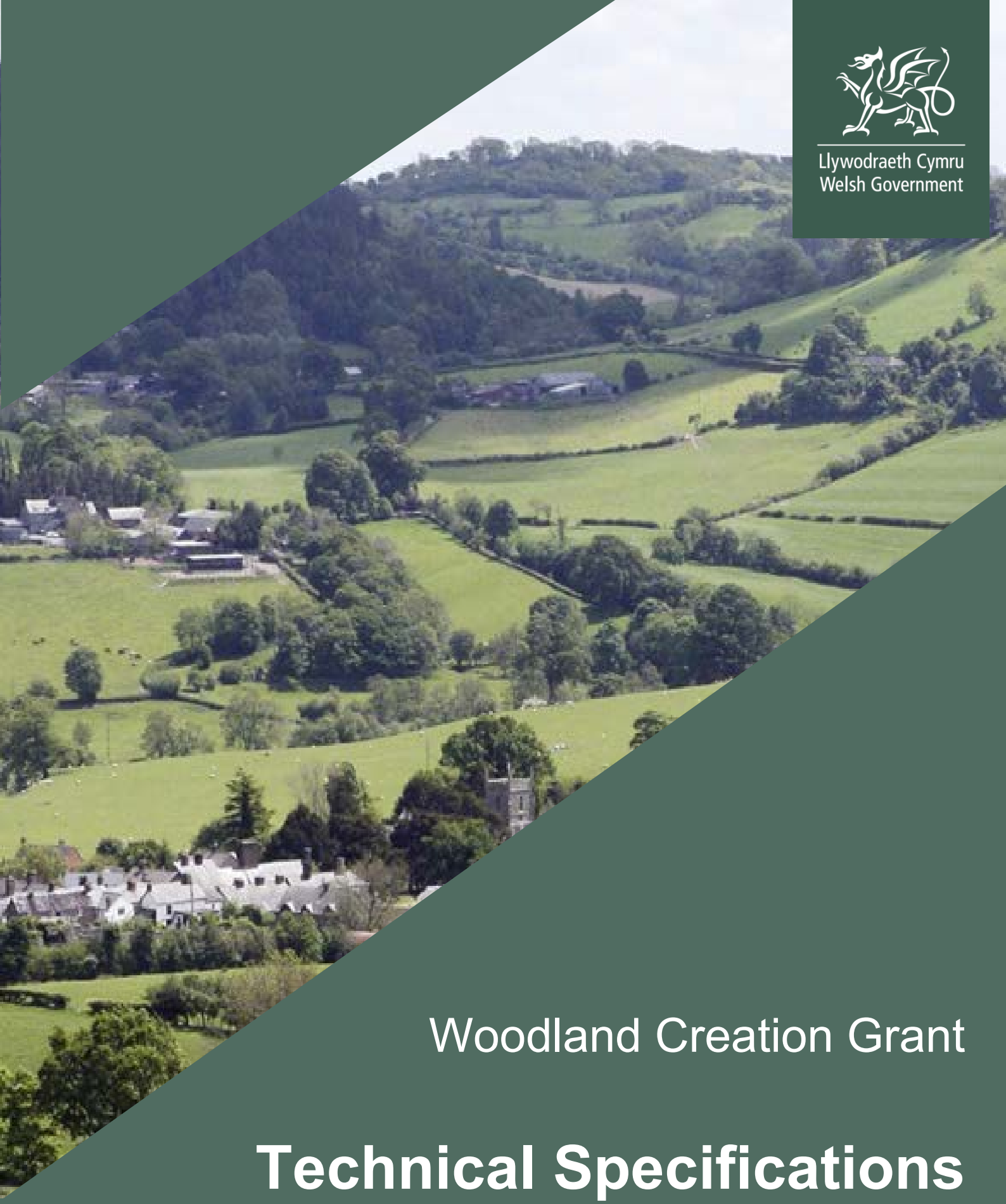


Llywodraeth Cymru
Welsh Government

Woodland Creation Grant

Technical Specifications For Capital Works

WOODLAND CREATION GRANT

TECHNICAL SPECIFICATIONS FOR CAPITAL WORKS

The Capital Works included in the Woodland Creation Grant Contract need to be completed in line with the quantity, location and timing as specified in the Contract. The following Technical Specifications include the detail of how each Capital Work must be completed.

