

# Farm Woodland News



**Farm  
Advisory  
Service**

*The newsletter for participants in Farm Woodlands Schemes • Issue Number 37 Autumn 2021*

The Challenges of  
Forestry Tree Supply

Accessible mapping  
with myForest

Integrating Trees Network

FGS Update

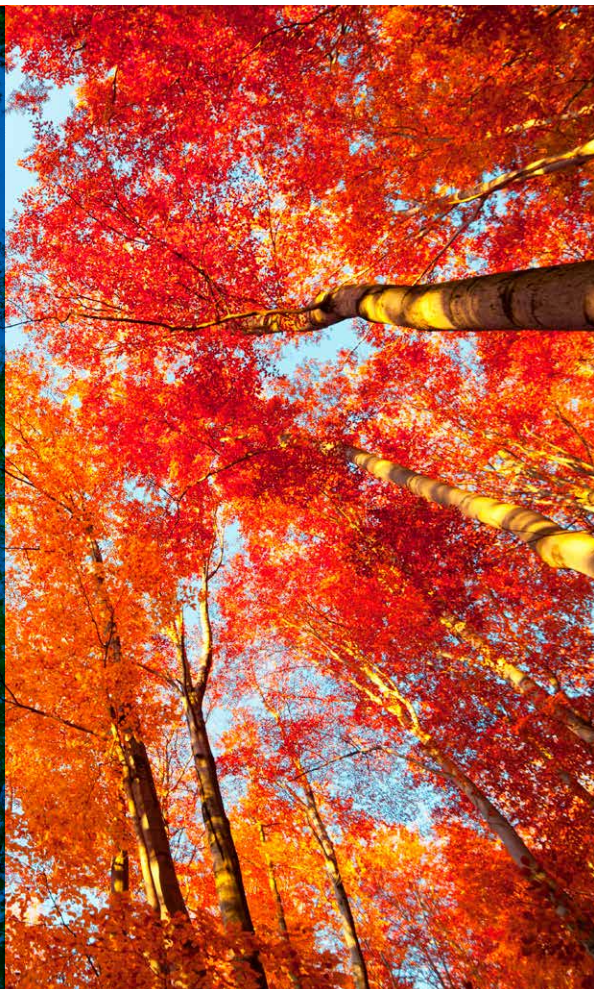
New Cultivation Guidance

Grants for Small-Scale Planting

**Also in this issue:**

Kirkton and Auchtertyre  
Farm Woodlands

Timber Market Update



This newsletter is produced and published by SRUC on behalf of Scottish Forestry & FAS  
SRUC is a charity registered in Scotland, No: SC003712



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Editorial	2	<i>The demand for woodland and trees continues to grow apace, with the forestry industry doing its best to keep up with demand. It takes time however for the industry to respond to this rapid increase in demand not least because the resource being demanded – trees – takes at least a couple of years to grow to a size where they are suitable for being sold and planted. To illustrate this Alba Trees share with us the challenges of responding to the increase in demand, exacerbated of course by difficulties with labour supply due to Covid working arrangements and Brexit.</i>
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The FGS has helped many land managers establish new woodlands, but it doesn't work for everybody, most notably those with very small areas of land they would like to plant.

We provide an overview of a number of grant opportunities that are available which may help you establish that small shelter belt or fill that field corner with trees.

Sharing good practice is something that farmers are already very familiar with, in the form of monitor farms.

This year saw the launch of the Integrating Trees Network which works in the same way as the monitor farms, allowing those with woodlands to share, warts and all, their experiences of woodland creation and management.

Scottish Forestry report on how this has performed to date. On the same thread, SRUC shares some of their experience with woodland and agroforestry at Kirkton and Auchtertyre Farm.

With the increasing amount of woodland creation comes a need for greater awareness of sensitivities, and therefore of good woodland design which meets the UK Forestry Standard. It can be challenging to collate all this information and achieve a design that meets a multitude of criteria. Sylva Foundation share with us news of their pilot trial of mapping software, myForest,

to help you achieve a compliant woodland design with ease.

What's the most appropriate form of cultivation for trees? That's the question being posed by the newly released Cultivation Guidance by Scottish Forestry.

The aim is to encourage land managers to give more critical consideration to cultivation so it is the most appropriate for the soils, for tree growth and, crucially, to minimise carbon release, especially from carbon-rich soils. The article on page 14 walks you through the main points of this new guidance.

As always, the Farm Advisory Service is here to help. Visit the FAS website [www.fas.scot](http://www.fas.scot) to sign up to online events, download guidance information and listen to podcasts. We look forward to starting up on-farm events again when restrictions allow.

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## Off-cuts



A very successful and slick Scotland's Finest Woods Awards was held in September this year, celebrating the achievements and contributions of some of the finest woods in Scotland. In the year of COP26 it was decided there would also be a one-off Climate Change Champion award. As usual there were many high quality applications which the judges had a hard time separating to identify winners.

*The winners were:*

**Climate Change Champion Award:**  
Andrew and Lynne Sinclair, Balbeg Estate's Bannan Hill, Straiton, Ayrshire

**Farm Woodland Award:**  
Wendy Steel and Anne Taylor, North Tillydaff, Midmar, Aberdeenshire

**Farm Woodland Award (Young People):**  
James and Nikki Yoxall, Howiemill, Huntly, Aberdeenshire

**Small Community Woodland Group:**  
Laide and Aultbea Community Woodland, Laide, Ross-shire

**New Native Woods:**  
Anders Holch Povlsen and Wildland Ltd, Killiehuntly, Woodland, Cairngorms

**New Commercial Woods:**  
Mrs J C Hands, Larriston Forest, Newcastleton, Scottish Borders

**Single Stand of Trees, compartment of small wood:**  
Aylsa Leslie, Auchintender, near Huntly, Aberdeenshire

**Whole Forest or Estate:**  
Andrew and Lynne Sinclair, Balbeg Estate, Straiton, Ayrshire

**Schools Award:**  
Pitlochry High School, Perthshire

**Early Years Award:**  
Perth Outdoor Playgroup, Perth

All being well Scotland's Finest Woods Awards will be held next year back at the Royal Highland Show. Visit the SFWA website to find out when the application window opens for the 2022 awards: <https://www.sfw.co.uk/>



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## DID YOU KNOW?

**What's wooden and stands at 80m tall in Sweden?** Sara Kulturhaus, which is now one of the world's tallest wooden buildings, at 20 storeys high and using 2600 cubic metres of glulam and 10,700 cubic metres of cross-laminated timber. Because the wood breathes, unlike concrete, it can absorb and release humidity, resulting in a better indoor climate than would be achieved with concrete.

