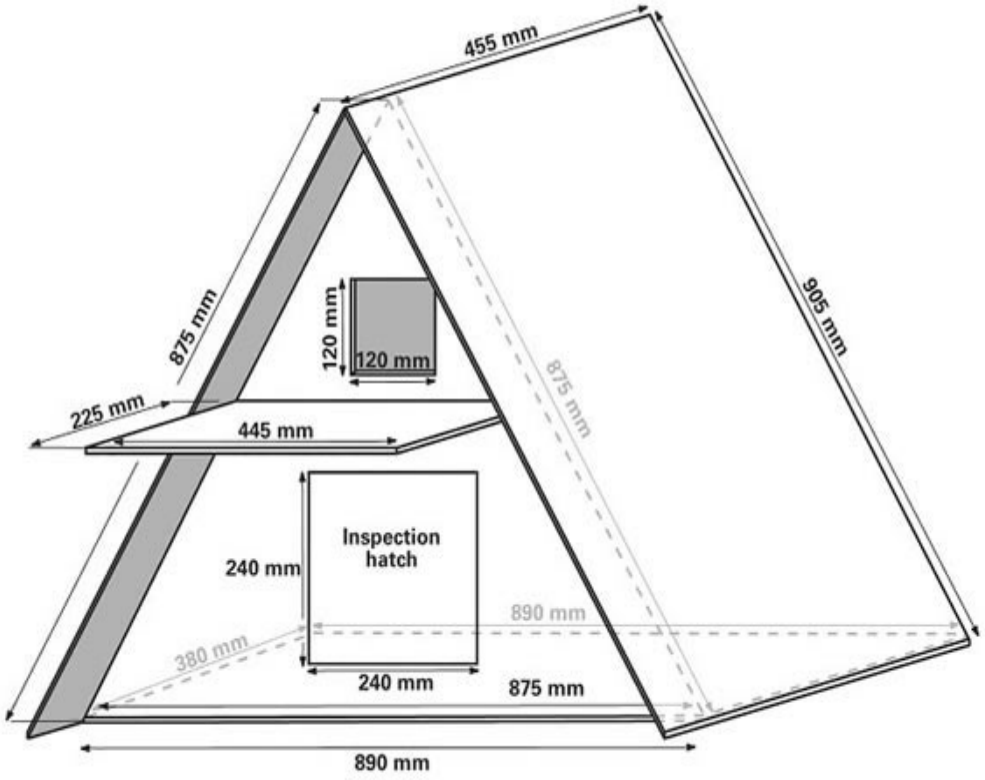
Positioning

- Avoid facing the entrance into the prevailing wind and rain. Generally, this means avoiding both the west and south west
- Boxes can be installed on either trees or buildings. To avoid damaging trees, a batten should be lashed to the trunk using cord and the box nailed or screwed to the batten.

Barn Owl Nest Boxes – Indoor Box



Barn Owl Nest Boxes – Outdoor Boxes


455 mm
905 mm
875 mm
875 mm
120 mm
120 mm
225 mm
445 mm
Inspection
hatch
240 mm
890 mm
380 mm
240 mm
875 mm
890 mm

Bat Boxes

Item Code: L089

Payment Rate: £31.23 each

This technical note describes the minimum standard of work required in order to receive payments for 'Bat Boxes'. Where there are local traditional methods or styles which vary from this standard these can be used, but significant variation must be approved by the Welsh Government.

You must adhere to the following: -

Making a Bat Box

Bat boxes take many shapes and sizes; below are the details for a simple wooden bat box known as the Kent Bat Box. It has proved to be successful in attracting bats whilst being simple to construct, self-cleaning and low maintenance. This box requires approximately 1.6m of rough wood to construct; it is important not to use treated timber.

Further information can be found here: Wooden bat boxes - Bat Boxes - Bat Conservation Trust

Buying a ready-made bat box

Bat boxes made of 'woodcrete' (a mixture of wood shavings and cement) are highly successful in attracting bats, having the advantage of better thermal insulation, resistance to rot and damage by woodpeckers and squirrels and are longer lasting. These can be purchased form a number of suppliers. Different models are available, depending whether you want to put them on trees or buildings.

Siting of Boxes

Whatever type of box you select, they are most likely to be used if they are located in places where bats are known to feed. Woodland, parkland and river banks are good places, as are gardens close to ponds, rivers or parks. Sites should be sheltered from strong winds and away from artificial light sources. Boxes should be exposed to the sun for part of the day (usually facing south, south-east or south-west) and ideally at least 4m above the ground (where safe installation is possible). Boxes

should be positioned so that the bats' approach to them is clear of impediments such as tree branches.

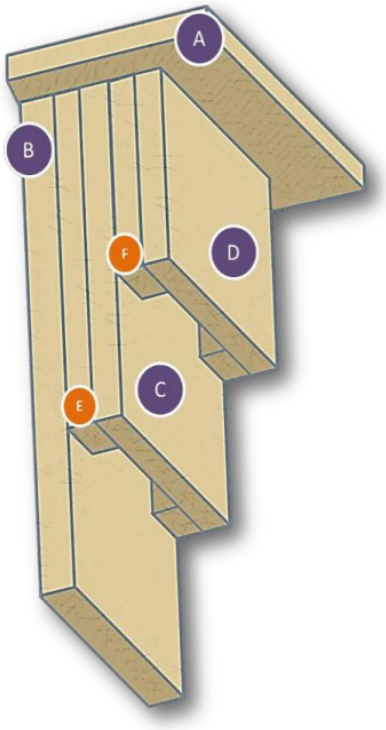
Bats require a range of roosting condition throughout the year and putting up multiple boxes, in a range of locations and facing in different directions, bats can select the most suitable roosting location. Avoid facing boxes into the prevailing direction of the wind and rain.

Once the bat box is in use

- Once the box is being used by bats (or any other protected species!) it will be legally protected, and you must treat is as you would any other protected roost. Once in use, you must not damage or destroy the bat box or disturb the occupants.

Kent Bat Box:

Design and measurements



Simple to construct, self-cleaning and low maintenance, the Kent bat box (designed by the Kent Bat Group) is a great way to encourage bats in your garden or your green space. The box should be rainproof and draught-free.

The only critical measurement is the width of the crevices: between 15-25mm. Other measurements are approximate. Timber should be approximately 20mm thick.

Measurements for one Kent bat box kit would be as follows:

Part	Quantity	Size (mm)
Roof (A)	1	x 160 x 20
Back (B)	1	x 200 x 20
Centre (C)	1	x 200 x 20
Front (D)	1	x 200 x 20
Centre Rails (E)	2	x 20 x 20
Front Rails (F)	2	x 15 x 15
Stand-offs (optional)	2	x 20 x 20

Material and Tools

This kit requires approximately 1.6m of rough wood and 25 screws (8 x 1 ½ inches) to assemble. You can rough it up by scraping with a suitable tool – possibly a saw blade or even a screwdriver but make sure you use untreated wood as some preservative chemicals can kill bats.

Pre-drill the holes to prevent the wood splitting. Alternatively you can assemble your bat box kit with nails although they tend to be less robust than boxes made with screws.

The hanging screws may either be at the edges of the front panel or in the side centre block (not in the rails!). Fixing may be by use of brackets, durable nylon cord or wires.

When installing the box, assess the risks of working at height, use the appropriate fittings and assess where the box will be located, in relation to any public access. Regular checks should be made to ensure the box remains securely fitted, especially after high winds.

Above example courtesy of the Bat Conservation Trust.

Bat Survey

Item Code: L090

Payment Rate: £750 each

This technical note describes the minimum standard of work required to receive payments for 'Bat Survey'.

Background

Bats are small flying nocturnal mammals, which eat insects and use echolocation to forage for prey. There are 17 native species of bat resident in the UK, all of which are European Protected Species and, as such, are afforded full legal protection under the Wildlife and Countryside Act 1981 and the Habitat Regulations 2017 as amended. Bats are often a consideration in planning and development projects, since they use buildings and trees within which to roost and are vulnerable to development impacts. It is an offence to kill, injure, capture, or disturb bats, or to damage or destroy their roosting habitats (bats do not have to be in occupation at the time), although actions that are prohibited by the legislation can be made lawful by the granting of a licence by Natural Resources Wales.

You must adhere to the following:

- It is essential that a bat survey is undertaken before any work is carried out on any building, structure or tree where a bat may roost.
- The survey should be carried out by a suitably qualified consultant, licensed to undertake bat surveys by Natural Resources Wales (NRW).
- The survey must adhere to published best practice guidelines: Bat Surveys for Professional Ecologists: Good Practice Guidelines 4th edition - Guidance for professionals - Bat Conservation Trust
- A preliminary survey may be undertaken at any time of year and will help to inform the requirement for emergence surveys; these can only be undertaken between May and September. Planning ahead will help to prevent delays.
- A detailed report should be compiled by the consultant following completion of surveys. The report must also clearly reference the surveyors NRW licence number.
- If bats are found and will be impacted by your proposed works, a European Protected Species Development Licence may be required from NRW before any works may be undertaken. The consultant ecologist will advise you on this and will be able to apply for the required licence on your behalf. Once issued, you must comply with all licence conditions.

If the Capital Works item, listed below, is included in your Grant Award you must not commence work on them prior to the bat survey and European Protected Species Development Licences being approved. If you do commence work on them without approval, you will not be paid for them, and penalties may be applied to your claim.

Bird Nest Boxes

Item Code: L091

Payment Rate: £21.50 each

This technical note describes the minimum standard of work required in order to receive payments for 'Bird Boxes'. Where there are local traditional methods or styles which vary from this standard, these can be used, but any significant variation must be approved by the Welsh Government.

You must adhere to the following: -

Making a Bird Box

Bird boxes are usually made of wood, but do not use treated timber as the leachates may harm birds; boards of about 2cm thickness give sufficient strength and insulation. Drainage holes in the bottom of the boxes are essential, and softwood boxes may be treated on the outside only, with water-based preservatives known to be safe to animals to prolong their life. Fit metal plates around the entrance holes of boxes for smaller species as protection against woodpeckers and squirrels. Care should be taken to shelter boxes from the prevailing wind, rain and strong sunlight. An entrance facing somewhere from north to east is best.

Nest boxes have the highest conservation value if used in a targeted way, for example to boost numbers of tree sparrow. You can search for records of bird species in your area using **Aderyn.** Willow and marsh tits can be outcompeted by blue and great tits. For this reason, it is best to avoid placing boxes in woodland containing marsh or willow tits. You can search **Aderyn** for willow or marsh tit populations near you.

Monitoring the progress of the nesting attempts of the birds using your nest boxes is not only rewarding but can provide valuable information for conservation. More information about this can be found via the BTO's Nest Record Scheme.

Boxes for Hole Nesters

These may be used by hole nesting species such as great tit, blue tit, coal tit, nuthatch, pied flycatcher, redstart, house sparrow and tree sparrow.

Construction

The basic box is made from rough-sawn plank 130cm long x 15cm wide x 2cm thick. Following the cutting diagram construction is relatively simple, the joints being held with screws or 5cm oval nails, but do not nail down the lid as it will need to be removed annually for cleaning. The entrance hole should be positioned on the front, as it provides the entrance with more protection from the overhanging roof, and should be at least 125mm from the floor of the box.

The lid may be hinged with a rustless metal, plastic or rubber hinge (piece of old bicycle tyre) or held under a metal flange, in which case a suitable small retaining block should be fixed in the appropriate position on the underside of the roof. An entrance hole of 3cm diameter will suit most species:

- 25mm for blue, coal and great tits
- 28mm for great tits, tree sparrows and pied flycatchers
- 32mm for house sparrows and nuthatches
- 45mm for starlings

Siting of Boxes

For most of the species listed, boxes may be positioned at the heights of between 1.2 and 5m on either trees or buildings. Convenience for inspection (where necessary) should be carefully assessed, in the light of the need to protect boxes from human or predator interference.

Open Fronted Boxes

The design of the open-fronted nest box is suitable for both robin and pied wagtail and, when carefully sited, may be used by redstart, wren, grey wagtail and dipper.

Construction

The cutting diagram illustrates how this open fronted box can be made from a plank of 2cm thick rough-sawn timber, 120cm long x 15cm wide. Slightly larger open-fronted boxes with a floor area 17.5cm² and heights at the front of 22.5cm have been used with success to attract dippers. Grey wagtails will use similar boxes suitably situated.

- 10cm high front for robins and pied wagtails
- 14cm high front for wren
- 6cm front for spotted flycatcher

Siting

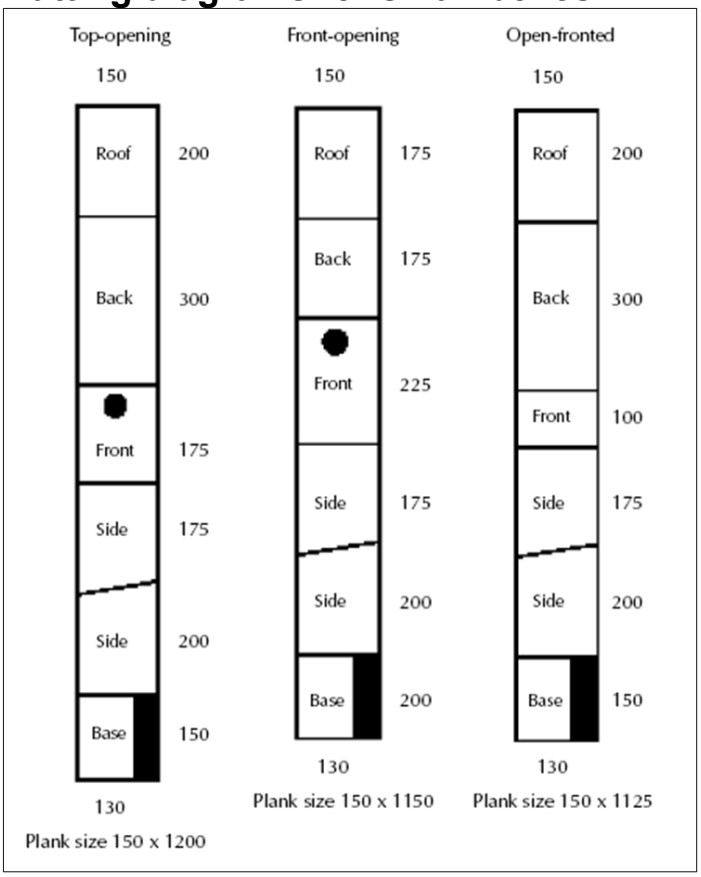
The positioning of open-fronted boxes requires some care. Robin and wren prefer boxes placed in concealed positions among vegetation on the side of tree trunks, garden walls and houses, but this may increase the vulnerability of the nest to predators. Pied wagtails will use open-fronted boxes in more exposed positions:

Requirements and guidance in addition to the specifications above:

Specialist Boxes

Modified designs are necessary to suit birds such as spotted flycatcher and treecreeper, as well as larger species such as woodpecker. Visit the RSPB website **www.rspb.org.uk** for more details.

Cutting diagrams for small boxes



Strap box to tree or use headless or domed aluminium nails (less damaging to saws and chipping machinery) which are not fully hammered home as this allows the tree to push the box off without splitting.

The above diagrams are reproduced by kind permission of the British Trust for Ornithology. Further details are available in BTO Guide No 23 ‘Nest boxes’ by Chris de Feu.

Once the nest box is in use

- Once the box is being used by birds (or any other protected species!) it will be legally protected, and you must treat it as you would any other protected nest. Once in use, you should avoid damaging or destroying the nest box or disturbing the occupants.

Create Scrapes

Item Code: L092

Payment Rate: £5.52/m2

This technical note describes the minimum standard of work required to receive payments for 'Scrapes'. Where there are local traditional methods or styles which vary from this standard these can be used, but any variation must be approved by your Field Support Officer.

A 'scrape' is a very shallow small pool with gently sloping edges which provides insect rich areas for species like breeding lapwing and their chicks, as well as other breeding waders. The water level will rise and fall according to the weather. The objective is to ensure there is an extensive area of mud and soft wet ground where the chicks can feed throughout the breeding season (until mid-July).

You must adhere to the following:

Scheduled Monuments. If you are undertaking this work within or on the boundary of a scheduled monument you must obtain scheduled monument consent from Cadw prior to undertaking the works or allowing someone else to carry out the works. Failure to obtain the necessary consent prior to undertaking the works is an offence under the Historic Environment Wales Act, 2023.

You can submit an application for scheduled monument consent online via: Application Form — Scheduled Monument Consent | Cadw

If you require further information email: scheduledmonuments@gov.wales

You can find the location, extent and a description of all scheduled monuments in Wales at: Search Cadw records | Cadw

Registered Historic Parks and Gardens. If you are undertaking this work within or on the boundary of a Registered Historic Park and Garden, you must contact Heneb for advice prior to prior to undertaking the works or allowing someone else to carry out the works

If you require further information email: heritagemanagement@heneb.org.uk

You can find the location, extent and a description of all Registered Historic Parks and Gardens in Wales at: Search Cadw records | Cadw

Historic Environment Features. If you are undertaking this work within or on the boundary of a Historic Environment Feature you must contact Heneb for approval prior to prior to undertaking the works or allowing someone else to carry out the works

You can find the location and extent of all Historic Environment Features in Wales at: Historic Environment Records (HER) - Heneb

If you require further information or advice email:
heritagemanagement@heneb.org.uk

- If you are undertaking any activity near a main river, floodplain or flood defence structure you must check whether a Flood Risk Activity Permit is needed and obtain a permit if required. Subject to certain conditions a FRAP exemption may apply (where located within 8/16m of a main /tidal main river. Exemption 25 GN 044 Technical Guidance: Flood risk activity exemptions ENG.
- If you are undertaking work within and Internal drainage district, you may need to obtain a land drainage consent to ensure that your activities do not cause a risk of flooding or make existing flood risk worse.
- A consent is also necessary to ensure your work will not interfere with our flood risk management assets or adversely affect the local environment, fisheries or wildlife. Natural Resources Wales / Apply for land drainage consent.
- If you are undertaking this work within a SSSI and it is listed as an operation likely to damage the special interest (OLDSI) of that SSSI, you must notify NRW in writing and obtain SSSI consent before you carry out, or allow someone else to carry out, the activity. You can do this online using the form available here. You should have received a copy of the OLDSI list when the site was being designated. You can also find the list using NRW's designated sites search.

Preparation and Timing

- The digging of the scrape should be completed by mid-March. Ideally the scrape should be dug in the previous autumn, to reduce compaction of the ground at the edges of the scrape by the digger and allow time for it to fill up and the bottom to become more impervious.