If any 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 should note that certain works that you are required to undertake as part of your Woodland Creation Grant Contract may require permissions over and above those highlighted in these Technical Specifications before commencement of works within this Contract. These may be in the form of planning permission, a certificate, consent or licence. It is your responsibility to ensure that any such requirements are complied with.

You will be responsible for ensuring that all safety requirements are observed when undertaking any work. You will also require public liability insurance cover.

1. GENERAL PLANTING GUIDANCE

The following general guidance is applicable to all Woodland Creation Grant Woodland Categories, however, please note the specific requirements relating to **P001 - Agroforestry – Scattered Trees.**

Timing

The planting season traditionally runs from 1 October to 31 March. At higher altitudes, new planting can be extended into April. The Woodland Creation Grant contract will have allocated a year or period for completion of the work and submitting a claim by the end of March annually.

Ground Preparation

Site preparation is optional and not funded.

Tree Species

The species and mixtures of trees species to be planted will be dependent on environmental factors of the site. Factors such as soil types and tree growth characteristics are taken in into account when selecting species. When planting mixtures, different tree species should be planted throughout the planting area in single species groups of 5-25 trees. Group size should also be taken into account.

It is not permitted to plant ash or larch in the planting mixture because of *Ash dieback disease (Chalara fraxinea), and Phytophthora Ramorum.* For slower growing species such as oak – plant a group of sufficient size to ensure that the trees are not shaded out by faster growing species.

Buying Trees

When buying large quantities of trees, a specialist tree nursery will be the best place. In most sites 40 to 60 centimeter transplants are the best option as maintenance operations are easier when the trees are visible amongst the vegetation.

Nursery trees come in different forms;

Bare Root – trees are lifted from the ground with bare roots and packaged together in bundles. Bare rooted stock are the most regularly used for new planting, but need to be stored and handled carefully.

Cell Grown (Plugs) – grown in plastic trays which create a narrow plug of fine roots and soil. These trees allow the planting season to be extended at either end as the roots can grow within the soil plug and avoid damage during planting.

Pot Grown – grown in an individual plant pots and are usually reserved for larger trees and some shrub or ornamental species such as holly. These are more expensive and bulky but flexible like cell grown plants.

Tree Size

Available sizes are generally between 10 and 60cm in height. Nurseries classify trees in different bands for example 20-40cm or 40-60cm. For most new planting, a robust tree with a good root system of size 40-60cm will be suitable.

Tree Handling

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.

Tree shelters

Larger areas of planting, especially conifer mixtures, are usually planted without any further protection. Most planting sites may have rabbits, hares, deer or voles present and it is advisable to protect broadleaves with tree shelters to prevent damage. Conifers can establish without additional protection. There are many different types of tree guards available, from light

spiral guards secured with canes, to solid plastic shelters which require stakes and ties. Tree shelters can boost the early growth of trees, make maintenance easier and ensure the trees are not damaged by mammals or bracken.

Open Space

Scattered open ground can be included within the planting area up to a total of 15% of the total area. The area of un-plantable open ground can measure up to 0.5ha. You will need to alter the tree spacing in parts of the site to account for un-plantable ground to ensure the required number of trees in the contract are planted.

Planting next to rivers, ponds, streams etc

No more than 10% alder should be planted in riparian areas (e.g. next to ponds, rivers and stream etc).

Protection against Livestock

New planting under Woodland Creation Grant must be protected from domestic animals and deer by using appropriate boundary fencing for at least 12 years from the first woodland creation maintenance claim.

Maintenance of trees and shrubs

You need to control the vegetation around the trees until they establish. It is important that maintenance continues for at least 3 years until the trees outgrow the vegetation.

Weed control around trees is crucial, as competition for water and nutrients is most damaging when trees have yet to develop extensive root systems.

Tall vegetation like bracken or bramble can cause physical damage to the trees and cutting by hand or mechanically is normally required, although some overall spraying of bracken is possible. Cutting or strimming of grass simply makes it more vigorous. Spot weeding with a suitable chemical is the most effective method of control. Only properly licensed chemical products

can be used and applied by qualified operators. Plastic, cardboard or woven mulch mats can be used as an alternative to chemical weed control.

It is recommended to graze or mow the area of grassland immediately prior to planting, so it is easier to plant the trees. If there is a thick layer of dead material it is more difficult to firm in the soil around the stem and young trees can suffer root damage. This may result in making it necessary to screef (cut away the turf, to expose the soil) an operation which will increase the labour cost of The better the quality of the initial planting, protection and maintenance, the more likely that the trees will establish quickly.