**Last year's Castle Fire in California destroyed up to 10,000 massive giant sequoias, virtually 10% of the species' population.** Now amongst those threatened is the renowned General Sherman, the largest tree by volume in the world, standing at a whopping 84m tall and 2500 years old. Although these trees have evolved to have fire-resistant bark, the fires now being experienced are of much greater intensity, which the bark may not be able to handle. Such intense fires have been attributed to the changing climate.

**On 2nd November 2021 Glasgow Leaders' Declaration On Forests And Land Use was published.** As at 5th November it was endorsed by 133 countries, covering 90% of the world's forest cover, an estimated 3,655,966,910ha (14,115,761 square miles). The full declaration can be found here: <https://ukcop26.org/glasgow-leaders-declaration-on-forests-and-land-use/>



## Off-cuts

Norway spruce is often overlooked in preference for Sitka spruce, the latter being highly adaptable, high yielding and easy to establish, with many years of research having been put into Sitka to improve traits such as growth rate and stem straightness. However, given our changing climate and the fact that 60% of conifer crops in Scotland comprise Sitka spruce, there is a real imperative to look into alternative softwood species suited for the future. To address this, Forestry England and the Conifer Breeding Co-op have partnered to undertake Norway spruce provenance trials, studying seed from 16 different European locations. Norway spruce has high drought tolerance compared with Sitka spruce and grows well in upland acidic soils.

Seeds from Sweden, Czech Republic, Denmark, Germany and France have been germinated and grown in Scotland, with 17,200 young trees planted at five sites in Scotland, England and Wales by members of the Conifer Breeding Co-op. The trial will last 25 years and will identify trees with the best overall performance, showing the strongest growth and good stem form.

The global voluntary carbon market has seen enormous growth in the past year and is likely to exceed \$1bn in transactions in 2021. Forestry and land use are the dominant land use, far out-performing the likes of renewable energy, agriculture or energy efficiency. This trend is reflected in the UK; the number of projects registered with the Woodland Carbon Code to the year ending 31st March 2021 leapt from 343 to 708, with another 500 being registered up to October 2021. The Peatland Code has also seen substantial increases with the number of projects having more than doubled to 32. Several new carbon standards are also being developed, including lowland peatland, hedgerows, farm soil carbon and salt marshes.

Information on the Woodland Carbon Code and the Peatland Code can be found here: <https://www.woodlandcarboncode.org.uk/> <https://www.iucn-uk-peatlandprogramme.org/> ■



## The Challenges of Forestry Tree Supply

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The national focus on tree planting is great news for the forestry sector and forestry nurseries. The UK is being hugely proactive in encouraging both new woodland creation and new productive forestry to secure timber supplies for the future. In addition, tree planting has been identified as a highly efficient means of carbon capture.

However tree planting ambitions sometimes run way ahead of the reality of how the sector can meet that future demand. Growing trees for forestry takes nurseries between 1 and 3 years – which means an average 3 year time lag between planning for an increased number of trees and the reality of those trees being sent to planting sites.

One of the biggest challenges is seed availability – tree seed has to be collected from established stands, and different species set seed at very different times of the year. There are also huge variations between how much seed is available from year to year, and the viability – which means how many of the

seeds will germinate and create good trees.

Species like Oak will traditionally have one very productive season setting seed, followed by a year of very poor collections. There are very few acorns on trees in 2021, for example, and consequently Oak trees will be scarce for the next 2 years. Climate conditions have a major impact – late frosts frequently cause native Cherry seed to drop before fully ripe and long dry spells will often cause trees to drop seed early before it becomes viable.

A further challenge is that seed from some species requires a lengthy treatment process – Juniper can take 3 years to break dormancy, and then a further 3 years to grow. A plan to grow more Juniper would take 6 years to become a reality!

Most Conifers are more reliable – they will follow the common good year/bad year pattern, but seed can be stored in good years which generally means consistent availability.

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Germination percentages can vary between almost 100%, and as little as 20% – usually affected by the growing season in which the seeds have been set. Nurseries will therefore not know how many trees they will get until relatively far into the production process.

Once seed has been sourced, the biggest challenge for nurseries is labour. Nurseries tend to be in relatively remote locations not close to large centres of population and without a large pool of local resource to draw from, therefore are often reliant on migrant labour – similar to the related agriculture and fruit-picking sectors.

Activity in nurseries has seasonal peaks and troughs, so often requires an input of seasonal labour. However recent changes primarily related to Brexit, but also as a consequence of the pandemic and current labour shortages has meant seasonal and migrant labour in the UK is currently very scarce. Availability of labour is likely to be a significant barrier to increasing tree production – with 2021 being the most challenging year ever in this respect.

Growing trees is a labour intensive process. Larger seeds like Chestnuts, Oak, Sycamore and Cherry require nursery staff to hand sort to identify seeds which are ‘chitting’ (or sprouting). Generally only chitting seeds are sown – if seeds are not chitting, they’re unlikely to grow – which wastes space and resource.



Some species like Aspen and Willow are so small they can only be sown by hand and pricked out from seed trays – in the same fashion that has been happening for decades. This is a very intensive labour process.

Following successful sowing, seedlings have to be transplanted – either into final cells, or into fields for bare root growing. This is another labour intensive process. Trees grow in outdoor locations for up to 2 years – requiring watering, feeding, weeding over that time. They are then finally lifted and ‘graded’ – checked for straightness, girth, good root development and general health – before they are finally ready to be sent to planting sites.

For Alba Trees, there are 5 points in the growing cycle from sowing to despatch where trees get individually handled. This obviously requires a large team of people to be able to produce the trees.

Traditionally, technology has helped to improve efficiencies of production and reduce the reliance on manual labour. Forest nurseries are investigating ways to use new automation to increase production, and believe new technology will be key to increased production. Many nurseries already use seed sowing machines – for species which produce even, regular sized seed. Conifer species are the easiest to sow, but relatively few broadleaf species have seed which can be sown singly and evenly with a sowing machine.

Seed supply companies are investigating pelletising seed (common in ornamental horticulture), which would be a huge benefit in handling seed from species like Birch and Alder, and produce more and better seedlings.

Alba Trees invested in a transplanting machine this year – these are common across most of horticulture, but not in the forestry sector. Transplanting machines rely on very even germination – with all cells single sown, no weed or moss growth and seedlings sized within a fairly limited range. The transplanting process is massively accelerated using a transplanting machine – and will require far



less staff to operate than a hand transplanting line. The challenges for nurseries are increasing the quality of seedlings – which is much harder when the species takes 12–16 weeks from sowing to transplanting, compared to an average 2–3 weeks with ornamental crops.