Location

- Scrapes should be sited in large, open, relatively level, low-lying fields, so their shape, size and location are in keeping with the landscape character. Fields over 3ha are best.
- They should be dug in natural depressions in known damp areas, in the part of the field which is naturally wettest.
- They should not be directly overlooked by trees or close to hedgerows, which provide perches or cover for potential predators.
- Locate scrapes at least 100m from field boundaries such as hedges and woodland and away from overhead lines, to help reduce predation risk.
- Free-draining soils are generally unsuitable, unless the water table is close to the surface or the water level can be controlled.

Design

- Water depths in the scrape are important. Edges should grade very gradually from the existing ground surface towards the centre. Aim for a maximum water depth in the winter of 50cm, with an average depth of about 25cm. In early spring the water level should be between 25 and 50cm in the central half of the scrape, and between 0-25 cm in the outer half of it.
- The slope edges must be very gentle (not more than 15°), with a twisting edge and uneven finish so chicks can easily range over them in search for food.



- Each scrape should be around 5m in diameter. Several small scrapes are better than one big one as this maximises the edges which are important features.
- The earth removed to create the scrape should be widely distributed and levelled around the scrape, any remaining piles of earth could act as a predator patch.

Deer Fencing

Item Code: L093

Payment Rate: £13.32/m

These are the minimum standards of work required in order to be eligible to receive payments for 'Deer Fencing'.

You must adhere to the following:

- Fencing timber must comprise either hardwood produced from Welsh woodlands or pressure treated softwood.
- A minimum life of 10 years is required for all timbers used.
- Fencing timbers, line wire, netting and staples used to construct approved fence lines must always consist of new materials.
- All materials and construction standards must also conform to the following detailed specification in addition to British Standards 1722 and 4102.

Materials And Construction – Deer Fencing

- Strainer posts to be situated at change of direction (either horizontal or vertical) or maximum 200m (ca. 600ft) on straight run.
- Dug or driven a minimum 90cm (3ft) into the ground.
- The strainer struts to be notched and nailed to straining posts stabilised with a sawn rail thrust plate of 50cm x 38cm x 76cm (1ft 9" x 1½" x 3").
- Intermediate posts to be spaced at 5m (16ft 6") intervals maximum.
- The netting must be properly strained and fixed to give a maximum gap of 5cm (2") between the bottom of the net and the ground.
- A single top wire to be set 10cm (4") above the top of the netting.
- The line wires to be set such that the bottom strand runsalong the bottom of the netting; the middle strand runs at a height of 1m (3ft 4") from ground level and the top strand to run along the top of the netting.
- All line wires to be fixed securely to the netting with pig rings or lashing rods.

Do not:

- Use trees and shrubs as strainers or fencing posts and nor may they be used to support fencing wire, staples or netting.

Requirements and guidance in addition to the specifications above:

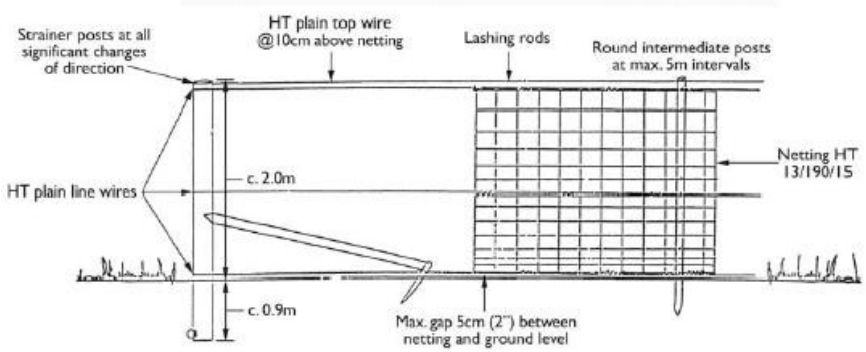
- The standard payments include an allowance for the dismantling, removal and safe disposal of existing derelict fences.

Straining posts	3m x 15cm top diameter minimum	10ft x 6"

Struts	2.75m x 10-13cm top diameter round timber	9ft x 4-5”
Intermediate posts	2.75m x 8-10cm top diameter round timber	9ft x 3-4”
Netting	Either High Tensile type Or Light Weight High Tensile type	HT/13/190/15 LHT/13/190/15
Top wire	1 x 12 ½ g high tensile plain wire	
Line wire	3 x 12 ½ g high tensile plain wire	
Staples	4cm (1 ½ “) 8g	
Finished height	1.9m – 2m (6ft4” – 6ft 6”)	

Diagram – Deer Fencing

If you are undertaking any activity near a main river, floodplain or flood defence



structure you must check whether a Flood Risk Activity Permit is needed and obtain a permit if required. Any permit/consent (or confirmation that a permit/consent is not needed) should be retained and made available on request.

Natural Resources Wales / Check if you need a flood risk activity permit (FRAP)

If you are undertaking work within and Internal drainage district, you may need to obtain a land drainage consent to ensure that your activities do not cause a risk of flooding or make existing flood risk worse.

A consent is also necessary to ensure your work will not interfere with our flood risk management assets or adversely affect the local environment, fisheries or wildlife.
Natural Resources Wales / Apply for land drainage consent

Deer Gate

Item Code: L094

Payment Rate: £391 each

This technical note describes the minimum standard of work required to receive payments for 'Deer gate'. Any variation must be approved by the Welsh Government prior to starting the work.

If any of the work claimed is found to have been carried out to a different standard, without the prior approval by Welsh Government, the project may be considered ineligible. This will result in claims being withheld (or recovered) with penalties applied in line with the scheme rules, unless work is assessed to have been delivered to an equivalent standard.

You must adhere to the following:

- Install gates that are at least 2.4m wide, but no more than 4.2m wide and a minimum 1.8m in height.
- Use gates constructed from hot-dip galvanised steel.
- Hanging and slamming posts should be either galvanised steel 100mm diameter or treated softwood or hardwood 200mm square.
- Set gateposts correctly into the ground, using concrete if necessary and fit with appropriate hangings and latches.
- This activity is excluded from needing a flood risk activity permit as long as it is not carried out in or within 100m of a main river that is classified high morphological status; Natural Resources Wales / Flood risk activity exclusions.
- If you are undertaking work within and Internal Drainage District, you may need to obtain a land drainage consent to ensure that your activities do not cause a risk of flooding or make existing flood risk worse.
- A consent is also necessary to ensure your work will not interfere with our flood risk management assets or adversely affect the local environment, fisheries or wildlife. Natural Resources Wales / Apply for land drainage consent
- If you are undertaking this work within a SSSI and it is listed as an operation likely to damage the special interest (OLDSI) of that SSSI, you must notify NRW in writing and obtain SSSI consent before you carry out, or allow someone else to carry out, the activity. You can do this online using the form available here. You should have received a copy of the OLDSI list when the site was being designated. You can also find the list using NRW's designated sites search.

Do not:

- Use hanging posts or shutting posts as straining posts for fencing. A short length of split timber should be used to form a horizontal strut between the gate post and adjacent straining post.
- Use secondhand material for constructing gates unless approved in advance.

Ditch Casting

Item Code: L095

Payment Rate: £3.06/m

This technical note describes the minimum standard of work required to receive payments for 'Ditch Casting'. Where there are local traditional methods or styles which vary from this standard these can be used, but any variation must be approved by your Field Support Officer. Special and unique areas, such as the Gwent Levels, may well follow a different prescription and your Field Support Officer will advise on these accordingly.

Drainage channels can often be very diverse habitats hosting a range of water-loving plants and animals. Both the water depth and the profile of a drainage channel have a considerable influence on its wildlife value. The majority of aquatic plants are normally found in shallow water up to 1m in depth where they receive maximum sunlight.

You must adhere to the following:

- Cleaning operations should be carried out on one side of the ditch only, preferably the southern side where possible.
- Marginal shelves or berms should be incorporated wherever appropriate.
- Allow cleaned stretches to re-colonise before cleaning adjacent sections.
- Aim for a rotation of 1–10 years, depending upon vegetation growth.
- Ditch casting programmes should be combined with appropriate management of water levels through existing or new ditches. Seek advice from your Field Support Officer.

Do not:

- Carry out work during the period 1 September–28 February, in order to protect wildlife. Where there is over-wintering or breeding bird interest in adjacent fields the 'window' for such work may be more restrictive and your Field Support Officer will advise on procedures.

Requirements and guidance in addition to the specifications above:

- Your Field Support Officer can advise you on the establishment of a rotational ditch-cleaning programme. This will prevent a build up of excess sediment blocking the flow of water and impeding the drainage. It will also allow a range of different ditch profiles and water depths to develop across your land so providing maximum benefit for wildlife.
- The ideal ditch profile will incorporate a range of water depths. By retaining gently sloping sides or including a marginal shelf, it is possible to maintain good habitats at the same time as ensuring the drainage channel can function properly.
- Natural Resources Wales and/or the local Internal Drainage Board may be able to offer advice on suitable machinery and methods.

Dormouse Nest Box

Item Code: L096

Payment Rate: £21.58 each

This technical note describes the minimum standard of work required to receive payments for 'Dormouse Nest Box'. Where there are local traditional methods or styles which vary from this standard, these can be used, but any variation must be approved by the Welsh Government

You must adhere to the following:

Making a Dormouse Nest Box

Below are the details for a simple wooden nest box that has been known to work well.

Timber used should be untreated:

- Drill drain holes in the base (4 x 4mm diameter)
- Attach side panels to base using 35mm screws
- Attach back panel using 35mm screws
- Drill entrance hole in front panel (28mm diameter)
- Attach two battens to the front panel, above and below the hole. Each batten should stick out 18mm (use 30mm screw to attach battens)
- Attach front panel (using 35mm screw)
- Cut or plane angle of the third batten to correspond to the angle of the roof (approx. 15º)
- Attach the third batten to the front of the roof (using 30mm screw)
- Cover the roof with piece of damp-course so that it overhangs the box by over 2.5cm on each edge (Extending the lifetime of the nest box)
- Fix one screw into the middle of each side (ensuring that they do not stick out into the inside of the box) as anchors to secure the lid.
- Wind the wire tightly around one screw and pass over the roof to hold it in place, winding the wire onto the second screw. Leave a long enough piece of wire to allow it to be unwound and rewound when monitoring in the field.

Siting of Boxes

Dormice will occupy the boxes during the summer, both to sleep and to breed. During the winter, the mice will hibernate at ground level or in burrows and crevices below the ground.

The boxes are attached by separate wires to hazel stems with the hole nearest the stem. The battens on the front, space the entrance hole from the stem, allowing the dormice to enter the boxes. The Field Support Officer will advise the appropriate positioning of the boxes within an area of suitable habitat.

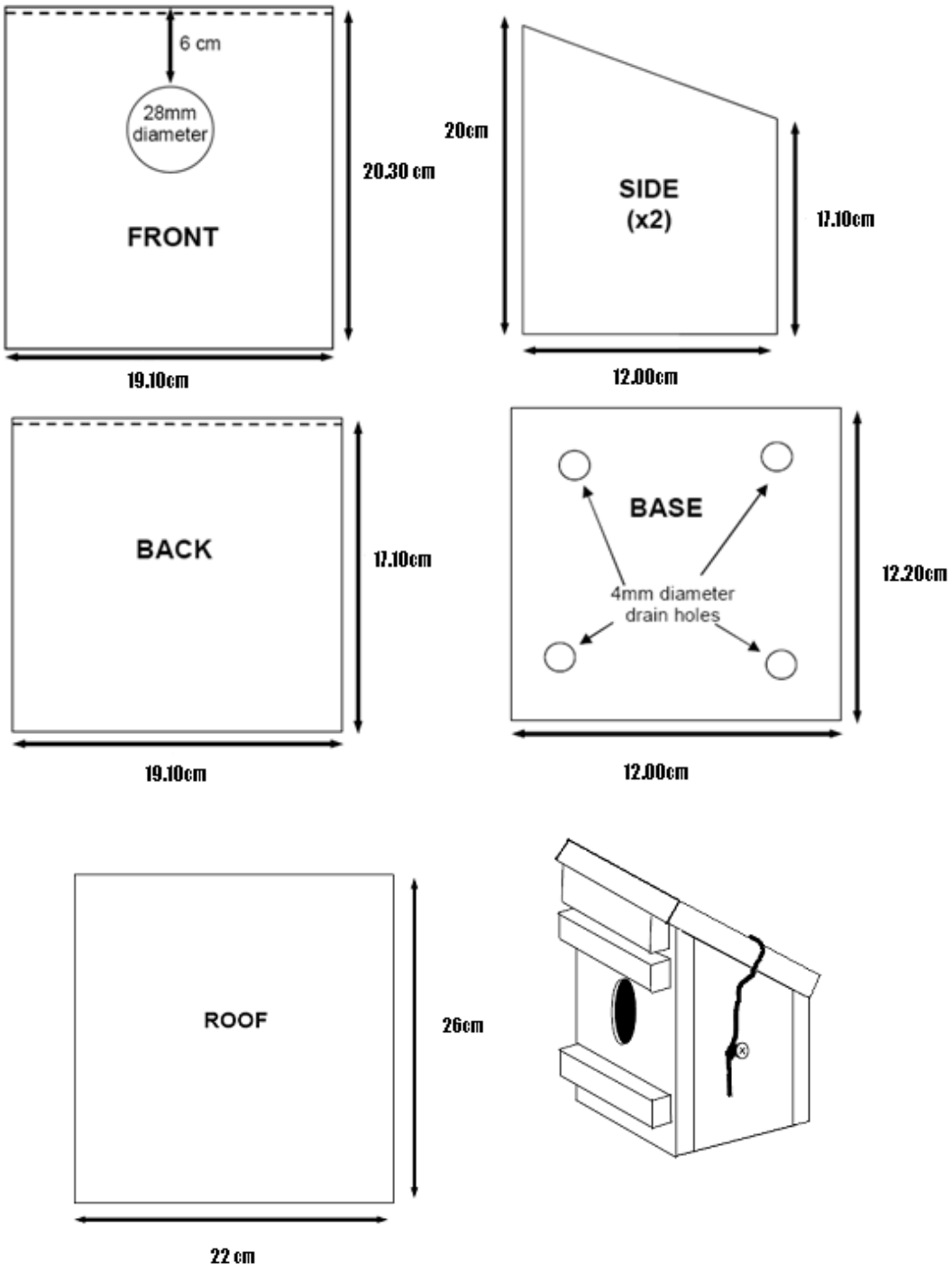
Legislation and Monitoring Boxes

The Dormouse is strictly protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation (Natural Habitats &c.) Regulations 1994 (as amended).

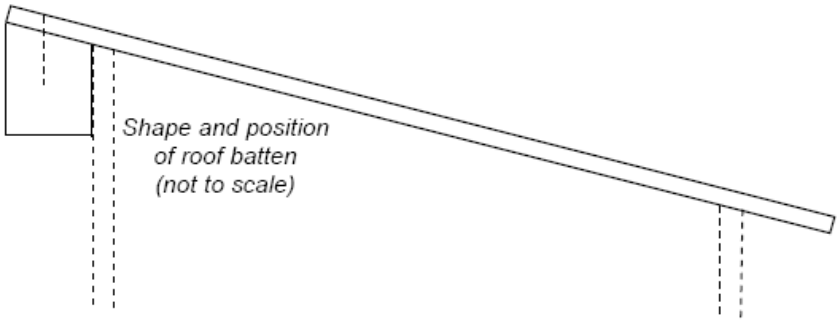
Dormouse nestboxes can be used for monitoring population numbers, providing valuable data. Contact the People's Trust for Endangered Species if you wish to include your nestboxes in the National Dormouse Monitoring Programme (NDMP).

Maintenance of nestboxes can be undertaken during winter when dormice are less likely to be present. It is worth removing any old nesting material, including bird's nests. Dormouse nests have a distinctive structure: Hazel dormouse ecology - People's Trust for Endangered Species

Diagrams for Dormouse Nest boxes



All panels are made of 2.54cm (1”) thick wood
3 x battens = 18mm x 25mm x 120 mm long
Wire for roof = Medium Garden wire (Green Coated)



Once the nest box is in use

- Once the box is being used by Dormice (or any other protected species) it will be legally protected and you must treat is as you would any other protected nest. Once in use, you must not damage or destroy the nest box or disturb the occupants. Look for signs around the boxes and check out of breeding season for signs it has been used.

Geotextiles

Item Code: L097

Payment Rate: £1.05/m2

This technical note describes the minimum standard of work required to receive payments for 'Geotextiles for Paths'. Where there are local traditional methods or styles which vary from this standard these can be used, but any variation must be approved by a Field Support Officer.

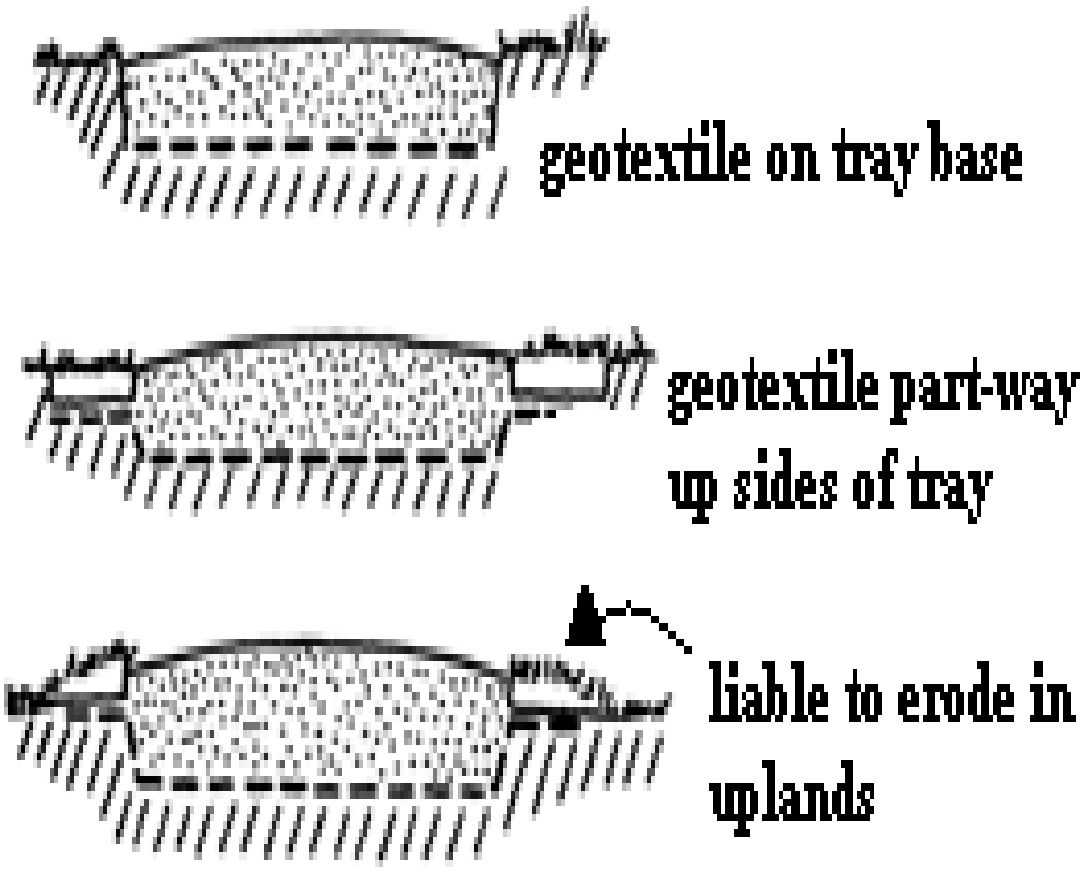
Geotextiles are synthetic membranes which are strong and porous fabrics which can be useful in creating a sub-base material. They work on the principle that they act as a barrier and prevent the surfacing materials above mixing with the weak sub-grade below.

