Comisiwn Coedwigaeth Cymru
Forestry Commission Wales

Grants & Regulations

New farm woodlands

How planting trees can contribute to your farm business

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Llywodraeth Cymru
Welsh Government

Contents

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Woodlands on farms

Planting trees is not often top of a farmer's list of jobs. The main purpose of a farm is to produce food, and the types of woodland that grow in Wales – with the exception of orchards – don't produce much food.

Large-scale forestry plantations often exist in isolation from the surrounding agricultural land, and until fairly recently the sole focus on many farms was agricultural productivity. It's quite common for a forester visiting a farm to be told "my father spent years clearing that hillside of trees."

The purpose of this booklet is to show how planting trees – even on a small scale – can contribute to a productive farm business, and provide a range of other benefits. It's intended to give you some ideas, and points to further information – mostly online – that's available free.

There is also a summary of the tree planting grants available in Wales on the last page.

A valuable addition to a working farm

Broadly speaking, there are three ways that woodlands can help farmers:

Supporting and strengthening the existing business

- improving livestock production with shelter and biosecurity
- reducing heating costs
- providing timber products such as fencing, gates, wood chip bedding and fuel
- reducing soil erosion or waterlogging

Providing new business opportunities

- sale of timber, wood products or firewood
- game shooting
- on-farm tourism businesses

Improving the farm environment

- making it a more pleasant place to live and work
- enhancing the property value
- supporting natural ecological functions
- improving the quality of the landscape
- reducing the carbon footprint of the business

The importance of planning

Farmers are often concerned that planting trees will reduce the market value of a field. This is why any planting scheme on a farm needs to be carefully thought out, and planned to complement the agricultural business, rather than damage it. Farms with good woodland cover can be more valuable and attractive to potential buyers than an entirely open landscape

How could trees help your farm?

- Would livestock or arable fields benefit from shelter?
- Could you use home-grown wood to heat the farmhouse or other buildings?
- Can your livestock come into contact with a neighbour's?
- Are there difficult and inaccessible parts of the farm where livestock become trapped?
- Are there patches of bare ground at watercourses where stock are watered?
- Can you improve conditions for wildlife on the farm?
- Could your long-term needs for timber (especially fencing and gates) be met with home-grown timber?

When considering new farm woodlands, it's a good idea to start by looking at land with low agricultural value: could unproductive areas be more useful as woodland? You won't want to establish woodlands on higher quality fields but you may find that such fields can be improved further by planting some trees nearby to provide shelter. The section on shelter in this booklet may give you some ideas.

Well-planned woodlands will make the farm a nicer place to live, and give you a bigger range of options in future. The sooner you can start planting trees, the sooner you get the benefits.

Read on to find out how growing trees can complement the business of producing food on your farm.

Eligible landholders can get grant support and free specialist advice on tree planting from the Welsh Government's Glastir scheme – see the "Next Steps" section for further information.

Trees for shelter and shade

Sheltering livestock or buildings can make a big difference to the balance sheet each year. Tree planting is a cost-effective way of providing shelter and, when done properly, it will also provide some of the other benefits described in this booklet.

Shelter for buildings

Shelter can reduce heating costs substantially – in some cases by up to 40%. The more exposed the buildings are to cooling winds, the greater the potential to reduce your fuel bills. The effect of winds will vary according to the local topography, but consider how your buildings are situated in relation to prevailing winds (from the south-west) and the coldest winter winds (from the east and north).

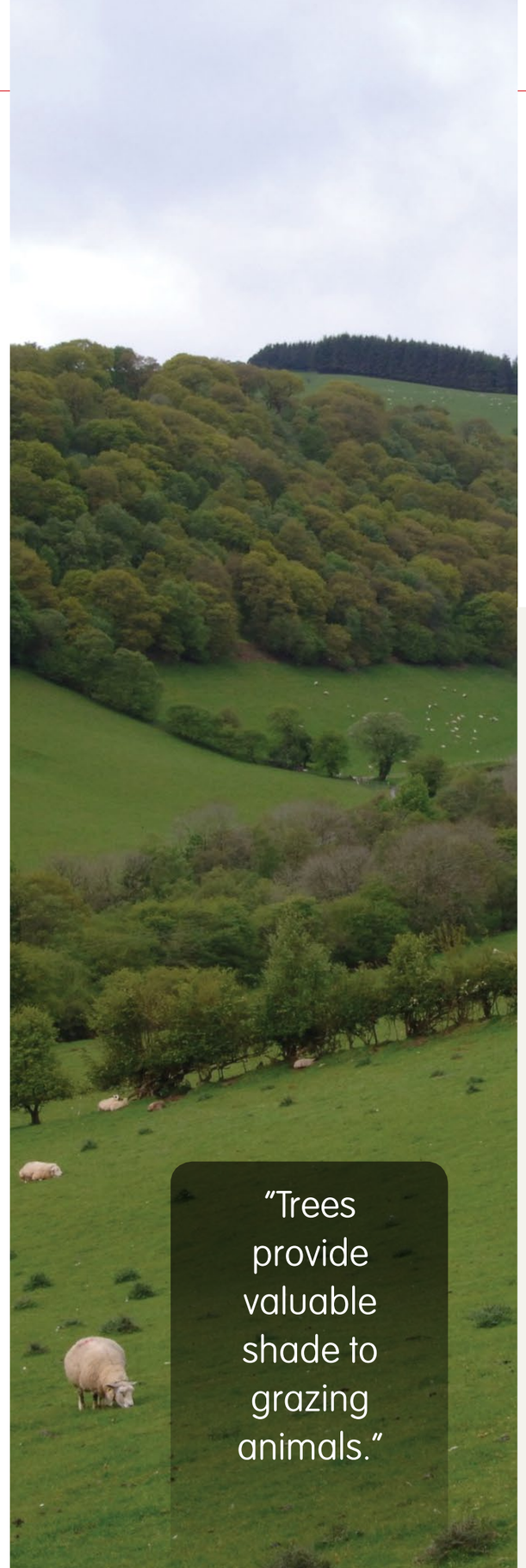
While planting trees won't have an immediate effect, you can expect to see a significant benefit in as little as ten years. Consider what you expect to happen to the price of heating fuel or electricity over this time – a small outlay on tree planting could be a wise investment.