There has also been technological development and new machinery available for the process of ‘lining out’ trees for bare root growing – speeding up that process.

The changing climate is also a concern – bare root nurseries grow trees in fields with only minimal irrigation – recent extremely hot summers are a risk to crops and an increasing percentage can be lost to drought. Most activity around lifting trees or preparing trees happens in the winter once trees are dormant. Extreme weather events, especially very wet seasons, can majorly disrupt this process.

There are a relatively small number of large format tree nurseries in the UK, all of which have been in the sector for many years – so

capacity is relatively constrained. Tree nurseries are experienced and passionate about the sector and willing to invest in their businesses to increase production. Support from UK national governments has helped give nurseries confidence to expand their production – which requires a long-term perspective and deep pockets, given the 2–3 year production cycle.

Greater certainty in future planting plans would also help to give nurseries greater confidence in increasing production – despite very high demand, there are still trees going to waste due to varying timeframes of planting scheme approval.

Whether nurseries can expand production quickly enough to meet rapidly increasing planting targets and political will is debatable due to all the factors involved. However nurseries are passionate about their sector and grateful for public interest and support for increased tree planting. As a sector we are exploring all avenues to try to make more trees available to help meet those ambitions. ■





## Mapping with myForest

Sylva Foundation is developing an innovative online tool to support people in designing and creating new woodlands that meet the UK Forestry Standard. As societal attitudes shift, and more grant funding for woodland creation becomes available, it is likely that we'll see a dramatic increase in the volume of new woodlands planted across the UK and with that a whole new range of barriers and opportunities will arise.

Developing the myForest Woodland Creation tool, which will sit alongside the existing myforest Woodland Manager tool, Deer

Manager tool, and Woodland Wildlife Toolkit, the Sylva Foundation is looking to support good woodland stewardship from inception through to full woodland management while meeting the landowners final objectives over time.

We have three main aims in creating this new tool:

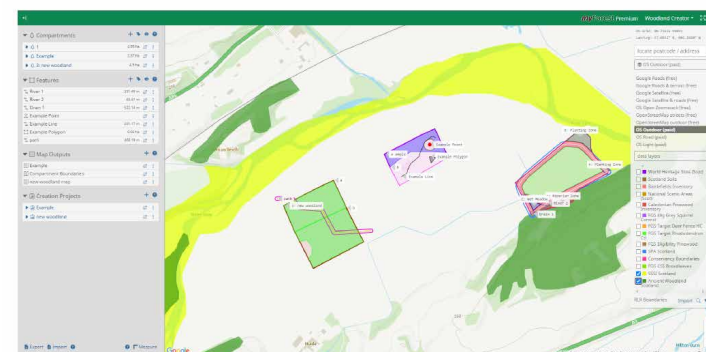
1. **All new woodlands created not only meet minimum legal requirements but demonstrate good practice;**
2. **All new woodlands are created with purpose and long-term goals to support sustainable development;**

### 3. All new woodlands created will remain in good condition and managed according to standards of the UKFS.

Working in partnership with Scottish Forestry and Woodland Trust Scotland (through the Croft Woodland Project), we have launched a one-year pilot aimed at testing the effectiveness of the myForest Woodland Creator tool in aiding Scottish land managers

in developing creation plans compliant with Scottish Forestry requirements.

The Woodland Creator tool allows landowners to map their site on multiple backgrounds from Google Maps through to Ordnance Survey and with that overlay several governmental, non-governmental and other organisation data layers to facilitate effective initial site surveying and opportunities mapping.



A screenshot taken from the Woodland Creator tool showing the Ordnance Survey background mapping with a SSSI and Ancient Woodland data layer.

Through allowing users to collate and store site data and plans along the iterative creation process, the Woodland Creator tool creates a single location to store all the necessary information for effective designing, planning, and monitoring ensuring your data is stored securely and is there whenever needed.

Running several calculations in the background such as compartment and sub-compartment area and perimeter, and seedling requirements based on planting densities and desired percentage coverage; the Woodland Creator speeds up the design process effectively.

Edit Sub-compartment b: Planting Zone

Details Designations Inventory **Stocking** Work Programme Plant Information Notes Photos

Species	X spacing	Y spacing	Stocking Density	Tree Quantity
30% Birch, Silver - Betula pendula	3.00 m	3.00 m	1111 / ha	966
70% Oak, Pedunculata / Common - Quercus robur	2.00 m	2.00 m	2500 / ha	5072
Total Plant Number				6038

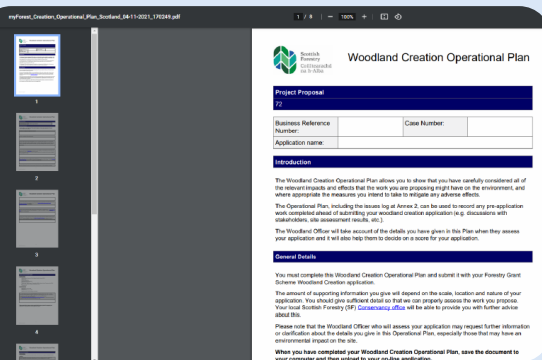
Close Save Save & Close

A screenshot of the automated tree quantity calculations based on percentage coverage, stocking density and sub-compartment size.

While collating your maps, design plans, and operational plans, you are able to generate differing Scottish Forestry plan outputs necessary for grant applications. Currently

we offer the Woodland Creation Operational Plan, the Small Woodland Creation Operational Plan, and the Components Area Table.





A screenshot of the Woodland Creation Operational Plan downloadable output from the myForest Woodland Creator tool.

The myForest platform is a free to use software application allowing you to map, plan and manage your site and woodlands, with a small membership fee (£24 for woodland owners, and £120 for land agents) additional functionality is available. If you would like to know more about the myForest platform and the various tools offered within the suite, please feel free to contact George Dennison at [George.D@sylvia.org.uk](mailto:George.D@sylvia.org.uk) ■

## Integrating Trees Network: a growing success

Farmers and crofters across parts of Scotland have been sharing their experiences, warts and all, about tree planting as part of their businesses. Hearing direct from those who have taken the plunge in growing trees is the best way to find out how to go about it and all the things you need to think about in advance.

Sharing experiences and hearing from those who are doing it is all part of the ever growing Integrating Trees Network. This farmer or crofter-led initiative has now run eight virtual events from all over Scotland since March this year.

