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The Biomass Connect Newsletter

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WELCOME

Welcome to the eighth edition of Connect, the Biomass Connect newsletter where we aim to keep you up to date with the latest news from the Biomass Feedstock Innovation (BFI) programme and biomass in the UK in general.

There is so much going on - reading this information is a great way to stay Connected!



GET IN TOUCH

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FOCUS ON INNOVATION – TEESDALE MOORLAND PROJECT

Not all of the projects funded by the BFI programme involve crops. The Teesdale Moorland Biomass project is led by North Pennines-based company Teesdale Environmental Consulting (TEC-Ltd) and involves finding markets for heather, an untapped biomass source that covers an estimated 1 million hectares of moorland in the UK and Ireland. A lot can happen in a three-year project. At the outset, the idea was to produce briquettes for domestic bio-heat production. However, the briquettes produced failed to meet the Ready to Burn standards and instead the project team refocussed their efforts on turning the material into a peat free compost replacement. The project has looked at three production methods:

- Thermophilic composting: A slow, traditional process with other feedstocks added to achieve the right carbon: nitrogen balance.
- Two means of rapid composting to produce ‘sterile’ material:
 - **Ompico Converter:** A large drum which turns and heats the heather at speed, breaking it down and extracting moisture within one to two hours.
 - **Biodigester:** uses heat and enzymes to create a compost-type product in around 24 hours.

Having produced compost, the team has embarked on horticultural trials, chemical analysis, economic assessment and yield assessments.

When the BFI funding concludes in March 2025, the project aims to have refined and entered its products into the horticultural market. It will have identified best practice for heather harvesting and processing and rolled out its yield assessment methodology for use across other moorland sites.

[Read more about the Teesdale Moorland project](#)

SOME RECENT REPORTS OF INTEREST

You’d be mistaken for thinking that the word biomass is synonymous with bioenergy – it’s not! There are plenty of other uses for fast growing and highly versatile biomass crops. A couple of new reports shed light on some fascinating possibilities:

- **Insights from the perennial green manures project**
This recent report looks at the potential for turning rapidly growing perennials, including alder and willow into different types of natural fertiliser. Intrigued? Find out more here: <https://www.biomassconnect.org/news/biomass-crops-as-fertilisers/>
- **Carbon for chemicals. How can biomass contribute to the defossilisation of the chemicals sector?**
Pretty much anything that can be produced from fossil fuels can be produced from biomass. A new [report](#) from the Supergen Bioenergy Hub and the Biomass Biorefinery Network outlines how the biomass sector is going to be key to the future production of the chemicals that underpin our everyday life.



August 2024
Biomass Connect
BioBio Oil Business
perennial manures team



DEMONSTRATOR SITES ROUND UP

OK, this year was not the barbecue summer we were all hoping for, but the mix of wet, warm and sunny spells was pretty good growing conditions for biomass crops.

As we always expected some of the biomass crop types are starting to race away and yield big at some sites whilst some are a bit slow out of the blocks at others. Also, we are seeing some nice trends in how the individual crops compare with each other in the North, South, East and West of the country.

Some crop types have failed, and others are flourishing. It's still early days, with the first planted crops now only 18 months old. Nevertheless, the promise of data, information and knowledge transfer possibilities from this trial platform is huge.



We don't want to blow our own trumpet (too much!) but no other country in the world has ever attempted to create such an elaborate network of trials with so many biomass crops – it is a genuinely world class resource!

Find out all the latest Demonstrator Hub site information here: <https://www.biomassconnect.org/news/demonstrator-hub-updates-november-2024/>

CASE STUDY: BIOMASS FOR A BRICKWORKS

Our latest [case study](#) features the planting of two varieties of black locust (*Robinia pseudoacacia*), a fast-growing tree species not normally cultivated in the UK. This pioneering trial is being undertaken on agricultural land owned by H.G. Matthews, a traditional brickmakers located in Buckinghamshire.

You can read this case study here: <https://www.biomassconnect.org/technical-articles/case-study-biomass-for-a-brickworks/>



THE BIOMASS CONNECT SHOWCASE – THE TOMORROW'S WORLD OF BIOMASS CROPS

The biomass crops industry was out in force at November's Biomass Showcase in Warwick. The well attended two-day event gave all the BFI programme projects a chance to showcase the innovations they have been developing over the last three years. It had a real buzz about it with speakers from DESNZ and invited international speakers from the US (See Tim Volk piece below) and Italy. In addition, Will Rowe, a second-year agricultural student from Berkshire College of Agriculture was a big hit with the audience in the panel session. Several interactive sessions kept delegates involved throughout including a chance to write a postcard from the future. One of many highlights was the grand unveiling of Jamie Rickerby's space age willow planting robot (developed through the Net Zero Willow project).