If you have livestock production units, suitably designed shelter from trees can increase indoor temperatures in winter, and reduce them in summer. Famers have reported an improvement in lambing percentages and benefits to pig and poultry units as a direct result of tree shelter in the vicinity of buildings. Trees can also be an effective way of reducing dust, noise and odours from livestock housing.

Woodlands have the dual benefit of reducing energy bills while improving the view: as well as being pleasant to look at, trees can shield your farm from a busy road, improve privacy, prevent headlight glare, and reduce noise pollution.

Shelter for fields

This can include individual trees or small groups, shelterbelts or larger woodland blocks. All farmers know that wet, cold weather will reduce productivity in grazing animals. Shelterbelts provide protection from the cold winds and rain and an increased air temperature in winter, reducing weight loss in livestock. In hot summer conditions, trees can provide valuable shade to grazing animals.



Current predictions for Wales's climate suggest that extreme weather events – notably high winds – are likely to increase in frequency. Increasing the amount of shelter available, in good time, could turn out to be a wise decision. In this context, establishing woodlands is particularly appropriate: tree planting can also reduce the worst effects of flooding, while reducing the carbon footprint of the farm business.

Most farms present a number of opportunities to improve shelter without seriously compromising the grazing area. The right solution depends on the location and the type of farm, and can usually be designed to deliver multiple benefits to the farm business. If you apply for the Welsh Government's Glastir Woodland Creation grant, your Woodland Creation Officer will give you free advice on tree planting to provide shelter on your farm.

Further reading:

The Principles of Using Woods for Shelter – Gardiner, Palmer and Hislop, Forestry Commission, 2006 - is available free on the Forestry Commission website (search under "publications" in the Library section). It gives an overview of shelterwoods, and demonstrates the design concepts mentioned above. It explains counter-intuitive facts, such as how windspeed can decrease upwind of woodland, and how poorly-designed woodland can increase the wind speed to nearby land.
www.forestry.gov.uk/publications

"The Read Report" is a detailed assessment of our changing climate and its implications for trees and woodlands.
It is available to download free from
www.forestry.gov.uk/climatechange

The principles of using woods for shelter

Well-designed shelterbelts can reduce wind speeds appreciably over an area 10-30 times the height of the trees. Research shows that the height of trees, and porosity (density) of the shelterbelt are more important than its width. It is vital to plan the layout carefully to achieve the maximum benefit.

Dense shelterbelts can reduce wind speeds by up to 90% over a small area (up to 10 times tree height) and are ideal for protecting lambing and calving areas or buildings.

More porous shelterbelts have a lower immediate effect on wind speed, but are effective over a much greater area (up to 30 times tree height) and can be ideal for protecting grazing animals and arable crops.

Hybrid shelterbelts utilise multiple storeys of trees to achieve the best of both worlds: a large sheltered area with a highly-protected area in the lee of the trees. The right design will depend on the location but, as a general idea, when fully grown it should present a tall fairly vertical edge on its windward side, with a mixed structure within, providing a semi-porous structure. For details and diagrams, see further reading.

Small woodland areas can contribute important shade for livestock in hot weather, for example, you might consider large-canopy broadleaf trees to maximise shade in parts of adjoining fields. Stock shouldn't be grazed inside sensitive woodlands, but it's often possible to find a workable solution, for example by fencing out vulnerable woodland areas, and ensuring areas that have been grazed are given adequate time to recover.

Wood for fuel

It is widely expected that fuel prices will continue to go up, due to limited supplies and continuing high demand. It's not clear how much prices will rise, but homes and businesses that depend entirely on fossil fuels are likely to be committed to paying a higher cost in future.

Farm woodlands in Wales can produce a reliable, predictable yield of energy for domestic heating. Wood is carbon-neutral, and right on the doorstep. Farmers have always used wood for domestic heating. Today's systems can be much more efficient than the traditional fireplace, and heating a large farmhouse to modern standards using home-grown firewood is perfectly feasible on many farms in Wales.

Planning woodlands for fuel

Most tree species will produce good firewood if it is suitably dried (ideally for two years). All species of tree have a similar calorific value, weight-for-weight, when seasoned but hardwoods (broadleaves) are generally preferred for domestic heating. Softwoods (conifers) are less dense, so burning them requires a greater volume of timber for the same amount of heat. They also contain resins, which produce tars when burnt, so chimneys need more regular cleaning.

As a rough guide, a woodland area of 3-5 hectares (7-12 acres) can reliably produce enough firewood to heat a farmhouse, year-on-year, using material from thinnings, small fellings or coppicing. Much less is needed if you only want to heat a few rooms.

"If you can produce a surplus of firewood, you can sell it."

You don't necessarily need a large woodland block; several smaller areas can work well, providing there is good access to harvest the timber. The exact amount you'll need will depend on the type and age of woodland, the management methods you use, and the energy requirements of your home. You should get a professional forester's advice to ensure you are able to harvest a sustainable yield of wood, without damaging the environment. All tree harvesting should be done in a sustainable way, and you may need a felling licence – see further reading.

A first thinning can normally be carried out 15-20 years after planting conifers or faster-growing hardwoods (these include ash, sycamore, birch, alder and poplar, when planted on an appropriate site). Material from young woodlands may be supplemented from existing woodlands on the farm or from hedgerow management.

