

FORESTRY & TIMBER NEWS

April 2021 Issue 104

TIMBER

IN CONSTRUCTION

SKILLS & CAREERS

THE BIOECONOMY

Choose your journey with **Isuzu**



Three Flexible and Affordable Routes to Ownership.

From a single unit to an entire fleet, Isuzu's three flexible and affordable routes to ownership will allow you get ahead and free up your cash for other purposes.

*For business users only. T&Cs apply.

To find out more about these payment plans or learn more about other finance options contact your local dealer



01707 282944 / [isuzutruck.co.uk](https://www.isuzutruck.co.uk)

ISUZU
TRUCK 

*Finance for business purposes only. Subject to acceptance and affordability checks. UK only. Applicants must be 18 or over. Valid until 30th June 2021. Available on new vehicles only. The finance product offered under this promotion is Hire Purchase and a minimum deposit of 10% + full VAT is due on signing on all offers. 'Pay Later' offer: 1st payment deferred for 3 months from delivery. 'Pay Seasonal' and 'Pay Flexible' offer: First payment is due on signing. Seasonal payment plan has to be agreed prior to the signature of the Agreement. Changes are subject to Agreement T&Cs. An option-to-purchase fee of £198 (+ VAT) will be collected with the final payment. Doc fee of £200 and first year's road fund licence to be paid upfront. You will own the machine when all payments have been made. Alternative finance options available. T&Cs apply. Images are for illustrative purposes only. Annual admin fee of £40 + VAT. As funder, we may pay a commission, fee or other remuneration to credit brokers who introduce business to us; please contact them if you require more info. Finance provided by BNP Paribas Leasing Solutions Limited, Northern Cross, Basing View, Basingstoke, RG21 4HL. Registered in England NO.901225.

Confor is a membership organisation that promotes sustainable forestry and wood-using businesses. Confor members receive *Forestry and Timber News* for free as part of their membership. For more information on membership, visit

www.confor.org.uk/join-us

Past issues and articles can be accessed online at

www.confor.org.uk/news/ftn-magazine

Non-member subscriptions:

£62/(£67 overseas)

Please contact Liz@confor.org.uk

CONFOR CONTACTS



Stuart Goodall
Chief Executive
stuartg@confor.org.uk
T: 131 240 1416



Andy Leitch
Deputy Chief Executive
Andy.leitch@confor.org.uk
Mob - 07881510171



Stefanie Kaiser
Communications and editor FTN
T: 0131 240 1420
E: stefanie.kaiser@confor.org.uk



Lauren MacArthur
Membership officer
T: 07918880285
E: lauren.mcarthur@confor.org.uk



Caroline Ayre
National manager for England
M: 07500 927482
E: caroline@confor.org.uk



Jamie Farquhar
National manager for Scotland
M: 07817 374906
E: jamie.farquhar@confor.org.uk



Anthony Geddes
National manager for Wales
T: 074 94079305
E: anthony@confor.org.uk



Confor head office and editorial office
59 George Street, Edinburgh EH2 2JG



0131 240 1410



info@confor.org.uk



www.confor.org.uk



For the latest news of forestry and wood
sign up to #forestandwood on Twitter

Published by Countrywide Publications,
Fountain Way, Reydon, Suffolk IP18 6SZ
on behalf of Confor.

For advertising, contact Laura Munnings
01502 725866

laura.munnings@micropress.co.uk

Printed by Micropress Printers Ltd

CONTENTS



NEWS & COMMENT

5 | EDITORIAL

6 | THE BIOECONOMY

BIOREFINING AND THE
BIOECONOMY

9 | NEWS

FORESTRY AND TIMBER
MANIFESTOS FOR WALES AND
SCOTLAND

BREXIT AND THE WORKFORCE –
AN INDUSTRY UPDATE

APF POSTPONED AGAIN TO 2022

CONFOR TEAM CHANGES

CONSULTATION OPENS ON UKWAS
5 INITIAL REVISION DRAFT

CONFOR CONSULTATION
RESPONSES ROUND-UP

REGULARS

16 | NEWS FROM MEMBERS

18 | MEMBER PROFILE

FOREST DIRECT

21 | CERTIFICATION UPDATE

CERTIFICATION LANDSCAPE IN
THE TIME OF CORONA

32 | MARKETS

TIMBER AUCTIONS MARKET
REPORT

FOREST MARKET REPORT

PACKAGING & PALLET MARKET
REPORT

40 | RESEARCH

SPRUCES FOR THE FUTURE

55 | EDUCATION & PROVIDENT FUND

FUND HELPS SECURE CHAINSAW
TRAINING FOR FARM WOODLAND
RESTORATION

56 | BIOECONOMY

BIOCARBONS: GIVING FORESTRY
'WASTE' A SECOND LIFE

58 | INTERNATIONAL

TREE HEALTH IN A MOSAIC OF
MICRO FOREST PLOTS

61 | WOODLAND CARBON EXPLAINED

INTEGRATING PAYMENTS FOR
ECOSYSTEM SERVICES: CARBON,
DIVERSITY AND MORE

62 | PUBLICATIONS

CALLING ALL WOODLAND
OWNERS ACROSS BRITAIN

63 | PESTICIDES NOTEBOOK

PEST AND WEED CONTROL IN
POST-BREXIT BRITAIN

69 | SMALL WOODLAND OWNER

MORE PLANTING

70 | FORESTRY IN PICTURES

FEATURES

22 | TIMBER IN CONSTRUCTION

ENABLING HIGH-VALUE TIMBER
MANUFACTURING TO MEET
FUTURE DEMAND

BUILDING TIMBER INTO THE
CURRICULUM WITH LOW-CARBON
DESIGN CHALLENGE

TEAM ESTEEM: INNOVATION
TOWARDS A MORE SUSTAINABLE
SCOTLAND

INFUTURE WOOD: THE PAST,
PRESENT AND FUTURE OF TIMBER
REUSE

AN UPDATE FROM WOOD FOR
GOOD

43 | CAREERS | SKILLS

ATTRACTING AND DEVELOPING A
SKILLED FUTURE WORKFORCE
GROWING RURAL TALENT: A NEW
PATHWAY INTO FORESTRY

CUTTING EDGE SKILLS FOR
WORLD-LEADING SAW DOCTORS

FORESTRY ENGLAND
APPRENTICESHIPS: THE NEXT
GENERATION OF FORESTERS

VIRTUAL TEACHING: FROM 2D TO
TREE-D

FORESTRY@BANGOR RISES TO
CHALLENGE OF COVID-19

SCOTTISH SCHOOL OF FORESTRY:
COVID-19 UPDATES ON EDUCATION
PROVISION

COVER IMAGE: SHUTTERSTOCK



Wolman

Leading the Way in Wood Protection

Wolmanit® CX and Wolsit® KD – Wood preservatives for long-lasting timber products.

- Proven preservatives for high quality timber treatment.
- High performance products for use class 1-4.
- Expert technical and marketing support.

Lobbying: the frustrations and rewards

STUART GOODALL CHIEF EXECUTIVE, CONFOR

On 6 May, elections will take place for new governments in Scotland and Wales, and ahead of that we're expecting publication of a new strategy in England.

Lobbying governments can feel like "painting the Forth Bridge" – a task without end. In 2011, however, painting of the iconic bridge stopped for 25 years following application of a new paint formulation - I'm all ears if anyone can come up with something similarly effective for lobbying!

Much can depend on the interests and motivations of the person being lobbied. For example, Fergus Ewing in Scotland is keen to support a sustainable, low carbon industry, whereas UK forestry minister Zac Goldsmith supports managing native woodlands to produce hardwoods and appears to dislike conifers while prioritising the environmental leg of sustainability over the economic.

Politics has been described as the art of the possible, but when lobbying Confor doesn't simply focus effort on where success is most

easily achieved. I'm pleased to say then that our continued efforts are yielding results across the UK.

In England, Wales and Northern Ireland significant additional funding is being made available to support new planting and we're pushing hard so this translates into more trees in the ground. We've also seen financial support for nurseries across Great Britain and for action to identify workforce needs, hopefully further support will be forthcoming to help deliver on those needs.

There is increasing interest in promoting greater use of wood, driven largely by its carbon benefits, but also recognising that income from timber sales can support sustainable management and rural economies. And we have lobbied successfully for the extension of Confor's Climate Change Agreement with achievable targets being set for participating sawmills – the financial savings made can be invested in energy savings.

Until we discover the 'Forth Bridge' solution to lobbying we'll keep working away for the sector – progress is being made, but there's always more to do!



Biorefining and the bioeconomy

Dr Morwenna Spear

BioComposites Centre,
Bangor University

The bioeconomy features strongly in the desire to see a green recovery in the UK. It is also a main theme in the Government's Clean Growth Strategy, with a target to double the bioeconomy in the UK by 2030, from £220 billion in 2014, to £440 billion.

What exactly is the bioeconomy?

It could be described as the use of bioscience and biotechnology to provide chemicals, materials, food, energy & fuel and health or environmental benefits. But in fact, it is broader than this, and includes all economic activity derived from bio-based products and processes, so foresters, farmers and land managers are already engaged in the bioeconomy. It also includes the biomass energy sector. It also encompasses organic waste from industry or municipal sources. It also includes all upstream and downstream activities for these. Which goes some way to explain how the bioeconomy workforce in the UK reaches the reported 5.2 million jobs.

What we might look at instead is the Industrial Biotechnology (IB) sector, within the bioeconomy, which can use agricultural, forest or even aquatic residues in green and bio-based technologies. We also know that some nations are very advanced in IB, for example Finland and Sweden centred on existing pulp and paper activity to support high-tech development of regenerated cellulose, biocomposites, or new polymers. Or the Netherlands, where a large number of technologies are incubated through favourable support for start-up companies, new innovation, enzyme technologies and products frequently develop through to viable commercial systems. So, can this work in the UK?

In the BEIS/BBSRC report *Evi-*

dencing the Bioeconomy, the direct output of the UK bioeconomy was £52bn in 2013, projected to rise by only 0.7% per annum to £58bn in 2030. This is the direct activity – agriculture and fishing, forestry and logging, water and remediation services, food and beverage manufacture, and IB and bioenergy (see chart). Changes in forestry are relatively minor in the projections, whereas agriculture is projected to decrease in value and the biotechnology and bioenergy sector increase substantially, giving the bulk of the growth. So, let's look at the biotechnology sector in a bit more detail.

How can forestry and wood be relevant for the biotechnology sector?

One important concept for biotechnology is the use of enzyme-based digestions or chemical reactions to break down biomass into a mix of useful chemicals. In fact, a set of 'platform chemicals' have been selected by industry as the most strategic and useful molecules for moving the chemical industry away from fossil-based resources towards

BioPilots UK

There are four open access biorefinery centres collaborating in this scheme. Based at Aberystwyth (Beacon), Glasgow (IBioIC), Redcar (CPI) and York (BioRenewables Development Centre). The four organisations recognise the importance of partnerships to develop UK bio-based value chains. They allow new technologies to be de-risked through trials and scale up activities. For more information see biopilotsUK.com

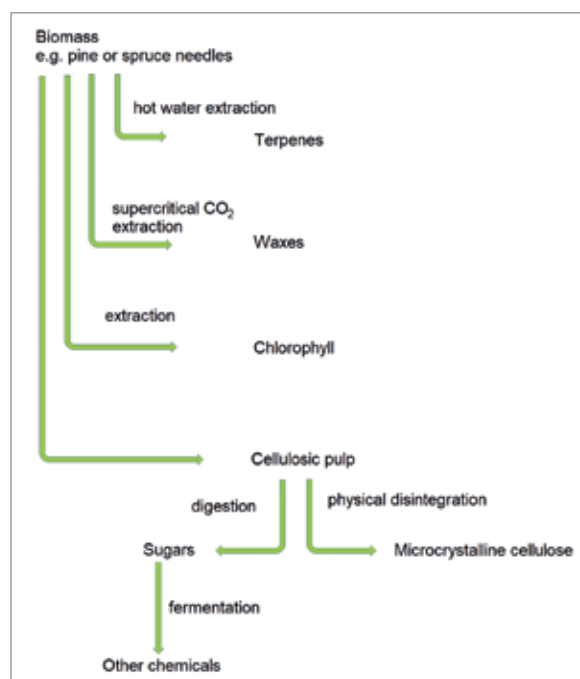
Chemicals from food waste

GSK and Veolia working together with the BioRenewable Development Centre at York, have been looking at starchy food wastes as a resource for high value chemicals including antibiotics. Glucose will be derived and purified from food waste for use in the industrial processes.

Bio-resins from bark

Work at the BioComposites Centre with AW Jenkinson has looked at stilbenes as new chemicals for substitution into adhesives for wood based panels. Extracts of stilbenes were recovered from Sitka spruce bark, and used to produce resin for particleboard.

Simplified schematic of a biorefinery breaking down conifer needles into different products



synthesis of the many chemicals we need from bio-based resources. As we know, timber contains cellulose and hemicellulose. Both of these are polysaccharides, so can be broken down into sugars, and sugars can be digested further by microbes to create a range of different monomers, or to create new biopolymers through their metabolic processes. Another component of wood is lignin, which has long been a challenge to the pulp and paper industry to recover and convert into useful products. Increasingly there are strategies to convert lignin into bio-based adhesives for wood-based panels, or to create mouldable plastics, or to break it down into a range of phenolic molecules for chemical synthesis.

Another group of products is the 'value chemicals'. While the bulk of most agri-residues and wood is made up of cellulose, hemicellulose and lignin, a small component will be of other substances. Bark contains suberin, wax and many tannins and phenolic compounds; softwood timbers contain significant amounts of terpenes as well as waxes and resin acids; leaves contain a large number of chemicals, some with medicinal or health effects,



others giving flavours, aromas, and colours with potential in food. While these components may be present only in low quantities, their value lies in the specialist markets they are sold into, and the higher prices they may command. The economics of setting up a biorefinery frequently rely on selecting a feedstock with several of these value chemicals, and then developing the rest of the product mix from the digestion of the remaining pulp. Thus, in a biorefinery a biomass feedstock is fractionated into several separate products in sequence (see flow diagram), just as crude oil is separated into several distinct useful products in a petrochemical refinery. Biorefinery activity in the UK has a turnover of approx. £1.8bn in 2010, but is expected to grow to £12bn in 2025.

You can see that there are likely to be a huge number of different value chemicals available from different agri-crops, different forest residues (eg the bark, leaves or needles of different species of trees) and increasingly different micro or macro algae as well. As such, it offers a very interesting opportunity to the forest sector, to consider collection of brash to develop a value

chain based on the dominant species. Others have looked at chemicals from bark (see above). Logistics will remain the key consideration for this – even if a biorefinery is established, its location near to suitable forest area and sustained supply of needles, brash, bark or other feedstocks across the seasons.



From the forester's point of view, these developments in the bioeconomy are an opportunity, and also a sign that the way policy makers understand the role of trees is changing.

An opportunity for forestry and wood

Over the past decades there has been a shift in the type of feedstocks targeted in biotechnology. The first-generation feedstocks (food crops including wheat, sugar beet, potatoes and other starchy crops) have given way to second-generation crops (wood, wheat straw, other agri-residues) to ensure that new technology is not

competing with food, but is using co-products of food production. Hopefully it is also using the co-products of the timber industry not the primary crop. More recently a third generation of feedstocks have made advances, these are more varied, including the algae and seaweeds, but also bio-based municipal waste and industrial waste or food industry wastes.

This brings us to another concept – anaerobic digestion. This has moved relatively rapidly into mainstream as a solution to food waste from local authority collections and even water treatment. It uses microbes which grown in anaerobic conditions to digest and break down biomass into a rich mix of organic compounds and fibrous pulp. Conditions in the reactors can be controlled to favour production of gases such as methane, or to yield other products. There is interest in this technology to produce biopolymers for example, but the microbes used and the conditions in the reactor would be very different to the majority of industrial installations in place today.

From the forester's point of view, these developments in the bioeconomy are an opportunity, and also a sign that the way policy makers understand the role of trees is changing. It is great to see the mention of support for timber and cross laminated timber in construction in the text of *Growing the Bioeconomy*. This indicates that there is a desire to avoid the difficult situation of the first-generation feedstocks, where biofuels were seen as diverting food crops away from people. Timber should be used as timber first, but the emergence of biotechnology alongside timber offers scope for coproducts and residues, if the economics of collection can be stacked up favourably.

It is good also to see that the finite nature of land, and thus the limit on total biomass availability is acknowledged. The projected growth in the bioeconomy is primarily from advances in how the biotechnology is done, and how efficiently the value chain is put together, to supply higher value products, purer products or to deliver more of the transformation of the raw material into final product.

For more on the bioeconomy, see p56

CHOOSE THE BEST OUTLAST THE REST



Try our newly launched
Fence Master app

- Our range of posts and sleepers gives added confidence to your fencing and landscaping project.
- Our range of ground contact fencing and landscape sleepers are treated to **Use Class 4** as recommended for ground contact applications.
- James Jones & Sons offers a 15 year warranty against rot and insect attack.

www.jamesjones.co.uk



James Jones
& SONS LIMITED

The wood and the trees

A Forestry and Timber Manifesto for Wales

Strong and consistent political support is required to kick-start new tree planting in Wales, Confor argues in its manifesto for the Senedd (Welsh Assembly) elections in May.

The wood and the trees: A Forestry and Timber Manifesto for Wales, sets out a five-point plan to build forestry and wood into a £1 billion industry.

Confor's National Manager for Wales, Anthony Geddes, explains why he is positive, despite low tree planting rates in recent years. "Two facts make me optimistic - farmers and landowners want to plant trees and the Welsh Government is putting funding in place to support that demand," he says.

The Glastir Woodland Creation and Restoration Scheme, through which tree planting is funded, has committed a total of £17 million to tree planting in its last two rounds. Planting applications are running at almost twice the level of funding available, showing that there is huge demand.

Mr Geddes says: "Forest creation in Wales is heading in a positive direction, but continued political commitment and action is needed to maintain this momentum. A jump from 80 hectares of planting in 2019-20 to 2000 hectares in 2021-22 would be a great start.

"There's a long way to go to meet the Welsh Government aspiration to plant 4000 hectares of trees per year and push up towards the 6000 hectares proposed by the Climate Change Committee. Commitment to targets is one thing - we need action to get there. That means simplified planting processes, sustained public sector investment, creative approaches to unlock private investment and greater accessibility to schemes for tenant farmers."

The manifesto also calls for the use of more Welsh wood in construction and a commitment to support skills and technology to build up the industry.

"The recent Forest Industry Recovery Scheme shows the serious appetite for Welsh forestry business to invest, adapt and thrive," says Mr Geddes.

"If we do this, the environmental and economic benefits will be significant. Delivering 4000 hectares annually to 2045 would see Wales reach 20% woodland cover, soak up 40 million tons of carbon

dioxide and provide raw material for all new housing through carbon-negative timber construction. Forestry and wood would develop into an industry worth £1 billion+ annually."

The manifesto features case studies relating to tree planting and wood use, including Derek Morgan, who planted 20 hectares of woodland on the hill sheep farm in Montgomeryshire which has been in his family since 1947.

He says: "The small family farm is the backbone of Welsh rural life, but hill sheep farming just isn't as profitable as it used to be. I wanted to find a way of providing a new income stream to protect the farm and have something to leave for my children. Tree planting seemed the way to go.



"People say farmers are opposed to tree planting, but I'd say farmers will plant if the economics stack up. They are pretty open to it. Quite a few friends in the valley are planting trees on ground that's hard to graze."

Owain Williams, Joint Managing Director of Williams Homes in Bala, North Wales, describes wood as "the only truly low-carbon building product that can be used for mass housebuilding for the future".

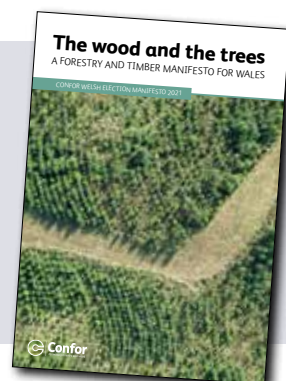
He says the Welsh Government has re-

FIVE-POINT FOCUS FOR FORESTRY

- 1 Political leadership to meet planting targets**
Confor calls for a clear commitment to planting targets by guaranteeing funding which matches demand and sets a clear path to meet the 4000 hectare target by 2025.
- 2 Make planting trees easier**
Streamline the application and approval processes by translating the findings from the Wales Land Management Forum into action.
- 3 Invest in forestry skills**
Invest in the skills needed by encouraging new entrants to the industry through targeted apprenticeship and rural sector training schemes.
- 4 Invest in technology**
Invest in technology to support the development of a high-value forestry and timber industry.
- 5 Use more Welsh timber**
Add greater social and carbon value to Welsh timber through the substitution of steel and concrete in construction - while recognising timber has many other important uses.

ally encouraged building with wood, but he is worried about supply: "There is just not enough timber out there and there hasn't been enough for a very long time. It's great that there is increased demand to use wood - but we need to address the shortage. We have to plant more, and we have to do it now."

The wood and the trees: A Forestry and Timber Manifesto for Wales, is available on the Confor website in the Publications section. All Scottish members should have received an online version and a hard copy of the manifesto. If you have not received a copy and would like one, please contact Stefanie.kaiser@confor.org.uk
www.confor.org.uk/resources/publications/confor-publications/



Building a Greener Future

A Forestry and Timber Manifesto for Scotland

Scotland must build on its forestry and wood success story - by creating a 'triple top line' to tackle the challenges of a green recovery from the pandemic and the climate and nature emergencies. That's the central message from Confor in its manifesto ahead of the Scottish Parliament elections in May.

The manifesto lays down a five-point plan (see panel), calling on all political parties to back increased tree planting targets and greater wood use, and to support the growth of the industry with further investment in skills, timber transport and innovation. It was shared with all the main political parties ahead of a Confor election hustings event.

Scotland is currently planting around 80% of all new woodland in the UK and is the only part of the UK to have set targets for wood use in construction (3 million cubic metres by 2031/2).



In his introduction to the manifesto, Confor Chief Executive Stuart Goodall says there is a great opportunity to build on this strong position.

He writes: "Forestry and wood processing is a 21st century Scottish success story. Increased tree planting has attracted hundreds of millions of pounds in investment - and is sequestering carbon, providing thousands of jobs and creating more places for people and wildlife.

"In the year of COP26, of green recovery from the pandemic and a renewed focus on nature, Scotland's forestry and wood processing sector is elevating the triple bottom line to a new 'triple top line'."

Mr Goodall describes how the industry signed up to detailed standards for man-

aging forests in the 1990s, in a partnership with government, environmental NGOs, access groups, and many more.

"The standards embedded the triple bottom line in everything the sector does - providing a balance between economic, environmental and social outcomes," he writes. "In 2021, we have the opportunity to take trees and timber to the top of the 'balance sheet' - to a triple top line that delivers for a Green Recovery, for Net Zero and for Nature. And our sector is ready to deliver."

