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The Biomass Connect
Newsletter

Issue 1
December 2022

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WELCOME

Welcome to the inaugural Biomass Connect newsletter!

In this bi-annual periodical we aim to bring you updates of project activities, details of the latest events, and news from across the [Biomass Feedstocks Innovation program](#) and the wider biomass industry.

Please also remember to follow our social media accounts and to keep your eyes on the main [Biomass Connect website](#) for the latest updates!

On the website you can also find out more about the 11 other projects funded by the BFI programme, which provide innovative ways to meet the necessary up-scaling to achieve the net zero challenge.

From Issue 2 we are going to focus on a different project and give the latest news and sneak previews! Watch this space.

GET IN TOUCH

E: info@biomassconnect.org
W: www.biomassconnect.org

Stop Press: Update on the Biomass Strategy

The Government has committed to publishing its Biomass Strategy in Q2 2023. The Strategy will review the amount of sustainable biomass available to the UK and how this resource could be best utilised across the economy to help achieve the government's net zero and wider environmental commitments while also supporting energy security.

Please ensure you are signed up to our social feeds to get the latest updates on this eagerly anticipated initiative!



WEBINARS

Throughout the project we will be hosting a series of webinars on all aspects of the planning, management and use of biomass crops. These will be facilitated by Kevin Lindegaard of [Crops for Energy](#). Each webinar will include two key industry players who will present up-to-date information on economics, logistics and markets.

The webinars can be livestreamed or viewed as a video after the event. You will be able to post your questions in the chat function during the webinar.

We are kicking off the series with the following two webinars:

Webinar 1

Land preparation - starting off on the right foot
Online event 15 Dec 2022 at 16:30

Ensuring that your land is prepared to a high standard is absolutely critical if you are to ensure long term success of your biomass crop. When you plant you are making a 20-year decision. It is important to avoid haste, and to ensure proper implementation. This could otherwise lead to poor establishment, gappy plots, lost yield and reduced income.

This webinar will provide the necessary 'need-to-know' information on what to do when, to ensure success during the establishment phase.

The expert panellists will be Mike Cooper of [Miscanthus Nursery](#) and Neil Watkins of [Energy Crops Consultancy](#).

Webinar 2

Emerging markets for biomass crops
Online 19 Jan 2023 at 16:30

Perennial crops like willow, miscanthus and poplar were once simply termed energy crops. This is no longer the case. The versatility, quick growth and high yields means that these crops are now being considered for all sorts of other uses including pharmaceuticals, bio-packaging, bio composites, fodders and forages and biochar. R&D efforts are also pushing the potential for cascading several uses for different components of the same crop - the so called biorefinery approach. These are really exciting times for biomass.

The expert panellists will be JJ Leahy of the [University of Limerick](#) and William Cracroft-Eley of [Terravesta](#).

Multiple Uses for Willow

A European funded project called [Biowill](#) is looking at the possibility of creating an integrated zero waste biorefinery using willow biomass. Humans have utilised the multifunctionality of the genus *Salix* for millennia, but this project is aiming to look at ways that the versatility of willow can be harnessed on a commercial scale by producing pharmaceuticals for skin creams, bio packaging for food containers and energy from biogas production.



Ultimately it is hoped that this approach will increase land resource efficiency, increase farmer revenue, and enable the

Currently most biomass crops are simply sold as feedstocks for bioenergy. This is an efficient use of land with 1 unit of energy in leading to 20 units of energy out. However, this could be increased still further, and the project is looking at ways that farmers might be able to compartmentalise and valorise different parts of the biomass and therefore get much more out of the crop.

production of low carbon, zero waste products.

The Biowill team have recently published a paper in the journal *Industrial Crops and Products: A review of Willow (Salix spp.) as an integrated biorefinery feedstock*

NEWS IN BRIEF



Carbon Balance Animation

Our colleagues at the Supergen Bioenergy Hub have produced a useful [animation](#) on how bioenergy can reduce carbon emissions and promote sustainable forest management.



Designing and managing forests and woodlands to reduce flood risk – New Forestry Standard Practice Guide available

Forest Research have produced a new in depth [48 page guide](#) on how to plant woodland trees for reducing flood risk. Although not aimed at the biomass sector it does mention the potential role for biomass crops in a section about planting within a catchment, outside of riparian zones and active floodplains. It states: “For delivering a quicker effect, plant faster growing species, including under a Short Rotation Coppice and Short Rotation Forestry system”.



Over 550 scientists back bioenergy as part of “climate smart” forest management

A new letter, signed by over 550 scientists, indicates broad scientific support for forestry and bioenergy in light of the increasing threat to forests from climate change. The letter calls for “climate smart” forest management to reduce risks to forests through the proper management and use of biomass products. The letter emphasises that with proper management and use of wood products, forests have the capacity to mitigate climate change and increase biodiversity whilst supporting a wider bioeconomy and renewable energy supply.