Heating systems

Modern log-burning stoves can achieve much greater efficiency than open fireplaces. Attractive and efficient stoves are available with back boilers to enable other rooms to be heated via radiators, and to provide water heating.

Wood chip boilers are able to burn both hardwood and softwood chips very efficiently; they can be fully automated and comparable in use to an oil boiler. Some devices are suited to farm heating requirements, but be sure to take suitable advice and find a system that is right for you. If you intend to produce your own wood chips, make sure you understand the requirements of your system for size and moisture content of the chip, and check that you have access to the right processing equipment and drying environment to provide it.

If you can produce a surplus of firewood, you can sell it. Farm businesses are well-suited to branching into wood production; there tend to be people with the necessary skills and equipment (chainsaws, tractor and trailers, log splitters etc.) Farms typically have a suitable space for stacking logs to dry, processing and storing the firewood. The work can be done at almost any time of year, to fit in around other farm activities.

It may seem strange to consider planting trees now to provide fuel in twenty years, particularly if it means sacrificing some agricultural land to do so. But ask yourself – is a farmer who is self-sufficient in heating fuel ever likely to regret it?

Further reading:

Woodfuel Wales (www.woodfuelwales.org.uk) have a number of documents downloadable from their website including Why Woodfuel? and How Woodfuel Can Work For You. They provide technical guidance, and links to suppliers and companies in your area.

Coed Cymru (www.coedcymru.org.uk) provide a number of online articles about farm woodland and various ways of using firewood and timber.

The Forestry Commission (www.forestry.gov.uk) have a number of pages on wood energy in Wales, and a wide variety of publications on all aspects of timber growing and usage. You may need a Felling Licence to harvest firewood – details and the application form are available from the Forestry Commission Wales website, on the Grants and Regulations page.

Glasu (www.glasu.org.uk) is a Powys-based organisation which has some documentation and case studies on wood fuel available from their website (look at the "reports" section).

Wood for timber

Most of Wales's timber production comes from large conifer plantations but farm woodlands can also produce useful timber.

To mass-produce timber for the large sawmills, you'll need a lot of land under trees to operate profitably. You'll also be in competition with the rest of the forest industry, and vulnerable to fluctuations in the timber markets. It's possible to succeed but most farms are more suited to smaller-scale tree planting.

Farmers and owners of smaller woodlands may find they can get better returns by "adding value" to timber; making a product that can be sold for a higher price, or used on-farm, thus saving the cost of buying in materials. Although trees take a long time to grow compared to agricultural crops and livestock, they produce a valuable commodity and give you flexibility when harvesting. Usually you'll have years to decide when to thin or fell, and to make plans to maximise the value from your timber. Work in the woodlands can be planned to avoid disruption to other farm business.

Home-grown timber on the farm

Your timber can be used for fencing and gates, or sawn for use in building. There are plenty of contractors in Wales who can bring a mobile sawmill to your farm on a trailer, process your material for you, and advise you on its use. Even the offcuts can be used for rough-cladding or firewood, so nothing is wasted. Small diameter and waste material can be chipped, either for use in wood-chip boilers, as a mulch material, or as animal bedding.

If you have a surplus of good timber, it's possible to develop other products. Generally, the more you can develop a product on-farm, the greater the profits and you could consider marketing your products online directly to customers. Examples of products successfully marketed by independent wood owners in Wales include bespoke agricultural tools and equipment, window frames, wood flooring, garden furniture, decking and fencing – there are certainly many others.

Getting to the timber

It's essential to consider access when planning your planting scheme. You will usually need tracks to ensure that the right machinery can be used to extract timber. Take into account the scale of the woodland, and the type of machinery you intend to use. Sloping terrain,

boulders and wet ground can all seriously hinder machine access – it doesn't mean that growing quality timber is impossible, but it can make it less cost-effective.

You might save money and trouble by installing some tracks before planting, and accepting that inaccessible areas should be used for slower-growing species, or for planting trees for nature conservation. Fairly steep slopes can be used for timber production, if the trees are within reach of a skidder cable (a tractor-mounted winch). Large skidders can haul over 80 metres, and it's usually preferable to winch uphill rather than down. This means quite a lot of dingles which are not suited to agriculture are within reach of timber production. But keep in mind that the more difficult the terrain, the more time-consuming the work will be.

Softwood or hardwood

Softwoods (conifers) generally grow faster, although there is variation between the different conifer species. The type of site you have will influence what you can grow. If you have enough room, it's a good idea to plant a range of different species, and the grants available in the Glastir Woodland Creation scheme support this approach.

Softwood timber is less dense than that of broadleaves but when grown and harvested properly it has a range of uses including building material, fences and gates. If you envisage using your timber on the farm, you may want to consider species such as Douglas fir and western red cedar, which provide relatively resilient timbers that don't necessarily need chemical treatment to be utilised outdoors. (Larch is no longer recommended for planting in Wales because of the threat from *Phytophthora ramorum* – see further reading).

Hardwoods (broadleaves) grow more slowly, but produce a denser timber which is more resilient and has many applications around the farm. It is important to get good advice before planting, to ensure you plant a species that is suited to the site (to ensure good growth rates) and has the timber properties you need. Growing good quality timber is a serious commitment, and is likely to involve pruning young trees, regular thinning and control of grey squirrels and other pests.

Your Glastir Woodland Creation Officer can help you plan a planting scheme to produce quality timber. Then you can develop your ideas while the trees are growing.

Further reading:

Coed Cymru (www.coedcymru.org.uk) have been providing advice on farm timber for many years. Their website provides a number of articles and documents on sawmilling, fencing, wood-chip bedding and a range of other topics.