The manifesto features case studies of Scottish-based forestry and wood processing businesses, who are creating modern multi-purpose forests, making high-quality wood products and providing large numbers of jobs right across Scotland.

However, the businesses stress that the momentum on planting must be maintained to secure future wood use and avoid a damaging timber supply gap, which could hit Scotland's economy and environment.

Mr Goodall describes Scotland's wood use in construction targets as "a vital step to decarbonise construction by substituting 'carbon-heavy' building materials like concrete and steel with low-energy wood, a material that locks away carbon and which can be easily reused and recycled".

And he concludes: "If we plant more trees, manage our woods well, and use more home-grown timber, the Scottish forestry and wood industry will continue to thrive - and so will Scotland's economy, environment and people.

"We must support our growing industry with investment in skills, timber transport and innovation. If we do that, Scotland's 21st century success story can write its next positive chapter."

Building a Greener Future: A Forestry and Timber Manifesto for Scotland is available on the Confor website in the Publications section. All Scottish members should have received an online version and a hard copy of the manifesto. If you have not received a copy and would like one, please contact Stefanie.kaiser@confor.org.uk
www.confor.org.uk/resources/publications/confor-publications/

CONFOR'S FIVE-POINT PLAN

- 1 Hit planting targets**
Support, with funding and political will, the target of 18,000 hectares of new planting by 2024-5. As set out in the Forestry Strategy, 60% of trees planted should be productive species.
- 2 Increase wood use in construction**
The target of using 3 million cubic metres of wood in construction annually by 2031-2 should be a minimum target and annually reviewed, with the aim to reach it by 2030 at the latest.
- 3 Invest in skills**
Despite positive work on industry apprenticeships and efforts to fill skills shortages, the growing forest area and ageing workforce requires more public and private sector investment in skills and training.
- 4 Continue to support timber transport**
The Strategic Timber Transport Fund has been vital in creating forest roads, and improving local roads, to ensure timber is moved safely. Current levels of support should be maintained.
- 5 Create an innovation Hub**
Confor supports the creation of a Scottish Forest and Timber Technologies innovation hub, to create, coordinate and direct work to commercialise low-carbon, wood-based products



Brexit and the workforce – an industry update

On 31 December 2020, the Brexit transition period ended, and with it the unrestricted freedom of EU citizens to live and work in the UK.

People from across the EU have come to live in the UK and work in roles across our sector. While we are not as reliant in terms of numbers as some on migrant seasonal workers from the EU, these workers play a key role. Being able to call on this pool of labour enables us to respond flexibly and swiftly to expand woodland in the face of the vagaries of the weather and, more significantly, governments' tree planting programmes.

Confor surveyed planting contractors to find out the extent of our reliance on migrant labour. Of an estimated 110 million trees planted in Great Britain last year, 26% (40 million trees), were planted by foreign seasonal labour, of which 77% were from the EU. This survey also enabled us to highlight to contractors the importance of applying for Settled Status.

The Settled Status scheme has mitigated the immediate impact of Brexit on woodland creation in a difficult and busy season. With around six weeks lost to bad weather, planters would normally wish to

go home to save on accommodation costs, but this time it was not Brexit but quarantine which threatened their ability to return. Some who did go home have successfully returned and been quarantined and tested. However, the delays have resulted in planting resource being stretched thinly, and hampered the sector's ability to catch up with time lost to bad weather.



There has been a strong fall in interest amongst EU citizens to work in the UK

This is where the real implications of Brexit begin to bite, as it is no longer possible to recruit additional planters quickly in a situation like this. The problem is likely to be exacerbated in future, as with turnover of Settled Status workers there is little prospect of recruiting replacements. Even if it were possible to employ them, there has been a strong fall in interest amongst EU citizens to work in the UK: a mixture of the new immigration regime, more opportunities nearer home, a disinclination to

work outdoors in all weathers, and a preference for permanent employment closer to home instead of short-term seasonal contracts, even on higher pay.

Does the 'Green Recovery' provide potential? A handful of British tree planters have come into the sector from sectors such as catering, retail and IT. Yet despite a daily rate far higher than the minimum wage it is proving difficult to attract people, for similar reasons to the difficulty in attracting workers from the continent. Attracting people back to work in the countryside would require the creation of a new rural culture.

Elsewhere in the sector, EU forest managers can be recruited through the points scheme. Management companies have successfully done this but report that government support is poor. The Christmas tree industry has been significantly impacted, and here the solution is investing in mechanisation. This may also be a solution for nurseries who are likely to see difficulty recruiting to meet planned expansion in future: investment in grading machines to overcome social distancing challenges during Covid-19 may prove valuable in the longer term.

APF postponed again to 2022

Due to the ongoing uncertainties surrounding Covid-19 and after consultation with sponsors, exhibitors and visitors, the directors of APF 2021 had to reluctantly take the difficult decision to postpone the event for a further year. The revised plan is to roll forward the show to 22-24 September 2022 at the same venue at Ragley Estate.

The decision was taken after carefully considering many factors and the results of a survey sent out to current exhibitors, previous exhibitors who had not yet booked and visitors. The results from the survey were invaluable in helping us reach the decision. The key points which led to the decision included:

- The current ban on mass gatherings is still in place with no indication of if or when this restriction will be lifted.
- 80% of exhibitors were in favour of a postponement
- A majority of visitors consulted were in favour of postponement



- Exhibitors indicated that they would need a six-month lead time to order machinery
- The current restrictions and quarantining of anyone visiting the UK would severely affect exhibitors, their staff and visitors from abroad being able to attend
- Concerns raised by exhibitors about attending and whether it would be viable for them to do so with possible enforced restrictions on attendance affecting visitor numbers
- Visitors expressing concern that the event would not be as good as usual with

fewer exhibitors and features

- The requirement of many of our suppliers for 100% upfront payment on booking with no refund at a time when we have no guarantee that we will be allowed to hold the event.

Paid exhibitor site fees will be rolled forward to APF 2022. Any visitors who have already bought advance tickets can either carry forward their tickets to APF 2022 or request a refund.

If you have any queries about any of the above please contact us on 01428 723545 or email us at info@apfexhibition.co.uk

Tustins

WOODLANDS ARE SELLING!

The demand for woodlands in the UK remains strong with values continuing to rise

Thinking of Selling?

Please contact us to discuss your options.

Phone 01869 254938 or email

johnclegg@tustins.co.uk

miketustin@tustins.co.uk

SALES AGREED IN MARCH

Include

CEFN LLWYD FOREST PORTFOLIO, GWYNEDD

2967 acres - guide price £15,000,000
achieved better than guide

ALLT-Y-GOETRE, CARMARTHENSHIRE

36.6 acres - guide price £148,000
achieved better than guide

WOODHAMPTON WOOD - HEREFORDSHIRE

77.29 acres - guide price £460,000
achieved better than guide

01869 254938

www.tustins.co.uk



LANDFOR

CHARTERED LAND & FORESTRY AGENCY

Land & Forestry Marketing Specialist

Forestry Sales & Investment Appraisals

Contact: Patrick Porteous

☎ 07444 559510

✉ patrick@landfor.co.uk



To view the current range of properties please visit

www.landfor.co.uk

CONFOR TEAM

Winds of change for Confor team

New support for Confor's technical services

Richard Hunter is Confor's new Technical Support and Industry Development Support Manager

Richard, who will be based in Cumbria, will be working closely with Deputy Chief Executive Andy Leitch to further develop and deliver technical services to meet Members' needs. He will also be directly involved in developing and managing projects that will aid with the economic development of the sector across the UK.

Richard joins us from Newton Rigg college where he is currently a lecturer in forestry and arboriculture playing a key part in educating our next cohort of forestry professionals. As part of his role, he sits on the FISA Safety Skills and Competency Development Working Group and is an active member of the NW Forestry and Woodlands Advisory Committee.

Richard has previous experience working in forestry and arboriculture related businesses in northern England where he developed particular skills in GIS and brings a sound knowledge of farming from his family business.

Richard spends much of his free time with his family and enjoys walking the family dog, a border collie, for long walks in the local woods. He is a keen wood worker and enjoys a bit of gardening.

Richard.hunter@confor.org.uk



New membership officer

Lauren MacArthur has started her new role as Confor's membership officer on 1 March.

Lauren says: "In my role as Confor's Membership Officer, I will be focused on organisation wide membership engagement and will be the main contact for all member and membership enquiries. I will also work with the team, across a range of member communications, meetings and events. In addition, I will support both FISA and the



Scottish Forestry Trust on their work and projects. I am very much looking forward to establishing and building my relationship with the national managers, and really getting to know our members across all regions of the UK.

I have previous experience working in a trade body and membership organisation from my time at the Scotch Whisky Association. I worked there for six years as part of the communications and public affairs team and this gave me great insight into working for and with the members – and their supply chains/stakeholders – producing another great and much valued indigenous product. I hope to bring the relevant parts of that experience with me while learning much about my new industry along the way.

While I couldn't claim to be an expert on forestry and timber (yet!), I am attracted to the idea of working as part of a sector which champions a natural product, rooted in the local/national environment, with a focus on the rural economy, sustainability, and the wider themes of recreation and conservation.

I am excited to immerse myself in the role and look forward to working with you all."

lauren.macarthur@confor.org.uk



Farewell to Liz Hughson, the 'cheerful voice at the end of the phone'

The Confor team's video meeting on 5 March was a bitter sweet affair as we gathered together to say goodbye to a much loved member of staff, Liz Hughson. Liz was presented with some gorgeous silver and gold jewellery, carefully chosen by her long-term friend and close work colleague Ann Stewart.

Liz has been the membership secretary for nearly 20 years. Recruited in 2001 by Chris Inglis as Timber Growers was merging with the Association of Professional Foresters to form Forestry & Timber Association, Liz has been the cheerful voice at the end of the telephone answering a myriad of members queries. Never one to ever say 'no', and with a direct and sometimes cheeky way of talking, and a wonderful sense of humour, she has served the membership well, and been a lovely office companion for the rest of the Confor team.

We will miss her dearly, though look forward to her visits to George Street to say 'hello' as she embarks on her new job providing home care services, a valuable and rewarding new role.

Liz's membership responsibilities will now be picked up by Lauren McArthur (above left).

Timber Transport Forum

Paul Boobyer takes charge of Timber Transport Forum

Paul joins us from Durham County Council he has been holding the position of Forestry Officer. His role includes creating new woodlands, providing landowners with advice on woodland establishment and management and providing advice on the Woodland Carbon Code and grant schemes.

Although Paul will be employed by Confor and line managed by our DCEO, he will work directly to the chair of the Timber Transport Forum supporting the Forum to deliver its business plan and providing assistance to the Regional Timber Transport Groups across Britain. Another vital part of his role will be to support Scottish Forestry in delivering the Strategic Timber Transport Scheme in Scotland, which we anticipate will once again offer £7m in grants to support mitigation of timber transport in rural communities.

Paul brings with him over 15 years' experience in the forestry industry including a short spell in Canada. He has also spent



some time in Spain running his own exam preparation business and has authored a number of walking guidebooks. Paul enjoys hiking, yachting, reading and learning new languages. Paul is based in Durham and will work from that location.

Paul.boobyer@confor.org.uk

Consultation opens on UKWAS 5 Initial Revision Draft

Stakeholders can now make comment on an Initial Revision Draft of UKWAS 5. The consultation draft has been prepared by a chamber-balanced working group reflecting economic, environmental and social interests taking full account of stakeholder input.

Working group chair, Peter Wilson, urged stakeholders to read through the draft and submit their comments by 30 April: "This Consultation Draft is just that: it presents the working group's initial ide-



as on how to improve the standard. The revision working group now welcomes further comments from stakeholders and standard-users on all aspects of the draft standard".

A further draft will then be prepared

taking the feedback into account and a second revision draft will be released for a further round of consultation beginning in October.

The aim is for a new fifth edition of the UKWAS standard to be effective from April 2023.

For full documentation see ukwas.org.uk/consultation

Standard-users and stakeholders should submit their input by Friday, 30 April to ukwas@ukwas.org.uk.

Confor consultation responses roundup

It was a busy start to the year responding to consultations from government departments across the UK calling for evidence on matters affecting our sector.

Carbon and climate loom large in the year COP26 comes to the UK. Stuart Goodall gave evidence to the Scottish Parliament on the draft **Climate Change Plan Update**. Northern Ireland is considering enacting a **Climate Change Bill**, bringing it into line with the rest of the UK, and Andy Leitch led on a response to ensure this will take due account of trees and timber. We also responded to a call from BEIS for evidence on **Greenhouse Gas Removal** technologies.

The future of rural support also remains a key topic of discussion. Caroline Ayre remains closely involved in the development of **Environmental Land Management in England**, and we recently submitted evidence to an EFRA Committee enquiry on the subject. We also provided comment on the

draft third **Scottish Land Use Strategy** and are preparing a response to the Welsh white paper on an agriculture bill. Over three years since Confor produced its Common Countryside Policy, calling for an integrated land use approach and a level playing field for forestry and farming, the same messages remain relevant, but thanks to our persistent work they are getting through.

We have also been responding to consultations on technical and workforce-related matters. Recently these have included **the future of UK technical qualifications**, **Scottish government Women in Agriculture proposals**, and **the regulation of genetic technologies** which could have implications for the future of tree breeding and grey squirrel control.

Our consultation responses are available on our website: www.confor.org.uk/resources/consultations/



CONFOR WELCOMES NEW MEMEBRS

Fredwood Forestry Limited
International Pheromone Systems
ECOSystems Technologies Limited
SJM Tree Surgery Ltd
Forest Research
Carbonauten GmbH
Somerset Forestry
D S Norman (timber) Limited
Rosehill timber
John Watson Forestry
Cwm Isaf
Norman Laing

Laura Goble
Rob Clamp
Rob Cleaver
Ailsa Sawyer
Connor Tarran
Ray Simpson
Thomas J Fuller
Daniel Munoz
Jacob Jaeban
Elizabeth Bassick
Catherine Trim
Ben Tziros

Reuben Ormerod
Ben Pyle
Xander Moore
Xander Mahony
Tasha Gowdy
Hamish Renton
Jane Gibson
Karina Ponton
Amy Shepherd
Jonathan Ayers
Jacob Bouma



seppi m.

- Mulching mowers from 10HP-350HP
- Tough & versatile
- Many attachments available for every forestry job

Tough Tools for a Tough Job.

Purchase direct from the UK Importer:

LAMBERHURST ENGINEERING LIMITED

t: 01892 890364
e: info@lameng.com
Lamberhurst Engineering Ltd
Priory Farm • Parsonage Lane
Lamberhurst • Kent TN3 8DS
www.lameng.com

SAF WOODLAND MANAGEMENT

CELL GROWN STOCK FOR SALE

Conifer - Improved Sitka Spruce, Queen Charlotte Island and Washington Sitka Spruce and Douglas fir

Broadleaves - Crab Apple, Sessile Oak, Alder, Hawthorn, Silver Birch

We grow our tree saplings in paper cells to reduce single use plastics and waste onsite.

We use reduced peat and peat free medium to help the environment.

Enviro-mounders available for ground preparation.

Chartered Foresters here to help.



SAF Woodland Management is a FRM registered nursery and seed collectors, UKISG (Woodland Trust scheme for bio security and plant health) assured. We are a family run business bringing together foresters and a specialist cell nursery to ensure the right trees for your environment are available at the right time. We have Enviro-mounders available to provide ground preparation support prior to planting.



www.safwoodland.management | mobile: 07703493773
email: daniel@safwoodland.management

Marsh Road Nursery | Marsh Road | Hesketh Bank | Preston | Lancashire PR4 6XT



ECHO
DEPEND ON IT

LITHIUM ION 50V

FREE SECOND BATTERY*
SRP £175 inc VAT

ECHO X SERIES
BEST-IN-CLASS

TOP HANDLE CHAINSAW BEST IN CLASS PERFORMANCE

ECHO's 50V battery top handle chainsaw has the cutting performance of an equivalent two-stroke engine, but with the convenience and ease of Li-ion battery. The lightweight DCS-2500T offers low vibration, low noise and no emissions. With a 2-year professional warranty, you really can depend on ECHO.

DEPEND ON IT



* Terms & Conditions apply

www.echo-tools.co.uk



James Jones acquires GT Timber

James Jones & Sons Ltd has announced the acquisition of GT Timber Ltd, the holding company of Taylormade Timber Products Ltd and Kerr Timber Products Ltd which operate sawmills at Sherburn Hill, Durham and Annan respectively. The acquisition will increase James Jones & Sons Ltd's annual sawn output to 800,000m³ thereby consolidating its position as the UK's largest privately owned sawmill, timber engineering and pallet manufacturing company.

"We are delighted to have concluded this transaction," commented Tom Bruce-Jones, Chairman of James Jones & Sons Ltd, "and are really pleased that the existing management team are staying on within the enlarged group to provide continuity, facilitate the integration and to help realise our long-term strategic plans. The sawn output from both mills will complement our portfolio and will allow us to offer increased product opportunities for our existing, and newly expanded, customer base."

"On behalf of our shareholders and employees, I am very pleased that GT Timber Ltd will become part of the James Jones Group," said Jilly Wentworth, Managing Director of GT Timber Ltd, "Their extensive timber industry experience and financial strength will allow the investment programme that we have already started to reach a successful conclusion. The sale process was completed quickly and smoothly, reinforcing our long-held views that James Jones & Sons Ltd is a family company, who shares the same values, ethos and philosophy. We are very excited

about the future."

The combined group will now operate eight sawlines, supplying the most technologically advanced secondary processing facilities in the UK, offering quality, value added products and employing 1225 people. The Group's Timber Systems Division manufactures JJI-Joists from its operation

at Forres and has the capacity to supply engineered floors for 200,000 new house builds per annum. The Pallet and Packaging Division has 16 sites located across the UK and manufactures pallets and packaging as well as inspection and repair sites for each of the major pallet pools in the UK.

www.jamesjones.co.uk

Savills launches natural capital service in Scotland

Savills has launched a new service line to assist rural businesses identify, assess and enhance the natural assets over which they have stewardship whilst reducing and mitigating the impact of their operations on the environment.

Savills Natural Capital Team combines Scotland-wide expertise in strategic planning, forestry, farming, valuation, habitat restoration, policy and research.

William Hawes has been appointed Head of Natural Capital in Scotland. He said: "Natural capital is a term with which the sector is becoming increasingly familiar, but it's a fast-evolving and therefore potentially daunting subject.

"As rural businesses redouble their commitments as stewards of their environment, land managers seek clear guidance on incorporating natural capital into their decision-making to ensure that the associated risks and opportunities are identified and assessed. Yet deter-

mining where to begin can be challenging and finding practical and deliverable solutions has been a key barrier to entry."

With experience in identifying, measuring and restoring a range of natural assets – from woodland and peatland, to soil and biodiverse habitats – Savills is already working with a number of rural businesses to develop practical natural capital strategies, helping them maximise opportunities presented by new environmental frameworks, emerging policies and markets.

The team's recent projects include whole business carbon audits to map out emission reduction strategies and the route to net zero; landscape-scale habitat creation and carbon sequestration projects accredited under the Woodland and Peatland Carbon Codes, and conversion to regenerative farming practices.

www.savills.co.uk/services/consultancy/natural-capital.aspx



The UK's largest
producer of top
quality cell-grown
forestry trees



Pleased to support Forestry Direct

Tel: 01620 825 058
sales@albatrees.co.uk
www.albatrees.co.uk



**BORDERS
FORESTRY**

Pleased to
work with
Forest Direct
as well as all
our other clients

Native Planting

We plant a great number, adding diversity to our woodlands.

Woodland Creation

We plant on average 350 hectares of new woodland each year.

Commercial Restock

From small shelter belts to 100 hectare sites.

Invasive weed control

From handweeding through to Stem injection treatment.

Herbicide / Pesticide Application

Restock control of Hylobius weevil along with Noxious and Invasive weed control.

Strimming / Brushcutting

From the path network at Traquair Estate to restock re-spacing.



www.bordersforestry.co.uk
07511734589



PROUD TO WORK WITH FOREST DIRECT LTD

- ✓ Site Clearance and Brash Removal
- ✓ Eco-friendly Site Clearance: highest standards of service and safety
- ✓ High quality wood chip from BSL approved solid fuel specialists
- ✓ Low moisture content wood fuel from established professional company



www.woodyfuel.co.uk
info@woodyfuel.co.uk **03333 447234**



Plant the future

“We are keen to attract like-minded clients who share our business ethos”, says Jeremy Thompson, CEO of Forest Direct, a forestry business with a focus on people and the environment.



Stef Kaiser speaks to Jeremy and his colleague, Woodland and Carbon Developer, Alice Brawley.

Forest Direct Ltd was set up by Jeremy Thompson in 2003 in the Scottish Borders. After being a relatively small (but mighty!) operation for many years, Jeremy's passion for planting as many trees as possible to help mitigate the effects of climate change has put the company on a steep upward trajectory over the last year and a half.

Catering mainly for landowners, the business provides the full range of forestry services: woodland design and grant development, new planting and restocking, woodland carbon code services, continuous cover forestry, harvesting and marketing, as well as community woodland work.

However, over the last 18 months, they have put woodland creation at the centre of their business offering. “In light of the climate change agenda, this is an area we are particularly passionate about”, comments Jeremy. “We want to put more trees in the ground whilst continuing to offer forest management, thinning and harvesting services to our existing clients.

Attractive woodlands with a commercial core

The team at Forest Direct is aware of the negative perceptions that persist regarding commercial forestry. Alice Brawley, whose background is in GIS and spatial planning, highlights the company's philosophy: “We design multipurpose forests that inspire a sense of

awe in people. The timber production objectives remain important but should not come at the detriment of the environmental or social benefits.”

Catering for the farming community

When visiting the Forest Direct website, what immediately catches my attention is a prominent strapline: “Forest Direct are forestry consultants for the farming community.” I am keen to learn more about how the company came to choose this particular market niche and if it requires a slightly unconventional approach to delivering forestry services.

“We can look back on decades of close working relationships with farmers, and our network in the farming community is strong”, explains Jeremy. “We are aware that forestry sometimes has the reputation of being detrimental to local communities when large tracts of farmland are converted to commercial forestry. We prefer to look at trees on farms as an option for farm diversification rather than farm conversion. We cannot approach farmers with the expectation that the traditional concept of forestry will work for them. We have to adapt forestry to the farm context.”

Jeremy and his team quickly established a flexible and open-minded approach when working alongside farmers. “Rather than target trees onto the poorest areas, we can demonstrate the value of following “the right tree in the right

place” ethos.