Replacement trees (Beating Up)

Beating up is the practice of replacing trees to ensure there is 100% tree survival. A planting site should be assessed for losses towards the end of the summer annually. Any dead trees must be replaced in the following autumn or spring. Look for any pattern to the losses, in terms of particular areas and species. If losses are greater than 10-15% and there is no obvious cause, you should consult your plant supplier or seek professional advice.

Guards and Shelters

These need to be checked regularly to make sure they are secure. Vegetation will often grow up into tubes and guards and tubes need to be kept in contact with the ground to avoid rabbits and small mammals' access to the stems. Although many products are biodegradable, they can have a negative effect on the growth and stability of the trees if left and should be removed as soon as they are not required.

2. WOODLAND CATEGORY PLANTING REQUIREMENTS AND SPECIFICATION

P001 - Agroforestry – Scattered Trees

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

Specification

- 80 trees per hectare
- Individual tree fencing
- Not eligible for Woodland Creation Premium payment

Grazing Level

The minimum stocking level for the area of scattered planting is 0.4 Livestock Units per hectare at any time between 1 May and 30 September.

A stocking diary must be kept details the number of stock grazing the area at any time.

Tree Planting

The tree planted must be a large whip over 1.5 metres in size and a suitable sized tree shelter to protect again mammal damage.

The species to be planted are listed in the attached Annex A.

Tree Guard

Height and Positioning of Guards

All guards constructed from timber rails must be at least 1.2 m high and set at least 1m from the tree to protect against sheep (or 1.5m to protect against cattle and horses.)

Construction

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 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. Barbed wire may also cause injury to both you and your livestock.

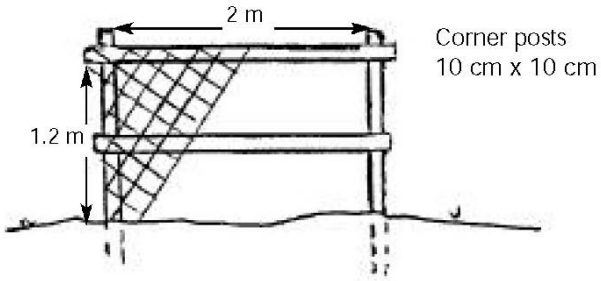
Design

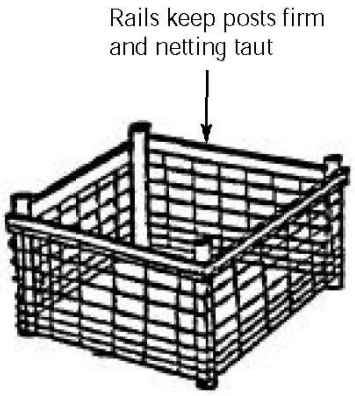
The guard must be square or rectangular enclosures are the preferred design. Each of the 4 corner posts should have a minimum diameter of 10cm x 10cm. At least four wooden rails with a minimum diameter of 10cm x 5cm should be fixed to the outside of the posts. Galvanised netting should then be fixed around the outside of the structure and held in place with galvanised staples. An additional set of rails may also be placed mid-way up the posts to provide additional strength. All timbers, netting and staples must consist of new materials. Timber must comprise either pressure treated softwood or hardwood.

Parkland Tree Guards

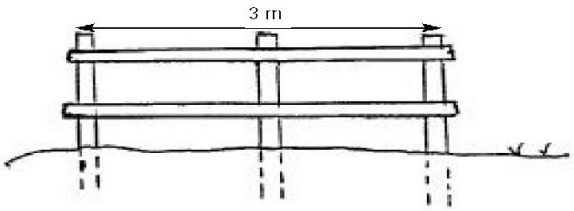
1. Post and Rail Type

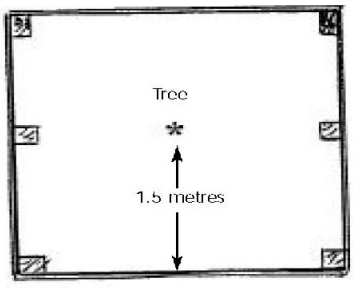
a) Suitable for use with sheep





b) Suitable for use with horses and cattle





Annex A

Species Eligible for Agro – Forestry

Common Alder
Crab apple
Siver Birch
Downy Birch
Beech (S of the A40)
Bird Cherry
Gean/Wild Cherry
Wych
Common (English) Elm
Hawthorn
Hazel
Holly
Juniper
Small leaved Lime
Large Leaved Lime
Field Maple
Pendunculate Oak
Sessile Oak
Scots Pine
Aspen
Black Poplar
Rowan
Whitebeam
Service Tree
Wild Service Tree
Bay Willow
Crack Willow
White Willow
Almond leaved Willow
Yew
Common (wild) Pear
Plymouth pear
Cherry Plum
Walnut