Forest Fencing (Trout and Pepper, Forestry Commission, 2006) is a detailed technical guide to fencing woodlands in relation to various species including livestock, deer and pests. It includes guidance on specifications and species of timber which can be used without chemical treatment. It can be downloaded free from the Publications section of the Forestry Commission website. **www.forestry.gov.uk/publications**

The same Forestry Commission publications page can be used to find a range of guidance on timber production topics, including respacing, thinning, grey squirrel control and timber qualities. Many of the documents can be downloaded free; the others can be ordered via the website.

Phytophthora ramorum is a fungus-like pathogen which is causing extensive damage to larch trees in the UK. In Wales, planting of larch is no longer grant-aided. Further information is available from the Forestry Commission's website: **www.forestry.gov.uk/pramorum**

Biosecurity: protecting your livestock

There are a wide range of pests and diseases which affect flocks and herds around the country. Although tree planting does not offer a complete solution to these problems, woodlands can play an important part in improving biosecurity on the farm.

Guidance from the Welsh Government and Defra suggest that it's crucial to prevent the spread of notifiable diseases by careful management of stock at farm boundaries. This needn't cause distrust between neighbours; it's a good idea for farmers to work together when managing biosecurity, and neighbours can collaborate on tree planting schemes, saving money by sharing ideas, labour and machinery when managing woodlands.

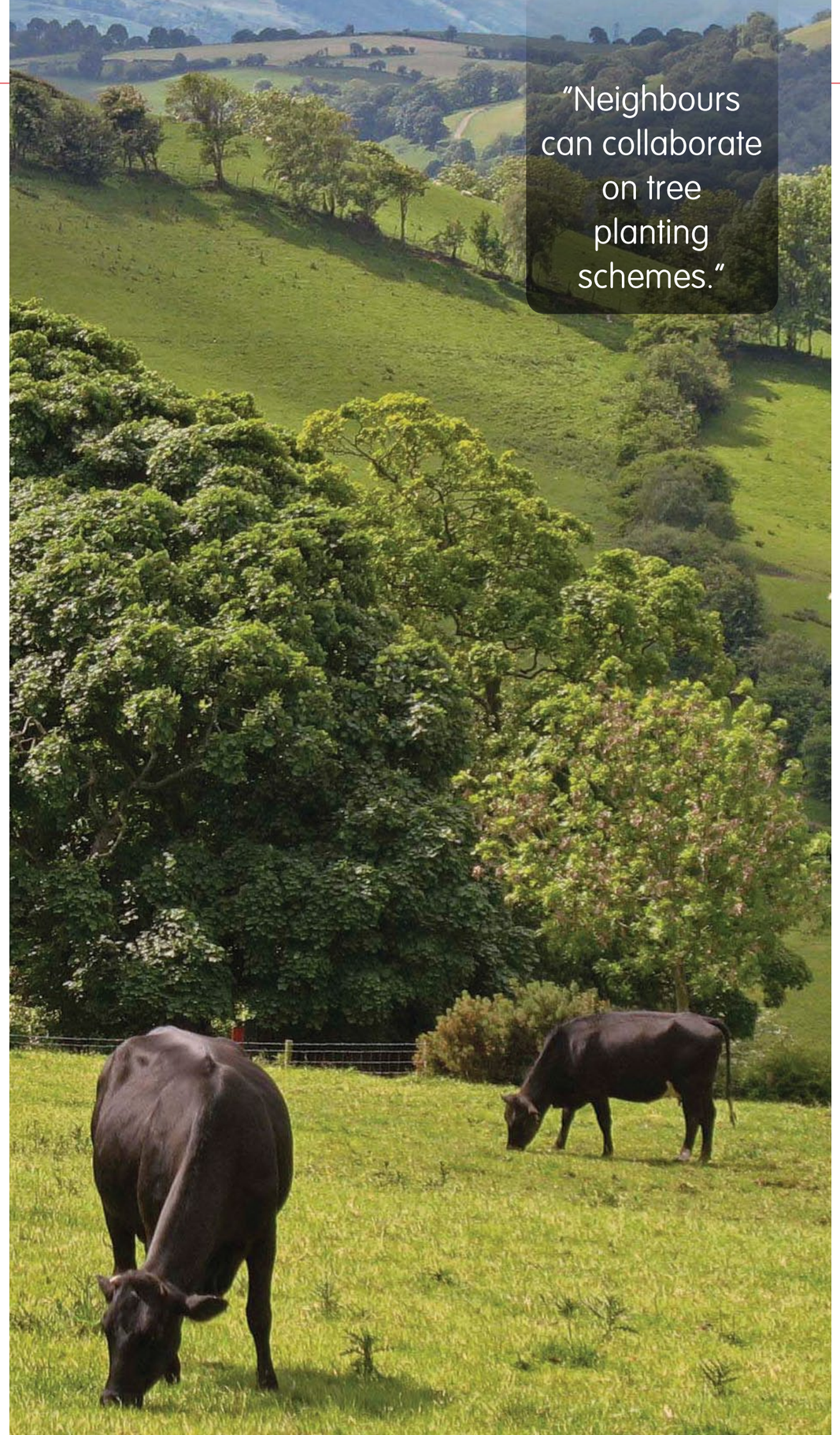
Buffer zones

Consider whether your livestock are currently able to come into direct contact with other people's stock, for example, through a fence, at a gate, at weak points in hedges, along shared access tracks or at the roadside.

Well-designed tree planting schemes can provide a stock-free buffer zone at farm boundaries, roads and other risk points. A good, thick, stockproof hedge can do this too, which is fine for many boundaries. However, a woodland area such as a shelterbelt provides a greater physical distance between fields, greatly improved shelter in its lee (with real benefits for livestock production), and the planted land remains productive as it will produce firewood and timber in the long-term.

People

Public access is often a concern for farmers when there is a serious risk of disease. If your farm has a B&B business or is on a busy tourist route, you may find that tree planting can provide a pleasant-looking but effective barrier between your human visitors and your stock, allowing you to channel people along the permitted route. Warning signs are sometimes missed, or ignored; but nobody argues with a blackthorn bush.