“We work through the options and advise on the best scale, type and location for a woodland. For example, when designing a commercial woodland, good access is vital for future timber lorries. Size of woodland is important, whether to provide good livestock shelter or economies of scale when selling timber. We know some farmers have had bad experiences with small, unmanaged shelterbelts, which produce little or no return. We can show them that well-designed forests can pay and how they can be incorporated into the wider farming operation.

Alice adds that when it comes to good relationships with farmers, it is crucial to understand and respect their aspirations. Modern farmers mainly think in terms of their lifetime, or possibly that of their children. “To reconcile farming with forestry, we need to instil longer-term thinking. We are keen to work with them to identify what they want from the trees and how trees can help them – be it income in the future, protecting their lifestyle or habitat creation for wildlife. And from our perspective, we need to acknowledge that changing a large area from farming to forestry involves a significant culture shift”.



We have recruited younger people who have given the business a renewed passion and energy and a different perspective

A corporate culture moving away from top-down

Throughout my conversation with Alice and Jeremy, I can feel their genuine passion for what they do – making the interview the highlight of my workday! But there is one aspect of their business approach that leaves me amazed and hopeful for





Jeremy Thompson and Alice Brawley

the future of our industry: it is their focus on people and their openness to harnessing staff's unique talents and skills, which means, at times, defeating entrenched recruitment conventions in our sector.

Jeremy has created a corporate culture where the business benefits from a blend of older experienced forestry experts and younger professionals – potentially from different career paths – who challenge the way things are done, catalyse innovation and keep the company flexible and adaptive to change.

"The 'oldies' are the very experienced foresters, and landscape architects – several of us have decades of experiences in traditional forestry work. In forestry, it is essential to do a job for a long time to gather substantial experience. However, there is the risk that we become entrenched in our ways. To combat this, we have recruited younger people who have given the business a renewed passion and energy and a different perspective. They care deeply about climate change and the effect it may have on the next generation; they

care about biodiversity, the environment and how we treat it; and they have been born into a world driven by technology."

"The younger members of our team are much more intuitive with picking up and using technology, and this is something our business and our sector can benefit from", says Alice. "Our generation can understand how technology can speed up and enhance workflows."

Traditionally, forestry businesses would recruit young graduates, put them through a formulaic training scheme until they'd acquired 'senior' status. Forest Direct's training approach is different. Young recruits come in and the team engages with them straight away, harnessing their interests and talents from the beginning. Every team member is willing to learn from the others, independent of position or years of experience.

Alice, who joined the company only 18 months ago as a GIS specialist, appreciates Jeremy's commitment to giving his team the flexibility to follow their interests

and develop as professionals. In the short time Alice has been with Forest Direct, her role has evolved, and she is now the woodland creation and woodland carbon developer. She is still involved in GIS and is training up other members.

Jeremy talks about his motivation for making the time to prioritise staff and to work with clients who share similar values. "People are at the heart of our business; we want to work with those who share our vision of creating well-designed, diverse woodlands, whether that be as a member of the team or as a client. The average age of the older guard is over 60. We have already had one career and proven ourselves, so now we want to give something back. A lot of what we do at Forest Direct is about training and handing over skills to the younger generation. Mentoring and training come at a cost, but I am confident this is the right approach for our business and determined to make this investment in our industry's future."

<https://forestdirectltd.co.uk>



IN PARTNERSHIP WITH

eastern
EXTINGUISHERS

Increased **Fire Protection**
Environmentally Friendly
No Annual **Maintenance Charges**
Lighter and Safer

Environmentally Friendly

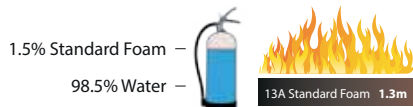
- **20 Year** Life Cycle
- **No** Service Parts and **Fewer** Refills
- Watercourse Safe **Biodegradable** Foam
- **Low Energy** Manufacturing
- 100% **Recyclable** Extinguisher



*Our customers save
an average of*

47%

Increased **Fire Protection**



New Generation **Composite** Extinguisher

CHERRY PRODUCTS 

www.cherryproducts.co.uk

fire@cherryproducts.co.uk

01608 678197

Certification landscape in time of Corona



Andy Grundy, Senior Certification Manager (Western Europe), Soil Association Certification Ltd - Forestry (SACL)

This last year has evolved our language, from 'furlough' to the creepy 'legacy hand' (which takes my minds' eye to 70s Hammer horror movies!) Not as scary but a horror nonetheless, the certification world has some new terms, audits can now be remote, hybrid, stage 1, stage 2.... with a new risk assessment process determining which. FSC & PEFC 'Covid derogations' have enabled us to continue auditing, but in a typically bureaucratic and complex fashion they have added layers of extra work for certification bodies and companies alike.

SACL have been lucky enough to continue our growth over the last year, but have had to recruit over and above that to manage the extra 'Covid' burden and maintain our clients audit schedules, something the schemes have not compromised on. We now work with over 3700 clients in 66 countries and certify over 25m hectares of forest with over 40 staff.

For FM certificate holders, the last year has seen the Covid-delayed FSC pesticide policies 'environmental and social risk assessments' (ESRAs) introduction. The successor to the derogation system, we see these as an improvement on the old system, but as ever, they involve more work in the first instance. FSC UK have provided a useful resource for forest managers on their website*.

Certification is an imperfect system, often criticised, but it's the best we have for now. To address the climate and biodiversity emer-

gency, moving to a demonstrably transparent and sustainable management of natural resources is essential. The surge of interest in 'nature-based solutions' so exciting for the land-based sector in the UK is best demonstrated by the rapid growth in the Woodland Carbon Code. As a validator/ verifier to the scheme, we've experienced this trend first hand; it is quite staggering and is allied to interest in other methodologies for capturing the ecosystem service provision of sustainable land management. The opportunity of directing private finance into afforestation, habitat restoration and regenerative agriculture will require extensive collaboration and resilient, robust verification by organisations such as ourselves. Time for us all in the sector to step up and make some real dynamic change! Look out for our upcoming training courses for WCC project developers later in the year.

As auditors we cannot consult for our clients, but the clarification of standards (translating 'standard speak' into plain English or Spanish, or Romanian, Russian etc etc..) is our USP, putting the time into our clients to make certification work for them. Sign up to our newsletter for ongoing updates/news/training opportunities

* www.fsc-uk.org/en-uk/business-area/fsc-certificate-types/forest-management-fm-certification/fsc-pesticides-policy

www.soilassociation.org/certification/forestry/

CERTIFICATION UPDATES

PEFC Chain of Custody 2020 Standard roll out

This has been delayed somewhat by a European Accreditation Body process, but we hope to achieve accreditation from UKAS soon, and will be contacting clients to arrange transition by 14 February 2022. The main changes will be the introduction of product codes as mandatory; the credit control system becoming a system in its own right, along with multisite cross-site credit. The Due Diligence System requirements have been strengthened with a new definition of controversial sources and improved risk indicators. There is a new claim "100 % PEFC Origin" for material coming from a PEFC certified forest.

FSC Chain of Custody with new social requirements

will see the introduction of new core labour (workers rights) requirements in the new V3-1 COC Standard. The actual transition period is not currently clear, as it may be delayed, but Certificate Holders will need to assess themselves against the FSC requirements and submit details to their certification body. UK-based organisations should not have a major issue in complying the requirements, but may have to update their policies and procedures and offer training. Soil Association will be sending out guidance to clients in due course.

FSC launches new online FRM reporting

In Forest Management, FSC will be launching their online FM Reporting system in July 2021. Certification Bodies, including Soil Association, are currently testing the system, and it will radically alter the way data is collected and reported going forwards. This is part of a huge push to digitalisation by FSC. PEFC are also planning and developing digital solutions and a streamlining of their data collection processes. Coming sooner is the new FSC FM Group Standard, whereby, amongst other changes it will be possible to include Contractors within a Group Scheme. FSC are planning to roll out training on this and more details can be found on their website.

Enabling high-value timber manufacturing to meet future demand

Essential strategies for an emerging forest nation

Gary Newman and
Christiane Lellig,
Woodknowledge Wales

The Zero Carbon Society of the future will drive substantial demand increases in timber and timber technology. Market forecasts, current issues in timber supply and price volatility cast some doubt that the UK will be able to meet these. Wales is a case in point. Over the course of two years, the Home-Grown Homes project investigated the following questions:

- How could a timber supply chain based on local forestry products support the delivery of low carbon social housing in Wales?
- What transformations are required across the forestry, manufacturing and housing construction sectors to deliver such homes at scale?
- What interventions are needed to have a transformative impact on the supply chain from tree to timber home?

As a result, we are proposing five integrated strategies for how Wales can achieve a just transition to become a high-value forest nation: by adopting a framework for net zero whole life carbon construction; by enabling high-value timber manufacturing and integrate this with demand; by influencing primary wood processing decisions; by increasing forest area and incentivising forest management for high value applications; and by maximising the benefit of these actions to Welsh communities.

From sheep and steel to forest and timber

Wales is not a forest nation. Wales is a sheep, beef and dairy nation and a steel nation. Like many, Wales is the economic country it is, not by political design but by historical accident, and a mix of agricultural and economic policies that have maintained the status quo. To achieve the net zero carbon goals set by Welsh Government a more purposeful approach is required. This is where forestry and timber play a crucial role, and notably manufacturing of timber products.



Valorising our timber resource

The vast majority of Welsh timber grown for industrial applications is used for fencing, packaging and garden products. Only an estimated 4% of Welsh timber is used as construction sawnwood. The returns are insufficient for Welsh landowners to invest in tree planting without the need for grants, and the current markets, although essential, are not delivering on climate change mitigation and social value. The Welsh Government needs to use its role as the regulator and the grower to achieve better outcomes for Wales.

Without investment into forestry, processing and manufacturing, Wales will struggle to meet the increased demand in timber supply of its future net zero carbon society, and it will not be the only UK nation.

For further information check out the Home-Grown Homes Project website
<https://woodknowledge.wales/home-grown-homes>

Enabling high-value

Without interventions, the demand for timber products that will flow from decarbonisation strategies to meet net zero whole life carbon requirements will be met almost exclusively by imported products. The lack of added value processing of timber in Wales represents a substantial market failure. Wales produces no structural Glulam, no Cross Laminated Timber, no timber I-beams, no Laminated Veneer Lumber, no Oriented Strand Board and no Wood Fibre Insulation. All these products have two key features in common:

1. They are critical components in high-performance low-carbon buildings that displace steel, plastics, concrete and other high carbon and often toxic materials.
2. They are made from the type and grade of timber that is grown in Wales.

Four types of interventions could help enable high-value manufacturing in Wales.

1 An industrial strategy for wood

As a matter of urgency, forestry and timber should be recognised as a foundational industry in Wales. A green industrial strategy for wood should be established which integrates new and expanding timber growing, processing and manufacturing with the substantial demand within the Welsh Government construction and infrastructure programme. Wales should also aim to supply to England to help address its own chronic shortage of home-grown timber products and to build capacity and scale that is possible in Wales. The proximity to English markets and the availability of labour already attracts timber frame manufacturers to Wales.

manufacturing in Wales

2 Added value manufacturing

Welsh Government should seek to create strategic public private partnerships, or targeted procurement and supply agreements, with Welsh companies and or European producers to establish advanced product manufacturing in Wales to service both the Welsh and wider UK markets. Three of many opportunities are outlined below.

THREE OPPORTUNITIES

Wood fibre insulation factory

Currently, wood fibre insulation has 5% to 10% market share in France and Germany. In the UK, these products represent less than 0.1% of a £1bn+ insulation market. UK customers are being poorly serviced by a European market as demand is outstripping supply and transport costs of such low-density products mean high prices. The retrofit programme is a great opportunity to deliver healthy and low-carbon homes by investing into the healthy and low carbon building material supply chains.

Wood windows factory

Welsh Government and Welsh housing associations pay for the installation of approximately 85,000 new plastic windows every year (estimate) in their retrofit and newbuild programmes. Around 70,000 plastic windows go to landfill each year. Welsh timber window manufacturers cannot supply this market currently as they lack the certification requirements of Secure by Design.

Glulam factory

Glulam is a wood-based structural material which can and is being used as an alternative to structural steel for low and medium rise buildings. Glulam should become the healthy, low carbon structural material of choice for hospitals, schools and other low rise non-domestic buildings.



3 Support the timber frame manufacturing sector

An expanding domestic timber frame sector represents the manufacturing bedrock for the rapid evolution of offsite MMC net zero carbon housing in Wales. However, low margins, partly due to the timber frame sector operating as a subcontractor to main contractors, limit the manufacturers' ability to invest in automation, training and innovation and leaves the sector vulnerable to economic downturns.

Targeted and specific policy interventions should enable manufacturers to be at the heart of housing delivery and Wales proactively be positioned as a

nation of excellence in timber frame manufacturing.

Procurement of timber frame to a national performance specification, as currently developed by Woodknowledge Wales in collaboration with Welsh local authorities and the timber frame sector, could help achieve this. However, securing timber supply at reliable cost is crucial. Allocation of timber supply from NRW and/or local sawmills would allow wood processors and timber frame manufacturers to establish a baseline production at lowest risk to all.

4 Align public building programme to timber

The economic, social and environmental benefits for Wales of using timber in construction and stimulating afforestation can be reflected by adopting a Wood First Policy (see France) and by creating

a 'Charter for Timber' (see Charter for Steel). This would liberate markets for products such as Glulam as a key structural material in non-residential construction.



Peverstone
Cullompton,
Devon EX15 1RW



logologic

Tel: +44 (0) 1884 839999

logologic.co.uk

TOOLTRAK 75

The multi purpose compact tool carrier:



Front mounted, mowers, mulchers,
chippers, stump grinders, snowblowers,
snow ploughs, bulldozers.



The site
clearance
and biomass
specialists

Tel: 01376 550989
www.kingwell-holdings.co.uk
enquiries@kingwell-holdings.co.uk

KINGWELL
HOLDINGS LIMITED



Managing Ash Dieback

- Ash Die Back (Chalara) is now present throughout the UK.
- Sadly expectation is for up to 97% loss of ash trees.
- Ash is widespread in woodlands and roadside edges.
- Are you managing your liability, particularly in respect of falling trees around footpaths and highways?
- Secondary factors, such as honey fungus, can cause rapid decay.

Decide NOW, before the timber value tumbles, or the removal of increasingly unstable trees becomes more dangerous and costly.

Using specialised, cost-effective machinery and expert teams, supported by professional management, Euroforest will turn your dying woodland into a sustainable asset.

EUROFOREST
sustainable excellence

For further info visit www.euroforest.co.uk and speak
to your local Area Manager, or simply call 01228 217517.



Building timber into the curriculum with low-carbon design challenge

Hundreds of built environment students from more than 25 universities, spread right across the UK, are competing in the Riverside Sunderland University Challenge (#RSUDC21) over the next three months. Multidisciplinary teams of student architects, engineers, landscape architects and quantity surveyors will share their vision of what urban living will look like in the future.

Teams must create low carbon indicative masterplans of the landscape and streetscape with green and open spaces, creating a vibrant community of around 100 desirable homes on the riverside site. One 3-bed family home must be designed in detail to meet or exceed the RIBA 2030 Climate Challenge. This challenge is set against the Riverside Sunderland development, an exciting unique, carbon neutral urban quarter set to transform the city.

At the very heart of this challenge is wood, with timber and timber-hybrid systems as the main material focus. Home-grown solid section, I-joists, glulam and CLT are all highlighted as structural timber products to incorporate. Cladding, decking, internal and external joinery, modified timber along with timber windows and doors will also be explored. The schemes must be carbon neutral, creatively employing these sustainable building materials via modern methods of construction, be energy efficient, and focus on the health and well-being of people, the community and our planet.

The scale of the challenge for our built environment in the UK to achieve net zero 2050 by cannot be underestimated. Currently around 40% of the UK's total carbon emissions, which sit at 540MtCO₂e per annum, come from the built environment. Around 50MtCO₂e of these emissions come from embodied carbon.

However, a transformation in the way we build to achieve net zero begins not on the worksite, but in the workforce. Yet basic literacy in zero carbon is not mainstream or widely taught in the UK, with Grant's (2020) paper *Mainstreaming environmental education for architects: the need for basic lit-*

eracies finding most alumni low on confidence and ill-prepared to take on the climate challenge ahead.

In recent years, organisations such as the Architects Climate Action Network (ACAN) and London Energy Transformation Initiative (LETI) have been challenging the profession to take a stronger stand on carbon emissions. The Royal Institute of British Architecture (RIBA) too has been taking action, both through their RIBA 2030 Climate Challenge and recently by making 'the Climate Literacy required to enable Chartered Architects to meet the 2030 Climate Challenge' a 'Mandatory Competence'. Engineers have responded and declared too with an opening for timber to be incorporated as core construction material alongside steel and concrete.

However, the overall approach in the UK to climate education, and indeed the use of low carbon materials such as timber is weak. Yet, the modern built environment student must leave education ready and able to work as part of a team, to understand a 'whole system' approach to construction, and be confident in using low-carbon materials, if the UK is to achieve net zero. RSUDC21 has been designed to encourage multidisciplinary team working and break down some of the barriers.

The #RSUDC21 challenge, which is the brainchild of Tabitha Binding who leads on academic and regional engagement for both the Timber Trade Federation (TTF) and Timber Research and Development Association (TRADA), takes some important steps forward by bringing together educational charity MOBIE and Sunderland City Council, with sponsorship coming from the Confederation of Timber Industries, Rothoblaas, Accoya, PEFC UK,

Timber Decking and Cladding Association, Alliance for Sustainable Building Materials, BSW and Wood for Good.

Sponsors provided their expertise during the webinar series for RSUDC21 which took place throughout February, with speakers including award winning architects, life cycle assessment experts, fabric first advocates, and construction professionals all who are dedicated to reducing the carbon emissions of our built environment.

Knowledge transfer from the market and professionals, to both lecturers and students has been essential to the challenge, as it is more widely, if we are to effectively address climate change. Carbon savings are made at the design and



specification stage of construction. Members of CONFOR, such as BSW, are already producing Environmental Product Declarations (EPDs) with information on embodied carbon to help built environment professionals make better, low-carbon, decisions.

Through RSUDC21, with students, recent graduates, professors and tutors all engaging with timber, the creation of educational resources for universities, further educational colleges, and the wider profession, this challenge is set to deliver results far beyond the competition. Keep an eye out for the winners of the challenge in Q3 2021. www.trada.co.uk/academic-competitions/riverside-sunderland-university-design-challenge

Team ESTEEM

Innovation towards a more sustainable Scotland

**Jessica Haskett,
Jairis Alvarez Trujillo
and Martin Juricek**
With help and guidance
of **Matt Stevenson**
(ECOSystems
Technologies)

Team ESTEEM is a multidisciplinary group of students from Heriot Watt University designing a self-sufficient house which promotes a low carbon message by reducing energy and CO₂ emissions. As such, the team decided to engage in the Cross Laminated Timber (CLT) 'revolution'.

Team ESTEEM's entry to the Solar Decathlon Competition places the contribution of utilising home-grown timber onto a global platform. Projects such as the ESTEEM house are proof of concept and delivery that defies perception in the marketplace and drives forward innovation.

Every industry has to engage in the movement towards a sustainable future and with a few minor changes, the construction industry's polluting problem can turn into a solution. This can be achieved by selecting materials that are local and that sequester (lock in),

rather than release carbon. Locally sourced CLT became an essential element of the Team ESTEEM house project because of the nature of insulation, reduction of heat gain and its structural properties. As wellness and wellbeing of the residents was a major consideration during the design process, timber with its nontoxic nature and sound absorbing properties suited the project well. Timber houses have been constructed for thousands of years and there are many reasons why this should not change now.

Changing perception

When designing and selecting materials, it has never been more important to holistically address full lifecycle, taking into consideration material availability, production, transportation, 'buildability' and flexibility as well as design, fire properties, material composition, minimising waste and eventual disposal. More than ever, designers and professionals can positively engage with these considerations to address the sustainability goals that society and the construction industry aims to achieve.

The benefits of timber are well known, however, perceived challenges mean these benefits are often overlooked. Selection of mate-

rial should come at the start of the designing process as the building can be designed with the properties of the material in mind.

Building design can minimise the risk to timber's combustibility and rot due to prolonged uncontrolled exposure to moisture. A useful property of timber, when exposed to fire, is that it doesn't release as harmful toxins into the atmosphere as many artificial materials do. Thick timber walls burn through slowly giving occupants enough time to escape and leave the building. In comparison to steel structures, the reaction of timber to fire is predictable and it retains its characteristic strength. For these reasons, fire properties of timber should not discourage designers to use it as the main construction material.

Choose local

To be truly sustainable, we need to build more with less, we need to learn to use and design in function of the resources available rather than source materials from all over the world. Timber is readily available in Scotland, grows here and in this process locks carbon from the atmosphere throughout its life. Timber is light to transport and is flexible to build with as it can be pre-cut and/or adjusted on site. It is a non-toxic material that can be re-used, recycled or disposed of without harming the environment.

Design catering for homegrown timber

When opting to consider home-grown timber, it is essential that in early project stages, the design plays to the strengths of home-grown timber. In applications such as the ESTEEM house, a one-storey residence, the raw timber does not need to be C24 strength grade but instead will use C16+. Furthermore, in alternative ventures where applications are favoured, a combination of C24 and C16+ hybrids can be





used efficiently. Timber can be used in many applications but showcasing skill and resourcefulness contributes to that overall value which is locked into the timber throughout its lifecycle.

Team ESTEEM's ambition to use homegrown timber was initiated from the original design conception in March 2019. Now, utilization of supply chains and manufacturing capabilities in Scotland in partnership with the UK's only representative in the Solar Decathlon competition have brought project goals and aspirations to reality. The contribution and performance of the homegrown, home-made CLT will be placed under scrutiny and testing with a series of objective and subjective criteria. In response to the challenge, the active residence and showcase ESTEEM House elevates innovation, sustainability, mobility and future possibilities.

Scottish innovation on global stage

Through spring and summer of 2021, the house will be built in Edinburgh before being disassembled and reassembled in Dubai. The very nature of the capability to move the house and placing it within a differ-

ent environment will be a huge feat even before entering the competition phase across November 2021. From the intelligent and capable designers at Heriot Watt, through to project completion, the homegrown timber will undertake a journey unlike no other in its place; from Edinburgh to Dubai, to the future.

The panel format of CLT is ideal for design, manufacture, and assembly processes. By using CLT, Team ESTEEM are meeting the requirement of a very short build period for the Solar Decathlon Middle East competition and promoting the use of homegrown mass timber products. As pioneers of a new generation of sustainability, they are setting the standards of how efficient the use of CLT can be for more innovative housing, but it does not have to stop there. We are seeing an increase of projects using CLT all over the UK, which is inspiring others to join the revolution.