[More Information](#)



GROWERS' STORIES

Richard Meredith Hardy, based in Radwell near Baldock, Hertfordshire.

The following video was filmed on 28 Nov 2022, just 6 months after planting

[Watch the video here.](#)

- Planted 1.66 hectares of SRC willow in mid May 2022.
- Planted 7 SRC varieties Advance, Endeavour, Endurance, Meteor, Paramore, Resolution and Terra Nova sourced from [Crops for Energy](#).
- The planting contractor was [Willow Energy](#).
- The farm has a 100kW Guntamatic boiler and the aim is to produce a proportion (~33%) of the annual woodfuel requirements.
- The fields used were former pasture with lime-rich loamy and clayey soils with impeded drainage.
- Despite good preparation, the crop was planted later than ideal and then had a very challenging summer with virtually no rain. Despite this, the crop has established well and is over 7 feet tall in places. There are some weed problems (which is typical for planting into former grassland). Rabbits have been kept away with electric fencing.
- The intention is to cut the crop manually, dry it as rods and then chip once they have dried down to 30% moisture. Despite the labour and handling involved, it should be possible to produce woodfuel for 2 pence per kilowatt hour, a big saving compared to the current cost of roundwood chip.

MISCANTHUS IN THE MEDIA

Planting biomass crops is at long last getting more mainstream exposure in the media. In the last few weeks alone miscanthus has been featured on Countryfile, BBC Farming Today and The Archers!

You can watch/listen at the following links:

- [Countryfile: Harvest](#) 9 Oct 2022 (from 15 minutes in)
- [Farming Today Growing biomass for energy](#) 10 Nov 2022 (from the beginning of the programme)
- [The Archers](#) 24 Nov 2022 (from 7 minutes in)

In The Archers - Stella, the manager of Home Farm describes her desire to use miscanthus on their arable farm as a way of “balancing things with our environmental responsibilities” and adds that miscanthus is“a wonder crop. Efficient, cheap to grow and a rooting system that provides great protection against soil erosion”.

[Terravesta](#), who are leading on one of the BFI innovation projects have been heavily involved in getting the crop noticed - well done!

DATES FOR YOUR DIARY



EnviroCrops Farm Walks

The EnviroCrops project is hosting two farm walks in December:

13 Dec 2022 1100-1400 at Miscanthus Nursery, Taunton led by Mike Cooper

15 Dec 2022 1100-1400 at Willow Energy, Carlisle led by Jamie Rickerby

To sign up for either of these farm walks please state your name and contact number with the farm walk you are interested in in the header of the email to info@nfuenergy.co.uk and sign up by no later than Friday 9th December.

[For more information click here.](#)

If you want to find out more about Biomass Connect and meet some of the project team then please come and say hello at the Low Carbon Agriculture Show which is being held on 7 - 8 February 2023 NAEC, Stoneleigh. We will have a stand and be presenting an overview of the project.

Check our online calendar for more details of these and other events:

What's On

If you have an event that should be on the calendar then please let us know.

Low Carbon Agriculture 2023



Low Carbon Agricultural Show

7th-8th February 2023

Low Carbon Agriculture 2023 is a vibrant business event for forward-thinking farmers, landowners and industry operators. The event will explore ways to address climate change through the generation of renewable energy, the implementation of low carbon technology and best practice in both carbon and environmental land management.

Industry figures will provide insight and practical guidance on achieving Net Zero and creating a profitable and sustainable future for agricultural and rural communities.

DEMO EVENT



Biomass Harvesting & Utilisation

Demonstration event Bio Global Industries Ltd. Chesham, Bucks 22nd March 2023

Come and join us for an afternoon learning about biomass crop harvesting and harvested material utilisation at Biomass Connect partner [Bio Global Industries Ltd.](#)

The event will focus on harvesting approaches and the use of harvested material once collected, including potential as a biomass fuel and as a source of alternative/novel materials.

Technical Articles

Biomass Connect | Connect Issue 1 5
A quick round-up of the latest technical articles published on the **Biomass Connect** website.

Small-scale forestry for bioenergy consumption - Part I: Important tree species for consideration



Here we explore the further potential for trees and hedgerows concerning bioenergy production. This article discusses a selection from the wide range of tree species often cultivated in agroforestry for biomass..

[Read Article](#)

Small-scale forestry for bioenergy consumption - Part II: Forestry management



In this article we will explore the further potential for trees and hedgerows, and planting and management methods that could be utilised, when considering woodland creation for bioenergy production.

[Read Article](#)

Small-scale forestry for bioenergy consumption - Part III: Biomass production and incentives



In this article we will explore the further potential for trees and hedgerows in bioenergy production. Parts 1 and 2 covered potential tree species and management techniques, whereas here, part 3 will discuss forestry in terms of biomass.

[Read Article](#)

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