The initiative is being led by farmers and supported by Scottish Forestry and the Scottish Government, to help farmers, crofters and land managers find out more about tree planting.

At the heart of the initiative is hearing first hand from other farmers who have already planted trees and successfully integrated them on their farming business.

### Farming Networks

The network has built up a strong network

of farm woodland demonstration sites across Scotland.

Presently there are five farms in the demo network – Andrew Adamson of Messrs W Laird & Son, Netherurd Home Farm, Peeblesshire, the Imrie Family of Hillhead Farm, Torrance and Andrew and Debbie Duffus, Mains of Auchriachan, Tomintoul, Andrew Whiteford, Burnfoot and Ulzieside Farm, Sanquhar and The Barbour family, Mains of Fincastle, Pitlochry. Most are beef and sheep farms with one mixed unit.

The final Highland host farmer will be introduced soon.

Scottish Forestry's forestry and farming development officer, Lyn White said;

***"The Integrating Trees Network is all about encouraging more trees to be planted, in the right place, for the right reason and to give guidance on how this can be practically achieved."***

***"Our fantastic farming hosts are willing to share their practical experiences, discuss their objectives, challenges and benefits of their tree planting projects. They have undertaken a number of online seminars recently and from these a number of key practical messages have been developed for others thinking of planting trees."***



The practical messages were:

- use well known contractors – not always the cheapest but being recommended by others shows they know their job;
- environment – you have to work with what's on the ground, don't try and change it too much or work against it;
- you can do the work yourself and you don't need to rely on contractors. It can be a steep learning curve and there are challenges. It just takes time and planning, but there is support out there;
- understand your reasons for wanting to plant trees on your land and your business priorities;
- do your research: evaluate your land and monitor your farm to find out what areas are under performing for livestock but could still be suitable for planting trees;
- make sure you consider whether planting trees will complement your existing farm enterprises;
- treat your woodland as another crop,
- making sure you are managing it properly;
- know where your drains are before you start;
- involve the local community as much as possible in planning – that helps to defuse any potential issues;
- ask whether having trees on the farm will help diversify the nature of the business to become more adaptable, and in the future will it provide much needed shelter;
- create a habitat for wildlife: life's pretty boring without wildlife!; and finally
- look at the future benefits of protecting the next generation. It is often the case that the farming calendar does not allow business owners to plan too far ahead. Things pile up and opportunities are often missed. There is so much unpredictability in regards to price of output and inputs, weather, political and environmental shifts, subsidies etc. The grants are available now, there are targets to be met and so this is a great opportunity to safeguard the future of the business.

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After the first two farming events, there had been a number of questions and discussion around the practical aspects of integrating trees on farmland. A question time event was set up where we had two host farmers and Scottish Forestry staff on hand to answer queries on species/site choice, protection, and design, cultivation, and maintenance tasks.

### Huge crofting interest

When the Integrating Trees Network was launched earlier this year there was a fantastic response from the crofting community.

Crofters were in touch expressing a keen interest in the developing network and wanted to know how they could be involved.

The interest was so great that it soon became clear that there should be events run purely for crofters.

There has now been two such events which have been called – Tea and Trees for Crofters. The main aim of the online events were to promote an opportunity for informal

discussion about tree planting on crofts. The aim was to offer a relaxed meeting where crofters could share their experiences of tree planting – warts and all.

That's exactly what was achieved too. The discussions were great – full of folk sharing their experiences and challenges of tree planting, asking advice and even highlighting how the trees can provide benefits to bullocks and bees.

As the network has developed we have managed to share resources to help land managers take that next step to planting trees on their land. This can include putting crofters in touch with other organisations such as the Woodland Trust's Croft Woodlands Project or farmers with Tweed Forum.

Scottish Forestry has also highlighted new simplified woodland creation guidance, small farm loan scheme, FAS funding to name but a few and most of all, having access to other farmers and crofters who can share their practical knowledge to those considering woodland creation on whatever scale.

These resources and more can all be found on the Integrating Trees Network website along with host farmer farm details and more key messages.

A recent video features Matthew Imrie, Hillhead Farm, Torrance, one of our host farmers discussing the decision to plant trees on his family farm and key considerations other farmers should be aware of.

Also on the website are links to our up and coming events, also keep an eye on [@scotforestry](#) and [@FASScot](#) twitter for new events.

Everyone is welcome to book onto these free virtual online events. This is a farmer and crofter-led network so please get in touch and let us know what topics you want us to discuss. Drop [lyn.white@forestry.gov.scot](mailto:lyn.white@forestry.gov.scot) or [Hilary.Grant@gov.scot](mailto:Hilary.Grant@gov.scot) an email. ■



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## Forestry Grant Scheme Update

### Cultivation Guidance

Scottish Forestry has introduced long-awaited Cultivation Guidance. Announced in July it became live on 1st October 2021. The guidance is designed to minimise soil disturbance and therefore release of soil carbon. As a result there is a strong presumption against the use of ploughing. Those applicants who are in the implementation stage of their woodland creation projects (and therefore have approval to plough prior to the guidance going live) have until 31st March 2022 to complete ploughing operations. Further information is given in the article titled Scottish Forestry Aims to Sink Carbon Emissions During Woodland Creation on page 14.

### Stocking Density Updates

Scottish Forestry are running a pilot project to gather stocking densities on established FGS woodland creation projects. Selected contract holders with planting claim years of 2015–2017 have been contacted and required to undertake stocking density assessments, providing the information to Scottish Forestry by 30 November. If the pilot is successful this method of Scottish Forestry obtaining stocking densities will be rolled out across all FGS customers.

### Claiming Gorse and Bracken

If you are claiming gorse removal grant it must be claimed in the same year as, AND on the same claim for as, the Initial Planting grant.

The claim year for bracken spraying can be no more than one year before the Initial Planting claim year, and it cannot be claimed after the Initial Planting grant has been claimed.

### Budget Availability

In September an additional £1m was put into WIG – Habitats and Species grants and WIG – Low Impact Silvicultural Systems grants, for the 2021 claim year. This allows eligible work which can be completed and claimed by 31 March 2022 to go ahead. Applicants with grant claim years of 2022 for these categories can bring their work forward to the 2021 claim year if they wish; discuss this possibility with your local conservancy staff.

All budget categories (apart from Restructuring Regeneration) have good headroom for both the remainder of 2021, and 2022. Grant is no longer available for Restructuring Regeneration in 2021, but has good headroom for 2022.