Why CLT? Leading novel solutions

Sustainability, strength, fire performance, safety, noise reduction, aesthetics as well as its non-harmful nature are just some of the reasons why we are using CLT. CLT is known

“

CLT sits at the centre of our vision for construction. It is a strong mass timber that can feed the local supply chain by being home-grown, improve productivity by being produced offsite and help us reach net-zero carbon through its sustainable sourcing.

Ross Muir

as a new material of construction in the world and Team ESTEEM's project is a leading example. CLT in construction facilitates overcoming traditional design barriers, and instead encourages designers to be more creative and innovate. Other universities such as Edinburgh Napier have the Institute for Sustainable Construction in which constant research is being undertaken regarding timber construction and engineering. Finally, since CLT is manufactured offsite, Team ESTEEM are moving forward on the goal for net-zero carbon due to the lowered carbon footprint, speed and ease of construction, reduction in waste, practicality and ecological benefits. Over time, the prevalence of innovation is opening new doors for CLT in larger-scale projects with homegrown timber.

Projects like Team ESTEEM help to showcase the suitability of homegrown timber for construction and highlight the need for better infrastructure to supply this locally. An individual contribution towards sustainability is needed, however the multidisciplinary nature and size of the team will help the change in the future industry with the potential of far greater impact overall. Team ESTEEM is now a part of the movement towards improving this infrastructure through working with a number of professionals and industry partners such as Construction Scotland Innovation Centre and ECOSystems Technologies.

 @teamesteem2020
 @teamesteem2020
 Team-Esteem-SDME2020
 Team ESTEEM

UFKES Greentec

UK



- Wood chippers
- Wood chipper combinations
- Stumpgrinders
- Woodgrapples, cutters & saws



07977 098432 | 07813 110886 | mark.jibson@sky.com



SAMPO ROSENLEW

35a Derryall Road, Derryvane
Portadown, Armagh
BT62 1PL

T: +442838330011
info@oakleafforestry.com

Oakleaf
FORESTRY.COM

InFutUReWood: The past, present and future of timber reuse

Marlene Cramer on a project that investigates how we can reintroduce circularity into modern timber construction

The original Globe Theatre was built using timber that Shakespeare and others of the Lord Chamberlain's Men allegedly stole from another nearby theatre. Some say they dismantled the building and removed the timber overnight. While the story might have been romanticised, it is certainly true that it had long been common practice to reuse timber from one building in another. But a lot changed in our building styles and methods: Safety standards and building regulations have become more stringent, cross sections smaller and times for construction and demolition shorter. In our ambition to make construction safer, faster, and more efficient, we lost the ability to reuse structural timber. But wood is, in many ways, valuable and should not be overlooked as a material for reuse even though it is renewable. The InFutUReWood project (infuturewood.info) investigates how we could reintroduce circularity into modern timber construction and asks: How should we build today to be able to circulate tomorrow?

Within work package 2 of the project, we are conducting case studies on the design for deconstruction and reuse (DfDR) of building systems in four partner countries (Sweden, Ireland, Spain and the UK). The case studies investigate how well contemporary timber buildings could be deconstructed and reused after their first life, and aim to improve existing designs to facilitate reuse. The Swedish case study between RISE and Derome is the first one in the series and looks at a two-storey detached house, the Villa Anneberg. In addition to the design evaluation, work package 6 at Technical University Munich is performing Life Cycle Assessment and Life Cycle Cost on the current and proposed designs, to analyse the environmental and economic viability of the DfDR concept.

In the Scottish case study, Edinburgh Napier University is working with Offsite Solutions Scotland and Robertson Timber Engineering to assess the design of a five-bedroom timber frame house. The building is manufactured offsite and assembled

using open-panel wall elements and floor cassettes. In a thought experiment we go on a journey into the future to when the building has to be moved to a new site. We analyse how well the building could be deconstructed, how much timber could be reused and which challenges we would encounter. Afterwards, we improve critical design details to increase the deconstructability and the amount of timber that can be recovered without damage. Preliminary results show that components manufactured offsite don't only have advantages in the assembly, but are likely to facilitate deconstruction and reuse as well. The manufacturers are confident that, with small changes in the design, they could extract large elements, for example the whole roof structure, with minimal damage.

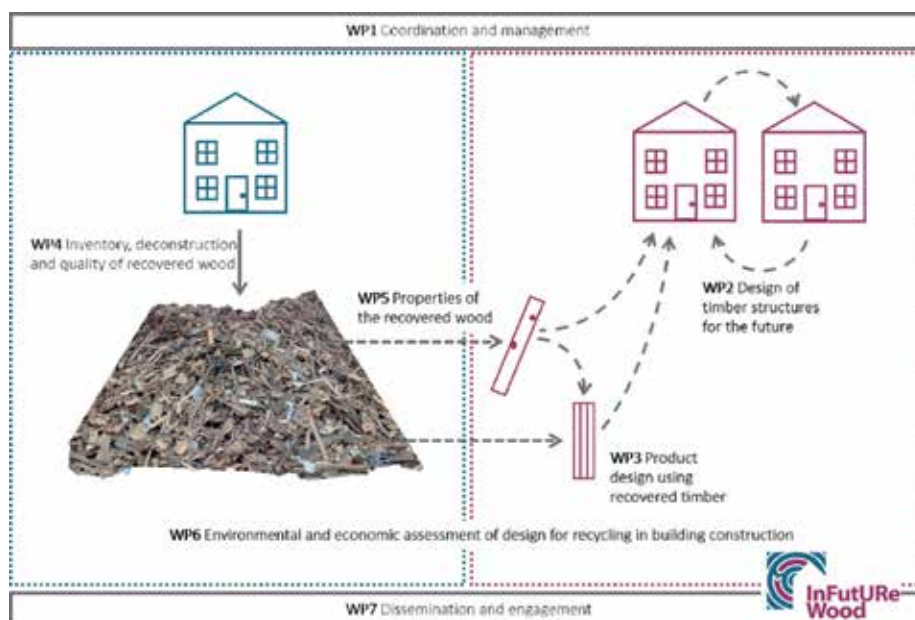
Offsite building systems are the centre of all our case studies since they are gaining popularity in all partner countries. Yet the advanced offsite timber building systems, as we see them in the case studies, are a relatively modern development and these buildings do not usually come to the end of their life yet. More traditional building systems (including masonry construction) are producing large amounts of wood waste in their construction and demolition. Other work packages in the project are therefore more focused on the present, investigating the properties and reuse potential of recovered timber.

Work package 4, led by Aalto Univer-

sity Finland, and work package 3 at National University Ireland Galway assessed current demolition techniques and the condition of demolition timber in an extensive survey, including a case study from the UK (presented here: <https://youtu.be/xZWlecjxmN8>).

In addition, work package 4 analysed the amount of wood in today's building stock and is now characterising quality criteria for sorting demolition timber. The mechanical properties of recovered timber are characterised in work package 5 at Ljubljana University and Edinburgh Napier University, as part of the work to develop and test new grading approaches for recovered wood. Work package 3 is designing new construction products from secondary timber and is currently manufacturing and testing CLT panels and glulam beams at NUI Galway and Polytechnical University of Madrid, which are also being assessed for environmental impact in work package 6.

The InFutUReWood project offers various approaches for the circular use of structural timber, from reusing single members to moving whole buildings, just as it used to be in Shakespeare's time, only without the drama, and all the required safety and efficiency of modern timber construction. The project is running until February 2022 and all results, including the DfDR case study reports, are published on our website infuturewood.info.



An update from Wood for Good

Wood for Good is in the business of promoting wood – from seed to sawn. Our aim is to see an increase in the amount of wood being used in design and construction in the UK. With Build Back Better being one of the UK Government's lynchpin phrases for 2020, and global discussion centring on lowering carbon emissions, 2021 is the time for wood in construction.

However, whilst we are seeing some change in attitudes towards building with wood, there is still a lot to be done to challenge misconceptions. A lack of education and understanding of how to build with wood is still prevalent within the construction and insurance industries, and whilst other nations implement policy that favours timber construction, we are still waiting for the UK to follow suit.

To counter these challenges, we are continuing to amplify the amazing work being done by designers, developers, specifiers, and engineers already building with timber, sharing their knowledge and experience to inspire others. We promote and raise awareness of timber's value as a building material to these audiences and policymakers, challenging misconceptions that they may hold around timber's sustainability, safety, and viability as a building material.

Building cross-industry support

In March 2021, the Finnish Government opened a new service providing impartial data on the climate impacts of construction products. In 2020, France and Canada were among the nations implementing policy that encouraged and supported mass timber construction and placed value on low embodied carbon materials. The UK government kicked off 2021 with the early release of the Future Homes Standard. It contained some encouraging guidance around Modern Methods of Construction (MMC) and the use of timber but sadly, the consulta-

tion missed the importance of embodied carbon.

In response to the consultation, scrupulous climate change group, Architects Climate Action Network (ACAN), launched their campaign, #RegulateEmbodiedCarbon. The campaign calls for limits to be placed on embodied carbon emissions, and for increased use and support for low-carbon materials such as timber. ACAN also rallied behind the timber industry in 2020 with their 'Save Safe Structural Timber' campaign in response to the Fire Safety Bill. Other organisations such as London Energy Transformation Initiative (LETI) are also campaigning for guidance on embodied carbon, whilst housebuilders like Barratt are also setting embodied carbon reduction targets. Wood for Good is undertaking its own project research to update and reinvigorate the existing environmental data held in Wood for Good's Lifecycle Database.

We have featured engineering firm, Heyne Tillett Steel recently in our content to speak to engineering audiences. Heyne Tillett Steel are leading the way in supporting the use of timber in construction for their industry. The firm has a dedicated group focused on timber which carries out full-scale testing and research into the timber products they use to demonstrate the commercial and economic value of structural timber to clients. They are a leading example for engineers, illustrating how the dissemination of knowledge and experience to others can play a huge part in increasing understanding of how to use timber in construction.

It is these cross-industry initiatives and support that can help open doors for timber construction. Wood for Good is working with timber champions across the construction industry as part of our work on the Wood CO2ts last campaign. We believe that engaging with spokespeople for their sector is the key to delivering our messages and bolstering support for wood in construction.



Winner of Winners in the 2020 Structural Timber Awards was Heatherwick Studio for Maggie's, Leeds

Continuing to celebrate innovation

As part of Wood for Good's work promoting timber in construction we continually celebrate excellent examples of innovative design.

2021's celebrations began with the STA's Structural Timber Awards (www.structuraltimberawards.co.uk), which took place virtually in January. The Riverside Sunderland: University Design Challenge (see page xxx) also launched in February. Later in the year the Wood Awards (<https://woodawards.com>) will take place. Going beyond the structure and interior of a building, the Wood Awards also has categories for smaller projects such as garden studios, furniture and products.

Glasgow will also see a rescheduled COP26 take place later in 2021. The UN Climate Change Conference is an opportunity to discuss timber construction's role in helping mitigate the effects of climate change and reduce carbon emissions. We are working with Confor, the Timber Trade Federation and a range of other international collaborators to ensure that timber construction and forestry is given a platform.

The Future is Wood

The UK imports the majority of their timber products, but with continued advances being made across the UK in tree-planting and increased investment in home-grown wood product plants in Scotland and Wales, the forestry sector is primed for a timber revolution. Sustainable and well-managed forestry practices here in the UK will bolster our efforts to increase wood in construction. We can't promote or discuss forestry and timber construction in silo, the two must go hand-in-hand. Wood for Good continues to work with Confor and other organisations across the supply chain to ensure that the future is wood, from seed to sawn to structure.

www.woodforgood.com

You can rely on treated timber on the farm



when you follow the simple Ground Rules

Preservative pressure treatment provides wood with added durability. However, it's a mistake to assume that all pressure treated wood is the same – treatment levels should be tailored to the desired end use (Use Classes).

When **ground contact timber** is treated correctly to Use Class 4, it is fit for purpose – evidence from **WPA field trials** supports this.

Several timber trade bodies are working together to help ensure that quality standards are assured across the timber supply chain – so whether you buy or sell treated timber you can rely on its performance, just follow the simple **Ground Rules**.

Typical Use Class 4 applications include:

Fence posts, retaining walls, landscaping timbers, playground equipment, decking posts, decking joists, boardwalk substructures and any external application where structural integrity is essential for user safety.

for ground contact treated timbers:



Specify Use Class 4

levels of **preservative treatment** – anything less and service life, structural safety and customer satisfaction will be compromised.



Use a trusted treater

who has **third party accreditation** of their operational quality management systems – such as the **WPA Benchmark Scheme**.



Be prepared to pay

for quality – premium products incur higher costs but their inherent value is priceless when **performance in the field** is paramount.

Benchmark

APPROVED **TREATER**



The Make Sure it's 4 campaign is supported by:



www.thewpa.org.uk

Find a WPA Benchmark Approved treater:

Softwood prices have hardened as hardwoods have softened



TIMBER AUCTIONS
MARKET REPORT
Oliver Combe
Timber Auctions

Global outlook

The first quarter of 2021 has seen feverish activity in the global softwood market as supply has been hit by a perfect storm of disruption at the same time as demand has escalated. As a consequence, the prices seen in January have continued into March and some have forecast that these prices could last for six months to a year.

The producers have been curtailed by a severe winter in Eastern Europe and Scandinavia which has restricted cutting whilst Covid outbreaks have continued to spring up and bring mills to a standstill, in some areas log shortages have also been a factor.

The net result has been reduced production at the same time as demand has increased, noticeably in the United States where the surge in new house building and renovation is well documented. Increased demand from many other markets has placed additional pressure on supply chains globally.

Initially the increased demand has been met by selling off yard and quay stock. Contracts have been largely fulfilled and ships have been able to sail fully laden, but now stocks are exhausted, lead times are increasing and prices in the rest of the world are catching up with US levels.

US prices are up 188% since the start of Covid, the cost of building an average American home has increased by \$24,000

mainly due to increased wood product costs.

German timber export values have reached 2.5 billion euros (a 63% increase in 5 years) and it is estimated an extra 10 million cubic metres of logs has been harvested each year for the last three years and all this excess volume has been exported!

As global demand continues to increase there is another interesting dynamic emerging on the horizon, Russia has voted to ban the export of high value hardwood and softwood logs from the east of the country with effect from 1st Jan 2022. This will cut off a major source of roundwood for China's extensive wood processing industry, initial estimates are that Russia exported 15 million m³ of logs last year which accounts for 15% of global roundwood trade.

Further disruption is likely if the Russians implement the next stage of their drive to add value to their timber by banning the export of "green" timber from late 2022 onwards.

China will have to replace this volume and Europe is one of the potential sources, which will cause further disruption to global wood fibre trade.

Much can happen, as I discuss below, but \$1000 dollars per 000 boardfeet for kiln dried graded softwood, equates to approximately £335 m³ for UK timber. This is 70% up on the price from January 2020.

This is the current price of imported material in the UK. Demand in all European markets is strong and returns from shipping to the US are very attractive for those mills able to do so. There are major gaps in landed UK stock and importers are struggling to keep balanced inventories.

UK softwood market

The global picture has been mirrored in the UK.

Strong demand in the autumn together with restricted production has meant stocks never really built up. Disruption to haulage and processing from winter weather coupled with strong demand throughout January, February and March has left the UK processors facing a seasonal upturn in demand with very low stock levels and extended lead times on key products.

Given the shortages of supply elsewhere in the world and especially amongst the traditional suppliers of UK imported timber UK processors have been seeking to secure increased prices for their finished products to balance the increased log costs from the price surge in the last six months.

The key point to understand here is that the price surge has been in softwood sawlogs and to a limited extent in pallet wood and bars, but there has been little change in small round wood prices and in some areas falling prices for hardwoods.

The high sawlog prices have seen some truly exceptional prices achieved for high quality sawlog rich parcels with prices of £70 and £80 per tonne standing being reported.

The increased prices have brought more volume to market and there now appears to be a concerted effort to stabilise prices and curb the rapid step by step increases seen since Christmas.

Better weather, longer days and harvesting resources being focused on sawlog rich crops will see production levels from the forest increase over the next few

£ per tonne delivered to customers in Wales, central and south England (March 2021)

Product	Lower price	Upper price	Trend
Log 18	£95.00	£115.00	▲
Bar 14	£70.00	£80.00	▲
SRW	£50.00	£55.00	=
Fencing	£65.00	£75.00	=▲
H Wood firewood	£55.00	£60.00	=

£ per tonne delivered to customers in north England and Scotland (March 2021)

Product	Lower price	Upper price	Trend
Log 16	£95.00	£110.00	=▲
Bar / pallet 14	£70.00	£80.00	=▲
SRW	£45.00	£55.00	=
Fencing	£60.00	£65.00	=▲
H Wood firewood	£55.00	£65.00	=

months which may well take some of the heat out of the market.

The key questions will be;

- How much standing timber will come to the market this year?
- Is the volume we are seeing coming to market now “planned” volume or “extra” volume?
- What will be the impact of the strengthening GB pound on import availability?

UK hardwood market

After the feverish activity of the softwood market a reality check in the hardwood market.

The bulk of UK hardwood is of low quality and low value when compared to other northern temperate hardwood that is available to buyers.

Fortunately, the demand for high quality decorative hardwood sawlogs in the UK is small whereas the demand for low quality firewood and energy wood is high which fits very well with the available resource.

Currently there is plenty of high-quality imported hardwood available on the global market, demand is subdued and buyers are happy to buy imported when they need it. There is some demand for UK hardwood logs but the main mills are largely well bought and are being very careful with their purchasing. This has impacted on prices for UK hardwood sawlogs which have now been static for 12 months.

Whilst the firewood and energy wood market has seen excellent demand this

winter there has been a noticeable increase in supply of hardwood to the market on the back of increased harvesting of diseased ash and the reduced disruption from pheasant shooting.

This has reached the point in the south and midlands of England where the market is almost oversupplied and firewood prices have fallen to almost the same level as biomass / industrial energy wood.

The Government's current policy movement towards re-wilding with native broadleaves is deeply disturbing and appears another step down the road of destroying our productive timber resource at the whim of political fads. Forestry is a 50 year plus commitment and requires consistent, considered and co-ordinated policy.

Roadside hardwood prices (£ hft) March 2021

	Oak planking	Oak beam	Oak fencing	Export ash & beech	White ash sawlogs	Export sycamore	Large Douglas fir and Larch
High price	£12.00	£9.00	£5.00	£3.25	£4.00	£5.00	£4.00
Mid price	£10.00	£7.50	£4.00	£2.75	£3.50	£4.00	£3.00
Low price	£8.00	£6.00	£3.00	£2.00	£3.25	£3.00	£2.50

These prices are for guidance purposes only and are based on historic market information

TIMBER AUCTIONS



If you wish to discuss parcels of timber you would like to market, please contact Oliver Combe on 07771 958975, oliver.combe@timberauctions.co.uk for free independent marketing advice.

Heathwood Nurseries Ltd

CELL GROWN TREES.CO.UK

Buy the best of British

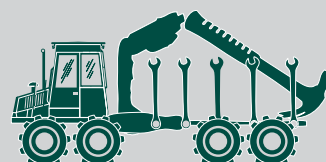
Growers of quality trees, shrubs and hedging plants.

Producers of British trees and shrubs from British seed origins in cells, containers and field grown for hedges, gardens, landscaping and woodlands.



www.heathwood.co.uk

01948 840 120 | sales@heathwood.co.uk
The Meadows, Higher Heath, Whitchurch, SY13 2JA



RICHARD COURT
FORESTRY ENGINEERING

Specialising in excavator conversions for the forestry industry

Sales, Servicing and Repairs of all Forestry Machinery

Tel: 01483 208075

info@rcfengineering.co.uk

www.rcfengineering.co.uk





Loxston Groundcare Ltd are the sole UK distributor for Irus mowing machinery

The Irus range of remote controlled mowers are designed for mowing and maintenance of precipitous slopes, parks, roadside verges and railway embankments offering reduced risk of injury to operators. Irus remote control mowers will go where standard walk behind or ride on mowers cannot go safely being able to run on slopes of up to 50°.

Radio control ranges of up to 300m ensure that operators are always out of harm's way.

We will be able to supply new machinery, attachments and spare parts.

To make an enquiry please call us on 01460 242562 or email us info@loxston.co.uk
www.irus-mowers.co.uk

MASON

WOODCHIPPERS



Quality refurbished woodchippers and stump grinders

All makes and models of chipper and grinder

3" to 12" tracked, road tow and PTO

All refurbished machines sold with 30 day warranty

Call us on 01325 377 475 or 07484 081 795

Email john@masonwoodchippers.com

www.masonwoodchippers.com

- Hire Purchase ■ Lease Purchase
- Contract Hire ■ Loans



Asset finance and loan solutions for the agricultural, forestry & construction industry



01455 635 677
info@businessfinancebrokers.co.uk
businessfinancebrokers.co.uk

Authorised & regulated by the Financial Conduct Authority

BUSINESS FINANCE BROKERS LTD

financing
your
business...



Exceptional market shows no sign of weakening

FOREST MARKET REPORT

The forestry market was exceptionally hot in 2020 and as we enter spring of 2021, there is no sign of any change, reports **Simon Hart**



Sales in Wales and England

Two stand-out sales in the latter half of 2020 showcase that the commercial forestry market across GB is very strong, not just in Scotland. One property, Hafod Fraith, Gwynedd, north Wales was launched in 2019, but complicated negotiations with the public forest estate over a deed of access meant the sale did not complete until late 2020. This second rotation property sold for in excess of 35% over the guide, with an average age of 14 years, at over £13,400/gross hectare. However, if on the market today, it would most likely have exceeded the bid placed in early 2020 and be more aligned with sale prices seen elsewhere. The second property, Wentwood, is located in south Wales on a low altitude and fertile site. Predominantly a mature Norway spruce plantation and about 40 years old, this well managed property is currently being re-structured with Douglas fir now the species of choice. This created significant interest in the marketplace from individuals and institutions alike and sold for in excess of £30,000/gross ha. Both these examples highlight that when offered with good access/infrastructure, sound management and silviculture, commercial forest properties in Wales can rival any across the country.

Another notable sale, but of greater complexity is Stocking Wood, Herefordshire. At just over 37ha it is a small mixed conifer woodland where complex and sporadic restructuring has taken place with the aim of making the woodland more resistant to climate change. Given such a complex make up, the level of interest prior

to launch was difficult to gauge. However, its attractiveness plus a cabin in the woodland coupled with a strong market helped carry it in excess of the £425,000 guide price.

Sales in Scotland

Scotland remains the main area of the UK for both plantation sales and afforestation. A number of properties put to the market in the latter stages of 2020 have virtually all sold, and sold well, often for substantial premiums over guide prices. This makes the job of both the sale agent and valuer very difficult. Suddenly market evidence from only six months ago is of limited use.

Demand is from a range of buyers, with investment funds leading the way, making it increasingly difficult for private buyers to get a foothold.