In footpath work, geotextiles have been used for many years for supporting aggregate paths on soft ground. An aggregate path laid directly on soft ground will soon fail as the stone gets 'punched' into the sub-grade and fine material from the sub-grade is 'pumped' upwards by the action of walkers. The geotextile keeps the layers separate and by keeping the aggregate together, gives structural strength to the path. Geotextiles have the advantage over other types of sub-base of being light to handle and easy to install.

This capital works item should only be considered on sites with gentle gradients over damp mineral soils or shallow peat. It should not be used on upland paths that are susceptible to erosion.

You must adhere to the following:

- Excavate the path to the required depth (please see technical notes for specific path requirements), removing any large stones which may distort the geotextile and making as level a bed as possible. This excavation is called the path tray.
- Lay the geotextile either only across the base of the tray, or with the edges part way up the sides and covered with turf, as shown below. For upland areas where vegetation growth is slow, it is not recommended to bring the edges up to the surface to fully contain the aggregate, as even if then covered with turf the edge of the fabric is likely to become exposed. In most situations there is little problem with aggregate moving 'sideways' into the soil, and geotextile laid only on the base of the path tray is sufficient.
  If you need more than one roll, install with an overlap of at least 30cm, overlap wherever the matting ends and another begins.
- Geotextiles should be stored out of sunlight and unprotected geotextile should never be driven over by a vehicle. Aggregate is tipped by dumper, barrow or from a helicopter hopper, spread by grader or rake and compacted with a vibrating roller or plate. Please see relevant technical notes for what is expected as depth of base course and wearing course layers.



Requirements and guidance in addition to the specifications above:

- Geotextiles should be stored out of sunlight and unprotected geotextile should never be driven over by a vehicle.
- Aggregate is tipped by dumper, barrow or from a helicopter hopper, spread by grader or rake and compacted with a vibrating roller or plate. Please see relevant technical notes for what is expected as depth of base course and wearing course layers.

Scheduled Monuments. If you are undertaking this work within or on the boundary of a scheduled monument you must obtain scheduled monument consent from Cadw prior to undertaking the works or allowing someone else to carry out the works. Failure to obtain the necessary consent prior to undertaking the works is an offence under the Historic Environment Wales Act, 2023.

You can submit an application for scheduled monument consent online via: Application Form — Scheduled Monument Consent | Cadw

If you require further information email: scheduledmonuments@gov.wales

You can find the location, extent and a description of all scheduled monuments in Wales at: Search Cadw records | Cadw

Registered Historic Parks and Gardens. If you are undertaking this work within or on the boundary of a Registered Historic Park and Garden, you must contact Heneb for advice prior to prior to undertaking the works or allowing someone else to carry out the works

If you require further information email: heritagemanagement@heneb.org.uk

You can find the location, extent and a description of all Registered Historic Parks and Gardens in Wales at: Search Cadw records | Cadw

Historic Environment Features. If you are undertaking this work within or on the boundary of a Historic Environment Feature you must contact Heneb for approval prior to prior to undertaking the works or allowing someone else to carry out the works

You can find the location and extent of all Historic Environment Features in Wales at: Historic Environment Records (HER) - Heneb

If you require further information or advice email: heritagemanagement@heneb.org.uk

- If you are undertaking any activity near a main river, floodplain or flood defence structure you must check whether a Flood Risk Activity Permit is needed and obtain a permit if required. Any permit/consent (or confirmation that a permit/consent is not needed) should be retained and made available on request.

Natural Resources Wales / Check if you need a flood risk activity permit (FRAP)

- If you are undertaking work within and Internal drainage district, you may need to obtain a land drainage consent to ensure that your activities do not cause a risk of flooding or make existing flood risk worse.

A consent is also necessary to ensure your work will not interfere with our flood risk management assets or adversely affect the local environment, fisheries or wildlife. Natural Resources Wales / Apply for land drainage consent

- If you are undertaking this work within a SSSI and it is listed as an operation likely to damage the special interest (OLDSI) of that SSSI, you must notify NRW in writing and obtain SSSI consent before you carry out, or allow someone else to carry out, the activity. You can do this online using the form available here. You should have received a copy of the OLDSI list when the site was being designated. You can also find the list using NRW's designated sites search.

Green Hay

Item Code: L098

Payment Rate: £407.367/Ha

This technical note describes the minimum standard of work required to receive payments for 'Green Hay'. Where there are local traditional methods or styles which vary from this standard these can be used, but any significant variation must be approved by the Welsh Government.

The Field Support Officer will identify areas where green hay introduction could be beneficial and indicate the target community to be restored.

This technique can be used where species-rich grasslands (donor site) is within a 2 hours maximum from the site being restored (receptor site).

You must adhere to the following:

Preparation of Receptor Site

- The aim is to create gaps in the sward to allow seeds to germinate and establish free from competition. The site should have a short sward through cutting or grazing, with at least 50% bare ground created through livestock or
- power harrowing, standard harrow or discing.
- The receptor site must be suitably prepared so that it is ready when the hay is cut (by late July to early August).

Grazing with Heavy Animals

- Cattle are effective in creating gaps as their hooves break up the sward easily.

Donor Site Selection

- The donor site should be similar in characteristics to the receptor site, for example soil type, soil pH and hydrology. More species-rich donor sites should, ultimately, give better results.
- Important factors to consider include a weed free site and one which includes a number of preferred species. It is good practice to take off no more than about half of a site's grass/herbage,
- If you are undertaking this work within a SSSI and it is listed as an operation likely to damage the special interest (OLDSI) of that SSSI, you must notify NRW in writing and obtain SSSI consent before you carry out, or allow someone else to carry out, the activity. You can do this online using the form available here. You should have received a copy of the OLDSI list when the site was being designated. You can also find the list using NRW's designated sites search.

Preparation of Donor Site

- All operations should be carried out the same day, although the mown grass can be left in situ for one day (before picking up) to reduce the weight and bulk. This may lead to some loss of yellow rattle and other species which are very ripe at the time of harvest.
- Mow the hay when the main grasses, such as red fescue and 'crested dog's-tail' hold ripe seed, and the 'yellow rattle' seed is still on the plants (July to early August).

Suggested method:

- Use a mower without a conditioner to mow the grass.
- Rake the mown grass into lines / swathes.
- Pick up the grass with a Forage Harvester and transfer into a Rear Discharge Muck Spreader which will make it easy to spread at the receptor site. A flail spreader can be used also.
- Alternatively, pick up the grass and make up to six round bales at a time.
- Load the bales on to the trailer and cart them to the receptor site.
- Load each bale into a straw chopper; chop and spread the chopped grass across the field at a ratio of at least 1:3 (for every hectare mown on the donor site, spread over no more than three hectares on the receptor site).
- If the hay is not chopped it must be spread thinly and not left in heaps on the receptor site.

- This technique can be scaled down for small sites, using standard machinery that is available on the farm, or done by hand. Pedestrian machinery e.g. mini-baler, brush-cutter or petrol lawn mower, can be used for harvesting green hay.
- Soon after hay spreading, introduce light grazing or light rolling to help 'bed in' the seed. The sward should be kept short in the weeks following spreading so that light can aid germination.

Do not:

- leave the hay in the bales to stand for more than one hour to prevent the bales from heating up and the seed from deteriorating.

Hard Surfacing

Item Code: L099

Payment Rate: £23.62/m2

This technical note describes the minimum standard of work required to receive payments for ‘Hard Surfacing’. Where there are local traditional methods or styles that vary from this standard these can be used, but any variation must be approved by the Welsh Government

Payments are available for hard surfacing where it is necessary to provide:

- A feeding pad on improved grassland, positioned in such a way as to help conserve archaeological features or habitats which might be affected by existing practice.
- A hard standing in a gateway or around a water trough positioned in such a way as to prevent sedimentation of adjacent watercourses.
- A car parking area for a permissive access feature.

You must adhere to the following:
Hard Surfacing of Feeding Pads

Feeding Pads should be constructed in three stages:

- Formation of profile
- Base course
- Wearing course

Side ditches may be formed during the execution of the work where required.

Dimensions must be at least 20 square metres with a minimum width of 2.5m.

Formation of Profile

The ground should be excavated to remove all vegetation and soil to a depth of no less than 15cm or down to a naturally occurring hard surface whichever is less. Spoil may be spread on the verges of the pad provided you have prior permission from your Field support officer

Soft pockets in the profile should be dug out, drained and filled with well compacted hardcore. The profile should be trimmed to the required dimensions before being compacted

Different types of ground have different load bearing capacities. Hard Surfacing should not be located on deep peat. The following table gives an indication of the depth of stone needed to form a profile on these different soil types.

Type of Ground	Depth of Stone	Comments
Firm Shade	No need for stone, self metalling	As shale cam wash out easily avoid steep gradients
Brown Earth and Weaker Shales	20-30cm	
Thick Clay	30-45cm the clay with	After formation ‘blind’ or cover fine stone before adding coarser stone for strength

Base Course

The base course should be no less than 15cm thick and should be constructed in layers each of which should not exceed 12.5cm thick after compaction. The stated thickness corresponds to the average depth of compacted hardcore including blinding. (Hardcore is classified as ‘MOT Type 1’ and ranges from 37mm diameter down to dust.)

The surface of the base course should fall to one or both sides of the hard standing or car park. The recommended fall or camber is 1 in 25.

Wearing Course

The surface of the base course should be covered with a wearing course of mixed hardcore binding material and should be well compacted. The components of the wearing surface are classified as ‘MOT Type 2’ and range from 18mm diameter down to dust. The compacted depth of the finished wearing course should be no less than 2.5cm and no more than 5cm.

Car Parks

Construction, as for hard surfacing for feeding pads constructed of broken stone but increase the depth of the base course to 30cm, laid in layers of not more than 15cm.

Additional Notes

The width of hard surfacing is measured across the top of the wearing surface and not the width of the base course.

A heavy road roller or vibrating roller should be used to give adequate compaction.

Lay stone to a minimum depth of 200mm across the gateway and approach to create a flat even hardcore pad.

Repair any damage or excessive wear such as that caused by harvesting or natural events to area of hardcore immediately.

Do not:

Use coated tarmacadam, asphalt or other bituminous surface or concrete.

- If you are undertaking any activity near a main river, floodplain or flood defence structure you must check whether a Flood Risk Activity Permit is needed and obtain a permit if required. Any permit/consent (or confirmation that a permit/consent is not needed) should be retained and made available on request.

Natural Resources Wales / Check if you need a flood risk activity permit (FRAP)

- If you are undertaking work within and Internal drainage district, you may need to obtain a land drainage consent to ensure that your activities do not cause a risk of flooding or make existing flood risk worse.

A consent is also necessary to ensure your work will not interfere with our flood risk management assets or adversely affect the local environment, fisheries or wildlife. Natural Resources Wales / Apply for land drainage consent.

Heather Management: Burning

Item Code: L100

Payment Rate: £195/Ha

This technical note describes the minimum standard of work required to receive payments for 'Heather Management: Burning'. Where there are local traditional methods or styles which vary from this standard these can be used, but any significant variation must be approved by a Field Support Officer

Fire has been used by land managers for many thousands of years. Carefully planned, controlled burning can be a valuable habitat management tool. However, irresponsible burning is a dangerous activity and can cause injury and damage to people, property and the environment. Over frequent burning and burning of sensitive habitats can cause harm to the vegetation and its associated wildlife.

Controlled burning should primarily be used as a management tool on areas of dry heath dominated by common heather, '*Calluna vulgaris'*. In the lowlands, heathlands with a good mixture of common heather, bell heather and western gorse can also be burnt. Highly degraded areas of dry heath should only be burnt as part of a restoration plan.

You must adhere to the following:

- Agree on areas to burn with a Field Support Officer.
- Agree the rotation length with a Field Support Officer.
- Agree an appropriate grazing regime for areas that have been burned with a Field Support Officer.
- Burn when the heather reaches 20-30cm in height
- Ensure you comply with the Heather and Grass Burning Regulations 2008.
- Keep to the rules outlined in the 'Heather and Grass Burning Code for Wales' booklet, and complete the 'Burning Management Plan for Wales' section.
- a proportion of the vegetation should be retained uncut or unburned to develop into taller and older heather where the branches open out and allow more light into the canopy and layering occurs.
- If you are undertaking this work within a SSSI and it is listed as an operation likely to damage the special interest (OLDSI) of that SSSI, you must notify NRW in writing and obtain SSSI consent before you carry out, or allow someone else to carry out, the activity. You can do this online using the form available here. You should have received a copy of the OLDSI list when the site was being designated. You can also find the list using NRW's designated sites search.

Burning is only allowed between:

- ***1st October – 31st March*** in upland areas
- ***1st November – 15th March*** in the lowlands

Do not:

- burn the same piece of vegetation more than once in five years
- burn in the following areas:

  - **Woodland, woodland edges and scrub**

    Broadleaved and coniferous woodlands, scrub and small trees such as birch, ash, hawthorn and willow, are valuable habitats. Fire is not an appropriate management tool for woodland and scrub and the spread of fires into these habitats is likely to be very damaging, especially if juniper is present as it will not re-sprout after burning.

  - **Bog, fen and wet heathlands**

    Blanket bog occurs where peat develops over large, relatively flat expanses of the uplands, effectively blanketing them with peat. Wet heath, raised bogs and fens occur in the uplands and lowlands. Wet heath develops where drainage is impeded often on shallow peat. Fens and bogs often develops in waterlogged valley bottoms.

    Springs, flushes and pools often occur within other more extensive habitats in both the uplands and lowlands. They often contain specialist mosses, higher plants, invertebrates and amphibians, which are especially sensitive to burning.

  - **Coastal heathland**

    The thin soils can be damaged, and the heath may be very slow to regenerate in the exposed maritime conditions.

  - **Areas where there is soil erosion**

    Soil erosion can occur naturally but is most commonly associated with human activities in the uplands and lowlands. Common examples in the uplands are peat haggs and erosion gullies. Burning into peat may ignite the peat, creating a high risk of a wildfire.

  - **Areas where the soil is very thin**

    These are defined in the ‘Heather and Grass Burning Code’ as having “less than 5cm (2in) of soil over underlying rock”. They occur throughout the uplands, lowlands and on the coast, both naturally and where human activities have caused extensive soil erosion. They are often easily identified by the presence of protruding bedrock. On the coast maritime heath is particularly sensitive to burning. Conditions are frequently too dry for burning as the soil drains very quickly.

- **Steep hillsides and gullies**

These areas are defined as slopes with a gradient of 1 in 2 or less. Fires take longer to spread on steep slopes, resulting in a hot and slow fire that damages the moss layer and impedes regeneration and may be at greater risk of erosion. They are also difficult to control and can widen as they progress uphill.

Gullies are a common feature of upland Wales. They can act like a chimney, greatly increasing the intensity and rate of spread of a fire.

- **Areas within 10m of watercourses**

A range of natural (e.g. streams) and artificial (e.g. grips) watercourses occur throughout the uplands and on lowland heathlands and grasslands. Burning should stop within 10m of the watercourse to ensure the bankside vegetation remains intact, creating a wildlife corridor and a 'buffer' for surface runoff

- **Sensitive Species**

There are some very scarce species-rich dry heath areas which are vulnerable to burning. These habitats identified by thick mats of wine-red mosses along with a diversity of fern, heath and lower plants Areas containing juniper should also not be burnt

- **Areas with rock outcrops and boulders**

Controlled burning programmes must ensure that areas of rock outcrops, boulders and scree are not within burn areas.

Further information

For further guidance, information leaflets and booklets are available from:

Natural Resources Wales www.naturalresourceswales.goc.uk

The Heather and Grass Burning Code for Wales
https://www.gov.wales/sites/default/files/publications/2018-01/heather-and-grass-burning-code.pdf

UKFS Guidelines

The RSPB www.rspb.org.uk

Heather Management: Cutting

Item Code: L101

Payment Rate: £65/Ha

This technical note describes the minimum standard of work required to receive payments for 'Heather Management: Cutting' Where there are local traditional methods or styles that vary from this standard these may be used, but any variation must be approved by the Welsh Government.

Heather Cutting

Cutting can be used as an alternative to burning on all areas where burning would normally be permitted. Cutting may be a preferable management tool on sites where burning should not be undertaken, where fire is difficult to control, or where land managers are unable to comply with burning guidelines. However, changing from burning to cutting may have implications for the composition of the vegetation. Heather cutting should only be considered on blanket bog where heather cover is very high (>85%) with suppressed hare's tail cotton grass

You must adhere to the following:

Cutting is only allowed between:

- **1 October – 31 March** in upland areas
- **1 November – 15 March** elsewhere

Agree a five year vegetation cutting management plan with your Field support officer in accordance with the following rules:

- Cut patches between 0.25 and 1ha.
- Cut to height of not less than 5cm and not more than 10cm tall.
- Cut to encourage the regeneration of a diversity of dwarf-shrub heaths so that within 5 years the cut area contains at least 2 of the following; common heather, bell heather, bilberry, cowberry, crowberry or cross-leaved heath.
- Avoid cutting the same piece of vegetation more than once in five years
- Avoid cutting short heath vegetation (<10cm) or heath on thin soils (<5cm deep) or on steep slopes (1 in 2 or less), or where there is more than 50% rock or scree.
- Avoid cutting sites where juniper has been recorded.
- A proportion of the vegetation should be retained uncut or unburned to develop into taller and older heather where the branches open out and allow more light into the canopy and layering occurs.
- If you are undertaking this work within a SSSI and it is listed as an operation likely to damage the special interest (OLDSI) of that SSSI, you must notify NRW in writing and obtain SSSI consent before you carry out, or allow someone else to carry out, the activity. You can do this online using the form available here. You

should have received a copy of the OLDSI list when the site was being designated. You can also find the list using NRW's designated sites search.