Read the full event review here: <https://www.biomassconnect.org/news/biomass-connect-showcase-event-harnessing-innovation-the-future-of-biomass/>



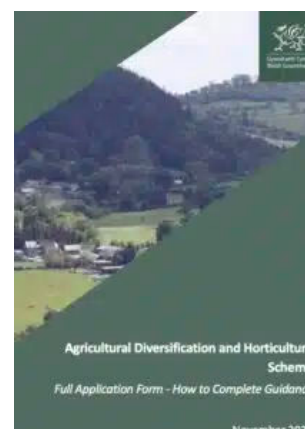
TIM VOLK ROAD TRIP

The Biomass Connect project is seeking to engage with scientists and practitioners beyond the UK. A very key contact is Professor Tim Volk from the State University of New York who has 30 years of experience in willow research. We invited him over to speak at the Biomass Connect showcase and took the opportunity to take him on a tour of the North of England and Northern Ireland. During his 10-day stay we were able to show him around our demonstrator sites and talk to and see innovations produced by the Net Zero Willow, Accelerated Willow Breeding Deployment (AWBD) and Envirocrops projects. Read more about the road trip here: <https://www.biomassconnect.org/news/a-biomass-crops-road-trip-with-professor-tim-volk/>



WELSH GRANT FUNDING

The Welsh Government has launched a new Agricultural Diversification and Horticulture Scheme designed to support farmers and land managers in diversifying their agricultural activities. This initiative provides significant opportunities for those interested in sustainable crop production, including biomass crops. The scheme's funding can cover essential costs such as purchasing equipment, establishing new crops, and improving infrastructure. Applications must be submitted by 17 January 2025. Find out more about the scheme and links to the application forms here: <https://www.biomassconnect.org/news/welsh-government-launches-agricultural-diversification-and-horticulture-scheme-with-support-for-biomass-crop-growers/>



BIOMASS CONNECT AUTUMN WEBINAR SERIES

Drum roll please.....Coming soon to your PC, laptop or tablet.....Season 3 of the Biomass Connect webinars!

Yep, full of great characters, lots of intrigue, the odd plot twist and a few big reveals the next series promises to be another spectacular. Here's what we have lined up for you:

- **Thurs 12th December at 4pm - Plan Bs – How to turn it around when something goes wrong**

When you are managing a perennial crop with a 20 year+ lifetime, it is unlikely that it will all be plain sailing. There's a lot that can go wrong: Weeds, rabbits, deer, pests, diseases, gappy crops, floods, droughts, changes in legislation, schemes and markets are all possible things that growers will have to face at one point or another. This webinar will provide some possible options to meet these challenges and get the most out of your crop. Any grower who's got a problem should tune in and ask the panel of "agony uncles" for advice.

- **Thurs 23rd January at 4pm - Tools for the Biomass Trade – Envirocrops and Farm Carbon Toolkit**

With modern day farming it's really important to have your finger on the pulse and get all the latest information so you can make the right decision for your land. In this webinar our expert panel will demonstrate how to get the best out of the Envirocrops and Farm Carbon Toolkit web apps to help you understand the highest yielding crop options, the income potential, the markets that are in your area, the suppliers you'll need, the carbon savings and more.

- **Thurs 13th February at 4pm - Harvesting your crop, everything you need to know**

The who, what, when, and how of harvesting. Of course, there is a theoretical optimum time to harvest your crop, but our maritime climate often puts a spanner in the works. This webinar will provide some insight into getting the best from your plantation – maximising yield, reducing cost, optimising your storage protocol, reducing impact on the soil and your surroundings.

Keep your eyes peeled on the [What's On](#) page for more details. A library of past webinars is available on our [New Media](#) pages.

IN CASE YOU MISSED IT!

The Biomass Connect website is a veritable conveyor belt of information! Here are a few other interesting things that if you blinked you may have missed:

Factsheets

We've created 9 factsheets with some nifty infographics covering topics as diverse as Miscanthus markets, Food versus Fuel, riparian buffer strips, soil carbon and hemp. Whether you are a farmer, a student or a policy maker, there is plenty here to feed your curiosity.

Case study video

Biofiltration blocks of Short Rotation Coppice at AFBI – In the last issue we published the case study report. If you don't have time for the long read then [watch this 2 minute video](#). Results suggest that willow buffer strips reduce phosphorus run off by 35% compared to grass controls. As Chris Johnston of AFBI modestly puts it "I think that's quite interesting"!

Upscaling UK Miscanthus Production - A factsheet



Upscaling UK Miscanthus Production - A factsheet.
Type: Factsheet
Author: Farnham and Spencer et al
Date: July 2014/2014
Crop: Miscanthus
Keywords:

Biomass Crop End Uses Factsheet



A declassified factsheet with infographics showing the end uses of biomass crops and their potential for CO2 removal.
Type: Factsheet
Author: Dr Maria Alejandra Kuepala & Dr Elinor Jansen
Date: July 2014
Crop: All crops
Keywords:

Willow – Crop Information Factsheet



Willow as a biomass crop - All the information in an easy-to-read Factsheet.
Type: Factsheet
Author: Dr Maria Alejandra Kuepala and Ken H. Lindgreen
Date: 27th August 2015 (Revised 30th August 2016)
Crop: Willow
Keywords: Willow



ENVIROCROPS GOING GLOBAL

Tim Volk's bid for the US DoE funding has been successful - so that means (contract negotiations pending) that there will be a mini version of the Biomass Feedstocks Innovation project **Enviro-crops** in the United States. Watch this space for more updates.

HAVE YOUR SAY

We would like to hear from you.

Are there topics you would like to find out more about, be that biomass crops, supply chains (e.g., production, harvesting, storage, processing, or markets), or particular case studies or technical articles that would help you with your project or help you make an informed decision? Please let us know.

In addition, if you have a great project that you would like us to feature that helps others follow in your footsteps, we'd love to hear from you!

[Please contact us here](#)

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