Notable sales include Kilry, near Blarigowrie; spruce dominated and aged 36 years, sold for over

£35,000/stocked hectare. In the west, Allt Daraich came to the market. Twenty years ago, this would have been a difficult sell. Access constraints meant the only realistic route for timber was via sea barge from a recently constructed jetty. However, strong timber prices now leave a handsome profit margin on clear fell, despite high working costs, and this is reflected in freehold values. The property, with 40-year-old spruce, sold for well over the £12,000/stocked ha guide price.

Newhall, near Aberfeldy was an interesting mix of high yield class conifers (60ha), with amenity (20ha). This sold at some £25,000/ha, which was almost twice the guide price, to a buyer looking at both timber and natural capital values; how much are the beavers worth? At Newhall, like a number of properties, land prices are rising and rising rapidly. This is perfectly logical, as the economics of forestry improve through higher timber prices the value of land inevitably rises. Hill land for afforestation is now in a

Continued on p37

Main picture:
Allt Daraich;
inset: jetty



MARSHALL

AGRICULTURAL ENGINEERING



**Quality
Machinery**
Speaks For Itself

Lennartsfors

DALEN

Binderberger

SERRA

TMC CANCELA
MULCHING SOLUTIONS

FLEX
FORED

KONEOSAPALVELU

WESTTECH

Gierkink
MOVING TECHNIQUE

Eschlböck
Bauer Holzschneidmaschinen

KRPAN

WAGNER
READY GRIP ATTACHMENTS

VAHVAJUSSI

www.marshalllogging.co.uk

tel: 01892 770788 | mob 07836 274164
email: sales@marshalllogging.co.uk

Spotted a
machine
you like?



**New or used,
ask us about
Asset Finance.**



Bithell
asset finance solutions

Bithell Asset Finance Solutions Ltd is authorised & regulated by the Financial Conduct Authority (FCA) under number 649139 for Consumer Credit purposes.

01387 259 678
info@bafinancesolutions.com

Continued from p35

range of £5-10,000/ha with precise value highly dependent on the plantable percentage and predicted Yield Class. Land for restock is lower and, all other things being equal, it should be reduced by the difference between afforestation grants and restock grants (if there are any) i.e. some £3000/ha or so.

Afforestation is still forging ahead in Scotland with the 2020/21 planting year expected to exceed the Scottish Government's 12,000ha annual target. Alas, this situation is not repeated in England and Wales where real barriers to afforestation currently exist.

Carbon prices are also on the rise, with some predicting further substantial increases. These are also driving demand for land. Landowners and prospective investors need to take advice on carbon, as it is not always possible to bolt carbon onto all afforestation schemes. There is increasing focus on the additionality requirement, which is essential for

Woodland Carbon Code validation.

The Woodland Carbon Code currently excludes second and subsequent rotations from any carbon claims, even though those trees obviously still contain sequestered carbon. Perhaps owners will just have to be satisfied that they are rewarded with higher timber prices, partly because timber is such a carbon friendly product.

Forests on the market

At the time of writing, as we emerge from winter, there are a limited number of woods on the market. Cefn Llwyd in north Wales is an unusually large spruce dominated property of some 1200ha available in six lots. It is guided at some £15,000/ha stocked hectare with a range of ages. In Argyll there is Loch a Bharra, 40-year old spruce with a guide of some £23,000/stocked ha. And in central Scotland, the splendidly named Foggermountain with mixed conifers and broadleaves dating from the 1980s and success-



fully established on a former open cast coal mine at some £10,000/ha. Agents are all confident these woods will sell well.

Kilry

The main drivers for the market have been well set out in previous reports and remain unchanged. Demand for woodland remains very strong, reinforced by some record timber prices, meaning the heat in the market shows no signs of abating.

simon.hart@johnclegg.co.uk

UNBEATABLE QUALITY • EXCEPTIONAL SERVICE

Approved
HYDRAULICS



We supply some of the largest forestry dealers, OEM's and maintenance firms in the UK and our products are considered to be some of the best in the world.

Rotators | Weigh Links | Log Grabs | Tree Shears | Flails



SUPPLYING THE FORESTRY & TIMBER TRADE

sales@approvedhydraulics.co.uk

0161 480 0869

approvedhydraulics.co.uk

Sector faces ongoing challenge of 'unprecedented' timber prices

PACKAGING & PALLET MARKET REPORT

John Dye, President,
Timber Packaging &
Pallet Confederation
(TIMCON)

The wooden pallet and packaging market continues to experience challenging and unprecedented pressure on timber availability, which is causing ongoing high prices at levels per cubic metre that we have never seen before. TIMCON and, FEFPEB in Europe, issued statements on this situation towards the end of 2020 and again in Q1 of 2021 – and say there is ongoing concern about the impact on business in both regions for the foreseeable future.

The independent AFRY index showed a rise in the price of home-grown pallet timber of 13.2% in the final quarter of 2020, followed by a further 4.4% increase between December and January. The trend is ongoing, and the index now shows the highest price since its inception in 2000. Meanwhile, MARKIT/CIPS reports covering the first quarter of this year also show sustained price rises in wood, but also for steel/nails, essential for the production and reconditioning of pallets.

The main driver of growth in wood prices is increased demand for timber around the world as countries' economies have opened up, alongside ongoing disruption and imbalances in trade caused by the pandemic. The booming US construction market has led to a reported doubling of prices, which has diverted significant volumes out of Europe – notably from Germany and Scandinavia – and pushed international prices further upwards.

In China, too, a revival in spending on infrastructure projects has caused demand for raw materials to skyrocket. Supply is struggling to keep pace and imports of softwood logs into the country have reached their highest ever level.

At the same time, a global trade imbalance affecting the major shipping lines have pushed the cost of freight to all-time highs.

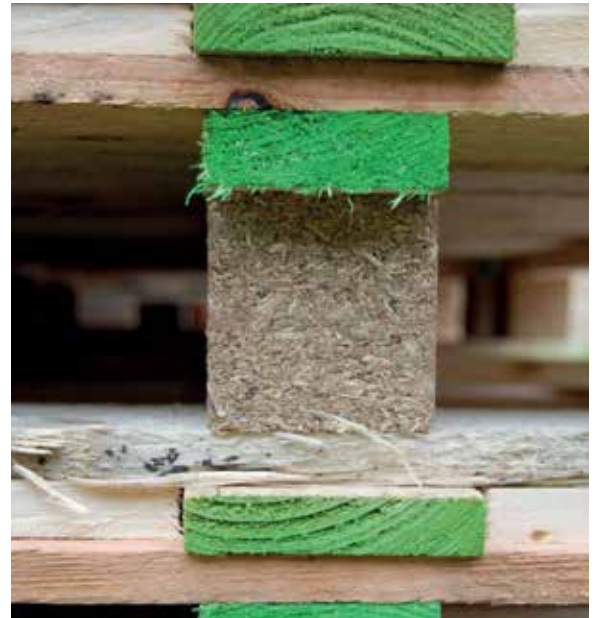
Although the impact has been felt in the packaging and pallet sector across the world, problems with the issuing of felling licences in Ireland have added to the challenge for UK manufacturers. As volumes of available logs have dwindled due to these delays, Irish mills have been having to ship logs predominantly from the South West of Scotland back to Ireland.

In the meantime, as the pallets and packaging sector sits at what some consider the less profitable end of the wood supply chain – albeit in significant volume, using around 30% of UK mills' sawn volume every year – it has been particularly exposed. With demand from the construction market incredibly high and the fencing season beginning in many northern hemisphere markets, there are more lucrative outlets available for sawmillers. Especially when they are entering the traditional start of the season with minimal stock.

This means we are seeing the price of pallets and packaging to end users increasing and severe shortages of second-hand reconditioned pallets due for reasons that include exceptionally high demand from e-commerce during lockdown measures; and businesses whose outlets are closed, predominantly those in the retail sector, seeing pallet returns reduce or cease, reducing the national pool of pallets.

In the wake of Brexit and COVID-19, these difficulties mean our industry has been dealing with near-or actual crisis conditions for many months now, but as previously the industry has shown how resilient it is in meeting customers' demand.

Meanwhile, we are continuing to remind the sawmilling sector to bear in mind that in 'normal times, unlike sectors such as fencing, our business isn't seasonal; our products require year-round inputs to keep supply chains of goods mov-



ing smoothly. The current boom in other sectors will settle down at some point and we would remind everyone that the pallet and packaging business is here for the long term – and will help significantly with government's targets such as green recovery and net zero by 2045 and 2050.

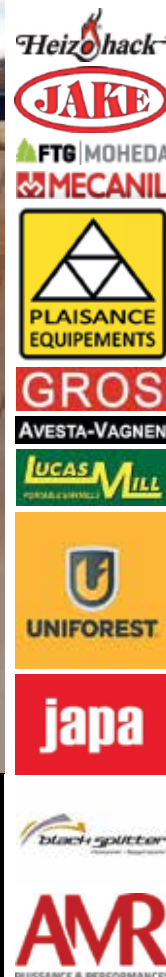
TIMCON secures further clarity on post-Brexit ISPM15 enforcement

TIMCON recently asked the UK government to clarify statements made by ministers regarding border control checks that caused confusion for some parties about whether wooden packaging material (WPM) needed to be ISPM15 when moving between the UK and EU regions.

Through DEFRA, the government have now issued the following: "Since 1st January 2021, all wood packaging material (WPM) moving between Great Britain and the EU, and from Great Britain to Northern Ireland, has needed to be treated and appropriately marked in compliance with international standards (ISPM 15).

"Defra can confirm that this remains the case: all WPM moving between Great Britain and the EU, and from Great Britain to Northern Ireland, must be treated and marked in compliance with ISPM 15. This is in line with international requirements for trade and is in place to protect both the EU and UK from potential harmful plant pests and diseases."

Biomass
 Wood Chippers
 Crane Mounts
 Tractor Guarding
 Forestry Mulchers
 Forestry Winches
 Firewood Processors
 Portable Sawmills
 Grapple Saws
 Tree Shears
 Cone Splitters
 Sawdust Extractors
 Woodchip Blowers
 Timber Trailers
 Forestry Cranes
 Log Splitters
 Wood Saws
 Billet Bundlers
 And Much More



FUELWOOD

Forestry & Firewood Machinery Specialists

Sales Service Support

www.fuelwood.co.uk

01926 484673

sales@fuelwood.co.uk

Beausale : Warwick : CV35 7AF

BAG Supplies Ltd.

Packaging suppliers covering the UK and Europe

We specialise in the supply of all types of firewood and kindling net bags, ventilated bulk bags, cubic nets and frames, bag loading trays, polypropylene sacks, standard bulk bags, LDPE sacks and storage tarpaulins.

We carry a large range of stock in various sizes at our warehouse for delivery within 48 hours of your order.

We even offer a free personalised print and design service so your nets/bags can be ordered with your logo or design.

We've got it in the bag!



t 01768 862157 m 07798 723040

e info@bagsupplies.com

www.bagsupplies.com

Spruces for the future

Andrew Leslie, Imam Sayyed and Lorenza Pozzi give an update on spruce trials

Sitka spruce represents about 50% of the conifer forest resource in the UK and commercially is our most important species. The main limitation to planting Sitka spruce in the uplands is its high demand for soil moisture and it is generally not planted on sites receiving less than 1000mm of rainfall. Furthermore, some parts of the UK currently suitable are predicted to become too dry for Sitka spruce. Developing a tree with the attractive properties of Sitka spruce but more tolerant of dry conditions could therefore have significant potential. There is also a need to diversify the range of tree species and that could include a larger component of spruces other than Sitka spruce. Norway spruce covers about 5% of our commercial conifer forests and has a long history as an exotic in the UK and is a major species in northern continental Europe but there is little information on which improved material grows best in the UK.

This article described two research projects undertaken by Forestry England, Maelor Forest Nurseries Ltd, Scottish Woodlands, Tilhill and the University of Cumbria. The first project tests Lutz spruce (a hybrid of Sitka spruce and white spruce) against Sitka spruce, but also other spruce species in a series of trials across north eastern England and southern Scotland, established in 2019. The trials sites have been selected as those normally considered to be too dry for Sitka spruce and vary in their Ecological Site Classification suitability from Very Suitable to Marginal for Sitka spruce. The second project is directed at identifying the best seed



orchard material of Norway Spruce for use in the UK and compares material from seed orchards in France (but of Ukrainian origin), Sweden and Denmark against the stock material planted from Germany in four trials from northern Scotland, Wales to south west England established in 2018. We do not currently have seed orchards of Norway Spruce in the UK and so must import our improved seed. Members of the Conifer Breeding Coop are currently identifying plus trees of Norway spruce with the intention of establishing UK seed orchards.

Lutz spruce - a hybrid for drier site conditions?

Lutz spruce occurs as a natural hybrid between Sitka spruce and White spruce and is found in the transition zone between the wetter and more maritime coastal areas of Pacific North America (where Sitka spruce is found) and the drier inland and continental areas (where white spruce is found). It is hoped therefore that some of the hybrids will combine the desirable characteristics of Sitka spruce with the tolerance of drier conditions found in white spruce. In general, hybrids offer the potential of creating a tree with the best characteristics of both parents and sometimes also exhibit hybrid vigour (heterosis), a characteristic making them better than their parents. An example we are familiar with is hybrid larch, a

tree that is better as a commercial conifer than either of its parents and was widely planted until the arrival of *Phytophthora ramorum*.

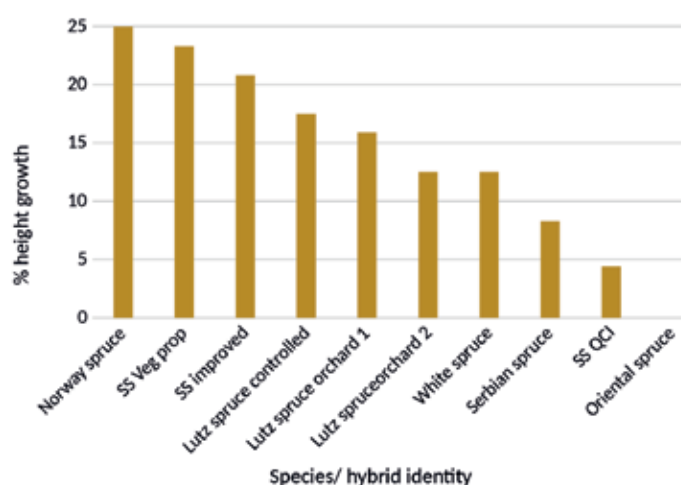
Existing trials assessed by Victoria Stokes and her colleagues at Forest Research have indicated that Lutz spruce has potential for commercial upland forestry in the UK. The new trials test a variety of material of Lutz spruce, natural hybrids from Canada, seed orchard material from Canada and also full-sib crosses some of which were propagated using somatic embryogenesis at Maelor Forest Nurseries. As benchmarks for growth and survival, QCI, improved and VP Sitka spruce have been included in the trials as well as Norway spruce, white spruce, Serbian spruce and oriental spruce. There is only one year data on growth and survival but so far, all the species and the Lutz spruce hybrid have shown excellent survival and its initial growth is more rapid than QCI Sitka spruce. Surprisingly, Norway spruce has shown the most rapid one-year growth across the trials.

Norway spruce provenance testing

Provenance testing of Norway spruce in the UK has shown that southeast European (eg Romania and southern Poland) origins grow most rapidly with Scandinavian ones being slowest and German and alpine ones being intermedi-

“Hybrids offer the potential of creating a tree better than its parents”

ate. The new trials, established in 2018 were planted to test the growth and quality of material of Norway spruce from seed orchards in France (but of Ukrainian origin), Sweden and Denmark against unimproved German material normally used for Christmas trees. Four trials were planted across a gradient of sites, identified in the Ecological Site Classification (ESC) as being very suitable to unsuitable for Norway spruce. Unfortunately, the trial in northern Wales had to be abandoned due to repeated damage from livestock but the sites that remain still provide a good range of conditions. After two growing seasons survival of all origins has been reasonable from 60 to 78% although these differences were not statistically significant. Material from the French seed orchard, one of the Swedish seed orchards and the unimproved German material have grown most rapidly over the first two years. However, the material is being tested not just for superior



Average percentage height growth of spruce species and hybrids after one growing season across four trials.

growth but also for quality and currently the trees are much too young to assess attributes such as stem form, branching, spiral grain and insufficient time has passed to rate them for adaptive attributes such as resistance to frost damage.

Acknowledgments

We would like to thank the following people for their assistance; Professor Jean Bousquet, Byron Braithwaite, David Brown, Jon Burgess, Luke Cross, Chris Hardy, Mike Harvey, Dr Barry Jaquish, Peter Kelsall, Tim Liddon, Mike Page, Philip Roe, Jason Sinden, Stephen Smith, Euan Wilkie and Matthew Wilson.

LOOKING FOR A DISEASE OR ASH DIEBACK SPECIALIST?



- Site clearance
- Forestry works
- Roadside works
- Fully operated machinery including Harvester, Forwarder, Chippers, Mulchers, 360° with various attachments (tracked) Sennebogen road legal machinery, etc.

E: alec@kwrplanthire.co.uk | **T:** 07903 463743 or
E: kate@kwrplanthire.co.uk | **T:** 07775 770454
www.kwrplanthire.co.uk

Follow us on:

 **#kwrplanthire**

 **@kwrforestry**



SOUTH EAST FORESTRY

**WANTED: TO PURCHASE
LARGE QUANTITIES OF
ROUND TIMBER STANDING
FELLED OR AT STUMP –
OAK, ASH,
SWEET CHESTNUT,
DOUGLAS FIR,
WESTERN RED CEDAR.
ALL ROUND TIMBER
BOUGHT AND SOLD.**

**Call Jonathan 01580 819179
or 07759 567801
or contact David 07769 354118**

www.southeastforestry.co.uk

All of our forestry products are harvested sustainably from managed woodlands and forests

**Local Sustainable Renewable - South East Forestry Group
WE BUY WE FELL WE SELL TIMBER**

Attracting and developing a skilled future workforce

Andy Leitch summarises some of the activities and recent outputs of the Industry Skills Groups in England and Scotland

Workforce study 2021 – England and Wales

Confor are working in partnership with Defra, Welsh Government, FC, Lantra and others to carry out a future workforce study across England and Wales. The results of the study will help identify priority areas to be addressed in skills development and training needs to deliver future operational programmes in the forestry sector including the new planting targets. The intention is to use a similar format to that used recently in a workforce study in Scotland (Forestry Scotland, 2019)) to enable the data to be integrated to provide a GB wide picture. The study is being led by Lantra and should be hitting your inboxes soon, we would be extremely grateful if you would participate.



Jobs Summit – Scotland

Fergus Ewing, Scottish Government Cabinet Secretary for the Rural Economy led a job summit hosted by the Scottish Industry Leadership Group (ILG) on 15 December to encourage the sector to find opportunities to offer work experience and potential future jobs to the young unemployed. Skills Development Scotland and Scottish Forestry introduced a forestry focussed scheme based on Kickstart and the Scottish Government Youth Guarantee Scheme. The Scheme is open until the end of March and 16 companies have submitted an expression of interest to date (www.dgtap.co.uk/growing-rural-talent-forestry-jobs-summit).

For further information on any of the above contact andy.leitch@confor.org.uk

Some of the other recent outputs of the Scottish ILG Skills Group partners which I believe are of interest to members include:

Forestry STEM Ambassadors

As a result of perseverance by Liz Barron-Majerik of Lantra, agreement has finally been reached to integrate forestry into the STEM (Science, Technology, Engineering and Maths) ambassador scheme.

STEM Ambassadors are an important and exciting free of charge resource for teachers and others engaging with young people inside and out of the classroom. If you would like to be a STEM Ambassador you can sign up online, have an online induction (they cover all the PVG/Disclosure checks etc) and they also run online activities via video call. We encourage Confor members to consider becoming a STEM ambassador. See insert with this issue.

www.stem.org.uk/stem-ambassadors/join-stem-ambassador-programme



Forestry Induction pack

As part of the supporting 'new Entrants' work of the Scottish Skills Action plan, a very useful Induction document Forestry Induction pack has been produced to support new entrants into the sector. The document is packed with useful information for anyone joining the forest industry. Hard copies will be available from Lantra Scotland in due course.

www.scotland.lantra.co.uk/forestry-induction-pack-wood-and-trees

New entrant course for timber hauliers

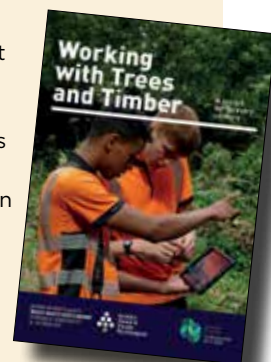
A successful bid was made to the Scottish Government Transition Fund to support a "Timber Haulage Operator Familiarisation: New Entrant training course" to be used to attract HGV drivers made redundant from other sectors and to provide initial induction into the sector. This bid was developed and led by Neil Stoddart of Creel Consulting Ltd. Unfortunately, the initiative has been put on hold at the moment due to Covid restrictions, but it is hoped that the funding can be carried over with a view to making the courses available later in 2021. A similar bid could be made for machine operator training if the Fund becomes available again in 2021.

Working with Trees and Timber toolkit

This resource has been produced by Scottish Forest & Timber Technologies and Scottish Forestry. It has been developed for anyone in the industry who has been asked to speak to young people about careers in forestry. It signposts and provides easy access to the wide range of fantastic resources that have been created to promote the sector and which could be used or adapted in a variety of settings.

In an effort to encourage more people in the sector to sign up to be a Forestry/STEM Ambassador, the toolkit will also feature on LantraScotland's Forestry Ambassadors webpage.

<https://forestry.gov.scot/forests-people/working-with-trees-and-timber>



Collins Farming & Forestry Services Ltd



**TURN POPLAR
AND ASH
INTO CASH**

*Don't let timber quality deteriorate -
Safely harvest while it has value!*

- ash and poplar dismantling and purchase
- hedge and woodland coppicing
- site clearance
- felling licence applications
- contract chipping
- supplier of dried and screened woodchip



m: 07850 988808

e: info@collinsfarmingandforestry.co.uk

w: www.collinsfarmingandforestry.co.uk



**Dorset's leading land-based training
company providing excellent training
throughout the south of England**

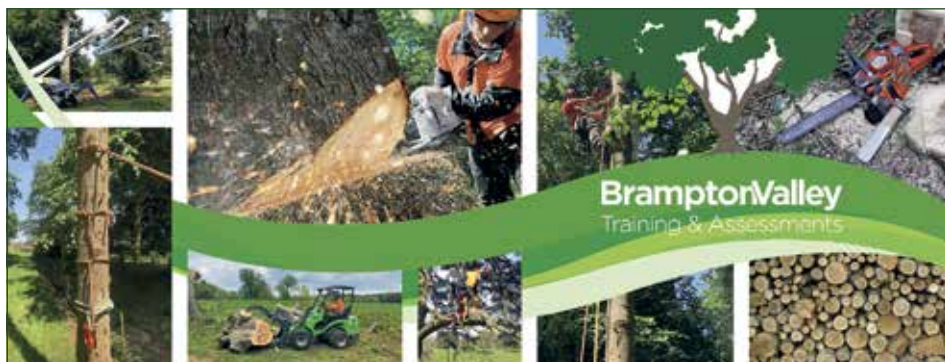
**See our website for more
information on courses**

www.newlandstraining.co.uk

Phone: 01305 848454

mail@newlandstraining.co.uk

**Launceston Farm, Tarrant Launceston,
Blandford, Dorset DT11 8DE**



**Forestry
Arboriculture
Horticulture
Agriculture
Land-Based Training**

Brampton Valley Training & Assessments is an independent training provider based in South Northants. We specialise in forestry, arboriculture, tree surgery and other land-based training. We are able to offer a wide range of industry-recognised qualifications. Our experienced and knowledgeable staff are on hand to offer our Clients professional and up-to-date advice on all industry recognised training requirements.