### Felling Permission Mandates

If you are using an agent to submit your Felling Permission application they must be mandated by you. Updated mandates are now available and can be found at <https://forestry.gov.scot/support-regulations/felling-permissions>

Scottish Forestry's FGS updates mentioned here can be found in Briefing Note 38 and 39, available here: <https://forestry.gov.scot/support-regulations/forestry-grants> ■





# Scottish Forestry Aims to Sink Carbon Emissions During Woodland Creation

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There has been a great deal of discussion in recent years about the potential of trees to act as a carbon sink, sucking in carbon from the atmosphere and keeping it ‘locked away’ in the trunks, branches, and roots of trees. However, carbon is also stored in the soils in which the trees are planted. This carbon is transferred directly into the soil through the decomposition of root systems as well as indirectly to microbes and fungi via symbiotic associations. Soils in Scotland, in general, have high levels of stored carbon, particularly in upland areas. Disturbance of the soil during ground preparation prior to tree planting has a negative effect on the balance of carbon in the soil, although this balance is replaced and enhanced throughout the length of time the trees are grown. If soil disturbance is minimised at planting stage though, the woodland will have a greater net amount of carbon stored upon maturity.

Scottish Forestry’s new guidance ‘**Cultivation for Upland Productive Woodland Creation Sites**’ took effect from the 1st of October 2021.

A key measure introduced in this guidance will be the removal of Forestry Grant Scheme funding for any woodland creation applications that include ploughing on soils where peat depth exceeds 10 cm. Ploughing, the most invasive ground preparation technique, has been used on roughly 5% of woodland creation sites over the last few years. However, peaty soils are seen as important carbon sinks and not ploughing these soils will help to reduce unnecessary emissions. This in turn will help woodland creation fulfil its role in contributing to Net-Zero by 2045. In addition to this key measure the guidance also offers further technical advice on ground preparation methods available to achieve tree establishment objectives whilst protecting soils. Furthermore, the guidance gives advice on water management, forest stability and landscape.

Although zero ground preparation when planting trees is the preferred option there are many reasons why it is needed to aid tree survival and growth, amongst these are:

**Soil temperature:** Soil temperature has been shown to influence root growth and uptake of water and nutrients. Mounding, a form of ground preparation, has been shown to raise temperatures by up to 6 degrees compared to uncultivated controls.

**Air:** Subsoils can be compacted reducing oxygen, this in turn restricts root growth. Cultivation can break up the soil and increase soil aeration.

**Water:** Although not a substitute for drainage some soil cultivation can create a microclimate more suitable for early growth and establishment. However, if a soil is dry cultivation can be detrimental.

**Fertility:** Ground preparation can help to mix the organic and mineral layers of the soil

increasing plant nutrient availability. Ground preparation is designed to help establish tree species that have been matched to the site and its conditions. Its purpose is not to alter site conditions in order to allow an unsuitable tree species to grow.

Forest Research’s Ecological Site Classification Decision Support System (ESC) can be used to ensure a tree species is suited to the site. Visit [www.forestdss.org.uk/geoforestdss/](http://www.forestdss.org.uk/geoforestdss/)

Once a suitable species has been chosen for a site, barriers to successful establishment should be identified; these barriers form the objectives of the ground preparation. In turn, differing methods of ground preparation can fulfil different objectives. The new guidance helps to clarify which ground preparation techniques can achieve which cultivation objectives.

Technique	Capability for cultivation object(s)			
	Reduce weed competition for nutrients and moisture	Mix soil to improve fertility or nutrient availability	Reduce or break deep pan or induration >30cm	Create drained planting position (short-term effect)
Manual screefing	Y	N	N	N
Sub-soiling aka ripping or tining	N	Very limited	Y	Depends on soil type
Patch scarification using excavator	Y	N	N	N
Inverted mounding	Y	Y	Y	Y
Hinge mounding	Y	Y	Limited	Y
Patch scarification using scarifier aka continuous mounding	Y	Y	N	Depends on depth scarification tool is set
Trench mounding	Y	Limited	N	Y
Rotary (helix) ploughing	Y	Depends on soil type	N	Y
Line scarification using disc scarifier	Y	Y	N	N
Shallow ploughing ≤30cm	Y	Depends on soil type	N	Y

*Capability of different ground preparation techniques to achieve site objectives (Scottish Forestry, 2021).*

Multiple cultivation techniques can be utilised to achieve the same objective. Still, it is important that the technique with the lowest overall impact is chosen whilst still achieving the necessary objective. The lowest impact choice will mainly depend on the type of soil that is present on the site. However, other site

factors will need to be taken into consideration such as if an area is within a water buffer zone, on a moderate or steep slope or is in an area of peat (up to 50cm). Overall, this new guidance will help to ensure that unnecessary soil disturbance is avoided when creating new woodland.



any other site constraints, can then be chosen. This will minimise the amount of carbon released during the establishment of a new woodland increasing the net carbon captured by the woodland over its lifespan.

*Recommended intensity of ground preparation for different soils and soil moisture regimes (Dr Jens Haufe, Forest Research, 2021).*

the appendix of the **'Cultivation for Upland Productive Woodland Creation Sites'** document as well as in the **Farm Advisory Services (FAS) Ground Preparation Practice Guide.** ■

## Grants for Small-Scale Tree Planting

The Forestry Grant Scheme provides fantastic financial support across the forestry industry, facilitating thousands of hectares of tree planting every year. It is not, however, without its pitfalls. For some landowners the

support is not sufficient or tailored towards their goals, for others the prospect of rigid scheme parameters are discouraging, especially when a scheme is small. The economies of scale do not always favour small schemes when seeking support through FGS. Well, there is some good news if you think your scheme sits within these margins, there is additional support out there to fill in some of the gaps in the FGS. Examples of these grants can be found detailed below.

## Future Woodland Fund

The Future Woodland Fund is provided by the charity Future Woodlands Scotland (FWS) and works alongside the Forestry Grant Scheme (FGS) as supplementary funding. The aim of FWS is to encourage establishment of new native woodlands and restoration of degraded former native woodlands that have high ecological impact.

FWS will support schemes that can prove they will deliver nature-based climate solutions, enhancement of local wildlife and ecosystem resilience, or provide social benefits for local people through partnership working and collaboration.

## Who can Apply?

Land managers aiming to establish a new woodland, or restore a "ghost woodland" with less than 20% canopy cover.

## What is Covered?

The Future Woodland Fund will provide payments of £100/ha per annum (although this is understood to be under review) for the first 20 years of the project. This can be paid as 75% up front followed by 25% upon completion of planting if the scheme is between 3 and 5 hectares. In return, the FWS will own all carbon credits generated by the scheme, and a 55-year maintenance contract must be signed with the Woodland Carbon Code to ensure carbon sequestration is delivered. In order to be eligible for funding the project must be between 3 and 100 hectares, consist of native species, be a new scheme, qualify for the FGS, not be a legal requirement, and be on land registered with Rural Payments. More detail is given in Issue 36.