Do not:

- cut more than a third of the heathland vegetation in the five year period
- allow cutting to encourage the spread of acid grassland or bracken.
- allow cutting to increase the cover of western gorse above 50%
- cut areas of exposed, suppressed maritime heath close to the sea.

Requirements and guidance in addition to the specifications above:

Consent will only be given where the following conditions are met;

- cutting management does not conflict with any strategic objectives for the site
- a long-term cutting programme has been agreed with the landowner or land manager
- an appropriate grazing regime is in place.

Cutting can also be used on the following areas:

- For cutting areas of upland moorland with little or no heather, e.g. dense purple moor-grass or rush, to encourage the growth of heather and other typical heathland and bog species.
- For cutting firebreaks on areas of very woody heather where there is a high risk of wildfires or prescribed fires getting out of control.
- On heaths dominated by western gorse where common heather and bell heather are scarce or absent.
- As an alternative to spot burning of 'western gorse.
- On wet and humid heaths and bogs where there is a high proportion of Purple moor-grass and/or where mats of sphagnum moss are present
- To create fire breaks adjacent to woodland and forestry.
- Adjacent to pockets of bracken but cut plots should be monitored to detect bracken invasion and further cutting halted if this occurs.

Heather Management: Cutting and Removal

Item Code: L102

Payment Rate: £148.2936/Ha

This technical note describes the minimum standard of work required in order to receive payments for 'Heather Management Cutting and Removal'. Where there are local traditional methods or styles that vary from this standard these may be used, but any significant variation must be approved by the Welsh Government.

Heather Cutting and Removal

Cutting can be used as an alternative to burning on all areas where burning would normally be permitted. Cutting may be a preferable management tool on sites where burning should not be undertaken, where fire is difficult to control, or where land managers are unable to comply with burning guidelines. However, changing from burning to cutting may have implications for the composition of the vegetation. Heather cutting should only be considered on blanket bog where heather cover is very high (>85%) with suppressed hare's tail cotton grass.

You must adhere to the following:

Cutting is only allowed between:

- **1 October – 31 March** in upland areas
- **1 November – 15 March** elsewhere

Agree a five year vegetation cutting and removal management plan with your Field support officer in accordance with the following rules:

- Cut patches between 0.25 and 1ha.
- Cut to height of not less than 5cm and not more than 10cm tall.
- Cut to encourage the regeneration of a diversity of dwarf-shrub heaths so that within 5 years the cut area contains at least 2 of the following; common heather, bell heather, bilberry, cowberry, crowberry or cross-leaved heath.
- Avoid cutting the same piece of vegetation more than once in five years
- Avoid cutting short heath vegetation (<10cm) or heath on thin soils (<5cm deep) or on steep slopes (1 in 2 or less), or where there is more than 50% rock or scree.
- Avoid cutting sites where juniper has been recorded.
- Cut vegetation should be removed from the site by either using a forage harvester or by baling the vegetation. Removing the cut vegetation will help to encourage re-growth and also continues the process of nutrient depletion which maintains heathland conditions.
- If you are undertaking this work within a SSSI and it is listed as an operation likely to damage the special interest (OLDSI) of that SSSI, you must notify NRW in writing and obtain SSSI consent before you carry out, or allow someone else to carry out, the activity. You can do this online using the form available here. You

should have received a copy of the OLDSI list when the site was being designated. You can also find the list using NRW's designated sites search.

Do not:

- cut more than a third of the heathland vegetation in the five year period
- allow cutting to encourage the spread of acid grassland or bracken.
- allow cutting to increase the cover of western gorse above 50%
- cut areas of exposed, suppressed maritime heath close to the sea.

Requirements and guidance in addition to the specifications above:

Consent will only be given where the following conditions are met;

- cutting and removal management does not conflict with any strategic objectives for the site
- a long-term cutting programme has been agreed with the landowner or land manager
- an appropriate grazing regime is in place.

Cutting can also be used on the following areas:

- For cutting areas of upland moorland with little or no heather, e.g. dense purple moor-grass or rush, to encourage the growth of heather and other typical heathland and bog species.
- For cutting firebreaks on areas of very woody heather where there is a high risk of wildfires or prescribed fires getting out of control.
- On heaths dominated by western gorse where common heather and bell heather are scarce or absent.
- As an alternative to spot burning of 'western gorse.
- On wet and humid heaths and bogs where there is a high proportion of Purple moor-grass and/or where mats of sphagnum moss are present
- To create fire breaks adjacent to woodland and forestry.
- Adjacent to pockets of bracken, but cut plots should be monitored to detect bracken invasion and further cutting halted if this occurs.

Individual Tree Mesh Guards: >1.2m

Item Code: L103

Payment Rate: £38.51 each

This technical note describes the minimum standard of work required to receive payments for “Individual Tree Mesh Guards: > 1.2m”. Any variation must be approved by the Welsh Government prior to starting the work.

Tree mesh guards protect individual trees, such as trees in parklands and agroforestry plantings by deterring browsing animals from damaging the tree.

You must adhere to the following:

- Install tree mesh guard made form galvanised welded wire mesh.
- Guard manufactured from 12-gauge (2.5mm) 50x50mm or 25mmx75mm mesh.
- Minimum height 1.2m.
- Minimum diameter of mesh guard 40cm
- Secure mesh guard in place by a minimum of two wooden posts with a minimum diameter of 10cm x 10cm. Mesh guards should be secured to the posts with galvanised staples.
- Use posts comprising either hardwood or pressure treated softwood.
- Ensure all materials are new.
- Remove, or replace the tree guard before the growth of the tree is impacted by the tree guard.

Requirements and guidance in addition to the specifications above:

- Additional posts can be included to provide additional stability for the mesh guard.
- Wire mesh could incorporate a ‘spiked’ design. This item is only suitable in areas with no public access and where impact on livestock has been assessed.
- Maintain the tree guard until the trees are established and/or the risks of damage by browsing animals has stopped
- Monitor and maintain the trees, mesh guards and supports regularly. Remove and replace the mesh guard and its supports if they are damaging the tree.

Individual Tree Mesh Guards: >1.8m

Item Code: L104

Payment Rate: £43.52 each

This technical note describes the minimum standard of work required to receive payments for “Individual Tree Mesh Guards: > 1.8m”. Any variation must be approved by the Welsh Government prior to starting the work.
Tree mesh guards protect individual trees, such as trees in parklands and agroforestry plantings, by deterring browsing animals from damaging the tree.

You must adhere to the following:

- Install tree mesh guard made form galvanised welded wire mesh.
- Guard manufactured from 12-gauge (2.5mm) 50x50mm or 25mmx75mm mesh.
- Minimum height 1.2m.
- Minimum diameter of mesh guard 40cm
- Secure mesh guard in place by a minimum of two wooden posts with a minimum diameter of 10cm x 10cm. Mesh guards should be secured to the posts with galvanised staples.
- Use posts comprising either hardwood or pressure treated softwood.
- Ensure all materials are new.
- Remove, or replace the tree guard before the growth of the tree is impacted by the tree guard.

Requirements and guidance in addition to the specifications above:

- Additional posts can be included to provide additional stability for the mesh guard.
- Wire mesh could incorporate a ‘spiked’ design. This item is only suitable in areas with no public access and where impact on livestock has been assessed.
- Maintain the tree guard until the trees are established and/or the risks of damage by browsing animals has stopped
- Monitor and maintain the trees, mesh guards and supports regularly. Remove and replace the mesh guard and its supports if they are damaging the tree.

New Gateways

Item Code: L105

Payment Rate: £135 each

This technical note describes the minimum standard of work required in order to receive payments for 'New Gateways'.

This capital works item is to be used where the locations of current gateways are a high risk of creating pollution problems from soil runoff. Discuss and agree with your Field Support Officer on a suitable area to relocate the gateway.

You must adhere to the following:

- The existing gate must be relocated to a place where there is a lower risk of pollution from soil runoff.
- Before opening a new gateway, make sure that the correct consents, permissions or licenses are obtained, since any new gateways that give access onto highways will need planning permission. Ensure that you carry out the works in line with the licenses or permission issued.

Requirements and guidance in addition to the specifications above:

- Open a gap for placing a new gateway in a suitable position as agreed with your Field Support Officer, this might involve removing a section of wall, hedgerow or earth bank by using appropriate machinery.
- If needed, use the 'hard surfacing' capital works grant to create an area of hard surfacing in and around the new gateway.
- Additional capital works grants can also be included if a new gate is required.
- The gap created as a result of moving the old gateway should be filled to form a semi-permeable barrier, using boundary materials in accordance with local traditions. Additional capital works can be added, including hedgerow planting or stone walling, for example.
- Trackways associated with the gateway should be re-routed and the disused sections made good.
- Where possible, retain and / or re-use stone gateposts.

Orchard Tree: Grafting and Budding

Item Code: L109

Payment Rate: £47 each

This technical note describes the minimum standard of work required in order to receive payments for 'Grafting and Budding'. Where there are local traditional methods or styles which vary from this standard these can be used, but a Field Support Officer must approve any significant variation.

Grafting is a form of propagating new fruit trees using buds or twigs. It involves combining the scion wood from an existing tree and fusing it onto a branch or stem of another tree (the rootstock). Different rootstocks are chosen for size, site suitability, and tolerance of certain soil conditions.

You must adhere to the following:

Fruit tree grafting and budding is a skilled job, and you may need to attend a training course.

Selection of Root Stock

- Look for healthy seedling trees, free of pests and disease.
- Cut from plants that are growing vigorously.
- Use single-stem pieces.
- Start watering and weeding a week before grafting or budding.

Grafting

A short piece of scion wood is attached to the rootstock in late winter/early spring.

Selection of Scion (Cuttings)

- Be sure to take it from the desired cultivar.
- Take it from a healthy mother tree, free from pests and diseases.
- Use a mature tip of a shoot, preferably with pushing eyes that protrude.
- Collect from the middle branches, not from the top or the bottom and from branches that are 6 to 12 months old.
- The diameter should be similar to that of the root stock (about a pencil thick).
- Cut scions 15 to 20cm in length, to allow for cutting back during grafting.
- A scion has to have 3 to 4 bud eyes for a successful grafting.
- Remove all leaves to reduce evaporation.
- Transport scions in a clean moist cloth, keep them cool and in the shade, a cool box is best.
- The success rate in grafting and budding is best if the scions are fresh. (Preserved for 2 to 3 days)

Cleanliness

- Clean your tools and hands several times, before and during the work (use systematic fungicide or household disinfectant for sterilization).
- Make sure neither your hands nor the scions touch the soil while you are grafting.
- Cut scions and rootstock with a single clear cut.
- Never touch the cut areas of the scion or rootstock.

Preparing the Rootstock for Grafting

- Choose rootstock with a single stem in a good shape and well-watered.
- Cut back the rootstock to between 15-30cm, using a diagonal cut at a 45º angle.
- Compare the diameter of your scions. The diameter of the scion and rootstock must match.

Preparing the Scion for Grafting

- Remove any end of the scion that is dry.
- Do not touch the surface of any of the cuts. Look for a scion that matches exactly with the diameter of your rootstock.
- Make a 45º cut that mirrors your cut on the rootstock. The cuts should be smooth and straight.

Attach the Scion to the Rootstock.

- Attach the scion smoothly to the rootstock. Do not press too strongly or touch the surface of the cut.
- Bark to bark (rootstock and scion) rule: Ensure that the bark of the scion and the rootstock match properly. The best result is if both sides match completely. At least one side of the scion and the rootstock must match or the grafting will not take place. Only the soft parts of the scion and the rootstock underneath the bark (cambium) are able to grow over the wound and heal it.

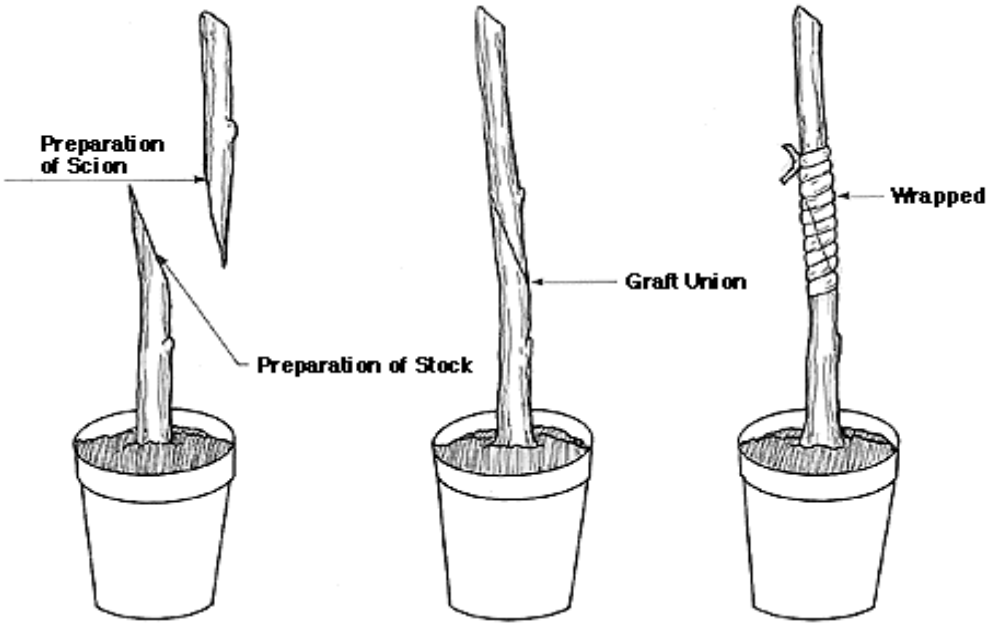
Tie the Union with Tape

- To protect the grafting union from water, disease and drying, tie it with a thin polythene strip. Tie immediately after grafting.
- The strip should be 25cm long and 1cm wide.
- Start tying at the rootstock below the grafting union and wind the tape upwards.
- Overlap the rounds of tape, so that water cannot enter.
- Cover the grafting union towards the top of the scion.
- When only 6 or 7cm of tape remain, wind back downwards, overlapping the tape again.
- Fix the tape with a simple knot.
- Or completely cover the cuts with horticultural wax.

Protect the Scion and the Grafting Union

Cover the scion and the grafting union with a transparent polythene bag to minimise water loss.

- Cover immediately after grafting
- Handle the grafted tree carefully. If you move the container, hold at the bottom. Water all grafted trees immediately after grafting
- Do not expose the grafts to direct sunlight or strong wind.



Budding

Budding is another way of vegetative propagation where a single bud is attached to actively growing rootstock in summer. It follows the same principle as grafting and requires the same cleanliness, skills and inputs.

- Instead of a scion with 3 to 4 bud eyes, only 1 is used in budding. The criteria for collecting scion are the same as for grafting.
- T-budding can be done only if the bark of both rootstock and scion are soft and lift easily. T-budding is so called because the grafting cut made resembles the letter 'T'
- Budding is common for propagating citrus cultivars and peach.

Common Methods of budding

- T- budding and inverted T-budding (upside down 'T')
- Chip-budding. A bud is cut off together with part of the stem, thus the term 'chip'.

Prepare the Rootstock for Budding

- Use selected rootstock (single stem, good shape, weeded and watered). Rootstock plant should be approximately 45 cm (1.5ft) high.

- Do not cut the rootstock. Leave it with the top of the stem until the budding has taken.
- If the rootstock has many leaves, take off some of the lower ones that are close to the ground.
- In budding, rootstock is often raised in nursery beds, not in containers
- Select the budding location at the rootstock stem that is smooth, does not have bud eyes and is approximately 30cm (1ft) high
- Cut a T-shape in the bark, with two straight cuts. The size depends on the diameter of the rootstock (see diagram 4)
- Carefully lift the soft bark from the wooden stem of the rootstock without damaging it
- Do not touch the cut.
- Keep soil or dust from entering the cut.
- Immediately prepare the bud eye.

Prepare the Bud Eye

The scion from which the bud eyes are cut, called the 'bud stick', should contain growth of the current or previous season. Do not use either the developing buds at the end of a branch or the mature part of branches with strong bark.