• Top training facilities

• Qualified instructors with years of industry experience and knowledge

• First Aid + F, Pesticide Courses, Utility Arb, Chainsaw Training, Tree Inspection courses

• Approved ELCAS, LANTRA & City and Guilds Training Provider

Call us for a friendly chat about your training requirements or have a look at our website

www.bramptonvalleygroup.co.uk

01327 831299

Growing rural talent

A new pathway into forestry

Graeme Hodgson,
SRUC Barony College

For many years forestry has struggled to find viable pathways to attract young talent into the industry. Purely by accident or by fate, I am not sure which, I happened to attend my son's careers event at the local high school – I hasten to say pre-Covid. His school is based in the heart of the timber industry in south Scotland, surrounded by sawmills, timber processors, renewable energy, timber transport, forest engineering etc, I could keep going on, but I think you get the picture. During the evening I sat in the school assembly hall and listened to career options, not one of the forementioned industries was raised as a possible career opportunity, which I thought was very strange.

My thoughts turned to my own career choice and how I benefitted from the Forestry Commission as a mentor. So, what are modern equivalents for a school leaver of today, what are the possibilities?

As many industry practitioners reading this article will no doubt understand, as an industry we tend not to employ direct labour and therefore the opportunities for apprenticeships are diminished; as an industry we rely on contractors and contractors don't tend to employ direct staff, so the mentoring role for students is generally limited to the larger companies and organisations, that are better resourced to provide the support.

Glimmer of hope

Fortunately, there is a glimmer of hope for the forestry industry in the guise of the Growing Rural Talent pilot project which is based on an established scheme that has been running for dairy farming in South Scotland.

This pilot is focussed on forestry and general agriculture. It is currently funded by the South of Scotland Economic partnership and is based at SRUC Barony with partnership support from Dumfries and

Galloway and Scottish Borders local authorities, Borders College, CONFOR, Scottish Forestry and NFU. It helps address the Cabinet Secretary for the Rural Economy, Fergus Ewing's call for action to provide work experience and job opportunities for young people.

The project aims to deliver fit for purpose work-based learning pathways, starting in the senior phase of school and founded on high quality, accredited work experience, relevant underpinning knowledge, and informative guidance from industry representatives across the South of Scotland. By raising awareness and building sustainable pathways, students can develop the skills and knowledge necessary to enter and to progress within the forest industry from different backgrounds in a coordinated approach based on the individual students needs and aspirations.

A key role within the project is the coordinator, who forms the link with schools, careers advisors and teachers to highlight the areas of the industry where there are job opportunities and career pathways. The forestry GRT role has developed learning opportunities for senior phase school students to engage in work-based activities based on actual industry tasks, with young people being assessed in the workplace to reward competence in transferable employability skills as well as gaining experience and understanding of the forestry sector leading to achieving a land-based award. Making the student aware of health and safety is at the forefront of all the work activities along with risk management. This is managed by using experienced staff to mentor the students in the workplace. The industry in south Scotland is working closely with the project providing sites and opportunities for the students on a day release basis, if one placement proves to be unsuitable for the student then there are many other opportunities available.

To date, even though Covid has caused global disruption, the pro-



Nathan Newton is undertaking a respacing task at Kirkwood Estate, Dalton. Nathan was planning on a career in the navy but due to the project has decided to try a career in forestry and wants to go to the Barony next term, very interested in becoming a forest machines operator.

ject has managed to stay focused and as of the last lockdown there are currently 24 students throughout the region interested in a career of some kind in Forestry; although not all will join our industry, but it will hopefully help focus their own choice of career pathway.

The success of the project has not only been recognised by the partners and wider industry, but it has won a series of awards, latterly winning the ALBAS Anna Murray award for partnership working. Dumfries and Galloway Council has also just received additional funding from South of Scotland Enterprise to extend this phase of the project, funding coordinators and workplace assessors to continue until the end of the school year in recognition of the challenges faced as a result of Covid restrictions. Plans to both extend the project in South Scotland into 2021/22 and hopefully to replicate the model in partnership with other local authorities that are interested in "Growing Rural Talent" across Scotland are currently taking shape.

<https://ww1.sruc.ac.uk/courses-training/subject-areas/forestry-arboriculture>

Suppliers of new and used forestry machinery



Alstor 840 Pro with
Syketec ST50 Bambi
Stroke Harvesting head

SYKETEC



- Range of models available
- Stoke or Combi with feed wheels
- CAN-MID length & diameter controls
- Suitable for smaller base units

Contact us for more information

UK & Ireland Alstor 8x8 Agent
Rabaud Forestry & Agricultural Machinery
England and Wales Syketec dealer
WORKBOX

T. 01746 718 456 • M. 07966 365 157

• E. nathan@homeforestry.co.uk •

Home Forestry llp, Willowdene Farm,
Chorley, Bridgnorth, Shropshire, WV16 6PP.

SPECIAL OFFER €220

€10 off includes free hat, fleece and free delivery. Discount code **FOREST**

TIMBER CROC LOG HOLDER

- ✓ Designed in Ireland
- ✓ Manufactured in Ireland
- ✓ Holds logs from 1" to 11"
- ✓ Holds pallets
- ✓ Holds planks
- ✓ Holds posts
- ✓ Easy to assemble
- ✓ Heavy duty
- ✓ Designed & built to last



TIMBER CROC LOG HOLDER

- ✓ Work taller & prevent backache
- ✓ Work faster
- ✓ Work safer
- ✓ One person operation
- ✓ Supporting Irish and UK jobs
- ✓ Delivery anywhere in the UK



Timber Croc Log Holder

Purchase one now by visiting www.timbercroc.com
Or phone +353 (0)469549033 and +353 (0) 868756102



Cutting edge skills for world-leading saw doctors

Saw doctoring is one of the most valuable and specialist skills in timber manufacturing. Timber giants BSW have developed the UK's first saw doctoring course and qualification to ensure that these skills are not lost to a generation.

A unique blend of science and art, the key to saw doctoring is gaining the best finish to the knives and saws used for timber cutting, whilst understanding the metals and equipment used to produce incredible cutting surfaces.

From tempering blades to adjusting machinery speeds for optimum output, sawmills across the UK understand the value of such a unique practice on their productivity and quality of products. This type of work makes Confor member BSW

and their sawmills some of the most productive in the country, and at the cutting edge of their business.

BSW, who operate seven sawmills across the UK and one in Europe, recently invested in training apprentices Katie Martin and Richard Kuehnle to complete their certified saw doctoring course - the UK's first and only certified course of its kind - at their Dalbeattie sawmill to learn and hone this valuable skill. Richard is tipped to take over as head saw doctor within the business, while Katie is one of only three female saw doctors in Europe - and the only one within the UK!

This achievement is not only impressive within the timber trade, but is acknowledged across the wider industry too as

saw doctoring is often unseen and little understood, taking many years of training to become a top saw doctor.

BSW's Group Learning and Development Manager, Tony Lockety, has long recognised the importance of saw doctoring, and worked closely with qualified head saw doctor of 30 years, Gary McCaig, to develop the UK's only saw doctor training course and qualification, run by BSW.

"It started when I met Gary at our Dalbeattie Mill. What he doesn't know about saw doctoring is quite frankly not worth knowing. Gary explained to me the history of saw doctoring and its mythical black art status that once had secret skills passed down from generation to generation."

He added: "It is said that all the senses are used to understand the process - the touch of surfaces, sight of blades and wear marks, the smell of any burning of the metal, the sound of timber actively passing through the mill and listening out for any noises that can indicate a saw blade change is required or tightening of the machinery."

Joint certification

Gary and Tony set up and developed the course a couple of years ago, launching in Dalbeattie with the help of Inverness College UHI. Following a meeting with Don Calvert of UHI, previously of Rolls Royce, Don was blown away by the level of skills required for saw doctoring, and the enthusiasm and knowledge of Gary. This small team worked together to create joint certification that would cover the key aspects of saw doctoring in detail, and create a course that would take two years to complete. Not only would this upskill BSW's existing team, it would pave the way for future generations of saw doctors.

The team at BSW had valid concerns that the knowledge of this profession could be lost, with the older generation of saw doctors nearing retirement. By bringing the course into their business, this created a line of new enthusiastic and skilled personnel who could retain and grow these valuable skills.

The training seeks to highly train individuals to gain the best finish to the knives and saws used within the mills. Not only does this keep the business running smoothly, the quality and speed of output is greatly accelerated. Applicants currently apply primarily from within BSW's timber mills, but the course has started to attract external candidates through careful advertising. The application involves an interview with specific questions around existing skills and interests, as well as ex-

Continued on p50

Continued from p47

ploration of any existing knowledge of saw doctoring.

Combining both hands on and taught sessions, the course covers everything from risk assessment and safe handling of knives and saws, to identifying equipment needed, practical processes and troubleshooting. Gary is firm in the belief that with saw doctoring 'you never stop learning' and having been in the business for over three decades, there are still learnings to be experienced with every working day.

"The key is to learn as much from those in the business as you can. The challenges can range from breakdowns and getting machinery working again, as every moment the saws are silent the business loses productivity. So, there is pressure but also fun, and a great feeling of teamwork within the mills for those doing this job."

BSW has put up training boards in their mills showcasing the modules required for the course, hoping to encourage further candidates to consider saw doctoring in their career journey. Having this type of training in-house, with people like Gary still within the business, also means that

BSW remain at the top of their game with inspirational leadership and a full succession plan.

Speaking of his experience of the course, Richard from the Dalbeattie Mill, said: "Katie and I have enjoyed working on this project, gaining valuable skills to further our careers as saw doctors. Saw doctors are few and far between, so being part of this skilled group is pretty exciting and unique."

"We would recommend it to anyone who wants to enhance their skills and knowledge."

High regard

Tony - who himself has worked for the business for eight years - said it has grown his respect for the trade, and that he has learnt to hold the team members with these talents in high regard.

"Gary, and line manager Neil McGrath, have been really supportive of the course and helped assess the completed work from day one. This is a course we hope will someday be approved by Skills Development Scotland as a modern apprenticeship."

There are currently two additional team members coming to the end of their training in Dalbeattie. The joint certificate and dedicated course, which has allowed BSW to work closely with the engineering team at UHI, can now be utilised at any timber business.

Tony commented: "I would recommend saw doctoring to any individual who is interested in a long-term career that involves hands on working with tools and a willingness to understand the various works that a saw doctor would undertake, plus a keen eye for making things right."

One of BSW's key business initiatives has been rolling out custom training programmes for its staff and apprentices. This saw doctoring skills development follows recent investment in other tailored training courses, which saw numerous team members awarded with CMI (Chartered Management Institute) certifications.

It's clear that saw doctoring is one practice the sawmilling industry need to hold on to with both hands, ensuring that skills are passed down to the next generation and remain an integral part of the future of timber.

HIGH PERFORMANCE, TOTAL ACCESS TREE STUMP GRINDERS



- ✓ Spread the cost of new machines
- ✓ From portable to tracked
- ✓ UK dealer network



01189 404 739
WWW.PREDATOR-MFG.COM

Forestry England apprenticeships

The next generation of foresters

Meeting a challenge

Where once forestry relied on a steady stream of young people entering the profession to learn their trade as apprentices, in recent years, the industry has faced a serious skills shortage. Awareness of forestry as a career choice for young people has dwindled, with the subject largely absent from the school curriculum and fewer specialist education providers across the country. Yet the need for expert tree planting and forestry management across England is higher than ever. The government's commitment is to increase planting to 30,000 hectares per year across the UK by 2025, and tree planting programmes like the Nature for Climate fund are rolling out to make this happen. Against these targets, changes to environmental land payments mean landowners and farmers are exploring new ways to diversify business, manage land better for biodiversity and create natural ecosystems, putting woodland creation in sharp focus.

The Forestry Skills Forum's five-year Forestry Skills Plan published in 2017, set out a way forward for the forestry industry to respond to the skills shortage challenge and meet its full potential. The plan, based on research by the Royal Forestry Society, outlined actions to raise the numbers of new entrants, improve the skills of the current workforce, and increase the diversity of new forestry workers. And since its publication, forestry employers have worked together to tackle the skills challenge and attract new talented people into the industry.

Growing new talent

Forestry England has offered apprenticeships to trainee foresters in England since 2013. Forest Operative apprentices learn to carry out the practical operations needed to sustainably manage the forests of the future. In 2019, the organisation was approved by DfE as an apprenticeship employer-provider, delivering the Level 2 Forest Op-

erative Apprenticeship to prepare its own apprentices for a long and rewarding career in forestry and future proof the workforce. Learning everything from timber harvesting techniques, tree pests and diseases and forest management planning, Forestry England's apprentices gain the solid skills they need to progress in the industry, and often go on to give training and support to new recruits.

Cameron Williams, Beat Forester for North Norfolk, sums up his experience: "I decided to take up an apprenticeship in Northumberland after graduating from university. While my academic qualifications had taught me a lot of transferrable skills, I found there was no substitute for practical, on the ground experience to feel truly competent in my job. The opportunity to earn a living at the same time was too good to miss.

"Once I became a forest craftsperson, I was fortunate enough to be able to pass on my own knowledge to two more cohorts of apprentices. The skills I developed provided a fantastic foundation to my understanding of forestry and have proved invaluable as I have progressed in my career.

"I now work as a forester but feel my time 'on the tools' gives me a great appreciation of all the hard work on the ground that keeps Forestry England running."

Widening the scope

Forestry England is now using the apprenticeship standard as a ba-

DID YOU KNOW?

Approximately 13,000 people are employed in the forestry sector in England and Wales – around 3000 more than in 2010

In 2017, Royal Forestry Society research found shortages of machine operators, chainsaw operators and tree planters – including people able to work in more demanding environments like smaller woodlands with variable crops.

Forestry England is the country's largest land manager with 1500 forests covering over 250,000ha, attracting over 235m visits per year.

Since 2013, Forestry England has recruited 70 apprentices – 35 are still employed within the organisation or with Forest Services of Forest Research – other parts of the Forestry Commission. Others are employed within the wider forestry industry and 15 are still in training.

The skills I developed provided a fantastic foundation to my understanding of forestry

sis for wider training and is set to take on a new cohort of apprentices shortly, following the 14 who started in September 2020. As well as building their skills in forestry management, the entrants' training will focus on the recreational management of the nation's forests and meeting the needs of visitors alongside managing them for wildlife and sustainable timber production. Their training will include play and trail inspection, and public access and safety to give a wider range of skills and experience to use as they develop their career.

Bridgette Hall, Forestry England Head of Recreation and Visitor Experience says; "The scope of our apprenticeship schemes continues to evolve. We currently have apprentices working in visitor services and at a site managerial level. Ensuring that there is a smooth flow of experienced and well-trained people coming into all aspects of our industry is imperative as visitor numbers continue to grow."

For more information on apprenticeships in Forestry England, please contact england.training@forestryengland.uk.





Students could bring up the maps on their mobile devices when they were on the college campus

Virtual teaching: from 2D to Tree-D

Sean McLaughlin, forestry lecturer at Plumpton College talks about the tools that have helped him survive virtual teaching

The pandemic has forced us to embrace digital transformation, whether we like it or not. In education, this has meant finding virtual solutions to keep teaching students – not an easy task in vocational forestry training!

“Plumpton’s approach is based on combining staff-generated visual content with the cloud service ThingLink which, in a nutshell,

makes it easy to add user interactivity to almost anything visual, edit it, include narration or voice instruction and publish it online for viewing in a normal web browser”, says Stephanie Heath, learning technology manager at Plumpton College.

ThingLink

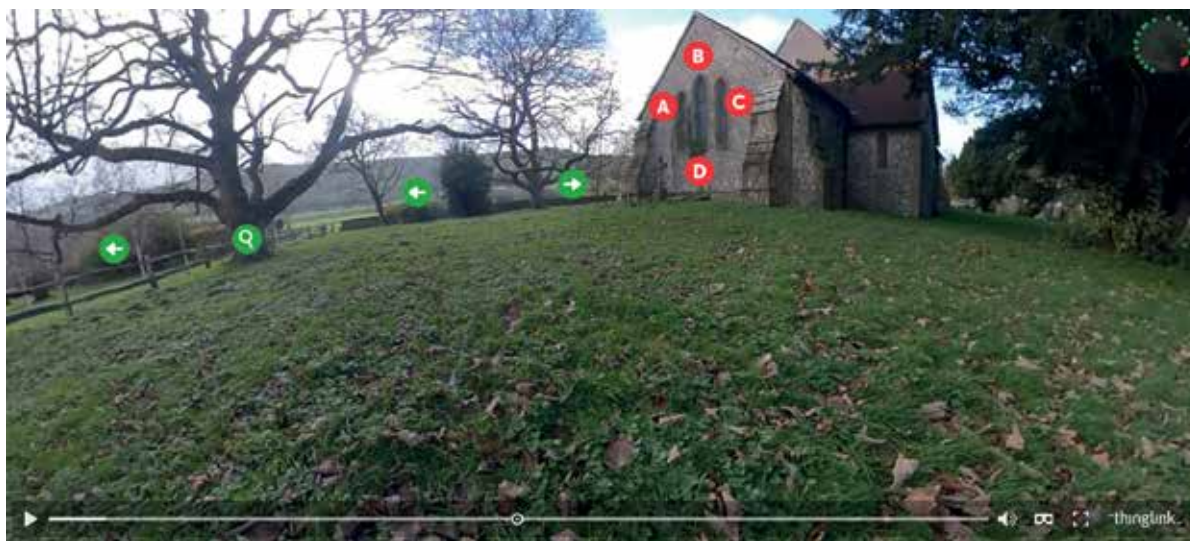
Over the last year, rather than taking groups of students out in the field, I have spent time by myself, getting good 360-degree videos of trees, to be used embedded in my ThingLink, which is my preferred teaching tool. On this platform, I can add visual ‘hotspots’ to the video, small on-screen icons that can be touched or clicked to open text information panels, user input panels or other



35a Derryall Road, Derryvane
Portadown, Armagh
BT62 1PL
T: +44283833011
info@oakleafforestry.com

Vimek specialise in small scale, low impact,
forestry machinery.
Make an impression without leaving a mark

Oakleaf
FORESTRY.COM



Adding visual 'hotspots' to video (left) and a 2D map (below) using ThingLink

media – a web page, Tweets, or more in-depth video on the subject.

In summer/autumn last year, the Level 2 Technical Certificate in Forestry and Arboriculture course would have included a practical element to identify 20 trees in the field comparing visual characteristics but due to Covid restrictions, this was not possible. So, after remotely instructing the students on the physical and visual characteristics of trees, we were then due to get out in the field to identify trees *in situ*, recording information using botanical and common names. While waiting for restrictions to be eased, I created a 2D map in ThingLink, making use of the hotspots feature described above. I used the Apps the students had been using remotely for consistency and for their innovative qualities which enabled me to embed EdTech tools students could use to collate, record then evidence their tree ID in action, and this needed no more than a portable device with good internet connectivity.

I liked ThingLink because it is a terrific way of collaborating with students to produce content and to explore the tool itself. Thinglink offers a dynamic experience for students to engage with; I have been able to choose almost any media and embed the content, which allows me to supply information in a digestible and interesting format that is accessible for all users. With my course being mostly practical, I tend to use lots of resources to keep my students engaged; during lockdown, creating digital content has allowed me to continue with that engagement both virtually and in lesson.

As well as using the Thinglink remotely, students were able to bring up the map on their mobile devices when they were on the college campus, to check the tree identifications *in situ* for themselves then add their own discoveries via the embedded tools, this means that the entire process is live and collaborative.

When we went into lockdown 2 at the beginning of 2021, I created another 2D map of East Sussex, so the students could identify trees in their local area sticking to Government guidelines whilst out on their daily exercise.

EdTech apps

ThingLink worked for my students because the delivery format is closer to what they use in their spare time. You can embed a range of different EdTech apps such as Flipgrid, Wakelet, MS Forms, Sway and Pinterest and it creates a great interactive experience for students.

One of the most significant difference about these EdTech apps is the accessibility feature of the Microsoft Immersive Reader which is a free tool that supports literacy development for learners regardless of age or ability, making Thinglink inclusive for all learners. With the immersive reader, students were also able to check the correct pronunciation of the botanical names.

21st Century Learning Design

The pandemic has taught me how important it is to better prepare learners for life in a contemporary way. As well as the learning outcome I have been redesigning my lessons



using 21st Century Learning Design rubrics. 21CLD rubrics incorporate a research-based method for coding learning activities to ensure you are embedding 21st century skills into your teaching practices to give student's opportunities to build the skills to succeed in the knowledge-based world of today. These rubrics give me practical ways to develop 21st century skills using digital technologies - skills such as collaboration, the use of ICT (Information and Communication Technology) for learning, self-regulation, skilled communication, knowledge construction, real-world problem solving and innovation. Some of the skills the students have already developed and continue to develop as I continue to create resources.

Most of all I would like to encourage young people into the forestry industry, and it will not hurt to speak their language so that these skills and technologies can complement the practical elements of forestry and advantage the future foresters of the 21st century.

sean.mclaughlin@plumpton.ac.uk

Forestry@Bangor rises to challenge of Covid-19

For the forestry degrees at Bangor University, it's still pretty much business as usual as we look forward to the new academic year starting in September 2021. Nearly all of the teaching on our MSc forestry degrees has been delivered simultaneously to students in Bangor, around the UK and around the world for several years already. Lectures are live-streamed, questions are asked and answered, and they're recorded, so those unable to watch in-real-time can catch up where and when it suits them. Even learning that is largely discussion-based is 'blended', meaning that students can join in from wherever they are in the world, or watch the recording afterwards. These discussions are based on pre-set reading, so that even when students can't participate live, they can send in pre-recorded input to share if they want. Student group work, including analysing data, researching topics and preparing presentations to deliver to the rest of the class, has continued on-line to a very high standard, and allowed students to get to know their peers, and provide support to each other, during the lockdown.