Badgers

Cattle and dairy farmers in areas affected by Bovine TB may be understandably wary about creating new woodland; badgers are woodland animals, known to carry the disease. The debate about vaccination and culling is beyond the scope of this booklet; however it's clear that woodland loss would not provide the solution to the complex problem of Bovine TB, and there are many advantages to having more woodlands.

Small areas of woodland planting, such as shelterbelts, or an increase in the area of existing woodlands, are unlikely to have a noticeable effect on the overall population of this highly mobile species, although changes to the animals' habitat may influence their habits and distribution. For further guidance on this issue, please see the further reading section.

There's no guarantee that woodlands – or any physical barrier to the spread of disease – will be 100% successful. It comes down to risk management, and well-planned woodlands can help to alter the odds in your favour. A well established, bio-secure boundary may be much more valuable to the farm business than any revenue that is foregone from not grazing the planted buffer areas.

Further reading:

Welsh Government advice on biosecurity is available here: **www.wales.gov.uk/topics/environmentcountryside/ahw/biosecurity/?lang=en**

The Defra website includes general advice and downloadable documents for all types of farm. **www.defra.gov.uk/animal-diseases/biosecurity**

Improving soil and water quality

Think about the watercourses on your farm: do you have bare soil in the vicinity of streams or rivers, where animals are watered? Is there a risk of pollution from grazing animals, slurry spreading or fertiliser? Can you help to reduce the risk of flooding?

In the next few years, as the Water Framework Directive is implemented in the UK, farmers will need to be more aware of the impact of their activities on water quality. There are clear benefits, including improved water quality and biodiversity, lower fertiliser costs, and reduced soil loss. Meeting the standards of Good Agricultural and Environmental Conditions is a requirement of the Single Payment Scheme.

Tree planting near streamsides (riparian woodland) can reduce diffuse pollution from farming activities. Research suggests it can be particularly effective in areas with thinner soils, and can effectively control erosion at stock-watering points. Woodland creation near watercourses is well-suited to deal with the problem in Wales and has many other benefits for river quality, as well as being good news for the farmer too.

What is diffuse pollution?

Diffuse pollution means the contamination of watercourses over an area of land, rather than a single point source. It can occur whenever farmland is enriched with nutrients, and some of those nutrients find their way into the watercourses. One of the problems is that each of the sources appears to be very minor, and may be dismissed by landowners as negligible. Over the entire river catchment, they have an important effect on water quality.

Sedimentation can cause serious problems: as well as carrying nutrients into watercourses, it reduces the carrying capacity of rivers, exacerbating flooding problems, and can smother fish spawning sites.

Riparian woodland on your farm could save you money in the long term. It reduces the likelihood of cross-compliance problems in future, and can help prevent flooding too.

Streamside woodlands

Woodland creation – even at some distance from the river – can help reduce flood risks downstream during high rainfall. A small planting scheme may not produce an obvious effect on run-off, but at catchment-level the influence of farm woodlands could be significant.

Normally these woodlands are of predominantly broadleaf species, and aim to achieve a mixed canopy cover, with dappled shade and some open ground. It should be possible for sunlight to reach the water for part of the day in most of the woodland. Conifers should not be planted too close to the water as they can cause over-shading. Ideally, planting areas should extend a good distance from the watercourse, although narrower woodlands can be beneficial, and varied widths can give a shape that suits the landscape.

Riparian woodlands need to be carefully planned to ensure that the benefits are achieved. In some parts of Wales (mainly in the uplands) there is a need to reduce acidification of watercourses, which can constrain tree planting.

Soil quality

Woodlands provide a number of benefits to soils: they provide physical shelter, reduce the impact of rainfall on the soil surface, improve soil structure with an increased proportion of organic matter and the actions of tree roots. Woodland soils also contribute to reducing the carbon footprint of the farm.

The positive effect of woodland soils is most noticeable on streamside farm woodlands, where erosion can be considerably reduced, protecting the land and preventing siltation downstream. Woodland soil is an effective buffer against problems from diffuse pollution.

On many farms, there is considerable potential for tree planting to improve the quality of soil and water, while simultaneously providing other benefits to the farm such as livestock shelter and firewood production. If you apply to the Welsh Government's Glastir Woodland Creation grant scheme, your Woodland Creation Officer will give you free advice on planting trees to suit your objectives and location.

Further reading:

The **Coed Cymru** website has extensive guidance on woodlands for soil and water. **www.coedcymru.org.uk/soilsandwater.html**

Woodlands for Water is a document published by Forest Research in 2011, which looks specifically at the Water Framework Directive in relation to woodland management, and refers to the current research on how woodlands can mitigate pollution from farm activities. Search for "woodlands for water" on **www.forestry.gov.uk** to find this document.

UK Forestry Standard Forests and Water guidelines and **Soil guidelines** are available for free download and offer an overview of the issues regarding forests and fresh water, and the various legal requirements and recommendations which are required for compliance with the UK Forestry Standard. **www.forestry.gov.uk/forestry/infd-8bvgx9**

Forest Research has articles online summarising the positive reasons for riparian woodlands, and the problems that can be caused by inappropriate planting. The page links to some detailed guidance on riverside woodland and forestry management. **www.forestry.gov.uk/fr/INFD-6MVJEX**

Sporting opportunities in woodlands

There is a long tradition of woodland management for game shooting in parts of Wales, mainly in the lowlands, although there are some well-established shoots on higher ground. Shooting can generate important revenue to the farm business, either by direct charges to the guns (if you manage the shoot youself), or by leasing the shooting rights to another organisation or syndicate.