- Hold the bud stick with one hand, the top pointing towards your body.
- Choose one bud eye to cut. Start cutting from 0.5cm below the eye.
- Cut through the bark and slightly into the wooden portion of the bud stick. Now make a straight cut beneath the bud eye. Pass the cut under the bud eye and then guide the knife upwards. Reaching the soft bark, strip off the bud eye.
- Do not touch the cut of the bud eye.
- Remove the wooden portion in the inner part of the bud eye with great care, with the tip of your knife. Do not disturb the bud eye itself. (See diagram 1 to 3)

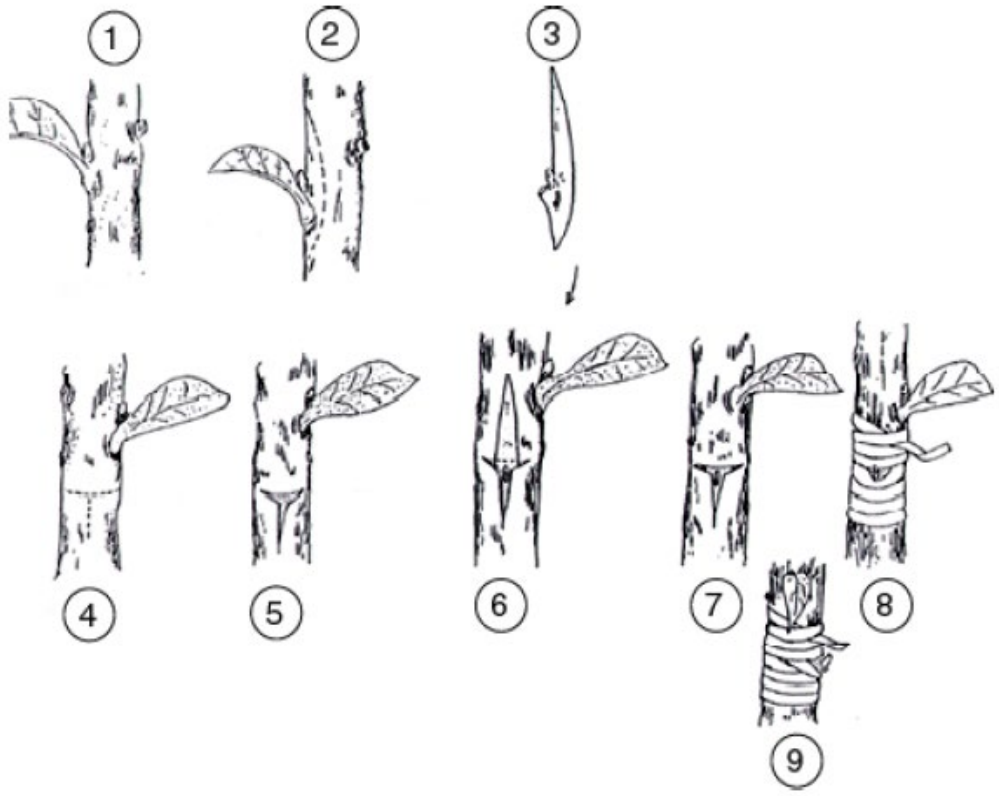
Insert the Bud Eye in the T-cut of the Rootstock

- Inset the bud eye in the T-shaped cut in the rootstock, gently pushing it from the top downwards.
- The bud eye must remain in the same position in which it was growing on the bud stick. Do not insert it in the rootstock upside down.
- Insert the bud eye into the bark of the rootstock about 1.5cm.
- Remove the overlapping bark of the bud eye by repeating the horizontal cut of the T-shape. (See diagram 6 and 7)

Tie the Bud Eye to the Rootstock.

- Tie the bud eye with polythene tape, working from the bottom to the top
- Tighten the tape firmly at the bottom and the top of the bud eye.

- Cover the top of the T-cut. Overlap the rounds of the tape and change the direction downwards.
- Do not cover the bud eye. Leave a small space for the bud to sprout. Tighten the tape at the top with a simple knot. (See diagrams 8 and 9)
- Handle the budded tree carefully
- Water all containers or nursery beds with budded trees immediately after budding. Do not expose the trees to direct sun or strong wind



In the following spring, prune off the tip of the rootstock branch as soon as the grafted bud begins to grow.

Requirements and guidance in addition to the specification above:

Until the early part of the twentieth century almost every farm had an orchard, growing many varieties of fruit for domestic use and for marketing locally. As the trees aged, these orchards often fell into decay. The surviving examples are a distinctive feature in the countryside and often have a high wildlife value.

Grafting and budding encourages uniformity and cultivar quality. Fruiting is generally earlier 3 to 4 years. Also, both techniques have a dwarfing effect on the fruit tree, which makes it easier to harvest the fruit.

Fruit tree grafting and budding is a skilled job, and you may need to attend a training course. Your Field Support Officer can advise you on training.

Orchard Tree: Restoration Pruning

Item Code: L110

Payment Rate: £70.50 each

This technical note describes the minimum standard of work required to receive payments for 'Restoration Pruning of Orchard Trees'. Where there are local traditional methods or styles which vary from this standard these can be used, but a Field Support Officer must approve any significant variation.

You must adhere to the following:

- Pruning of apple and pear trees should take place between October and April, avoiding cold weather and carried out in such a way to prolong the life of the tree.
- Pruning of cherry, damson and plum must be done between May and September to reduce the risk of silver leaf infection.
- The tree must be cut cleanly with cuts angled so that they slope away from the crown and allow water to run off.
- Pruned timber should be stacked in a semi-shaded location within the orchard.

Do not:

- cut through the branch halfway along its length
- remove any more than a quarter of the canopy per year
- burn any timber without written permission from a Field Support Officer, as cuttings may bear valuable mosses and lichens whilst the heat generated by fires can be very damaging to both fruit trees and their associated wildlife.

Requirements and guidance in addition to the specification above:

Until the early part of the twentieth century almost every farm had an orchard growing many varieties of fruit for domestic use and for marketing locally. As the trees aged, these orchards often fell into decay. The surviving examples are a distinctive feature in the countryside and often have a high wildlife value.

Established fruit trees benefit from regular pruning. This encourages fruit production, maintains an open crown which reduces the possibility of disease, and prevents trees becoming top-heavy and vulnerable to autumn gales. Fruit tree pruning is a skilled job, you may need to seek professional help or attend a training course. A Field Support Officer can advise you on both local contractors and training courses. Neglected fruit trees need to be pruned gradually over at least three years to avoid damaging the tree and maintain fruiting. Following restoration, trees must be maintained by regular pruning.

Pruning Objectives

- bring light to the centre of the tree to help ripen the fruit and stimulate the production of new shoots.
- encourage air movement through the tree to reduce disease.
- create a healthy balance of old fruiting wood and young replacement shoots.

First Year

During the first year of pruning, you should remove:

- suckers growing from the base or from below the graft they are probably from the rootstock.
- large dead branches and lower branches that interfere with grazing or mowing, cut back to a short stump or a suitable branch, do not cut through the branch halfway along its length.
- large branches that cross over in the centre of the crown or are rubbing on each other.
- vigorous upright growth.
- diseased wood

The aim is to re-create a framework of 5-12 radially spaced branches or leaders while still maintaining the natural shape of the tree. The leaders are the natural skeleton on which fruiting laterals and spurs are borne. If achieving this shape will require removal of more than one quarter of the canopy, spread this pruning phase out over 2 or more years.

In Subsequent Years

- Reduce the crown by thinning out any congested laterals and overgrown spurs leaving stubs of about 1cm. New shoots which spring from the base of these cuts will eventually bear fruit.
- Remove or shorten inward facing branches.
- Any strong, well-placed young shoots growing from near the centre of the tree can be trained into new leaders.

Otter Holts

Item Code: L111

Payment Rate: £105 each

This technical note describes the minimum standard of work required to receive payments for 'Otter Holts'. Where there are local traditional methods or styles which vary from this standard these can be used, but any significant variation must be approved by the Welsh Government.

Otters are now present on many streams and rivers in Wales after a decline in the 1950's. Provision of otter holts will enable otters to use areas that lack the dense cover required to lie up during the daytime and thus secure them more areas to use for protection from disturbance.

Streamside scrub, overhanging vegetation and mature trees with hollowed-out root systems can all provide necessary shelter. Provision of an artificial Otter Holt can enhance this still further and is a quick and effective way to provide a resting site.

You need to adhere to the following:

Before constructing an artificial holt, it is important to evaluate existing habitats. Good habitats near watercourses can be protected by:

- Leaving wetlands undrained
- Fencing off scrub
- Encouraging long vegetation to grow by reducing mowing frequency and cutting areas in rotation
- Fencing off bank sides to protect trees and banks from grazing livestock. Large root cavities in mature trees are often used as lying-up sites by otters.
- Allowing trees to regenerate on river banks
- Reducing levels of disturbance especially by humans and dogs
- Avoiding pollution.

New otter habitat can be created by:

- Fencing and planting up meanders and field corners with willow, hawthorn and blackthorn
- Planting bare banks with trees especially oak, sycamore, alder, elm and willow to create future otter holt sites or allow scrub cover to develop naturally.
- Constructing artificial holts if no other suitable sites are available.

Key points to consider when constructing an artificial holt:

Location

- Build close to the water's edge, where otters can easily climb the bank
- Choose a site which has minimal disturbance from humans and dogs
- In Internal Drainage Districts, ensure that holts are not placed within 7m maintenance strips

Materials

- 20–25 logs about 1m long and 30-40cm in diameter
- A quantity of fairly straight poles and tree branches, about 3–10cm in diameter x 3m long. (Any shorter poles can be used to infill gaps.)
- Brashings, large amounts of small branches from hedgerows or coniferous trees.
- Larger timber should preferably be taken from fallen trees or trees thinned as part of a planned woodland management programme.

Construction

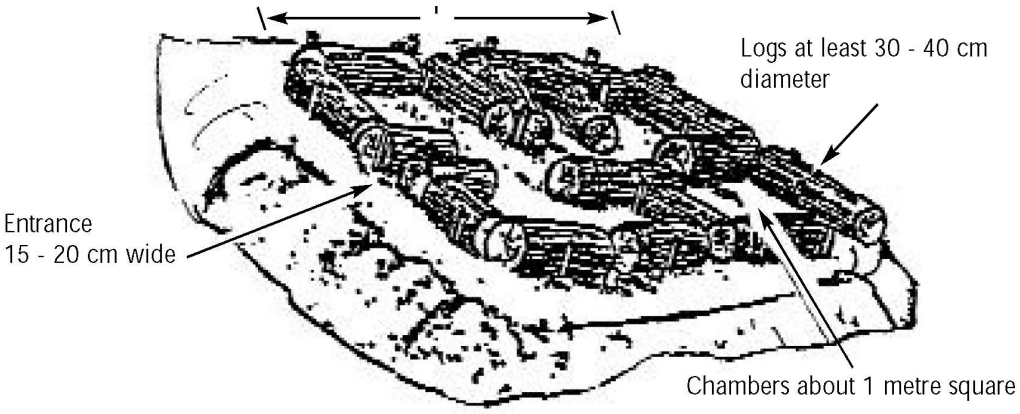
Construction takes place in three stages. The aim is to provide several dark and dry inter-connecting chambers. The overall shape depends upon the site and can be rectangular, square or circular:

- Place the logs to form 6-8 chambers of about 1 square metre each. Leave gaps about 15–20cm wide as entrances. One or two entrances should be immediately at the water's edge with other entrances on the landward sides.
- Place the poles across the chambers to form the roof. Fill in gaps with small pieces of wood to make the chambers darker and more weather proof.
- Pile the brashings on top to completely hide the logs and poles and leave the chambers dry and dark. Branches should lie flat and be packed down. Lay branch stems inwards with the smaller branches/fronds overlapping the logs and poles to form an outer fringe.

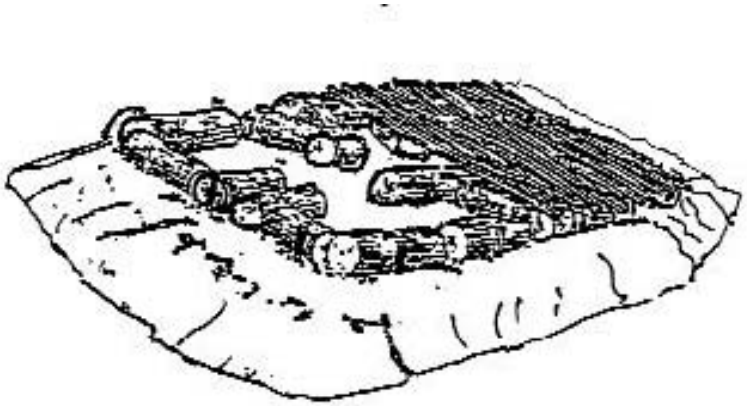
If the site is liable to flooding, stretch sheep netting over brashings and stake the netting down on both sides of the holt taking care to ensure no sharp wire can cause injury. Place more brashings on top to hide the wire.

Stage 1

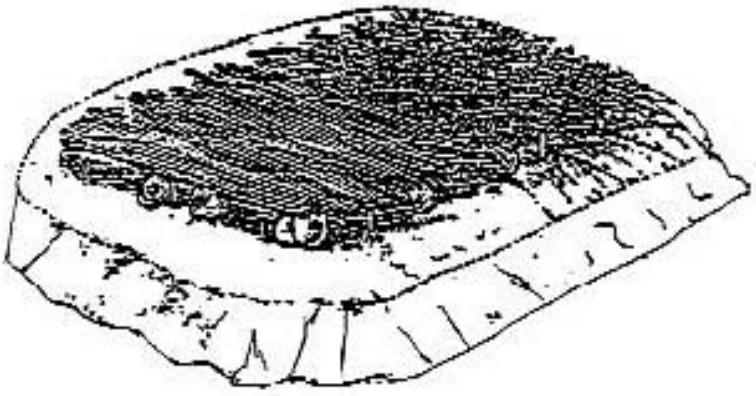
Build basic structure with logs 3 metres across. Secure using stakes:



Stage 2
Lay thick poles to form roof



Stage 3
Cover with branches



Parkland: Iron Gates

Item Code: L112

Payment Rate: £668.70 each

This technical note describes the minimum standard of work required in order to receive payments for 'Parkland Iron Gates'. Where there are local trad tional methods or styles which vary from this standard, these can be used, but any significant variation must be approved by a Field Support Offcier.

You must adhere to the following:

- A five bar rail gate with two sets of cross bars, one vertical bar in the middle and two cylindrical iron posts, as seen in the photograph below.
- It will need to be a standard galvanised finish to BS EN ISO 1461.
- Posts must be at least 2100mm long and the gates themselves must have a width of between 900mm and 3000mm.
- Any openings greater than 3000mm must have two leaves.
- All gate posts must be installed 750mm into the ground and if necessary concrete mortar can be used to set them in place.
- Overall height should be 1200mm comprising of a 20mm top horizontal cylindrical rail and 4 lower RSF flat rails. Vertical RSF posts are separated on the ground at 1000mm intervals.



Requirements and guidance in addition to the specifications above:

- When replacing old iron gates it will be necessary to paint the new iron railings in a colour that matches the original in black.



- Below, an example of a typical iron gate latch is shown, and if the design varies from this it will be acceptable as long as it matches the original design of the area



- When replacing runs of old iron railings it will be necessary to paint the new iron railings in a colour that matches the original. Usually a dark colour (e.g. black) to blend into the landscape.

Parkland: Iron Railing Fencing

Item Code: L113

Payment Rate: £63.45/m

This technical note describes the minimum standard of work required in order to receive payments for 'Parkland Fencing'. Any variation from the standards set out must be approved in advance by your Field Support Officer.

A standard payment is available for traditional metal parkland fencing associated with the management of wildlife, landscape, archaeological and historic features. Parkland fencing should maintain the open appearance of the landscape as a characteristic feature. Usually a dark painted metal (e.g. black) to blend into the landscape.

You must adhere to the following:

- Parkland fencing must feature a continuous 5 bar rail fence in a galvanised finish to BS EN ISO 1461. Any variation from this standard must be approved in advance by your Field Support Officer.
- In an undulating landscape, care must be taken during installation to ensure the rails are parallel to each other and the ground.
- Repairs should use traditional materials and methods.



Requirements and guidance in addition to the specifications above:

- When replacing old iron rail fencing, it will be necessary to paint the new iron railings in a colour that matches the original in black.

Pond Creation

Item Code: L115

Payment Rate: £6.54/m2

This technical note describes the minimum standard of work required to receive payments for 'Pond Creation'. Where there are local traditional methods or styles which vary from this standard, these can be used, but any variation must be approved by your Field Support Officer.

New ponds can create significant benefits for wildlife, but this is unlikely to take place if construction involves the destruction of remaining pockets of wildlife habitat such as marshy grassland. Relative to their size, ponds are extremely biodiverse. Ponds are a key habitat for many types of wildlife, as well as being an important water source and feeding location for terrestrial wildlife.

Pond construction and maintenance are skilled operations and detailed discussions with specialist advisors will bring both long term and short term benefits.

Payments are available towards the cost of creating new ponds in suitable locations which are agreed your Field Support Officer.

You must adhere to the following:
Water Supply

The water source should be unpolluted and where possible, available throughout the year. Avoid using field drains if possible, since these may carry fertiliser from adjacent land.

Construction

Off-stream ponds provide greater control over winter flooding and silting than on-stream construction. If constructing on-stream, build a smaller silt pond upstream of the main pond and clean out gravels and silts regularly.

- **Scheduled Monuments**. If you are undertaking this work within or on the boundary of a scheduled monument you must obtain scheduled monument consent from Cadw prior to undertaking the works or allowing someone else to carry out the works. Failure to obtain the necessary consent prior to undertaking the works is an offence under the Historic Environment Wales Act, 2023.

  You can submit an application for scheduled monument consent online via: Application Form — Scheduled Monument Consent | Cadw

  If you require further information email: scheduledmonuments@gov.wales

  You can find the location, extent and a description of all scheduled monuments in Wales at: Search Cadw records | Cadw

- **Registered Historic Parks and Gardens**. If you are undertaking this work within or on the boundary of a Registered Historic Park and Garden, you must contact Heneb for advice prior to prior to undertaking the works or allowing someone else to carry out the works

  If you require further information email: heritagemanagement@heneb.org.uk

  You can find the location, extent and a description of all Registered Historic Parks and Gardens in Wales at: Search Cadw records | Cadw

- **Historic Environment Features**. If you are undertaking this work within or on the boundary of a Historic Environment Feature you must contact Heneb for approval prior to prior to undertaking the works or allowing someone else to carry out the works

  You can find the location and extent of all Historic Environment Features in Wales at: Historic Environment Records (HER) - Heneb

  If you require further information or advice email: heritagemanagement@heneb.org.uk

- If you are undertaking any activity near a main river, floodplain or flood defence structure you must check whether a Flood Risk Activity Permit is needed and obtain a permit if required. Any permit/consent (or confirmation that a permit/consent is not needed) should be retained and made available on request.

  Natural Resources Wales / Check if you need a flood risk activity permit (FRAP)

- If you are undertaking work within and Internal Drainage District, you may need to obtain a land drainage consent to ensure that your activities do not cause a risk of flooding or make existing flood risk worse.

A consent is also necessary to ensure your work will not interfere with our flood risk management assets or adversely affect the local environment, fisheries or wildlife. Natural Resources Wales / Apply for land drainage consent.

- You need to consider how your proposal may affect water flow, levels, or quantity. Where a new impoundment, or the modification or removal of an existing impoundment, could result in either permanent or temporary changes in water level, quantity, or flow continuity, an impoundment licence will typically be required. This applies unless the activity is exempt under relevant statutory provisions or can be demonstrated to be low risk, with little impact on the environment, other water users and rights. You should refer to the information and checklist here to determine whether a licence is required. If you answer “yes” to any of the checklist questions, you should apply for an impoundment licence. If you answer “no” to all questions or can provide sufficient supporting evidence or justification to demonstrate that the proposal will not have a negative impact, a licence will not normally be required. If you are not sure if you need a licence you can ask for pre-

application advice at Natural Resources Wales / Pre-application advice service for water abstraction and impoundment licences.