## MOREwoods and MOREhedges

The Woodland Trust created the MOREwoods and MOREhedges Grant schemes with the main aim of creating and connecting wildlife habitats across the UK.

## Who can Apply?

Landowners and land managers

## What is covered?

Both funds will cover up to 75% of the plant, protection and design support costs associated with the project, it will not cover the costs of fencing or planting contractors. The planting must be either New Woodland Creation or New Hedges, restocking or “gapping up” hedges.

Woodlands must be at least 0.5ha, with no maximum limit, and can consist of blocks as small as 0.1ha. The project must also involve a minimum of 500 trees, and the stocking density must be between 1000 and 1600 stems per hectare. Support for hedges require a minimum of 100m to be planted in a run, with 1000m being the maximum funded. Hedges must connect existing or new woodlands of at least 0.1ha in Scotland, or 0.2ha in England.

## Trainhugger

The Royal Forestry Society (RFS) and Royal Scottish Forestry Society (RSFS) have partnered with train ticket booking service Trainhugger to offer funding to RFS and RSFS members. The goal of the Trainhugger grant is to create a network of climate, disease and pest resilient woodlands across the UK.

## Who can Apply?

Personal and corporate RFS and RSFS members (membership starts from £55/year) who are landowners or have permission from the landowner to apply on their behalf.

## What is Covered?

The Trainhugger grant offers 50p/tree towards woodland creation projects, restocking, underplanting, enrichment planting, urban/parkland planting, hedges and shelterbelts.

If your project does not fit any of these descriptions it may still be considered for funding, as the central ethos is to put “the right tree in the right place”.

The Trainhugger will not support any single-species woodlands, schemes that do not contribute to resilience, or those with funding already in place to cover the cost of the trees.



Applicants can apply for between 500 and 20,000 trees, and the Trainhugger grant must constitute no less than 51% of the funding spent on tree purchasing.

### Crofting Agricultural Grant Scheme (CAGS)

If you are a crofter and your project does not satisfy the requirements of the FGS, then the CAGS may be a useful source of funding for tree planting. This funding is wide-ranging; the goal is to aid and develop agricultural production in crofting businesses, thereby sustaining the economic basis of crofting, helping retain people in rural communities.

#### Who can Apply?

Tenant and owner-occupier crofters living in the Highlands and Islands Enterprise Area.

#### What is Covered?

The CAGS provides grant funding to help cover the costs of planting amenity woodlands such as shelterbelts and hedgerows that serve the purpose of protecting livestock or crops, or as windbreaks for horticultural businesses. Funding for commercial forestry is not covered by this grant scheme. The level of funding available will vary from project to project depending on the costs involved, with up to 90% of actual costs funded and a maximum award amount of £25,000 for individuals or £125,000 for group applicants.

### Small Tree Planting Grant

The charity Reforesting Scotland offer this grant to schemes that are too small to qualify for any other funding opportunities. The aim is to support micro tree planting schemes that add to the overall reforestation effort in Scotland.

#### Who can Apply?

Any landowner or manager aiming to plant trees in Scotland. Reforesting Scotland membership is required (membership costs £30/year).

#### What is Covered?

The Small Tree Planting Grant provides a maximum of £250 in funding per applicant

per scheme, with a maximum scheme size of 0.1ha. The application must be made before the scheme is underway.

### Orchard Grants

Orchard Grants offered by the People's Trust for Endangered Species (PTES) aim to fill the gap in funding for orchards. The goal is to support the biodiversity and heritage values provided by our nation's orchards through funding the renewal of existing orchards or the creation of new community orchards.

#### Who can Apply?

Any owner or manager of an existing traditional orchard or an existing/new community orchard.

#### What is Covered?

The Orchard Grant offers to either supply rootstock and grafting kits or provide £20/tree of funding for fruit trees on rootstock. The maximum support provided covers 4 trees per 0.1ha, which is roughly half of the trees required for a fully stocked site at 10m spacing. Applicants from large orchards will be assessed on a case-by-case basis. For more information on alternatives to FGS grant funding, or to make an application, please visit the following websites:

A FAS information sheet on CAGS for woodland can be found here:  
<https://www.fas.scot/downloads/grant-support-for-croft-woodland-creation-a-comparison/>  
<https://www.futurewoodlands.org.uk/future-woodlands-fund/>  
<https://www.woodlandtrust.org.uk/plant-trees/large-scale-planting/morewoods/>  
<https://www.woodlandtrust.org.uk/plant-trees/large-scale-planting/morehedges/>  
<https://rfs.org.uk/trainhugger/>  
<https://www.ruralpayments.org/publicsite/futures/topics/all-schemes/crofting-agricultural-grant-scheme/>  
<https://reforestingscotland.org/portfolio/small-tree-planting-grant/>  
<https://ptes.org/campaigns/traditional-orchard-project/orchard-grants/> ■



## Woodland at SRUC Kirkton and Auchtertyre

### Dr John Holland

*Upland Ecologist*

*SRUC Hill and Mountain Research Centre*

*[John.Holland@sruc.ac.uk](mailto:John.Holland@sruc.ac.uk)*

SRUC's Kirkton and Auchtertyre farms are situated between the villages of Tyndrum and Crianlarich in west Perthshire; at the northern edge of the Loch Lomond and the Trossachs National Park. The estate is a centre for research and demonstration into sustainable land management in hill and mountain areas; and is the location for SRUC's Hill and Mountain Research Centre.

Back in 1995 there was very little woodland on the estate, with only a few small conifer and mixed woodland blocks and shelterbelts on the inbye ground, and some remnant semi-natural woodland in two steep sided gorges and along the banks of the River Fillan. Over the past 25 years the woodland cover on the estate has increased by over 270 hectares, including 3 ha of native Scots pine woodland, 43 ha of native broadleaved woodland and over 200 ha of mountain woodland and scrub, as well as some shelterbelts and riparian planting on the inbye ground, and a small agroforestry plot.

Most of the woodland on the estate has been planted for biodiversity and landscape reasons or for shelter, rather than for timber production. We are hoping to plant more woodland, with proposals to plant approximately 10 ha of mixed woodland or commercial broadleaf

for timber production (as well as for shelter, biodiversity and carbon storage), on an area of semi-improved grassland below the West Highland Railway line (200–250m). We are also looking at the possibility of fencing off a steep-sided gorge to the north of Tyndrum, to allow natural regeneration of the remnant Downy Birch, Willow and Rowan.