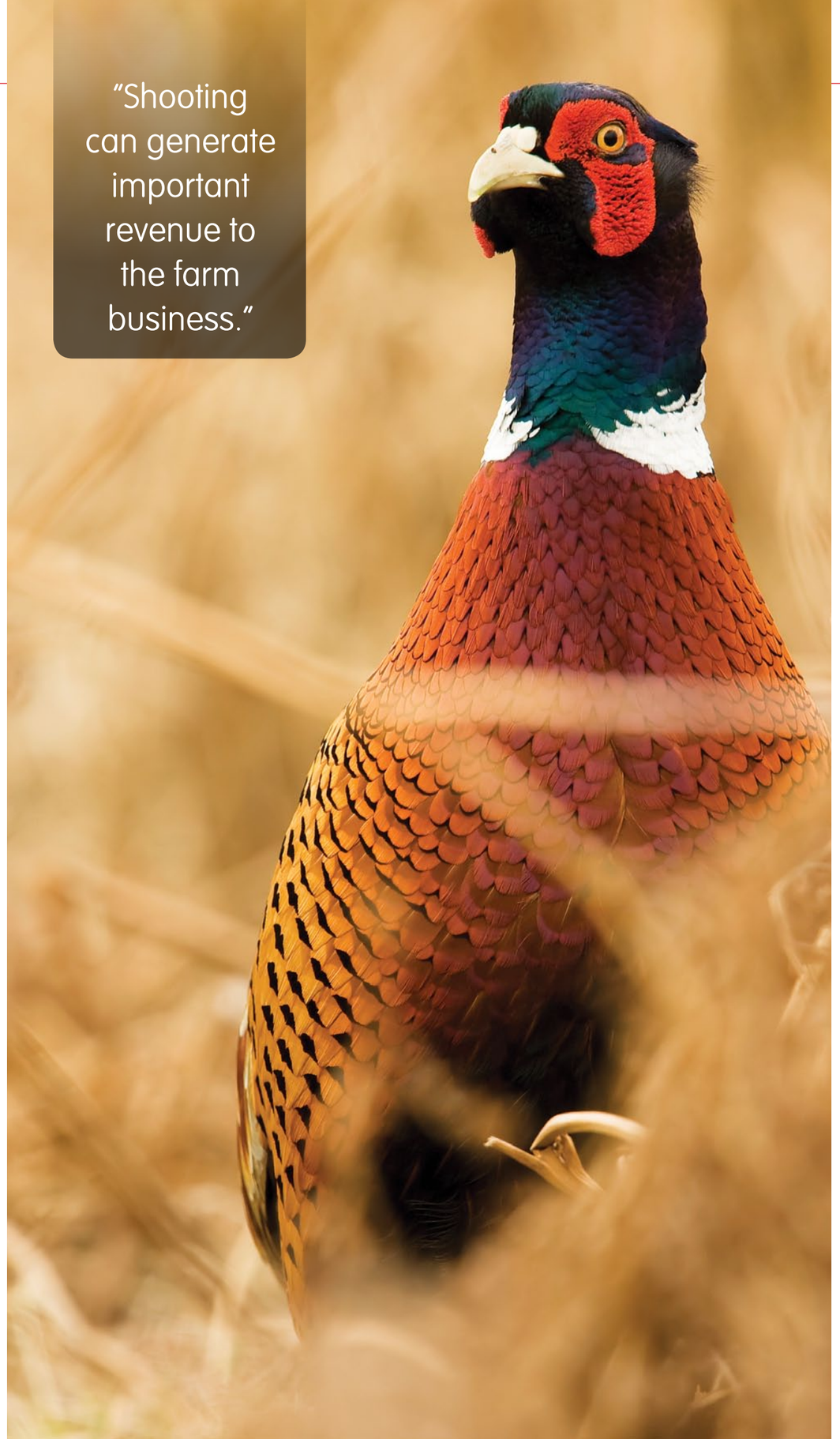
There's no need to let a commercial syndicate take over your farm. Some successful shoots start out in a small way, run by a farmer with friends and neighbours invited to a couple of shoots over the winter. If the conditions are right, this may be expanded, perhaps as a collaborative venture between neighbouring farmers.

Driven pheasant shoots are the most common activity from a commercial point of view. "Rough shooting" involving other types of bird can be successful where carefully managed, but commercial potential is limited in most situations. All shooting activities are subject to various regulations, and must be balanced with nature conservation to ensure that the activities are sustainable.

Pheasants on the farm

Pheasants are "woodland edge" birds, which means they can be well-suited to farm woodland situations as smaller woodland blocks have a greater proportion of 'edge' habitat. Newly-established woodland can provide good opportunities for pheasant cover, which can be a way to recover some revenue from young tree areas prior to first thinnings. You may find that other aspects of farm management, such as managing hedges and field headlands, can be incorporated to improve conditions for a shoot.

If you've no experience with pheasant shoots, have a look at the information in the further reading section, and then take some advice from people who already run shoots. You'll need to think about getting conditions right for spreading the birds out from release pens, while keeping them in the required areas in sufficient densities. The drives themselves need to be situated to allow the birds to reach a good height, while ensuring safety for beaters and good visibility for the guns.



Planning woodlands for a shoot

It's possible to combine sporting woodlands with other benefits for the farm, particularly thinning activities for firewood. Pheasant shelter can also provide shelter in its lee for livestock, but you should be careful to ensure the woodland design is appropriate for both purposes.

Release pens should be in mature woodland with some overhead cover, well-thinned to allow a good amount of sunlight to reach the ground within the pen. This is an opportunity to recover some timber or firewood, before building a pheasant pen. The pen itself should never take up more than a third of the woodland area.

New farm woodlands – established on open land – can provide good sites for pens, when the woodlands are well-established. In the meantime, the young trees may be used for cover. For best results, woodlands should have a mixed structure and include a good proportion of woody shrubs. Native trees and shrubs are best, although a component of non-native trees (including conifers) may be beneficial.