- If you are undertaking this work within a SSSI and it is listed as an operation likely to damage the special interest (OLDSI) of that SSSI, you must notify NRW in writing and obtain SSSI consent before you carry out, or allow someone else to carry out, the activity. You can do this online using the form available here. You should have received a copy of the OLDSI list when the site was being designated. You can also find the list using NRW's designated sites search.

Impermeable soil, such as clay, is ideal for water retention. Permeable soil, such as shale, may need an artificial liner or imported clay which may be expensive. Dig trial holes before starting work to check water-holding capacity.

Excavated soil should be used for landscaping the site where possible since removal will add to the cost. Ensure that this is not in a location where it can wash into the pond or a nearby watercourse. Construction is easier if this can be completed without the need for a down slope embankment.

Subsoil excavated during digging may be used for landscaping the area around the pond, or to cap the liner, if one is used.

Where a liner is used, ensure that protective underlay is used both above and below, and cap the upper layer of underlay with at least 15cm depth of subsoil or sharp sand. This protects the liner and provides an environment for aquatic plants to root in.

Size and Shape

The size of the pond created will be agreed with the Field Support Officer and included in the Schedule of Works.

Wildlife ponds must be at least 10m2 in area with shallow sloping margins, and hold water for at least 9 months of the year in a normal rainfall year.

- Large ponds can provide a wider range of habitats, but several small ponds will incorporate a variety of conditions and may be more valuable for wildlife.
- Increase the length of pond 'edge' by creating an irregular shoreline with projecting spits and small bays to provide more shelter and cover for wildlife. Emergent vegetation will provide shelter from both wind and sun.
- Do not include islands as these are likely to attract ducks or Canada geese

Depth and Profile

- The maximum depth of the pond will depend on its area. Small ponds should not be greater than 1m in depth. Larger ponds may have a greater depth, but there is no need for any pond to have a maximum depth of more than 3m unless it is expected

to fluctuate greatly in depth. Include plentiful shallow water which slopes gradually into deeper areas (up to 2-3 m depth).

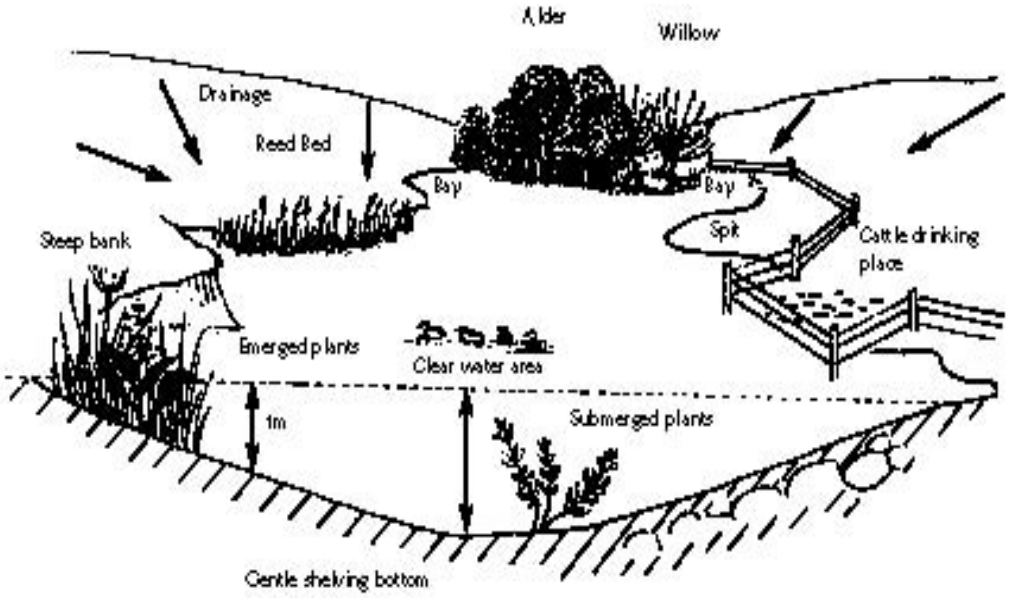
- The key requirement is that the pond has shallow sloping margins. Make sure that the profile of the pond reflects this. Very shallow water, 20cm in depth or less, is of greatest importance for wildlife. The maximum depth of the pond should reflect the amount of flow into the site. Ponds with a reliable water source (e.g. with a larger catchment or a reliable groundwater source) can be shallower.
- Water levels will vary during the year, so it is best to profile the pond so that it slopes gradually rather than with any shelves / abrupt changes in depth.
- Areas of deeper water are less likely to dry out in the summer and provide a refuge for species which are unable to adapt to major changes in conditions.

Stocking and Planting

Vegetation will usually establish quickly from the surroundings and new ponds should be left to colonise naturally as far as possible. Seed will germinate from the seed bank, or colonise naturally. Do not plant with pond plants, as these often include invasive non-native species.

Tall, emergent vegetation in the shallow margins such as long grass will provide good cover for waterfowl. Scrub, including willow, bramble and gorse, can be allowed to establish on western and northern edges for wildlife and landscape interest. Overhanging branches provide good perches for birds.

Diagram – Cross Section of Pond



Requirements and guidance in addition to the specifications above: Choosing a site

A suitable location for the creation of a new pond must be agreed with your Field Support officer.

Consider the existing wildlife value of the site; it may be of greater value without a pond. Choose a relatively undisturbed area away from buildings and avoid sites with a high risk of fertiliser run-off and nutrient enrichment. Beware of underground or overhead hazards such as electricity cables.

Try to link existing habitats such as unimproved grassland and scrub. Many pond species such as newts and other amphibians spend only part of their lives in water and need suitable conditions on dry land to complete their life cycle.

It is sensible to avoid siting a pond next to tall trees as this may cause problems with leaf-fall and increased siltation levels. Ensuring the pond is open to the south will allow sunlight to warm the water in spring, but some scrub and resultant shade is likely to be beneficial.

Identify a low-lying location in the landscape where clean water tends to collect. The locations of former ponds can be very suitable - on improved land, this can sometimes be visible on aerial photographs (see the Ghost Ponds Project).

The best locations are where the pond is fed by groundwater, rainwater or surface water draining relatively low intensity land. A sunny position is preferable. Ponds are very suitable for combining with suitable lower intensity land use such as green hay application and sward enhancement.

Do not:

- site where the pond receives water from a nutrient-rich situation such as a yard or field on which manures or slurry are regularly spread;
- create by damming an existing watercourse. You may however widen an existing field ditch.
- site under or close to trees where the pond will receive heavy leaf fall, unless there is some flow entering the pond.
- remove fallen wood in or adjacent to the pond.
- fell or coppice any trees identified by NRW staff as of key importance for wildlife.
- plough or otherwise cultivate within 10m of the pond.
- introduce waterfowl or fish.
- feed livestock or wildfowl close to the pond.
- apply fertilizers, slurries, manures or digestate within 10m of the pond or any ditches, flushes or other flow pathways that feed it.
- dispose of sheep dip within 50m of the pond.
- apply pesticides, except for the purposes of invasive species control where herbicides are identified as the most effective option.
- use for vehicle activities or washing vehicles.

Further Guidance

For more guidance on creating and maintaining a pond and information about planning permission etc. visit the Freshwater Habitats Trust: Freshwater Habitats Trust – homepage

Replacement of Stile with Small Metal Pedestrian or Bridle Gate

Item Code: L116

Payment Rate: £442.05 each

This technical note describes the minimum standard of work required to receive payments for 'Replacement of stile with small metal pedestrian or bridle gate'. Any variation must be approved by the Welsh Government prior to starting the work.

Pedestrian or bridle gates are used to allow access for walkers and horse riders.

Prior to replacing a stile with a small metal or pedestrian gate, you must:

- Have written approval from your **local Highway Authority** under **Section 147, Highways Act 1980.** Unauthorised gates are treated as *unlawful obstructions*.
- **Follow "least restrictive access" requirements;** Consider whether any form of barrier is necessary here, could a gap be left for walkers & riders? Highway Authorities are legally required (under **Section 69, Countryside and Rights of Way Act 2000**) to work on the principle of **least restrictive access** and consider users with mobility restrictions.

Metal Self-Closing Pedestrian Gate



When replacing a stile with a small metal gate you must adhere to the following:

- Remove and dispose of existing stile.
- Install a metal Pedestrian Gate within an integrated H frame.
- Gate and H frame to be galvanized.
- Install gates that are at least 1.0m wide and 1.3m high.
- Hang the gate so that it can be opened from both directions and is self-closing.
- The gate must comply with the British Standard BS5709:2018
- H frame to be secured with concrete.
- Install timber posts on either side of H frame to attach rails / wire. posts must be at

least 10cm diameter.
- Smooth any rough zinc edges.
- Keep all fittings tight.

Metal Bridle Gate



When replacing a stile with a metal bridle gate you must adhere to the following:

- Remove and dispose of existing stile.
- Install a metal Bridle Gate within an integrated H frame
- Gate and H frame to be galvanized.
- Install gates that are at least 1.525m wide and 1.3m high.
- Hang the gate so that it can be opened from both directions and self-closes slowly.
- H frame to be secured with concrete.
- The gate must comply with the British Standard BS5709:2018
- Install timber posts on either side of H frame to attach rails / wire. Posts must be at least 10cm diameter.
- Fit a long reach handle that allows the gate to be opened without the rider dismounting.
- Smooth any rough zinc edges.
- Keep all fittings tight.
- Adjust so the gate **self-closes slowly** (for the safety of riders).
- Ensure there is enough room for path users to manoeuvre.

Do not:

- Install gates and posts on Public Rights of Way unless approval has been

received from your local Highway Authority
- Lock the gate (illegal obstruction)
- Use barbed wire near the gate.

Requirements and guidance in addition to the specifications above:

- Install a gate that can open in both directions, except next to a road where the gate should open away from the road.
- In areas prone to vandalism, the top hook can be reversed to prevent the gate being lifted off.

Ongoing responsibilities

You must ensure the gate remains:

- safe
- easy to use
- free from obstruction
- accessible for users with mobility needs

Help available:

Your **local authority Public Rights of Way Team** may provide advice or volunteers to assist with installation.

Replacement of Stile with Small Timber Pedestrian or Bridle Gate

Item Code: L117

Payment Rate: £375.49 each

This technical note describes the minimum standard of work required to receive payments for 'Replacement of stile with small timber pedestrian or bridle gate'. Any variation must be approved by the Welsh Government prior to starting the work.

Pedestrian or bridle gates are used to allow access for walkers and horse riders.

Prior to replacing a stile with a small timber pedestrian or bridle gate, you must:

- Have written approval from your **local Highway Authority** under **Section 147, Highways Act 1980.** Unauthorised gates are treated as *unlawful obstructions*.
- **Follow "least restrictive access" requirements;** Consider whether any form of barrier is necessary here, could a gap be left for walkers & riders? Highway Authorities are legally required (under **Section 69, Countryside and Rights of Way Act 2000**) to work on the principle of **least restrictive access** and consider users with mobility restrictions.

Timber Self-Closing Pedestrian Gate



When replacing a stile with a small timber pedestrian gate you must adhere to the following:

- Remove and dispose of existing stile.
- Install timber pedestrian gate and posts constructed from either pressure treated softwood or hardwood erected so that it self-closes.

- Install gates that are at least 1.0m wide and 1.3m high.
- Use a ready-made gate or construct a gate.
- All gate timbers must meet the following dimensions:
    - Uprights should be at least 10cm x 7.5cm in cross section.
    - All rails should be 7.5cm x 2.5cm in cross section except the top rail which should be 10cm x 7.5cm.
- Hang the gate so that it can be opened from both directions.
- Ensure that all post timbers must meet the following dimensions;

- Hanging posts must be at least 15cm diameter
- Shutting posts must be at least 12cm in diameter
- Posts must be set into the ground to sufficient depth to ensure stability.
- The gate must comply with the British Standard BS5709:2018
- The latch must be visible, able to be used one-handed, easy to operate from both sides and an extended handle type e.g. easy latch.
- Offset the hinges (top close, bottom further out) to make the gate **self-close**.

Timber Bridle Gate



When replacing a stile with a timber bridle gate you must adhere to the following:

- Remove and dispose of existing stile.
- Install Timber Bridle Gate and Posts constructed from either pressure treated softwood or hardwood erected to self-close slowly.
- Install gates that are at least 1.525m wide (between posts) and 1.3m high.
- Use a ready-made gate or construct a gate. All gate timbers must meet the following dimensions:
- Uprights should be at least 10cm x 7.5cm in cross section.
- All rails should be 7.5cm x 2.5cm in cross section except the top rail which should be 10cm x 7.5cm.

- Hang the gate so that it can be opened from both directions.
- Fit a long reach handle that allows the gate to be opened without the rider dismounting.
- The gate must comply with the British Standard BS5709:2018

- Adjust so the gate **self-closes slowly** (for the safety of riders).
- Ensure horse riders can manoeuvre safely and have **space to turn and pass**.
- Ensure that all post timbers must meet the following dimensions;
- Hanging posts must be at least 15cm diameter
- Shutting posts must be at least 12cm in diameter
- Posts must be set into the ground to a sufficient depth to ensure stability.

Do not:

- Install gates and posts on Public Rights of Way unless approval has been received from your local Highway Authority
- Use concrete to secure posts in the ground, as it can lead to rotting of the timber posts at ground level.
- Lock the gate (illegal obstruction)
- Use barbed wire near the gate.

Requirements and guidance in addition to the specifications above:

- Install a gate that can open in both directions, except next to a road where the gate should open away from the road.
- In areas prone to vandalism, the top hook can be reversed to prevent the gate being lifted off.
- Best practice is to set the posts at least 70cm into the ground to ensure stability and keep the bottom of the gate 7.5cm above the ground.
- Ensure there is enough room for path users to manoeuvre.

Ongoing responsibilities

You must ensure the gate remains:

- safe
- easy to use
- free from obstruction
- accessible for users with mobility needs

Help available

Your **local authority Public Rights of Way Team** may provide advice or volunteers to assist with installation

Scrub/Tree Clearance: Hand

Item Code: L118

Payment Rate: £0.12/m2

This technical note describes the minimum standard of work required in order to receive payment for 'Scrub/Tree Clearance by hand'. Scrub can be an important and desirable habitat. Where there are local traditional methods or styles which vary from this standard these can be used, but any significant variation must be approved by a Field Support Officer prior to starting the work.

You must adhere to the following:

- Cut trees and scrub at ground level leaving no protruding stumps using saws, loppers or chain saws. Alternatively remove small seedlings using tree poppers or pulling by hand. When pulling ensure that the root is removed and the seedling is not just snapped otherwise regrowth will occur.
- When carrying out partial scrub clearance (e.g. on the edge of a heathland or peatland or when breaking up a dense stand of scrub into smaller blocks), ensure that the scrub edges retain a natural and uneven appearance. Small bays and other sheltered locations are particularly valuable for butterflies and other wildlife.
- Cut no more than a third of the scrub in each year.
- You must seek advice from a Field Support Officer if protected species such as badger, dormice are likely to be present.
- Cut material should be removed unless agreed with the Field Support Officer or the work is being undertaken to manage a woodland. Brash piles can easily smother ground flora. In such circumstances, cut material should be stacked carefully under the remaining scrub patches which are not planned for removal where it can be left to decay and provide additional cover for wildlife or in sunny spots to provide micro habitats for insects. Alternatively, cut material may be burned in previously agreed locations well away from standing scrub and trees.
- If scrub has established for multiple years, then it may be necessary to remove the thatch that has built up. Particularly with gorse - there can be a very thick mulch layer established from the needles/leaves.
- Removal of stumps/runners by hand e.g. mattock/spade must not be undertaken without agreement from your field support officer.
  It may be necessary to treat either the cut stump or the bushy re-growth with a suitable herbicide, but this must be agreed by a Field Support Officer.
- If you are undertaking this work within a SSSI and it is listed as an operation likely to damage the special interest (OLDSI) of that SSSI, you must notify NRW in writing and obtain SSSI consent before you carry out, or allow someone else to carry out, the activity. You can do this online using the form available here. You should have received a copy of the OLDSI list when the site was being designated. You can also find the list using NRW's designated sites search.

Do not:

- clear scrub in the bird nesting season 1 March to 31 August.
- Remove stumps using heavy machinery.
- burn standing scrub without the written agreement from a Field Support Officer.

Requirements and guidance in addition to the specification above:

Scrub consists of woody shrubs or trees such as hawthorn, willow, gorse and birch which are pioneer or opportunist species. Scrub needs to be controlled and/or removed where it threatens to replace more valued wildlife habitats, causes damage to archaeological remains, or obscure routes used for public access.

Whilst capital payments are available for scrub clearance, many areas of scrub are also of significant landscape and wildlife value in their own right.

After cutting, many species will respond by sending out new shoots rather than being killed outright. This growth may be controlled by grazing pressure or by mowing, but it may be necessary to treat either the cut stump or the bushy re-growth with a suitable herbicide when it is cut.

Use of Herbicides

It may be necessary to treat either the cut stump or the bushy re-growth with a suitable herbicide, but this must be agreed by a Field Support Officer.

Any chemical used must have a label recommendation for treating scrub (either re-growth or cut stumps) and for the intended method of application. All manufacturers label recommendations regarding application of the herbicide should be strictly adhered to.

Follow the recommendations of the Code of Practice for using plant protection products

Scrub Clearance on Archaeological Sites

Archaeological features such as barrows, forts, deserted medieval villages or even simple boundary banks are often best preserved under a cover of grass or heath. A light grazing or mowing regime is all that is required to maintain this cover following scrub removal.

You must ensure that earthworks are not disturbed and that a cover of grass or heath is quickly re-established.

Scrub/Tree Clearance: Mechanical

Item Code: L119

Payment Rate: £195/Ha

This technical note describes the minimum standard of work required in order to receive payment for 'Scrub Clearance – Mechanical'. Where there are local traditional methods or styles which vary from this standard these can be used, but any significant variation must be approved by a Field Support Officer prior to starting the work.