We have been able to utilise our wealth of online learning experience in the delivery of our BSc forestry degrees too. Lec-

tures, seminars and presentations have moved, almost seamlessly, online and we're happy to report that student performance has not dropped off at all. In fact, some of our lecturers have noted that student performance has actually improved, suggesting that for our students, when the going gets tougher, they have the resources to rise to the challenge. The majority of students undertaking 'sandwich year' work placements during 2020-2021 have been able to continue these without undue disruption and as usual they are gaining a huge amount from this valuable experience.

The Bangor Forestry Students Association has also been as proactive as usual, organising an excellent set of evening talks by a wide range of forestry professionals and other on-line events.

As always, our students benefit from field visits, many facilitated by our fantastic network of alumni. We missed out on our regular Scottish forestry tour this year, but we rediscovered some wonderful places in our backyard in North Wales. Throughout the various stages of lockdown, we've taken every legal opportunity to get into the field (with very welcome support from the University), which our students have really appreciated as a re-

lease from locked-down living and studying. We have also video recorded all our field practicals. As a result, we are very confident that Bangor forestry students during the era of Covid will be graduating with the same high levels of knowledge of a diversity of forest types and operations, and skills in forest inventory and management planning, as usual. We are hopeful that next academic year will see the easing of restrictions on travel and face-face teaching, but whatever happens, we are ready for it.

We've seen a notable upturn in applications for our forestry degrees in 2021 and we're confident that our new intake of students will be every bit as keen to get going as our students always are. A good many of our final year BSc students and MSc students have already been successful in securing the forestry jobs they wanted, and we're confident that the whole set of fine young (and not so young!) people who graduate from our programmes in summer 2021 will be every bit as ready to join the forestry profession as Forestry@Bangor students have been for the last 117 years.

www.bangor.ac.uk

Below: Final year students from Bangor on a Covid-safe forest visit, October 2020.

Credit: Alec Dauncey & Bangor University



Scottish School of Forestry, Covid-19 updates on education provision

Neil Cleland BA, BSc,
Deputy Head of Scottish
School of Forestry gives
an update

Further Education programmes

The NC Rural Skills Level 4, the Certificate in Forestry and the Advanced Certificate in Forestry courses have managed to return to our campus albeit under strict limited student numbers allowed on site.

We have no classroom teaching as we have covered almost all of the theory online over the past few months. We are covering all the practical lectures from planting trees to operating harvesting machinery, fencing to using a clearing saw and Green woodworking to coppicing with split groups and plan to complete the programme by mid-June 2021.

As of 18 March we are in our second week of the new timetable and all of the students who have attended are thoroughly enjoying being back on campus and getting hands on experience at last. They have commented on how, although they have learnt plenty online, they are now able to fully appreciate and understand how much involved each forest operation is. 'Online is useful but I am understanding and picking it up more now the practical is underway.'

Higher Education programmes

The majority of HE classes have been taught online throughout this academic year, which has not been ideal, in terms of the overall student experience. However, with the staff using all the tools in their lecturing tool bag and more (a few inventive approaches to teaching includ-

ing bringing a large branch into the home and demonstrating knots and climbing techniques for the Arboricultural students as well as using a variety of videoing techniques to present information and virtual site visits for the Forestry students) we have managed to engage the students at an academic level throughout the pandemic. Prior to the Christmas break we were able to get small groups of HE students on campus to undertake Forest Mensuration and Forest Science exercises.

It is planned that there will be restricted access on-campus delivery to cover some of the more practical activities required for training and assessment for both the Forestry and Arboriculture HND courses after the Easter break whilst observing the current COVID restrictions in place at the time.

HND mid-year placement:

Despite COVIDs arrival last year all of the previous cohort of 1st year HND students were successful in gaining a mid-year placement and all have been enjoying an excellent experience across the industry from tree nurseries to sawmills; small contracting firms to national management companies; small practical estate work to public sector forestry as well as digital mapping companies we have placed over 20 students.

After a successful two-day online Student meets the Industry seminar in November 2020 the placement programme has taken off and we have six students successfully placed throughout the UK and one in Canada at present. We have currently three employers about to initiate the interview process and others waiting in the pipeline to offer placements.

We are always looking for more placement offers so if any of the readers have a business and are thinking about possibly expanding or offering a placement please get in touch neil.cleland.ic@uhi.ac.uk

We have 28 students in total to find placements for this year.

BSc and BSCh

These programmes have been primarily delivered online with limited on-site visits in the 1st semester. However, we are on track to completing with altered assessments and staff utilising the online Virtual learning environment and 'break out rooms' for class discussion and presentations

On the whole, we are on track to completing the entire programme this year despite all the obstacles that have arisen over the last 12 months.. What we have found is that we will be using some of the materials in our future teaching at all levels as there has been a plethora of good, innovative and shared practice across the team to ensure as good an educational experience as possible for our students.

It has also underlined how invaluable the onsite practical experience across the courses is with respects the student experience, the understanding of how important both the theory and practical elements are and the all-important industry preparedness for all students once they decide to leave the college.

I look forward to the next academic year and, once again, giving our students the best learning experience we can give them as well as continuing our excellent relationship with industry and educational partners both at home and abroad.

www.inverness.uhi.ac.uk





B. Price
MUS-MAX[®]
Specialist Ltd.

Tel: 01584 891 307
 Mobile: 07518 810 269
 Email: ben@mus-max.net
 Web: www.mus-max.net

VECTOR POWERDRIVE

For the professional contract fencer



Model 4
Agri 120°

Lightweight machine with rock spike. Will work well in all weather conditions.

Davies
 Implements Limited

Distributor: Davies Implements Ltd
 Tel: 01267 237726
 Email: sales@daviesimplements.co.uk
www.vectorpowerdrive.com



New vehicles complete with bodywork for the arb & landscaping industry. Nationwide delivery.



TOW BARS | FULLY WELDED ALUMINIUM BODIES | SIGN WRITING | TOOL BOXES | LED LIGHTING
 BODIES FOR NEW AND USED VEHICLES
 CUSTOMER SUPPORT | CONVERSION TO FACTORY TIPPER
 FINANCE AVAILABLE ON NEW VEHICLES



Tipping Body Manufacturer & Specialist Body Builder



020 8539 0611 | www.tipperforsale.co.uk

Fund helps secure chainsaw training for farm woodland restoration

There was little chainsaw training in 2020 but one Forest Industries Education and Provident Fund awardee – David Warland – didn't let this stop him.

After we became the custodians of Warland Farm — 20 over-grazed acres in the South Pennines — we replanted the six acres of Warland Wood plus a similar area of firewood coppice. But after seven years, as we approached the first cut, we realised that those 20,000 hand planted saplings were destined to warm our successors' hearths, not ours.

Meanwhile, when approached by a local action group for permission to restore Turner Wood's mill pond, the owner seemed surprised and immediately sold their fifty acres of barely managed, ancient oak woodland. An idle search brought it to our attention, and, by a narrow margin, we saved it from becoming a motorbike scrambling park, an extreme sports venue or being clear felled for wood pellets.

So, as novice woodlanders, with our Forestry-approved management plan in hand, we are faced with meeting our ecological and social obligations. We need to remove one mature beech plantation and manage another to keep visitors safe from heavy, falling branches. Much of the climax sessile oak woodland needs opening up to regenerate the under storey; and the



over-grazed glades are choked by purple moor grass and bracken.

The valley sides are too steep for horses; surrounding properties make access difficult, and Council are dragging their heels over permission to install a short access track. As a result, our task will be all hand-tools, winches and zip lines and we need to skill up to the task.

Without the Forest Industries Education and Provident Fund offer to subsidise proper training in chainsaw maintenance, cross-cutting and felling, the woodland's restoration would probably remain a pipedream. Following an intensive week of patient and careful guidance from Dave Booth, of TKF near Holmfirth, I'm now confident that I can tackle some of the work myself and supervise contractors and volunteers to safely and efficiently

work on our behalf.

We have set up a woodland care group, The Tree Finger Gang CIC, and given them the challenge of not only managing the woodland but also building a few small businesses off the arisings: firewood, of course, plus beech hardwood block flooring and gothic-arch shed construction. Along with our efforts to engage the locals in caring for the sections they use and encouraging small events to be held amongst the stately beech, we feel that far more people are growing to love our beautiful woods and so these fifty acres will be actively preserved for generations to come.



Education and Provident Fund

Don't miss out on funding to upskill or expand your knowledge!

In 2021, Confor's Education and Provident Fund has seen some new applicants – both students and professionals – for chainsaw training, tree climbing and aerial rescue courses and we look forward to hearing their stories in the months to come.

If you are looking to upskill, attend a conference or other educational activity, please have a look at the Forest Industries Education and Provident Fund page on the Confor website. We could be sharing your story next.

www.confor.org.uk/resources/education-provident-fund/

Biocarbons – giving forestry ‘waste’ a second life

Michael Sernatinger of German start-up Carbonauten explains their circular economy model of harnessing carbon as a raw material. Edited by Stef Kaiser.

Imagine a world – a world made of CO₂. Where houses and streets store CO₂ and plastic in the forest becomes fertiliser. Where residual biomass is a valuable raw material other than woodfuel. Carbonauten, a startup from southern Germany, plans to create this world, generating new value streams for forest owners and farmers.

In an ideal world, when trees are felled, as much of the wood resource as possible is destined to long-life timber products, ensuring that the atmospheric carbon sequestered by the trees remains stored in timber in the longer term. In a less-than-ideal-world, however, part of the carbon sequestered by trees is lost after felling – when firewood is burned or when waste biomass rots and releases its embedded carbon.

What if there was way to turn residual biomass of all kinds – including mixed with other materials – into long-life products and keep wood carbon locked up for longer? For the forestry and timber industries, this would mean creating an alternative to traditional biomass markets by tapping into the bioeconomy.

Carbonauten developed a system where pyrolytic carbonisation of residual biomass produces solid biocarbons, renewable energy, and a pyrolysis oil – beside the climate service of prolonging carbon storage in the form of biocarbons.

Waste biomass: sought-after feedstock for the bioeconomy

For this article, we define ‘residual biomass as wood fibre material resulting from harvesting or wood processing which is normally discarded or burned and does not currently have a value in the context of the cascade of wood use. Residual

biomass does have a potential value as feed stock for the bioeconomy, meaning it can be turned into new products through processes such as carbonisation. It is important to highlight once more that ‘residual’ biomass refers to biomass that is an underutilised by-product of industries such as wood processing, forestry or farming and would otherwise be discarded as waste.

In forestry and timber processing, examples of residual biomass are beetle or otherwise diseased wood, green cuttings, brash and branches left on harvesting sites, sawmill by-products, waste wood and biomass contaminated with plastics, such as roadside green cuttings.

Currently, some of these products will go into traditional biomass/ woodfuel markets. The bioeconomy has the potential to offer a different market route for residual biomass, with the added value of carbon in biomass being retained in solid products – an additional opportunity to turn waste material into a raw material.

EXPLAINER

Carbonisation: a pyrolytic process where biomass gets turned into biocarbon through gasification. Pyrolysis is the thermal decomposition of materials at elevated temperatures in an inert atmosphere. It involves a change of chemical composition.

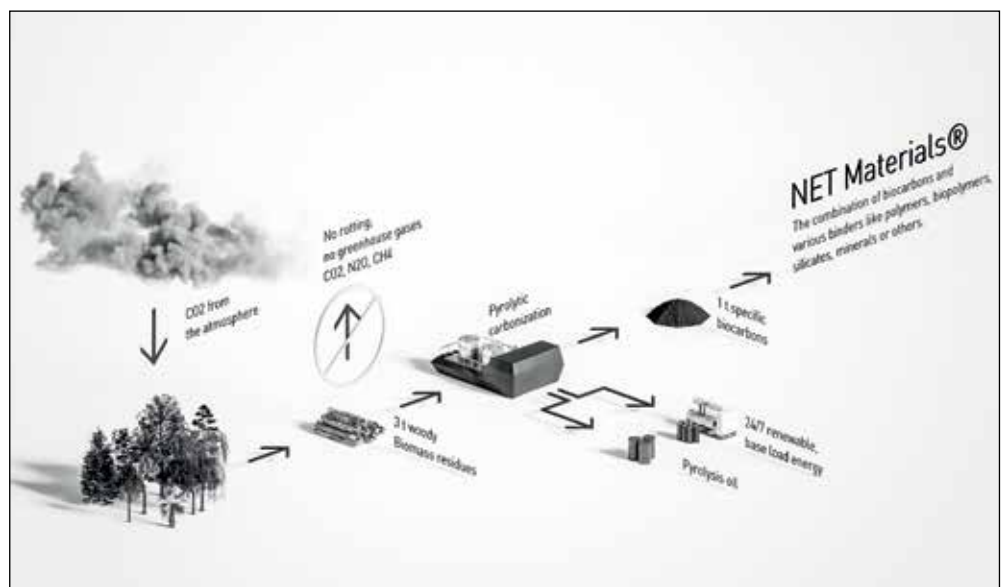
Pyrolysis oils: a dark brown liquid made from a multitude of chemical compounds. In addition to being used as a biofuel or heating component, pyrolysis oil can be used as a raw material source for chemical applications.

A **binder** or binding agent is any material or substance that holds or draws other materials together to form a cohesive whole mechanically, chemically, by adhesion or cohesion. Examples are bio or fossil polymers, minerals, silicates or proteins.

Carbonisation turns waste into three products

Woody biomass consists of a lot of different valuable fractions. In particular, three fractions can be removed from the biomass by pyrolysis in only one process step. Three products derived from one process: 1. The **pyrolysis gas** is used to generate renewable energy, which could be used for both thermal use and electricity (ideally on-site).

The process used by Carbonauten binds the carbon contained in biomass into valuable products



Traditional use of biocarbons as Terra Preta

One of the more traditional applications of biocarbons is their use in agriculture and forestry as a water buffer and a nutrient store. The so-called 'Terra Preta' is a mixture of carbon, minerals and compost, an indigenous technique developed in the Amazon to help the normally nutrient-poor tropical soils to achieve maximum soil fertility.

Terra Preta is a man-made superfertiliser produced without any chemical substances. The carbons act like a sponge for microorganisms and help to build up humus and the associated soil fertility. In addition, the increased humidity prevents the emission of greenhouse gases from the soil. The carbons can also be absorbed into a soil substrate and promote the growth and stability of trees in nurseries.

For this application, only pure residual biomass (ie free of contamination with plastics) can be used as feedstock.

NET Materials®: Biocarbons used in nurseries and tree establishment

An interesting example of the use of NET Materials® made from biocarbons are the biodegradable plastic products, which have relevant applications in the forestry sector. Biologically dissolving plant pots behave like plastic pots but break down after a definable period of time (this can set for a few days to several years) and avoid waste production from tree establishment. In addition, the carbon ends up in the soil and thus acts like a natural soil substrate. The same applications can also be used for tree shelters, bite protection, or agricultural films.



2. The **pyrolysis oil** is a raw material for the bioeconomy

3. The **solid biocarbons** which can be processed into innovative NET Materials® or, more traditionally, into soil fertiliser. Biocarbons and their applications in forestry are the focus of this article.

Biocarbons from residual biomass

Biocarbons are bound carbon and thus, as a solid material, offer a climate-positive contribution to combating the climate crisis. Biocarbons can be used in various applications in the soil or in products for the forestry and timber sector.

One ton of pure biocarbons can store the equivalent of up to 3.3 tons of CO₂. If used in soils or animal feed, they can furthermore help

to avoid other greenhouse gases like methane. (*The technical explanation for this is beyond the scope of this article, but see the section on Terra Preta above*).

The innovative NET materials®, developed by Carbonauts, are biocarbons combined with various binders. Binders can be biopolymers, fossil polymers (ideally recycled), silicates, minerals and even protein.

Besides, biocarbons can also substitute a range of fossil materials and, when added to plastic products, can improve their quality by making them more UV-resistant, more robust and lighter.

And the best of all: biocarbons are even cheaper than existing fossil binders. So, the dilemma of profitability and sustainability is solved in one product.

Our vision: more biocarbons used, more CO₂ stored

The business models of biocarbons is totally disruptive. Contrary to fossil-based raw materials, we can say that "the more, the better" – the more biocarbons you use, the more CO₂ you store permanently. "The more, the better" also means the more different biomasses that are used, the more different biocarbons can be produced.

Carbonauten's vision goes much further, into totally new products with totally new binders beside plastic. We want biocarbons to become a mainstream rawmaterial to be used in all aspects of our lives. Having buildings and streets made of CO₂. But also bricks, foams and facade elements will change from what we know today.

www.carbonauten.com

Tree health in a mosaic of micro forest plots



Stef Kaiser meets an Austrian forest ranger who deals with almost as many people as trees.

Michael Schnetzer is a fourth-generation forester and farmer based in the mountainous area of Western Austria. His family own a small pig and dairy farm run in a traditional way following organic principles. His farm is a passion, more than a business, and he makes a living from his day job as a forester.

Michael is what might loosely be translated as a public sector district forest ranger. Employed by the *Land* (in UK this might be Scottish Forestry) he is specifically responsible for looking after privately owned forest plots, which make up for about 60% of the total forest area across the seven municipalities under his management.

The forest he manages is fragmented to extremes, with 1500 privately owned plots ranging in size from a mere 200m² to two hectares, owned by both local and absentee owners. Many owners have inherited a miniscule plot without being aware of it. A few larger private plots, the largest one extending to 1800 hectares, are owned by regional agricultural cooperatives.

To add another layer of complexity, the landscape under Michael's management is a mosaic of private micro plots intermixed with public plots, most of them slightly larger – thanks God. To make things even more interesting yet, the public forest plots are the responsibility of one of Michael's colleagues not himself. Although basic management requirements are shared across all plots, management objectives vary between public forest and among private microplots.

Apart from minimum obligations to keep the forest disease free, private owners can manage (or not manage) their land as they please – except in the case of land

designated as Protection Forest. The forest ranger has the pleasure to liaise with an army of – often unaware – forest owners in order to guarantee basic care of the forest. Michael's main task is to detect diseased trees and contact owners to arrange for felling and removal. Furthermore, he deals with the maintenance of plot border markings (a surprisingly substantial task considering the number of plot borders...) and advises private owners on arrangements for forest management and timber marketing. The minimum forest management service is financed by the Land and comes at no cost to the owner.

As part of his responsibility to ensure tree health, he works closely with the local gamekeepers, in-

forming them of any need to adjust culling intensity, if increased deer damage is becoming a concern.

When Michael detects a group of diseased trees as part of his monitoring, he has to figure out whom the small plot belongs to and where the lucky owner lives. When making contact, he might have to first brief them on the fact that they call a forest their own! He will then inform them that that there are, for example, four firs affected by spruce bark beetle that need taken out. The owner will be given 14 days to get the job done (or more during the winter months).

A few owners of larger plots (larger as in above one hectare...) may be members of the *Waldverband*, the collective of forest owners (see *Creating economies of scale*, FTN June 2017). The collective organises *ad hoc* removals and timber marketing for small owners, and members can also opt to lease their forest to the collective for a full management and marketing service. Members pay an annual membership fee and at the end of each year, they get a profit balance, depending on the costs and income from timber sales that their forest has accrued.

However, interestingly, a lot of owners in Michael's area opt to take care of the removal of the trees – and sale of the wood – themselves, rather than engaging a contractor or the *Waldverband*. In theory, anyone can get the trees felled and removed with a chainsaw. They'll either cut it on site into firewood or drag it out with winches or even horses. Most of these forest plots will not be under any sort of management, therefore *ad hoc* management is rather informal.

Absentee owners or those without the motivation to go into the forest themselves, will find a relative or other contact in the area to get it done. Some may informally ask Michael for recommendations of 'local guys' or contractors who are active in the area. It's a bit like



Microplots – each side of the track is a different plot, each of them covering not much more than the area visible in the photo.

Left: Michael showing bark from a diseased tree





getting a dangerous tree cut in the garden and asking around if there are any tree surgeons just working in the area.

In 2018, the region's forests suffered severe storm damages, followed by an intense episode of bark beetle infestation. At the time, large quantities of diseased wood had to be removed, but still, the forest services had to contact each individual owner first and ask them to organise the felling and removal of the infected trees. In that situation, most owners, although not members of the *Waldverband*, opted to get the organisation's foresters to include the trees on their plot in the collective timber removal and marketing work done and be invoiced for it afterwards. In the case of the bark beetle crisis, none of the owners had to bear any net expenses – the cost of tree removal was offset by the sale of timber where possible (through collective marketing campaign) and government subsidies for the removal of diseased timber.



Offering a comprehensive range of professional log & woodchip drying kilns for the timber industry. Log, woodchip, sawn timber, pallets & fencing.

The drying programs used on our multiple air pass kilns are designed to give optimum efficiency and quality drying freshly split logs in just 5 days down to average moisture contents of 15%.

A reversing air flow every 2 hours ensures uniform drying.

Please note that those companies that have installed inefficient single air pass shipping containers and have existing R.H.I. contracts can now replace these keeping their existing boiler and R.H.I. contract, this gives increased production and drying quality whilst reducing fuel consumption by 50% per cubic metre of logs dried.

Manufacturers of Timber Drying Kilns for over 38 years

Please visit our website for more information www.kilnservices.co.uk

t: 01621 785 935 e: kilnservices@btconnect.com

Kiln Services Ltd, Essex, CMO 8TE



CENTRAL BOILER

CLASSIC EDGE
TITANIUM HDX

The Next Generation Of Wood Gasification Boiler

- Easy installation into existing heating systems
- Heat multiple buildings; single phase electric supply
- Includes built-in buffer tank
- Outputs from 30kW-100kW. Over 90% A+ rated for efficiency
- 30kW Edge 300 eligible for the Green Homes Grant of up to £5,000
- Large capacity stainless steel firebox for easy loading & less wood cutting
- FireStar controller provides remote monitoring capability – it even tells you when to load your wood!

01206 252275 / 251118
www.central-boiler.co.uk | info@cbbiomass.com



CarbonStore™

Uniting landowners, looking to sell woodland generated carbon units, with companies keen to offset their residual carbon emissions.

We provide everything you need for woodland creation

We grow the tree seed.
We plant the saplings.
We manage the trees.
And we sell the carbon units.

We are a truly unique partnership

MAELO R
Forest Nurseries Ltd

Tilhill

Tel: 01786 649387 Email: info@carbonstoreuk.com
Web: www.carbonstoreuk.com



Landowners Standing Timber Required

If you have standing timber that you wish to fell and sell, Pentland Biomass offers a straightforward convenient, end to end, personal service. We manage the project from start to finish:

- applying for Felling Permission,
- organising management plans,
- having the timber felled,
- buying the timber
- removing it from your site and organising the restocking.