Think about your farm: its landform, existing woodlands and hedgerows. Can you see an opportunity to develop an income from shooting? If there are possibilities, your Glastir Woodland Creation Officer will be able to advise on the right trees for the site.

Further reading:

Woodland Conservation and pheasants is a guide produced by the Game and Wildlife Conservation Trust and available free from their website, which also has a number of online articles on pheasant shooting. **www.gwct.org.uk** (go to the education and advice section, and look under document downloads).

Woodland creation and management for pheasants – a best practice guide is produced by the Woodland Trust and available free from their website **www.woodlandtrust.org.uk**

Enhancing wildlife and landscape

Woodland creation offers an opportunity to improve the quality of the farm environment, at a time when the importance of habitats is increasingly recognised by the Welsh Government and reflected in agricultural grant schemes.

In our changing climate, native wildlife may become threatened by altered growing conditions, extreme weather, and the spread of biological pests, competitors and diseases which could not previously thrive in Wales. Farmers have an opportunity to make a lasting difference; by providing rich and diverse habitats the resilience of the countryside can be improved. This reduces its susceptibility to threats in the future, making farming itself more sustainable.

Improving the farm landscape

Woodlands provide a way to integrate the more industrial-looking farm buildings and structures into the wider landscape. They also reduce noise – whether from farm activities or a busy road – and can be used to trap dust and atmospheric pollution. If your farm is overlooked by a road or nearby buildings, you may appreciate the privacy that a few rows of trees can provide. See the section on Shelter for some more ideas.

There is a considerable variety of woodlands in Wales, and most farms offer a range of opportunities for habitat creation and landscape improvement. It's important to understand which woodland types are suitable for your land before planting the trees. If you apply to the Welsh Government's Glastir Woodland Creation scheme, your Woodland Creation Officer will give you free advice on the types of woodland your land will support, and help you with an appropriate design.

Planning woodlands for wildlife

Almost any woodland creation will benefit wildlife, although you should be careful not to plant trees where they could damage existing sensitive habitats. Planting trees to join up existing woodlands is particularly beneficial to wildlife. Even fairly narrow areas of new planting can create valuable habitat linkages, allowing plants and animals to move around and extend their existing habitats.

Structural diversity is important for a lot of wildlife; that means that the richest habitat woodlands have a varied composition including a high canopy, some smaller trees, and plenty of woody shrubs. A range of tree and shrub species is also beneficial. The type of site will have a big influence on what you can do.

Infertile, acid soils in the uplands tend to support fewer canopy tree species, and are typically slower-growing; however even fairly simple woodlands can be extremely valuable habitat in these situations, and the cost of establishing the woodlands can be relatively low.

Richer, more fertile soils and sheltered locations give more options with regard to tree species, and can support a wide variety of wildlife; however these sites may require more frequent weeding when the trees are still young.

Quality of life

Woodlands, orchards and gardens are often seen close to farmhouses and most farmers and their families enjoy living in a place with lots of wildlife and a pleasant landscape.

New woodlands will improve the diversity of plants and animals on the farm within just a few years. You may see ground flora such as bluebells, wild garlic, wood avens, honeysuckle and others becoming established while the trees are still young. If you listen carefully, you'll notice differences in the type of birdsong and the volume of the dawn chorus over the years as the woodland becomes established. In the evening it's possible to watch bats feeding on insects over the top of young trees – make the most of this as it's harder to see them when the trees are taller than you!

Further reading:

The UK Forest Standard – guidelines for **Biodiversity, Climate Change, Historic environment, Landscape, People, Soil and Water** are available for free download from **www.forestry.gov.uk/ukfs**

Creating New Native Woodlands – Forestry Commission Bulletin 112 provides considerable detail on the types of native woodland which grow in Wales, along with guidance on establishing them. It's not currently available for download, but can be ordered from the Forestry Commission website. **www.forestry.gov.uk/publications**

The same Forestry Commission publications page can be used to find a number of publications on conservation management in new and existing woodlands, and guidance for particular types of plants and animals.

Planting and caring for trees

Planting can take place at any time from autumn to spring (barring extreme cold and snowy conditions) and be timed to make best use of available labour, avoiding other commitments like lambing and calving.

As well as planting the trees, the work is likely to include fencing, ground preparation (for example, spot spraying of vegetation, ploughing or improvements to the sub-soil) and weed control – this is crucial to getting the trees established and should not be overlooked.

Some types of woodland do not require much input after establishment; in other situations – especially when firewood or timber is being produced – work will be needed from time to time. Again, this can be scheduled to take place when there is available labour and equipment, so that it does not clash with other work on the farm.

There will be some management costs in future, although these are usually low – it depends on the woodland, and what you're trying to achieve.

If you decide to plant part of a field you may need to ask the Welsh Government to alter the land registration maps appropriately.

Do you want to do the work yourself or engage a contractor?

It's a good idea to think about whether you want to do the work yourself, or engage a contractor to do it. Either approach can work, the right choice depends on the circumstances.

Contractors are used to organising the work, and can deal with everything for you, including ordering the trees, planting, and aftercare. You can find contractors in your area by asking around or searching online. If you're getting grant aid from the Glastir scheme, ask your Woodland Creation Officer.

Many farmers have the skills and equipment needed to establish and care for woodland and may decide to organise the planting work themselves. When equipment is needed, it can be hired or shared and a lot of equipment (winches, timber trailers, log splitters, some types of sawmill) is compatible with farm tractors.

If you claim the Welsh Government's planting grants for establishment through the Glastir Woodland Creation scheme, you are responsible for maintaining the woodland in good condition, with the correct number of trees, for ten years. If this is not done, the establishment grant (and any income foregone payments) could be reclaimed.