You must adhere to the following:

- Cut scrub at ground level leaving no protruding stumps using machinery.
- When carrying out partial scrub clearance (e.g. on the edge of a heathland or peatland or when breaking up a dense stand of scrub into smaller blocks), ensure that the scrub edges retain a natural and uneven appearance. Small bays and other sheltered locations are particularly valuable for butterflies and many other invertebrates.
- Cut material should be kept on site but where possible away from valuable habitats unless agreed with the Field Support Officer.
- You must seek advice from the Welsh Government if protected species, such as badger, are likely to be present.
- Removal of stumps/runners must not be undertaken without agreement from your field support officer.
- It may be necessary to treat either the cut stump or the bushy re-growth with a suitable herbicide, but this must be agreed by a Field Support Officer.
- If you are undertaking this work within a SSSI and it is listed as an operation likely to damage the special interest (OLDSI) of that SSSI, you must notify NRW in writing and obtain SSSI consent before you carry out, or allow someone else to carry out, the activity. You can do this online using the form available here. You should have received a copy of the OLDSI list when the site was being designated. You can also find the list using NRW's designated sites search.

Do not:

- clear scrub in the bird nesting season 1 March to 31 August.
- burn standing scrub without the written agreement from a Field Support Officer.

Requirements and guidance in addition to the specification above:

Scrub consists of woody shrubs or trees such as hawthorn, willow, gorse and birch which are pioneer or opportunist species. Scrub needs to be controlled and/or removed where it threatens to replace more valued wildlife habitats, causes damage to archaeological remains, or obscure routes used for public access.

Whilst capital payments are available for scrub clearance, many areas of scrub are also of significant landscape and wildlife value in their own right.

After cutting, many species will respond by sending out new shoots rather than being killed outright. This growth may be controlled by grazing pressure or by mowing, but it may be necessary to treat either the cut stump or the bushy re-growth with a suitable herbicide.

Use of Herbicides

It may be necessary to treat either the cut stump or the bushy re-growth with a suitable herbicide, but this must be agreed by a Field Support Officer.

Any chemical used must have a label recommendation for treating scrub (either re-growth or cut stumps) and for the intended method of application. All manufacturers label recommendations regarding application of the herbicide should be strictly adhered to.

Follow the recommendations of the Code of Practice for using plant protection products

Scrub Clearance on Archaeological Sites

Archaeological features such as barrows, forts, deserted medieval villages or even simple boundary banks are often best preserved under a cover of grass or heath. A light grazing or mowing regime is all that is required to maintain this cover following scrub removal

You must ensure that earthworks are not disturbed and that a cover of grass or heath is quickly re-established.

Sediment Traps

Item Code: L120

Payment Rate: £208.529 each

This Technical Note describes the minimum standard of work required to receive payments for Sediment traps

Some areas e.g. farm or forestry/woodland tracks, tram lines or natural slopes of fields can accelerate overland flow, resulting in localised flooding and soil loss. This option is one of a number of tools available that can help reduce this problem, but should not be used as a substitute for managing your soils appropriately.

Sediment traps capture run off from tracks and fields by slowing movement through run-off pathways which will help reduce localised flooding and capture sediment and reduce impacts on sensitive receptors. They also provide additional positive benefits to the nature conservation and landscape value at the farm scale.

You must adhere to the following:

- Locate the ditch, bund or berm which creates the sediment trap near a place of run-off such as a farm or forestry / woodland track or by leading off tramlines.
- Situate within existing grass buffer strips if possible.
- The sediment trap should be approximately 8 metres long x 8 metres wide x 1 metre deep (internal measurements) and constructed ideally from a clay dominated soil.
- Consolidate the sides of the bunds that form the trap which will force water to infiltrate down into the groundwater and so removing sediment.
- Seed the bunds which form the trap using native grass species. Trim annually or biannually after 31st July to prevent scrub invasion and to prevent any disturbance to nesting birds.
- Clean out the sediment between two and five years. Sediment deposition will depend on runoff rate, soil type and weather conditions. Spread the sediment as thinly as possible on arable land or temporary leys.
- You should have the relevant waste exemption. Natural Resources Wales / Register or renew your waste exemptions.
- You will need to provide evidence that you have fully consulted with and followed the recommendations provided by Natural Resources Wales regarding this capital work and this evidence must be submitted along with your Capital Works Claim Form before your capital works can be paid.
- If you are undertaking work within an Internal Drainage District, you may need to obtain a land drainage consent to ensure that your activities do not cause a risk of flooding or make existing flood risk worse.

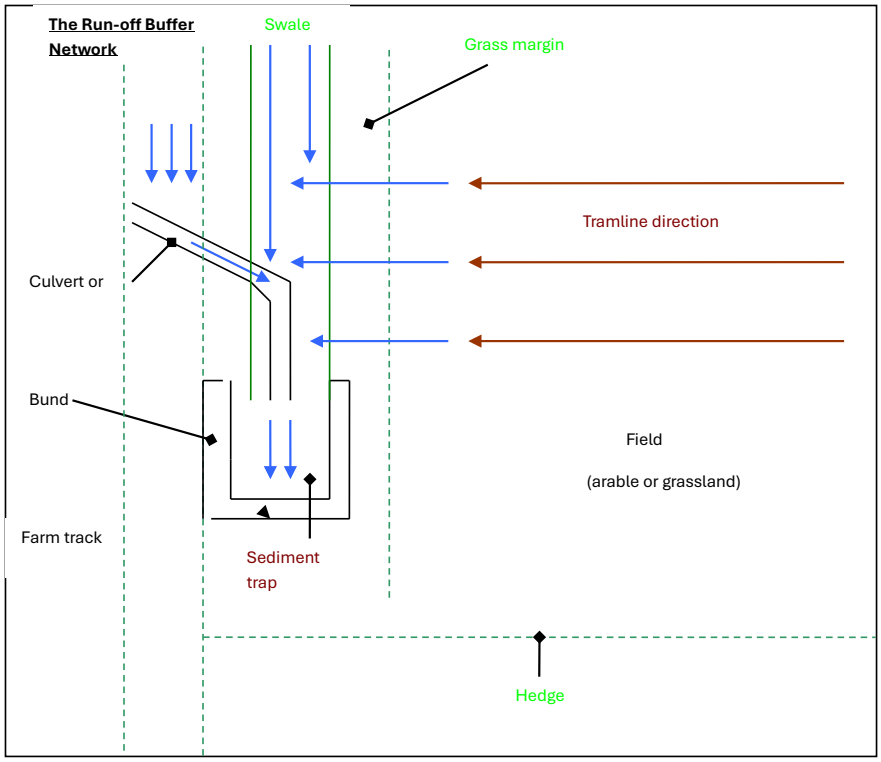
- A consent is also necessary to ensure your work will not interfere with our flood risk management assets or adversely affect the local environment, fisheries or wildlife. Natural Resources Wales / Apply for land drainage consent
- If you are undertaking this work within a SSSI and it is listed as an operation likely to damage the special interest (OLDSI) of that SSSI, you must notify NRW in writing and obtain SSSI consent before you carry out, or allow someone else to carry out, the activity. You can do this online using the form available here. You should have received a copy of the OLDSI list when the site was being designated. You can also find the list using NRW's designated sites search.

Do not:

- remove hedgerows
- divert runoff from a public highway.
- pile sediment removed from the trap in heaps as it will be rich in nutrients and will be a suitable growing medium for injurious weeds, such as common nettle, broad-leaved dock and creeping thistle.

Requirements and guidance in addition to the specifications above:

- This option is suitable for all land use systems such as arable, horticultural, grassland and forestry where overland flow and soil loss are an issue.
- Run-off buffers are easily incorporated into existing field margin systems with minimal disruption to existing habitats and the cropping area.
- Run-off flow is rerouted through culverts, sleeping policemen or swales. Velocity is reduced and sediment is allowed to settle in the sediment trap.
- This option cannot be used for farmyard areas where there is livestock housing, movement or manure storage.


The Run-off Buffer Network
Swale
Grass margin
Tramline direction
Culvert or
Bund
Field
(arable or grassland)
Farm track
Sediment trap
Hedge

Seepage Barrier

Item Code: L121

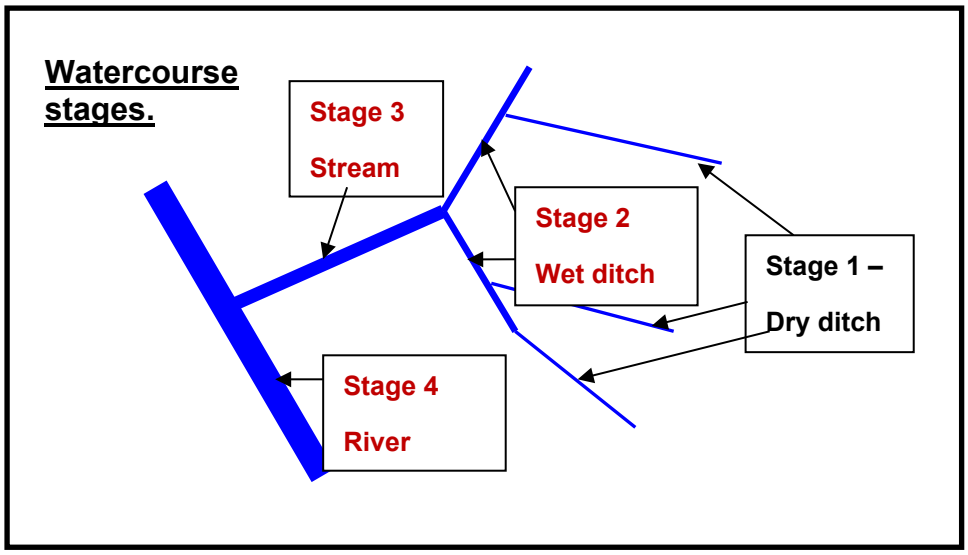
Payment Rate: £339.93 each

This technical note describes the minimum standard of work required to receive payments for 'Seepage Barrier'. Where there are local traditional methods or styles which vary from this standard, these can be used, but any variation must be approved by a Field Support Officer.

Seepage Barriers capture run-off from tracks and fields which will help reduce localised flooding and reduce impacts on sensitive areas. They also expand and complement existing field margin networks and to integrate into existing agricultural operations without forfeiting large areas of land.

You must adhere to the following:

- Choose a suitable location with your Field Support Officer. ***Locate in stage 1 ditches.***





- Create a barrier in the ditch measuring no more than 4m wide and 1m high. Wooden slats (pressure treated) should be formed either vertically or horizontally (if less than 2m wide) leaving 1 or 2mm gap between each barrier. In effect, water should seep through the barrier over a period of time. It is important to make the water seep between slats, so as to allow movement of water. Galvanised steel girders may be used as holding posts for the slats. You can use natural materials from local woodland or hedgerows or recycled plastic barriers. The slats must be of sufficient strength to resist the force of fast flowing water and also have the durability to last the term of the Grant Award.
- If you are undertaking work within and Internal Drainage District, you may need to obtain a land drainage consent to ensure that your activities do not cause a risk of flooding or make existing flood risk worse.
- A consent is also necessary to ensure your work will not interfere with our flood risk management assets or adversely affect the local environment, fisheries or wildlife. Natural Resources Wales / Apply for land drainage consent
- If you are undertaking this work within a SSSI and it is listed as an operation likely to damage the special interest (OLDSI) of that SSSI, you must notify NRW in writing and obtain SSSI consent before you carry out, or allow someone else to carry out, the activity. You can do this online using the form available here. You

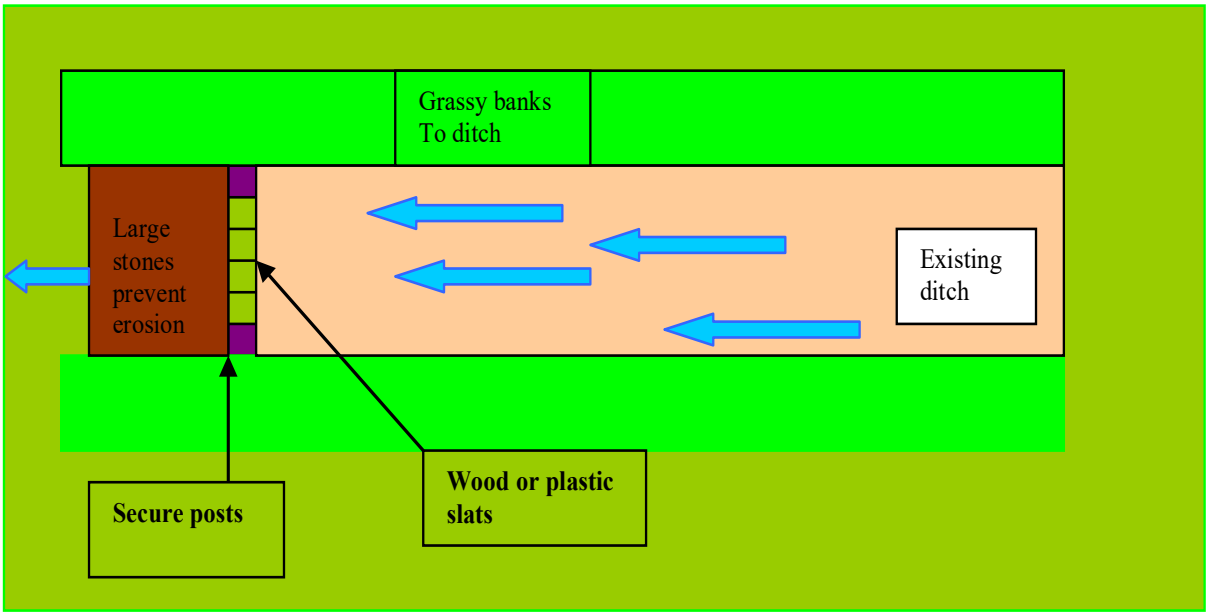
should have received a copy of the OLDSI list when the site was being designated. You can also find the list using NRW's designated sites search.

- You need to consider how your proposal may affect water flow, levels, or quantity. Where a new impoundment, or the modification or removal of an existing impoundment, could result in either permanent or temporary changes in water level, quantity, or flow continuity, an impoundment licence will typically be required. This applies unless the activity is exempt under relevant statutory provisions or can be demonstrated to be low risk, with little impact on the environment, other water users and rights. You should refer to the information and checklist here to determine whether a licence is required. If you answer "yes" to any of the checklist questions, you should apply for an impoundment licence. If you answer "no" to all questions, or can provide sufficient supporting evidence or justification to demonstrate that the proposal will not have a negative impact, a licence will not normally be required. If you are not sure if you need a licence you can ask for pre-application advice at Natural Resources Wales / Pre-application advice service for water abstraction and impoundment licences.

Do not:

- treat wood with a chemical wood preservative product as these are toxic to aquatic life.
- locate near to houses and premises to minimise the risk of localised flooding.

Seepage Barrier construction.



Requirements and guidance in addition to the specifications above:

- Seepage barriers should be located within a ditch where land on either side is in the farmer's control and there is a low risk to land or property if the structure was to cause local flooding.
- Seepage barriers can store up 25m^3 of water and sediment and more if the ditch has a low gradient. They must only be located in the first upper stages of ditches and must not be constructed on natural watercourses. This option is best placed where the ditch system carries a fast flow of water during intensive rain events. The number of barriers in any one ditch would depend on the gradient, with more barriers used on steeper gradients.
- These are suitable for locating next to a track with a ditch running alongside and can be linked in with a run-off buffer.
- This option is suitable for all land use systems such as arable, horticultural, grassland and forestry.



Seepage Barrier across a ditch.

Spiral Rabbit Guards: Biodegradable

Item Code: L122

Payment Rate: £1.01 each

This technical note describes the minimum standard of work required to receive payments for 'Spiral Rabbit Guards: Biodegradable'.

Any variation must be approved by the Welsh Government prior to starting the work.

Spiral rabbit guards are a widely used form of tree protection against rabbits and voles.

You must adhere to the following:

- Spiral guards should be fully biodegradable and not be made of recycled and / or recyclable plastic.
- Ensure each biodegradable spiral rabbit guard is supported by a cane.
- Maintain the spiral guard until the trees are established, this is particularly important for biodegradable spiral guards which can, depending on factors such as their biodegradable components and exposure of the site, last for different and/or variable periods of time

Do not:

- Use guards that are taller than the tree it is to protect at the time of planting.

Requirements and guidance in addition to the specifications above:

- Ideally the cane should be pushed into the ground next to the newly planted tree. The guard is then wound or spiralled around both tree and cane so that small mammals are excluded.

Standard Gate: Metal

Item Code: L123

Payment Rate: £185.73 each

This technical note describes the minimum standard of work required in order to receive payment for ‘Standard gate (Metal)’.

You must adhere to the following:

- A standard new 12ft galvanised seven bar pattern field gate made of hot-dip galvanised steel.
- Top and bottom rails should be at least 41mm diameter tubes and middle rails at least 32mm. Hanging and slamming posts should be either galvanised steel 88mm diameter tubes or treated softwood or hardwood.
- 200mm square.

Swales

Item Code: L124

Payment Rate: £120.866 each

This technical note describes the minimum standard of work required to receive payments for 'Swales'. Where there are local traditional methods and styles which vary from this standard these can be used, but any variation must be approved by your Field Support Officer. Special and unique areas such as the Gwent Levels may well follow a different prescription and your Field Support Officer will advise on these accordingly.

Swales are grassed depressions which lead surface water overland. When compared to a conventional ditch, a swale is shallow and relatively wide, providing temporary storage for storm water and reducing peak flows.

You must adhere to the following:

- The work should consist of site preparation and excavation of the swale.
- You should construct the swale and the contour at a longitudinal slope of normally no greater than 2°.
- Mark the layout of the swale on the ground and excavate the swale to a centre depth of 750mm and a width of at least 2.5m.
- Topsoil should be stockpiled separately and used in the bottom of the swale and on the graded slopes.
- Side slopes should be graded to no more than 1 in 3.
- Excavate the floor of the swale for a further 150–250mm and replace the excavated material with topsoil.
- Establish a dense grass sward on the sides and floor of the swale. A seed mixture should be sown at a seed rate of 25g/m^2 and consist of a multi species grass mix such as creeping red fescue (70%), smooth meadowgrass (20%) and creeping bent (10%).

Requirements and guidance in addition to the specifications above:

- Swales slow down the rate of runoff or provide temporary storage. This will encourage infiltration of runoff into the ground, depending on soil and groundwater conditions and evaporation. They also treat runoff through filtering by the vegetation, through the subsoil and/or infiltration into the underlying soil.
- Other capital works such as sluices, earth bunds and seepage barriers, may be added as check dams to reduce the flow of water on grater slopes. These should be located at regular intervals along the swale, though the steeper the gradient of the swale the shorter the distance between them should be.
- Additional advice may be sought from Natural Resources Wales.
- For grant claim purposes, measurement should start at the inside edge of the created bank.