### Gleann a'Chlachain Woodland

Three blocks of native woodland covering 260 ha of hill ground were planted in the late 1990s, with the original aim of eventually creating a silvopastoral system with managed sheep grazing within the two higher altitude woodland blocks.

The first phase of planting was along the Allt Gleann a'Chlachain gorge (43 ha; 220–380m above sea level). The main purpose of this gorge woodland was to act as a wildlife corridor linking an area of existing semi-natural woodland in the lower part of the gorge with the main woodland planting in the upper bowl of Gleann a'Chlachain. More than 93,000 trees were planted in the gorge woodland between 1998 and 2009. The main species were Downy Birch, Silver Birch, Grey Willow, Alder, Scots Pine, Sessile Oak, Goat Willow, Rowan and Ash. Monitoring of the gorge woodland in the summer of 2021 found that the mean tree height was 3.97 m, and the average stocking density was approximately 1500 trees per hectare.

CONTINUED OVER



The main phase of woodland planting, which started in 1999, involved a large, fenced area in the bowl of Gleann a'Chlachain (181 ha; 390–600 m above sea level) and a smaller block on the north-west facing flank of Ben Challum (36 ha; 360–610 m above sea level). Over 390,000 trees were planted in the two blocks between 1999 and 2009. More than half the trees were Downy Birch, with the other main species being Silver Birch, Scots Pine, Alder, Rowan, Grey Willow, Goat Willow, Hazel and Eared Willow. The site was mounded prior to planting. Approximately 90% of the trees were bare rooted with 10% cell grown.

Eighty-eight percent of the trees came from four large nurseries in the east of Scotland with the rest coming from a local nursery in Argyll. Tree establishment has been relatively poor in the main woodland block and losses have been high. Our aspiration to allow controlled grazing within the woodland has not been realized due to the very slow rate of growth and poor establishment of the trees, together with an outbreak of enzootic abortion within the Gleann a'Chlachain flock, which resulted in the removal of the sheep from the glen in the autumn of 2008. This has meant that rather than creating a silvopastoral system we have created more of a "rewilded" glen with a large fenced "mountain woodland" and low levels of grazing outside the enclosure. Although many of the trees have been slow to establish and remain short in stature (many of them less than 1.0 m tall), their low, prostrate, bushy growth form, which has developed in response to the environmental and biological conditions, is entirely appropriate and expected at the altitudes involved.

Monitoring of the main woodland block in the summer of 2021 found that the mean tree height was only 1.04 m (maximum height of 7.5 m), and the average stocking density was approximately 685 trees per hectare. Of the main species, the Alder tended to be the tallest with Rowan and Willow being the shortest. We are now beginning to see the development of a mountain woodland of low growing trees and shrubs with extensive open areas of heath, bog and grassland, creating a diverse and species-rich habitat, which has improved the landscape,

is acting as a carbon store and is reducing the risk of flooding lower down the catchment.

## Small-scale Tree Planting on the Inbye Ground

### Shelterbelts

As part of the Scottish Government's Agri-environment and Climate Scheme two shelterbelts were created on the inbye ground at Kirkton in 2016, each one with 165 native broadleaf trees (Alder, Downy Birch, Hazel, Hawthorn, Bird Cherry, Sessile Oak, Goat Willow, Grey Willow, Eared Willow, Rowan, Crab Apple and Blackthorn). The trees were protected by tubes and the shelterbelt blocks were deer fenced. These shelterbelts will provide invaluable shelter for the ewes and lambs using the adjacent inbye fields, particularly during lambing. They will also provide habitat for a range of invertebrates, birds and mammals, and potentially provide wood products such as firewood.

### Wood Pasture and Riparian planting

In 2017, three small-scale tree planting projects were carried out with support from the Loch Lomond and the Trossachs National Park's Natural Heritage Grant Scheme. Ten tree protection boxes were constructed in a small area of wood pasture with scattered mature Downy Birch trees. These tree boxes were post and rail enclosures, with a barbed wire top, which protect the planted Downy Birch trees from sheep, cattle and deer browsing. In another area of mature Downy Birch wood pasture, beside the River Fillan at Auchtertyre, thirty Downy Birch and Rowan saplings were planted in individual weld-mesh cages. Within one of the fenced water margins on the inbye ground a further forty riparian trees were planted, in groups of eight trees (a mix of Goat Willow, Grey Willow and Alder).

### Agroforestry Plot

In March 2020 a small half hectare block of agroforestry was established with funding from the Loch Lomond and the Trossachs

National Park's Tree Planting Grant. One hundred individually protected trees were planted at approximately 7 m spacing in a block five trees wide and 20 trees long. A mix of native tree species were planted; Alder, Downy Birch, Aspen, Cherry, Pedunculate Oak, Sessile Oak and Rowan. The trees were individually protected using a 1.5 m high cage made from 2 mm gauge weld mesh with 50 mm squares and a 'cage' diameter of 45 cm. This was supported by two wooden posts. Each tree was protected by a vole guard and was given 12 g of high phosphate tree fertilizer. The cages provide the trees with protection from browsing, but the sheep are still able to graze the pasture between the trees. The avenues between the tree rows are wide enough for a tractor so that fertilizer can still be spread onto the grass if required. The LLTNP Grant of £1500 covered the cost of materials (with a cost per cage of £15.95 (incl. VAT)). The labour costs were calculated to be £10.46 per cage. The Tree

Planting Grant offers financial assistance (up to £3000) to land managers in the National Park who want to plant individual trees or small areas of woodland that might not usually be eligible for other funding. One of the priority outcomes that the grant scheme supports is the enhancement of tree integration into agricultural systems (agroforestry). If support under the FGS agroforestry option had been sought this would only have provided a grant of £9.30 per tree, plus an annual management grant of £24. The site will be used both for demonstration and research purposes, showing farmers and land managers how agroforestry can be integrated into a hill farm system. This small block of silvopastoral agroforestry will provide multiple benefits, including shelter and shade for the livestock, tree forage, timber and firewood, improved drainage and better soil health, carbon storage, and habitat for woodland invertebrates and birds. ■