Sycamore
Sweet Chestnut
Evergreen Oak
Turkey Oak
Horse Chestnut

Alder Buckthorn
Elder
Dogwood
Rock Whitebeam
Spindle
Goat Willow
Common Sallow
Purple Osier
Common Osier
Eared Willow
Guelder Rose
Wayfaring tree
Privet
Blackthorn

P002 - Native Woodland - Biodiversity (1600)

This technical note describes the minimum standard of work required in order to receive payment for new planting of native broadleaved species under the capital works Woodland Category 'Native Woodland – Biodiversity'.

You must also refer to the detailed planting requirements forming part of this contract which are either shown at the start of this section 'Technical Specifications for Capital Works' or included as an Annex.

Planting Requirements

This capital works option requires native tree species to be planted. Trees must be planted in a clumped distribution with variable spacing e.g. the planting should be made up of groups of between 5 to 20 trees of the same species

Specification

- Native species - mix should be site native and largely conform to Habitat Action Plan types (for example upland oak, lowland mixed deciduous woods), however, local conditions may necessitate some variation from these.
- Suitable provenance planting stock
- Maximum 20% woody shrubs allowed
- Clumped distribution of species with variable spacing
- Stocking density 1,600/ha
- Exclude Livestock

A minimum of 1600 stems per hectare must be planted with 100% establishment for 12 years following the year in which the trees were planted.

Tree Spacing

Planting under this option requires - 1,600 tree/Ha which equates to 2.5m spacing between trees although the spacing can be clumped.

You may need to increase the stems per hectare in parts of the site to take account of features such as rocky outcrops or unplantable open ground.

P003 - Native Woodland – Carbon

This technical note describes the minimum standard of work required in order to receive payment for new planting of native broadleaved species under the capital works planting option 'Native Woodland – Carbon'.

You must also refer to the detailed planting requirements forming part of this contract which are either shown at the start of this section 'Technical Specifications for Capital Works' or included as an Annex.

Planting Requirements

This capital works option requires native tree species to be planted.

Specification

- Native species mixture
- Maximum 20% woody shrubs allowed
- Stocking density 2,500/ha
- Exclude Livestock

A minimum of 2500 stems per hectare must be planted and be alive or have achieved canopy closure for 12 years following the year in which the trees were planted.

Tree Spacing

Planting under this option requires 2,500 tree/Ha which equates to 2.0m spacing between trees.

You may need to increase the stems per hectare in parts of the site to take account of features such as rocky outcrops or unplantable open ground.

P004 - Enhanced Mixed Woodland

This technical note describes the minimum standard of work required in order to receive payment is for new planting of native broadleaved species under the capital works planting option 'Enhanced Mixed Woodland'.

You must also refer to the detailed planting requirements forming part of this contract which are either shown at the start of this section 'Technical Specifications for Capital Works' or included as an Annex.

Planting Requirements

This capital works option requires a mixture of tree species to be planted.

Specification

- Minimum of 5 major species (at least 10% of each)
- Minimum of 25% broadleaves inclusive of woody shrub element
- Maximum 10% woody shrub element
- No more than 50% of a single species
- Stocking density 2,500/ha
- Exclude livestock

A minimum of 2500 stems per hectare must be planted and be alive or have achieved canopy closure for 12 years following the year in which the trees were planted.

Tree Spacing

Planting under this option requires 2,500 tree/Ha which equates to 2.0m spacing between trees.

You may need to increase the stems per hectare in parts of the site to take account of features such as rocky outcrops or unplantable open areas.

3. ASSOCIATED FENCING CAPITAL WORKS

P595 - Post and Wire Fencing with Stock Netting

These are the minimum standards of work required in order to be eligible to receive payment for 'Post and Wire Fencing with Stock Netting'.

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.
- 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 straining 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 Small Grants - Woodland Creation 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.