Livestock must be excluded from woodlands created under Glastir for at least ten years, or 15 years if you claim Glastir Woodland Creation Premium (additional payments for ceasing agricultural production on the planted land).

When woodlands are well established, they cannot be simply cleared again for agriculture as they are protected in law. When the trees have grown, you will be able to thin them and, in some cases, fell and restock for timber or firewood. You'll need a Felling Licence to carry out this work – these are easy to apply for and it's usually straightforward, but you should apply a couple of months before you want to do the work. Clearfelling licences include a requirement to restock the felled area with young trees. For more information see the Forestry Commission leaflet "Felling trees – getting permission" (see link below).

Further reading:

Forestry Commission Wales provides further guidance on tree planting, updates on pests and diseases and a lot of other useful information, and can put you in touch with your local Woodland Officer. See **www.forestry.gov.uk/wales** (go to the Grants and Regulations page). This includes the leaflet **Felling Trees – Getting Permission** which explains the law in relation to Felling Licences. You can also download the forms you'll need to apply for one.

The Woodland Trust provide a wide range of guidance material in relation to tree planting, grants and other woodland management issues, available from **www.woodlandtrust.org.uk**

Glastir

Llywodraeth Cymru
Welsh Government

www.cymru.gov.uk

Glastir grants for planting trees

Glastir Woodland Creation grants are available to all landowners in Wales for tree planting schemes with a total area of over 0.25 hectare (which can be made up of separate blocks as small as 0.1 hectare). You don't need to have an existing Glastir scheme to qualify, although the planting rates can be claimed in addition to the All Wales and Targeted Elements of the scheme.

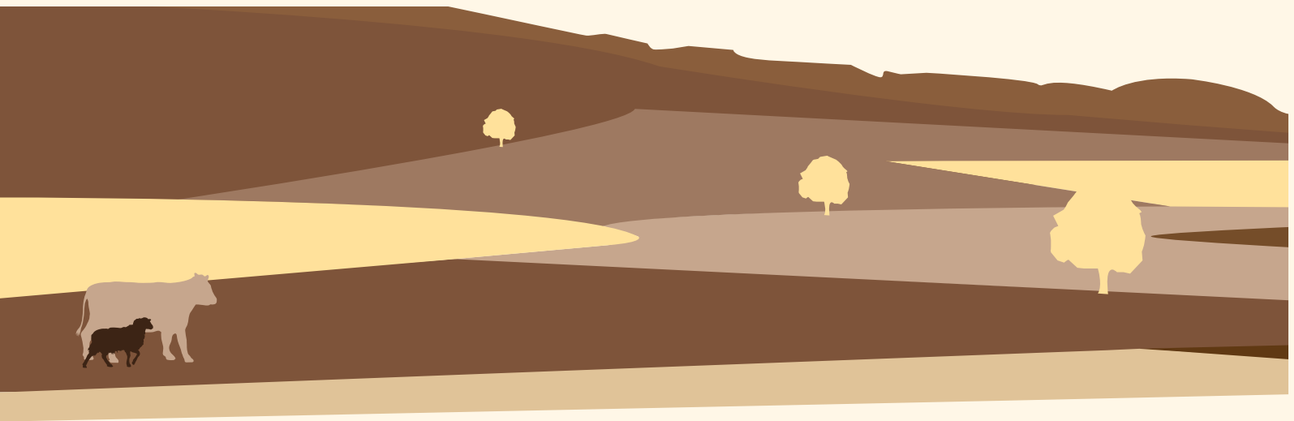
Applicants receive specialist advice from a Woodland Creation Officer (an approved woodland consultant) free of charge. They will check that your land is eligible for planting, carry out a site visit, explain the scheme rules and give you advice. They will develop a planting plan for your approval and submit the grant application on your behalf.

You need not lose out on the other parts of the Glastir scheme or the Single Payment Scheme – see the Glastir Woodland Creation Scheme rules for more details and rates.

Glastir Woodland Creation grants are available through Forestry Commission Wales:

- For all landowners across Wales with more than 0.25 hectares of land
- On land designated by Forestry Commission Wales and conservation bodies in Wales as suitable for new planting
- Where there is no conflict with other agri-environmental schemes

Glastir Woodland Creation officers are available to draw up your application for a grant and these services are free of charge to the landowner. You may appoint one yourself from our published list or contact us and we will assign one to you.



Woodland Category	Glastir New Planting - Establishment Grant £/ha		
	Year 1	Year 2	Year 3
Small Simple Woodland	500	150	150
Basic Mixed Woodland	980	500	500
Enhanced Mixed Woodland	2350	500	500
Native Woodland – Carbon	3500	500	500
Native Woodland – Biodiversity	1890	500	500

There are 3 grants available:

1 Establishment grants – see above. These grants are claimed by the agreement holder in the year that the planting is carried out and in the two years following the planting.

2 Fencing grant rates £3.15/m which includes an allowance for any gates or stiles. Landowners can upgrade to deer fencing or rabbit fencing at their own cost. These rates are only available for new planting.

3 Income foregone payments, which for farmers is £300/ha/year for 15 years and for non-farmers £66/ha/year for 15 years. This is known as the Glastir Woodland Creation Premium (GWCP) and is claimed annually on the Single Application Form (SAF).

What do I do next?

You can get full details of the scheme by contacting the Glastir Woodlands team at **bww.ts@forestry.gsi.gov.uk** or by phoning **0300 068 0300**.

www.forestry.gov.uk/glastirwoodland

If you need this publication in an alternative format, for example, in large print or in another language, please contact:

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www.forestry.gov.uk/wales

Further information, including available grants, can be found at: **www.forestry.gov.uk/glastirwoodland**

For help or advice please contact the Forestry Commission Glastir woodland team. Tel**: 0300 068 0300**

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