Timber Sluice

Item Code: L125

Payment Rate: £457 each

This technical note describes the minimum standard of work required to receive payments for 'Timber Sluice'. Where there are local traditional methods and styles which vary from this standard these can be used, but any variation must be approved by your Field Support Officer.

Payments are available for creating or installing timber sluices in existing grasslands, fens, swamps and reed beds, as well as when creating new wetland areas. A timber sluice will maintain the water table at a higher level than that to which it would naturally drain.

Permission must be obtained from Natural Resources Wales before a timber sluice is constructed, because water is being impounded and sluices may prevent fish movements, such as salmon migration.

You must adhere to the following:

- If you are undertaking any activity near a main river, floodplain or flood defence structure you must check whether a Flood Risk Activity Permit is needed and obtain a permit if required. Any permit/consent (or confirmation that a permit/consent is not needed) should be retained and made available on request.
- Natural Resources Wales / Check if you need a flood risk activity permit (FRAP)
- If you are undertaking work within and Internal Drainage District, you may need to obtain a land drainage consent to ensure that your activities do not cause a risk of flooding or make existing flood risk worse.
- A consent is also necessary to ensure your work will not interfere with our flood risk management assets or adversely affect the local environment, fisheries or wildlife. Natural Resources Wales / Apply for land drainage consent
- If you are undertaking this work within a SSSI and it is listed as an operation likely to damage the special interest (OLDSI) of that SSSI, you must notify NRW in writing and obtain SSSI consent before you carry out, or allow someone else to carry out, the activity. You can do this online using the form available here. You should have received a copy of the OLDSI list when the site was being designated. You can also find the list using NRW's designated sites search.
- You need to consider how your proposal may affect water flow, levels, or quantity. Where a new impoundment, or the modification or removal of an existing impoundment, could result in either permanent or temporary changes in water level, quantity, or flow continuity, an impoundment licence will typically be required. This applies unless the activity is exempt under relevant statutory

provisions or can be demonstrated to be low risk, with little impact on the environment, other water users and rights. You should refer to the information and checklist here to determine whether a licence is required. If you answer “yes” to any of the checklist questions, you should apply for an impoundment licence. If you answer “no” to all questions, or can provide sufficient supporting evidence or justification to demonstrate that the proposal will not have a negative impact, a licence will not normally be required. If you are not sure if you need a licence you can ask for pre-application advice at Natural Resources Wales / Pre-application advice service for water abstraction and impoundment licences.

- Advice on suitable construction materials and methods can be obtained from Natural Resources Wales or your Field Support officer.

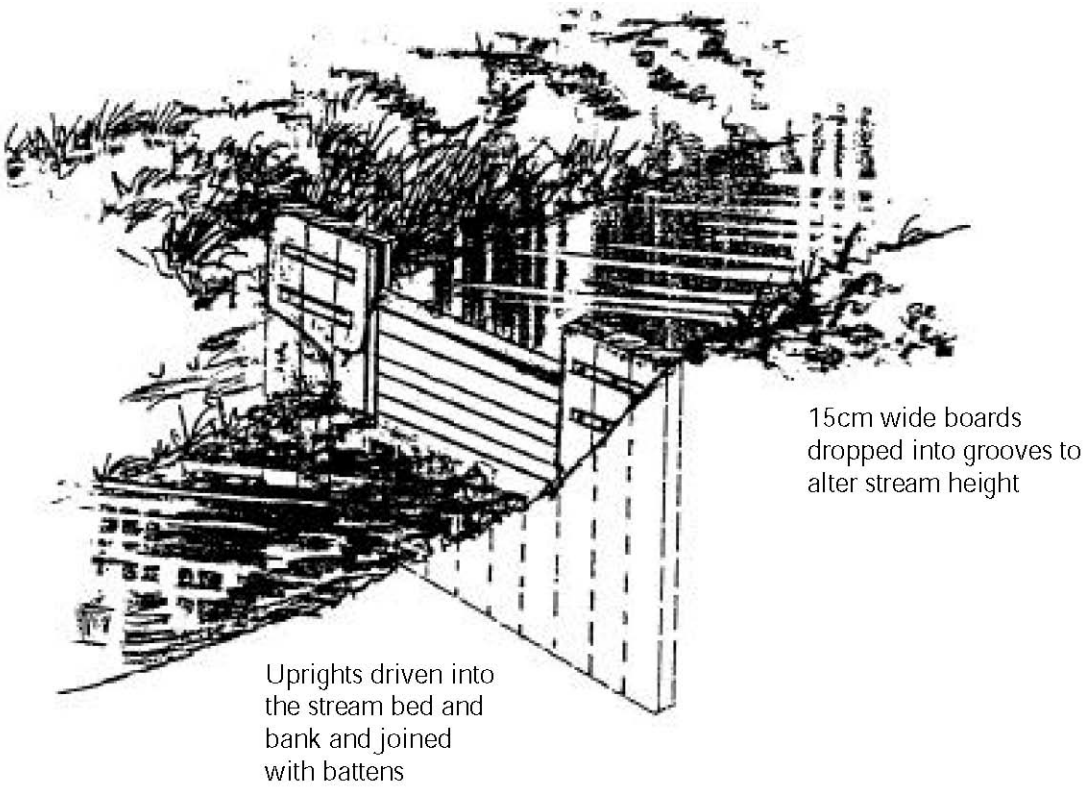
Requirements and guidance in addition to the specifications above:

- The most suitable type of sluices for your location will depend upon a number of factors:
- the level of precision that is required in controlling water levels;
- the range of water depths required;
- the labour you have available to operate and maintain the structures;
- the likely extent of seasonal and other variations in water flow;
- susceptibility of the structures to vandalism;
- susceptibility of the structures to blockage from debris and plant growth.

Timber Sluices perform the same function as pipe sluices, but are designed to deal with larger volumes of water. There are three main types:

Drop Board Sluice

These are relatively simple structures comprising a series of boards which drop into a grooved spillway (see diagram). To counteract seepage, 2 parallel sets of boards can be used.



Diagrams © British Trust for Conservation Volunteers

Drop Board Sluice

Lifting Gate Sluice

These are characteristic of old water meadow systems. Repairing an old system may be practical, but a new installation of this type would be complex and expensive. Water level control is difficult with this type of sluice.

Lifting Weir Sluice

These can be effective but are uncommon. They are based on a hinged weir that can be adjusted to give precise water level control. However as with lifting gates, they are expensive.

Tree Shelter: 60cm With Stake

Item Code: L129

Payment Rate: £2.21 each

This technical note describes the minimum standard of work required to receive payments for 'Tree Shelter (60cm with stake)'. Any variation must be approved by the Welsh Government prior to starting the work.
Newly planted trees and shrubs need protection from animals (agricultural, deer etc.) or machinery might damage them. Fencing will usually provide more economic protection for groups of trees and shrubs against machinery or large browsing animals, in combination with spiral rabbit guards to protect against rabbits and hares.
Individual tree shelters and stakes can also be used where lengths of fencing would be unsightly, for example in parklands.

You must adhere to the following:

- Insert a stake vertically into the ground next to each newly planted tree. The stake should have a diameter of 2.5cm x 2.5cm on sheltered sites and 3cm x 3cm on more exposed sites.
- Fix all tree shelters to the stake with wire or plastic cable clips.
- Ensure that the stake is no taller than the shelter.

Do not:

- Allow weeds to grow inside the shelters.

Requirements and guidance in addition to the specifications above:

- Tree shelters to protect young trees are translucent plastic tubes up to 2m in height, with a diameter of up to 12cm. They are constructed of twin wall polypropylene.
- Each shelter should provide support and protection for some 5 -10 years. When they no longer have a function use, they need to be collected and be correctly disposed of correctly. Although shelters come in a range of colours, there is little difference between them in terms of tree growth. When planting under established trees, where light intensity is likely to be low, it is generally better to use clear translucent tubes.
- Tree shelters need to be above the browse height of the animal. This can vary from 60cm for rabbits and hares, to 2m for Roe deer. Sheep can browse at 1.2m-1.5m high.
- The removal of weeds around trees and in shelters is crucial as the weeds can compete for nutrients and light. Trees in tree shelters must be weeded for the first 2-3 years of life. Weeds growing inside the tree shelter must also be removed. This can be done by lifting the shelter slightly and carefully pulling the weeds out from the tube by hand.
- Any plants that have been loosened or partly lifted by winds and winter frosts

should be trodden back in carefully. Regularly inspect fencing, tree guards, stakes and tree ties (loosen tight ties as these will constrict tree growth) and prevent trees growing through or chafing against tree guards.

Tree Shelter: 60cm with Stake: Biodegradable

Item Code: L130

Payment Rate: £5.63 each

This technical note describes the minimum standard of work required to receive payments for 'Tree Shelter: 60cm with stake: Biodegradable'. Any variation must be approved by the Welsh Government prior to starting the work.

Newly planted trees and shrubs need protection from animals (livestock, deer, etc.) or machinery damage.

Individual tree shelters and stakes can also be used where lengths of fencing would be unsightly, for example, in parkland.

You must adhere to the following:

- Tree shelter should be fully biodegradable and not be made of recycled and / or recyclable plastic.
  Insert a stake (if a stake is required by the design of the biodegradable shelter) vertically into the ground next to each newly planted tree. The stake should have a diameter of 2.5cm x 2.5cm on sheltered sites and 3cm x 3cm on more exposed sites.
- Fix biodegradable tree shelters to the stake with wire or cable ties, or place the shelter over the tree and stake, depending upon the design and specifications of the product used.
- Ensure that the stake is no taller than the shelter.
- maintain the tree shelter until the trees are established, this is particularly important for biodegradable shelters which can, depending on factors such as their polymer components and exposure of the site, last for different and/or variable periods of time.

Do not:

- Allow weeds to grow inside the shelters.
- Use metal stakes.

Requirements and guidance in addition to the specifications above:

- Tree shelters to protect young trees are translucent plastic tubes up to 1.8m in height, with a diameter of up to 12cm.
- Each biodegradable shelter should provide support and protection for some 5 -10 years. When they no longer have a functional use, they need to be disposed of correctly.
- Although shelters come in a range of colours, there is little difference between them in terms of tree growth. When planting under established trees, where light intensity is likely to be low, it is generally better to use clear translucent tubes.

- Tree shelters need to be above the browse height of the animal. This can vary from 60cm for rabbits and hares, to 2m for Roe deer. Sheep can browse at 1.2m-1.5m high.
- The removal of weeds around trees and in shelters is crucial as the weeds can compete for nutrients and light. Trees in tree shelters must be weeded for the first 2-3 years of life. Weeds growing inside the tree shelter must also be removed. This can be done by lifting the shelter slightly and carefully pulling the weeds out from the tube by hand.
- Any plants that have been loosened or partly lifted by winds and winter frosts should be trodden back in carefully. Regularly inspect fencing, tree guards, stakes and tree ties (loosen tight ties as these will constrict tree growth) and prevent trees growing through or chafing against tree guards.
- Where possible, ensure that the stake/cane is lower than the top of the shelter to avoid the tree rubbing against the stake and suffer damage.

Tree Surgery [per day]

Item Code: L131

Payment Rate: £560/day

This technical note describes the minimum standard of work required to receive payments for 'Tree Surgery (per day)'. This capital works item can only be considered if there is significant environmental or social benefit. Your Field Support Officer will include any Tree Surgery works as part of your management plan if applicable.

You must adhere to the following:

All tree surgery work should be carried out by a suitable qualified tree surgeon and all works must be undertaken to BS 3998:2010.

The assumption is that works undertaken under this specification would be carried out under the Felling Licence exemption of 5m3/quarter, which for SFS entrants is further limited to 5m3/calendar quarter for the Autumn and Winter quarters only. If the works planned would be in excess of these limits, Felling permission would be required (either via a Felling Licence or via a Forest Management Plan/Woodland Management Planning Scheme approved plan).

Do Not:

Carry out Tree Surgery between 1 March to 31st August to protect nesting birds.

Requirements and guidance in addition to the specifications above:

Trees are important structural features in the landscape and they provide a variety of habitats for numerous other organisms. Some dependent organisms are rare or in decline and so they are protected by law. The main protected species, which are likely to be affected by tree surgeons in Wales are: bats (all species), dormouse, great crested newt and otter. The species most commonly impacted by tree surgery operations are bats and nesting birds.

Protection of these species has implications for the timing, extent, or method of tree management operations. Certain tree features are often used by protected species and a qualified tree surgeon will be suitably trained to identify them and recommend appropriate action. Care must also be taken to minimise impacts and disturbance to birds, bats and other wildlife. Natural Resources Wales has published guidance that explains how to lawfully carry out forest operations in the presence of protected species and what to do when you cannot avoid harming protected species or damaging their habitats.

The Tree Surgery payment can be used for the following works:

- Limb removal to support tree health and longevity
- Tree surgery to facilitate public access to woodlands (e.g., crown lifting, removal of limbs which impede existing or planned access)

Tree surgery may be necessary to prolong the life of some veteran trees. As they are particularly vulnerable to environmental stresses and insensitive tree surgery, surgery should be kept to a minimum that is essential to the maintenance of the tree or for health and safety reasons.

Standing dead wood in the form of branches and whole trees is an important habitat for many insects and fungi. Avoid removing standing deadwood unless it poses a hazard. All offcuts should be piled and left as deadwood in a mixture of sunlit and shaded areas in the area near to the tree, unless otherwise agreed with your Field Support Officer.

Weed Wiping

Item Code: L132

Payment Rate: £96.71/Ha

This technical note describes the minimum standard of work required to receive payments for 'Weed Wiping'.
Weed wiping is a good alternative option to spraying in sensitive habitat areas used to control undesirable species where there is a height difference between the target species and ground plants.

You must adhere to the following:

- When controlling the spread of undesirable species, herbicide should only be considered as a last resort, since the approved chemicals are broad spectrum herbicides that will also destroy other non-target plants.

- Apply herbicide when the undesirable species stands higher (at least 10cm or 4") than the other vegetation in the field, then herbicide should be applied using a weed-wiper set above the height of the rest of the sward.

- The herbicide used must have a label recommendation for your intended use, and for the intended method of application.

- Herbicide must not be applied within 6m of a watercourse or within 1m of field boundaries. Do not use within 50 metres of a spring, well, borehole or any public or private water supply. The code of practice for spraying near to water courses that is produced by the Natural Resources Wale should be followed.

- Natural Resources Wales / Using herbicides

- If you are undertaking this work within a SSSI and it is listed as an operation likely to damage the special interest (OLDSI) of that SSSI, you must notify NRW in writing and obtain SSSI consent before you carry out, or allow someone else to carry out, the activity. You can do this online using the form available here. You should have received a copy of the OLDSI list when the site was being designated. You can also find the list using NRW's designated sites search.

Do not:

- Allow herbicide to damage biodiversity-rich habitat, e.g. through dripping.

- Weed-wipe rushes or use any other rush control between 15th March and 15th July in any year.

- weed wipe when the vegetation is wet or when rain is imminent. If herbicide is applied in these conditions, the dripping of dilute herbicide onto the crop/plants below will result in crop damage.

Herbicide must not be applied within 6m of a watercourse or within 1m of field boundaries. Do not use within 50 metres of a spring, well, borehole or any public or private water supply. Natural Resources Wales / Using herbicides

Standard Item Review

Key requirements
All items to be purchased within 180 days of the grant award being offered.
Ensure all items purchased are on the premises at the time you submit your claim.
The project would not proceed without grant assistance.
Applications must also demonstrate that the following have been addressed.

- all other consents, licences and permissions have been granted where required
- compliance with minimum standards and legislative requirements regarding the environment, hygiene, animal welfare and all relevant health and safety standards

Conditions

- The award is made on the basis of statements and declarations made by you or your representatives in the application form and the claim form and any subsequent correspondence. The making of false or misleading statements is an offence.
- You must have bought the equipment and contacted RPW via RPW Online by the claim deadline within the grant award offer. If you have not contacted RPW within that time, the grant offer will be automatically rejected.
- Welsh Government may need to update the rules and conditions to take account of changes made to the Government of Wales Act 2006.
- You agree to abide by any changes following notification by Welsh Ministers.
- You agree to comply with all applicable domestic, or international laws or regulations or official directives.
- No alterations may be made to the project, including the location of the activity, without the written approval of Welsh Government.
- Equipment purchased with grant aid may not be disposed of, transferred or sold during the project and for five years from the contract end date only with prior written consent of Welsh Government. The grant awarded must be re-paid in full.
- The applicant is required to read and understand the relevant scheme rules and guidance notes.
- You have given details that are true, accurate and complete to the best of your knowledge and belief on the applications and any supporting documentation.
- You acknowledge that neither Welsh Government nor any adviser appointed by Welsh Government shall be responsible for any advice given, including without limit any advice given in relation to the applications and that you are solely responsible for all business decisions undertaken.
- The applicant is required to comply with the rules on eligible costs as detailed in the scheme guidance notes.
- Projects should be completed within the timetable agreed with Welsh Government. You should not deviate from this without prior written agreement from Welsh Government.
- Claims must be submitted via the RPW Online grants claim application and be supported by all supporting documents as required by the scheme.

- Claims must be submitted in accordance with the timetable set out in the grant award letter. You must not deviate from the agreed timing and value of your claims without prior written agreement from Welsh Government.
- Grant can only be paid on expenditure that has been defrayed, that is, on payments that have cleared from a bank account.
- You undertake to meet any obligations in relation to obtaining planning permission, where necessary.
- You must confirm that none of the items covered by the application are replacements under an insurance claim.
- You must provide confirmation that no other public funding has been sought. If it is found that you have received public funding from another source your claim may be rejected, payments may be recovered and penalties may be applied.
- Records concerning the application and claim for this grant, including all original invoices and any other related documents, must be retained for at least five years after the project end date.
- You must undertake to meet any statutory obligations such as health and safety; employment; hygiene; environmental management and protection; animal or crop health and welfare that apply during the time of this project.
- You must allow representatives of Welsh Government, the Auditor General for Wales or their representatives to access and inspect land and any relevant equipment. On request, you must provide them with information and / or access to original documentation in relation to the project.
- The information provided in the application and any supporting documentation is subject to the requirements of Welsh Government's Code of Practice on Public Access to Information, the Freedom of Information Act 2000 and the Environmental Information Regulations 2004.
- You should be aware that, if successful, Welsh Government reserve the right to publish the name of your business or company, the amount of grant you were awarded and a summary of your project.
- The information provided in the application is subject to the Privacy Notice. The Privacy Notice explains Welsh Government's processing and use of your personal data and your rights under the General Data Protection Regulation (GDPR).