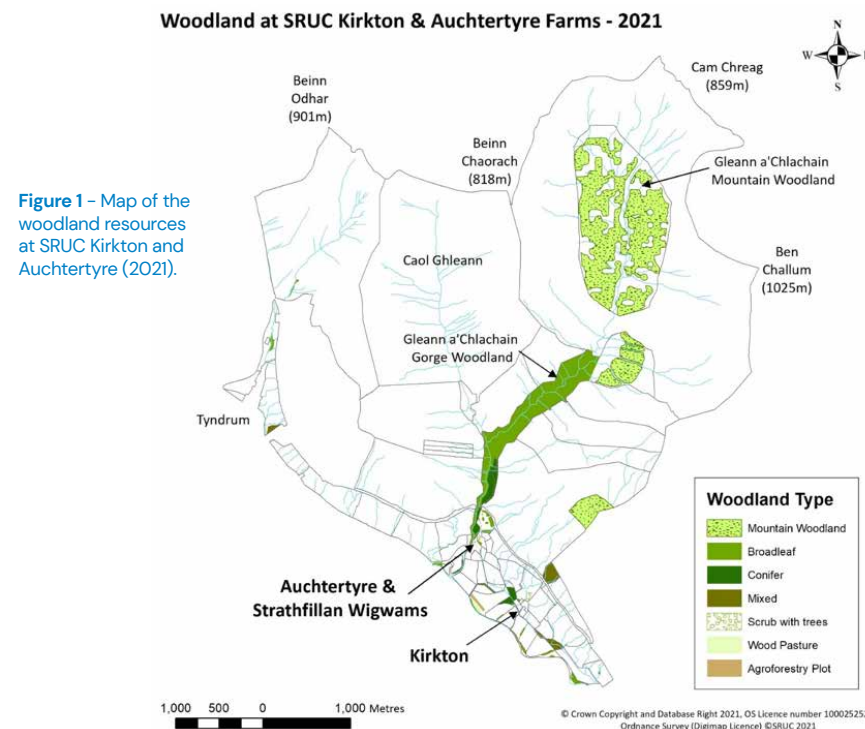






Figure 2 - Gleann a'Chlachain gorge woodland.



Figure 3 - Mountain woodland on the flank of Ben Challum.



Figure 4 - Mountain Woodland.



Figure 5 - Shelterbelt.



Figure 6 - Tree protection boxes erected in a small area of wood pasture.



Figure 7 - Weldmesh cages erected in an area of wood pasture beside the River Fillan.



Figure 8 - Agroforestry plot established in an area of improved pasture.

# Timber Market Report November 2021

**Graeme Ralph**  
*Operations Director, North Scotland,  
Euroforest Ltd*

In my last report earlier this year I commented on standing timber prices being at record levels, and the highest I had seen in the whole of my career. I can update that now by confirming that prices have once again achieved new heights over recent months. All sawmills have been working at maximum capacity, and aided by a generally good summer, working on harvesting sites has been unimpeded.

Latterly prices have stabilised as the bought ahead position of most of the major sawmills has improved, although they remain at what are still record levels compared with anything we have ever seen before.

We continue to see further new investment in Scottish processing which is welcome news for woodland owners across the country. Having only recently completed significant investment at their Aboyne sawmill James Jones have now turned their attention to Mosstodloch where they intend to build a brand-new sawmill on a green field site adjacent to the existing mill, as well as creating more log yard and processing / treatment space which will combine to give Jones a significant increase in demand for round timber within the next 5 years. Norbord also plan a production increase of 200k tonnes next year, and have further plans to take this to a million in the years ahead.

In addition, they will also look to improve the use of further sea transport of both raw material and finished product, as well as enhanced roundwood storage facilities.



Similar to the farming industry we have struggled with the fallout from Brexit – foreign forest machine operators have returned to their home countries. Lorry drivers have done the same, or swapped timber haulage for more lucrative general haulage work, although this has been worst in England and Wales than in Scotland where our dedicated timber hauliers have remained loyal to our ever-expanding industry.

On top of that the sky-high fuel prices are beginning to feed through into higher operating costs both in the forest and on the road, although the good news for forest owners is that this isn't being passed on to growers at present as a result of the continued good demand.

It's always difficult to predict the market ahead, but most sawmill customers have strong order books for the first half of next year already, and we are just approaching winter when many of our customers are looking to build stocks to counter any bad weather, so our hope is that whilst prices may have levelled off, they are not likely to fall significantly in the foreseeable future. ■



# Quick Guide to Woodland Creation Grants



**Farm  
Advisory  
Service**

The Forestry Grant Scheme (FGS) supports the creation of new woodland that will provide economic, environmental and social benefits. Payment rates for five of the nine grant support options for woodland creation are shown in the table below. Higher rates of payment are available for eligible schemes within the following locations: Central Scotland Green Network (CSGN); Cairngorms National Park Woodland Expansion Target Area; Highland Native Woodland Target Area; Woodlands for Water Target Areas; and preferred and potential areas of local authority Forest and Woodland Strategies.

Woodland Creation option	Total payment rate per hectare <i>for initial planting and annual maintenance for 5 years</i>	
	Standard areas	Target areas
Conifer*	£2960	£3330
Diverse Conifer*	£3840	£4320
Native Scots Pine	£3200	£3600
Native Broadleaves	£3200	£3600
Native Broadleaves in Northern and Western Isles	£6720	N/A

## Central Scotland Green Network additional capital payment contribution

Within the CSGN Contribution Area additional funding is available to Woodland Creation schemes.

Core Area	£2500/ha
Outer Core Area	£1500/ha
Fringe Area	£750/ha
CSGN contribution capped at 40ha in Core Area and Fringe Area, and at 65ha in Outer Core Area.	

**National Advice Hub**  
T: 0300 323 0161  
E: [advice@fas.scot](mailto:advice@fas.scot)  
W: [www.fas.scot](http://www.fas.scot)

**If you need more advice on farm woodlands or any other topic, the Farm Advisory Service has a range of support and help available:**

### Advice line

For free telephone advice on a wide variety of topics including cross compliance, water framework directive requirements, climate change and other technical issues call us on **0300 323 0161** or email [advice@fas.scot](mailto:advice@fas.scot). The advice line operates between 9am and 5pm Monday to Friday.

### Online

Our website contains articles, videos and much more at **[www.fas.scot](http://www.fas.scot)**

## Capital Items Payment Rates

In addition to the initial planting grant there is support for capital items that may be required to successfully establish new woodland.

Deer fencing	£7.60/m
Stock fencing	£4.40/m
Rabbit-proofing of fence	£1.60/m
Tree shelters (1.2 to 1.8m)	£2.00 each
Gorse removal	£720/net ha
Bracken control	£225/ha

*\*If ploughing is used, reduced payment rates for initial planting apply to reflect the cost saving from this cultivation method.*