Call Richard on 07812 025 578 to find out how we can help you.

Pentland BIOMASS

Integrating payments for ecosystem services: carbon, biodiversity, and more



With the woodland carbon market now well established, attention is turning to other ecosystem services. In his fourth article for FTN, Forest Carbon's **Matthew Hay** considers how new ecosystem markets may interact with woodland creation and management.

Multi-purpose is a term foresters are familiar with. After all the woodlands they work in are systems - dynamic entities with numerous inputs and outputs - and the role of the forester is to coax that system into delivering a desired blend of outcomes. Trade-offs are made where necessary to reflect the relative importance of financial, social or environmental outcomes, but the woodland overall is always richer for being designed or managed with these multiple objectives in mind.

This same principle holds true when considering the many ecosystem services that a woodland can provide. If created solely for carbon capture, a woodland is likely to be quite densely planted, with high-forest species favoured over pioneers. Conversely, if biodiversity gain is the main objective, the resulting woodland will be more of a habitat mosaic, with dense pockets of scrub in places and flower-rich glades elsewhere providing the floral diversity to support a wide array of species. Co-design for both these outcomes, however, and for an additional ecosystem service such as timber production, and the resulting woodland will be seques-

tering atmospheric CO₂, supporting local wildlife and reducing our reliance on timber imports. In other words, delivering everything a 21st century woodland needs to.

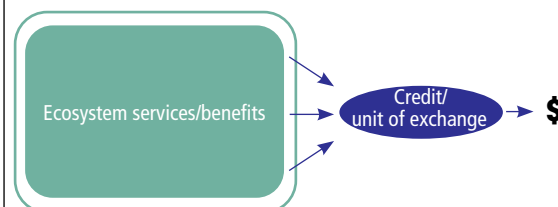
But it only makes sense to afford these ecosystem services equal weighting in our decision-making processes if all of them generate revenue. At the moment, of the three listed above, only carbon capture and timber production will provide land managers with an income. That is set to change, though, as new ecosystem markets come to the fore, and payments start being made for biodiversity gain, nutrient neutrality, natural flood mitigation and more. Woodlands are well positioned to deliver many of these ecosystem services, and that could change the financial drivers for, and expectations of, woodland creation going forward.

Generating payments from multiple ecosystem services in this way is referred to as stacking, and stacked ecosystem services can either be sold bundled or unbundled. The jargon itself isn't important, it simply highlights that there are different ways to generate income from projects that deliver more

Continued on p62

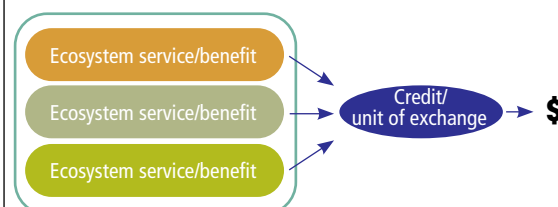
1 Bundled (implicit):

Services, credit and payment



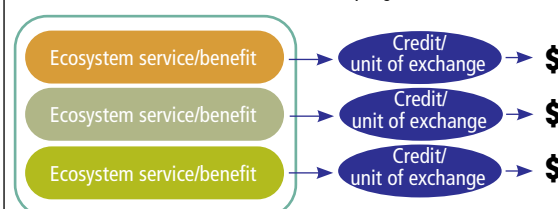
2 Bundled (explicit):

Services, credit and payment



3 True stacking with unbundling:

Stacked services, credit and payment



4 Stacking without unbundling:

Stacked services, credits but not payments

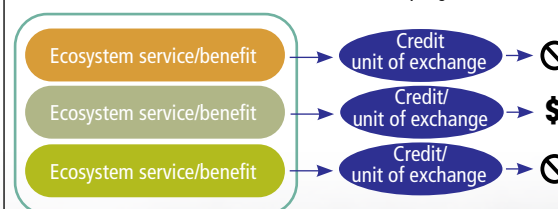


Figure illustrating the different ways 'Payments for Ecosystem Services' (PES) can be packaged'

Calling all woodland owners across Britain

Author, forester, and Confor member Gabriel Hemery is working on a guidebook series featuring a selection of copses, woods, and forests across Britain, and is hoping that Confor members will come forward and register their woodlands so that they can be included.

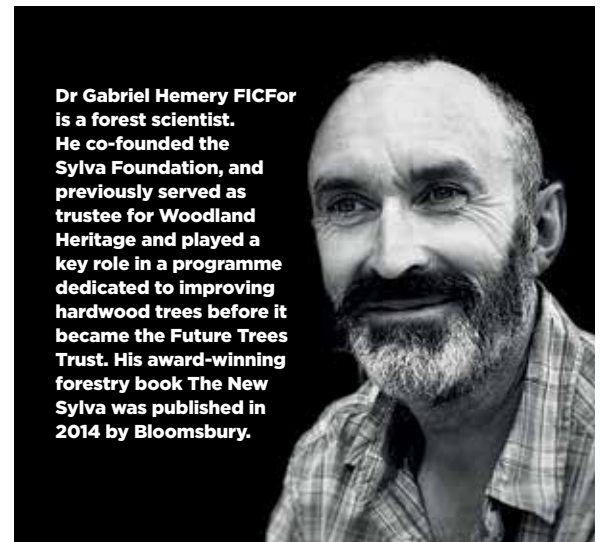
Through the books he aims to reconnect the British public with the forests on their doorstep, to rekindle their interest in the natural world, and help them develop an appreciation of those who care for our forests. He believes that by building a stronger affinity between people and the environment, this will provide the foundation to creating a more caring and sustainable society.

There are hundreds of well-known forests across Britain, and thousands of others which could be better celebrated, and it is the latter

he is particularly interested in featuring in the guidebooks. While he is collaborating with environmental and woodland-owning organisations, he is particularly keen to hear from individual private woodland owners, right across Britain.

The author has created a dedicated website (see below) to help collect information from contributors. While the public are able to suggest a woodland for inclusion, the main purpose of the website is to enable woodland owners to register information directly. Gabriel expects the first of the guidebooks to be published in 2023, and it is likely to be the guide to forests in Scotland.

The contribution form is straightforward to complete. Owners are able to Register a woodland, and they can request that their name remains anonymous in the guide if they choose. Other questions deal



with area, location, forest type and tree species, and history. A free text box is used to collect the main descriptive entry. Gabriel is hoping to personally visit a selection of forests, to meet with the owners for an interview and to take photographs, so there are some final questions which allow owners to agree to this if they are interested.

www.copsewoodforest.com

WOODLAND CARBON EXPLAINED

Continued from p61

than one ecological outcome. This is happening already, with woodland carbon commanding a premium when generated from a project with clear biodiversity or hydrological benefits. In these instances, the latter two ecosystem services are bundled in with the carbon, and the price achieved for the resulting credit often reflects that.

Looking ahead, it isn't hard to imagine that as more and more payments for ecosystem services come online, land managers will wish to stack as many of them as possible in every project they undertake. But this does present challenges, especially if any of the services are being sold as offsets, each of which will need to prove additionality.

The other great unknown is how these emerging ecosystems markets will interact with new rural subsidy regimes in each of the UK nations. In England, the direction of travel signaled by the Environmental Land Management Scheme (ELMS) makes it likely that public funding will also, increasingly, be

targeting delivery of ecosystem services. Intelligent integration with any private markets that are operating will be key, to avoid government money outcompeting private investment in this space.

Regardless of what individual governments do, it seems certain that interest in the broader context of natural capital is going to continue to grow. More and more businesses are beginning to account for their impacts on the natural world, and the recent Dasgupta review² will only spur on action to fully internalise environmental costs within our economy.

Some people instinctively mistrust this move to monetise nature, concerned that if our living systems are given a financial value it opens the door to them being disregarded in favour of more lucrative activities. Others counter that we won't achieve the scale of investment into the environment that is required unless we can bring natural capital wholesale into our economies.

My personal view is that our societies have already monetised a lot

of ecosystem services, from food production to eco-tourism, which lessens the relative importance of those services we don't pay for, at least economically. By allowing more services to generate income for land managers, we level the playing field and incentivise the creation of systems that are more ecologically productive. That has to be a good thing.

In any case, it will be interesting to see how these ecosystem markets develop and grow. They have the potential to underpin a radically different rural economy, where our land is managed to deliver a whole suite of new commodities. As an industry, forestry is well placed to benefit from this shift and play its part in restoring the natural capital of our country.

I'll be back with another article in the next edition of *Forestry and Timber News*, where I answer any questions readers have about carbon markets and the Woodland Carbon Code. If you'd like to submit a question, please email the editor: Stefanie.Kaiser@confor.org.uk

REFERENCES

- 1 Theory and Practice of 'Stacking' and 'Bundling' Ecosystem Goods and Services: A Resource Paper [BBOP]
- 2 <https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review>



Pest and weed control in post-Brexit Britain

Product security

The forestry sector can rightly claim that it uses very few pesticides, with less than 3% of the total crop receiving crop protection products in any one year. However, this use is now dominated by the use of two products – glyphosate for weed control, and acetamiprid (Gazelle SG) for *hylobius*. But how secure are these two products, and if they are withdrawn, are there alternatives?

Worryingly, neither product can be regarded as secure, and glyphosate may be banned in Europe after 2022, with the UK being pressured to follow suit. The use of glyphosate on upland restock sites tends to be focused on scrub control for which there is no current herbicide alternative, although it may be possible in the future to have a triclopyr or fluroxypyr based option. On fertile sites, particularly in the lowland and on new plantings, then Kerb or Laser can be regarded as alternatives for grass control – but both are also far from secure, and non-chemical options are largely too expensive or impractical to implement.

The branding of Gazelle as a neonicotinoid also gives cause for concern, despite not being classified as hazardous to bees, which in any case are rarely found on transplants.

Cypermethrin (Forester) and alpha-cypermethrin (Alpha 6ED) are currently alternatives which are approved for use in the UK, but the future of these is also in some doubt.

These concerns were recently raised by the Scottish Plant Health Centre, which rated glyphosate, urea, cypermethrin and asulam at high risk of loss, and Kerb, Laser, PG Suspension, Gazelle and Alpha 6ED at medium risk of loss.

Will Brexit have made it more, or less likely that these products will become unavailable?

The UK has transferred the total package of EU pesticide regulation into UK law, so the assessment criteria remain the same, although these are now UK-specific and not directly influenced by pressures from other EU member states. This means that the political pressures on pesticide use in the UK, while serious, are not as powerful as those in the EC, and Ministers have been keen to emphasise that Government decisions are, and will be, based on science.

This does give hope for glyphosate, which ALL worldwide regulatory bodies have classified as non-hazardous and non-carcinogenic. Similarly, if science and not politics prevails, then Gazelle should pass its current re-assessment. We can only wait and see.

Possible requirement for forest managers to have a pesticide qualification

Part of the regulatory package adopted by the UK is to undertake a regularly updated National Action Plan (NAP) of strategies to minimise the use and hazards of pesticide use. The latest NAP has been forwarded to Confor for comment, and requested views provided by 27 questions on three basic areas:

Goal 1 - Better Regulation

Goal 2 - Promoting the Use of Integrated Pest Management (IPM).

Goal 3 - Safe and Responsible Use

In response, Confor made a number of suggestions to simplify and clarify the current regulatory procedure, and highlighted the importance of UKWAS as a voluntary means of promoting best practice including the use of IPM techniques. Also noted were forest strategies to minimise the use of single use plastics (tree tubes & guards as an alternative to herbicides and weevil insecticides), and investment to develop lure and kill options for *hylobius* control.

However, it was in the “Safe & Responsible Use” section that a major change was indicated.

Currently, in the UK, all spray operators need to carry PA1 & PA6 certification, and all those who sell, or store pesticides for sale or provision to final users must carry BASIS (British Agricultural Supply Industry Scheme) Agronomy or Storekeepers qualifications. However, unlike much of the rest of Europe, no qualification is currently required for those who advise on the use of pesticides, and it is this that Ministers are proposing to change.

This has considerable ramifications for forest managers and consultants who advise clients and instruct contractors over pesticide use, as it is probable that they will need, in future, to demonstrate competence by carrying some form of qualification.

Currently, the only qualification available is the BASIS, which is designed for



Photo: Green-tech

agronomists, consultants and others whose major focus is on pesticide use. This qualification requires a 28-day training course, an examination, and an annual CPD assessment, all of which is far in excess of the needs of forest practitioners who only spend a tiny amount of their workload on pesticides, and probably only ever refer to two products.

However, the consultation document referred to a scheme which had been developed between the Crop Protection Association and the Horticultural Trades Association for those involved with the sales of amateur pesticides, largely for garden use. Confor noted this scheme and proposed that a similar scheme could be developed for the forest industry, which would be a light touch but nevertheless be able to demonstrate an appropriate level of competency.

As a move towards this solution, a training webinar has been developed, and successfully piloted with one forest management company. Further details of this can be requested by emailing Colin Palmer at forestry@branchline.co.uk



MEMBER SERVICES
Pesticides helpline

Pesticides helpline is a free service operated by Confor's crop protection adviser Colin Palmer on behalf of Confor members. Colin can be contacted 8am to 8pm Mondays to Fridays on 01531 633500 (leave a message if necessary) or by email to: forestry@branchline.co.uk

F&TN CLASSIFIEDS

FORESTRY CONTRACTORS

SHROPSHIRE FORESTRY CONTRACTORS

WANTED

STANDING TIMBER ALL SPECIES INCLUDING SOFT WOOD
ALL SPECIES AND GRADES OF TIMBER AVAILABLE FOR DELIVERY

**ALSO OAK, ELM (PLAIN AND BURRS), BIG
ASH AND FIGURED SYCAMORE**
TOP PRICES AND PROMPT PAYMENT

CONTACT: JOHN HALL, FAIRACRES, COUNDMOOR,
CRESSAGE, SHREWSBURY SY5 6AY

Telephone: 01694 731621

Fax: 01694 731624 Mobile: 07802 366653

BIO-OILS

Plantoil
cares for the
environment

plantoil ...pure green
BIO-LUBRICANTS

CHAIN SAW OIL • 2-STROKE OIL • SAW BLADE OIL

FREEPHONE 0800 013 7363 www.plantoil.co.uk

WANTED

QUALITY OAK REQUIRED

**Standing
or felled**

**Good price paid
for large clean
planking logs**

**Also interested
in other grades**

Whippletree

Tel: 01763 208966

Fax: 01763 208977

*Would
you like to
advertise
in F&TN?*

MACHINERY EQUIPMENT

PRUNING MADE EASY



The world's finest pruning saws

Silky Fox Saws

**Foxley Estate Office,
Mansel Lacy,
Hereford HR4 7HQ**

Tel: 01981 590224

Fax: 01981 590355

www.silkyfox.co.uk

WOODLAND MANAGEMENT

ABBNEY FORESTRY
WOODLAND MANAGEMENT BY QUALIFIED SPECIALISTS

- ▶ All aspects of woodland management and design
- ▶ Woodland creation, establishment and maintenance
- ▶ Timber harvesting and marketing
- ▶ Arboricultural surveys and assessments

Contact us today:

01386 554 027

office@abbneyforestry.co.uk

www.AbbneyForestry.co.uk

NET PRODUCTS

NET BAGS & BULK BAGS

for logs & kindling.
Plain or with printed band.
1 - 3 day delivery anywhere
in the UK. For the best
quality, service and prices!

Contact Ian or Robert.
Medallion Net Co Ltd,
Franciscan House,
Grove Lane, Elmswell,
Suffolk IP30 9HN

Freephone 0800 7834018

Telephone 01359 242910

Fax 01359 245264

www.medallionnet.co.uk

Email bsmith4uk@aol.com

CERTIFICATION

An independent FSC® &
PEFC Certified Forestry
Group Scheme

Providing UKWAS
certification to forest
owners throughout
the UK

The cost effective route to make certification work for you
Support, training, technical industry updates, trademark use



Paul Sandys: 07803 619249

Phil Webb: 07970 388940

ukfcg@hotmail.com

forestcertification.org.uk

*Make this
space work
for your
forestry
business*

**Call Laura on
01502
725 866**

unfogable mesh eye protection



www.meshsafetyglasses.co.uk

01254 377 467

FORESTRY & TIMBER

FORESTRY&TIMBER LIMITED

INDEPENDANT ADVICE

Purchasing | Selling | Managing | Investing?

- Woodland • Round & sawn timber
- Enterprise • Products

Director Mike Mann provides a one-to-one service:
based on 40 years experience across the industry.

Free initial telephone consultancy

Required now by client: 10,000ft³ good quality homegrown Oak sawlog

Contact: Mike Mann T: 01579 350 096 / 07436 282 700

E: mike.mann@crocadon.co.uk



SMALL WOODLAND OWNER PROFESSOR JULIAN EVANS OBE FICFor

More planting

Visitors to my wood often ask what new planting I'm doing, especially if I am talking about carrying out a thinning. The thinking goes: if trees are being felled then planting must follow. Of course, readers of this journal will know that is far from reality; thinning is a necessary operation to improve the stand as it grows and develops and to provide some income. But in view of the huge push to increase Britain's forest cover as part of our climate change response, what role can and should the small woodland owner play?

Ironically, filling in every open space in a woodland is one of the least good things to do for wildlife. As we've commented before, biodiversity thrives on diversity. It thrives where there's plenty of edge, glades, dappled shade beneath the canopy, over-mature trees, and dead wood on the ground and as snags (dead standing trees). So where might extra planting be done, assuming of course your small woodland is already reasonably well wooded? I think there are three situations to get us thinking.

Standards in coppice

Many woodlands have been managed as simple coppice such as hazel or chestnut in the lowlands and oak, once worked for tanbark, in the more hilly and mountainous western side of the British Isles. While most of the oak coppices will have become 'stored', ie allowed to grow on long past the coppice rotation age and effectively become high

forest, there are many neglected hazel coppices being worked again and chestnut cants cut regularly as simple coppice. Why not introduce standards by planting, say oak, when the next coppicing is done? Only a scattering is required, aiming to have a mature tree about every 20 m. While some loss of coppice productivity occurs more structure is added, large timber is grown, and the aesthetics will mostly improve – the whole stand will become more attractive for wildlife and for all of us to enjoy.

Diversify

Adding standards into coppice diversifies the woodland, but if your wood is a conifer block are there opportunities to plant some broadleaves? Space can be made when next thinning or planning a felling. Equally valuable will be to plant a few conifers in pure broadleaved woodland – as Confor's 'Biodiversity, forestry and wood' report last year illustrated – unless it's an ancient, semi-natural woodland site where exotics are best avoided. All such diversification increases resilience.

There is another dimension; new planting can introduce new species – what about yew, field maple, wild service or bird cherry – or planting to build resilience with walnuts, cedars and silver firs and other candidates for our future climate?

Advance regeneration

The third situation is when maturing woodland is coming up to final felling and regeneration. While



continuous cover principles make the old assumptions of felling and replanting less commonplace, is there room for advance planting of, say, a shade tolerant species such as beech or a silver fir? More generally, as one looks to the future, can planting now help smooth the transition from one stand to its successor? There are numerous variations on this theme, but let's keep them in the forefront of our minds.

None of the above will massively increase carbon storage by a woodland, but they will help and, at the same time, enrich one's patch. Many benefits flow from more diversity. As you read this, it'll be getting late for planting this spring, so let us plan for the autumn to play our part in the national programme to extend our forest cover and make our forests more resilient. Remember, when you plant a tree you are blessing the next generation.

Planting of oaks in a gap in hazel coppice, re-using old tree shelters, in the hope one will become a standard.

Stephen Cull
BLADEMASTER
"giving you the edge"



- Premium Quality Sawmill Blades for Lumbermate, Wood-Mizer, TimberKing and most makes of mobile sawmill
- Technical Advice
- Blade Sharpening
- Sawmill Training

T: 01348 873179
M: 07887 544333
E: sales@stephencullblademaster.com

buy blades online at www.stephencullblademaster.com



Caledonian Air Surveys Limited
Air survey photography and photogrammetry for forestry and land management



Ness Horizons Centre, Kintail House, Beechwood Business Park, Inverness IV2 3BW
Tel: 01463 732566
email: info@caledonianairsurveys.co.uk
www.caledonianairsurveys.co.uk



#Netzero visualised

A rare picture which brings together some of today's hot topics: from reaching #plantingtargets as part of our #netzero commitment, to an ongoing lockdown - with Scotland opting for the extreme measure of open-ended hotel quarantine for incoming or returning travellers. The growing forest and the grounded plane....#COP26

Photo by David Kovalenko on Unplash.

Text by Stef Kaiser

Want to see your picture here?

Forestry in Pictures is a regular feature in FTN. For every issue, we select the most impacting photograph sent by a reader. If you have a photo you would like to see published here, please send your file to Stefanie.kaiser@confor.org. Please include your name, brief description of yourself and the picture and a credit.

Photos should relate to forestry and timber and be of high-quality (minimum resolution 300dpi). Exceptional pictures might be considered for the front cover of a future FTN issue.

By submitting a picture to Forestry in Pictures you give Confor permission to use the file for non-commercial purposes in Forestry and Timber News or the Confor website. Photos will always be credited.

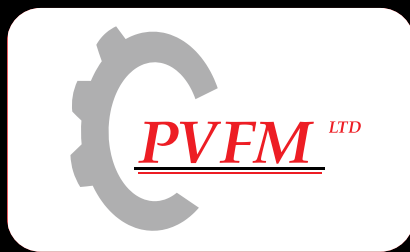
COMING UP IN JUNE 2021 - GET INVOLVED

In June, we will run our annual features on Woodfuel and on Innovation and Technology.

Remember that FTN is your magazine – get in touch if you want to suggest editorial or give us feedback on articles we have published in the past.

Confor members, send us your company's news updates or pitches for feature articles.

Note that our general editorial deadline for June is 10 May 2021. If you would like to pitch an article idea, please do so by the end of April.



Paul Vidgen

Forest Machines Ltd



Forest Keep, Watersplash Lane, Ascot, Berkshire, SL5 7QP

Tel: 01344 873499 Email: info@pvfm.co.uk Web: www.pvfm.co.uk



**Sole UK importers and
dealers for; AHWI/Prinoth,
Naturatec, Bruks Chippers,
Trevi Benne Forestry
Attachments, UOT
Scarifiers & Mounders,
King Kong Carbide
Tools**

**Dealers for; BerCon
Log Splitters, FTG
Baltic Trailers and
Cranes.**

JAS P WILSON

FOREST MACHINES

The one stop forestry shop!



Excavator Attachments and Forestry Guarding



QUALITY MACHINES, QUALITY SUPPORT.

Tractor Based Machinery and Forestry Guarding



www.jaspwilson.co.uk

Tel: 01556 612233 Email: info@jaspwilson.co.uk

