

The Bioeconomy Consultants



News Review

Issue Seventy-One

February 2018

Each month we review the latest news and select key announcements and commentary on feedstocks used in the bioeconomy.



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Foreword

Welcome, subscribers, to February's Feedstocks News Review.

We've talked on many an occasion about the need for robust management practices in order for the bioeconomy to be provided with the required level of feedstock. Usually, this management takes place on a relatively small scale: each individual forest is managed to sustainably provide the greatest amount of woody biomass, while crop fields are likewise planted in order to give the maximum return based on an understanding of crop response to key inputs. However, switching to new crops can be an expensive undertaking, and thus plenty of research and information is required beforehand to ensure that the right crops are being grown in the best locations.

With that in mind, there is some interesting new research from the University of Illinois. Along with many collaborators, they have sought to "map" the best energy crops geographically across the USA. The focus has been on which energy crop has highest yields in each area's given conditions. This has resulted in a "map" of the most suitable energy crops. The ones considered are switchgrass, sorghum, energycane, Miscanthus, and so-called "prairie mixtures", and no individual crop dominates across the US. Such resources help to target individual feedstock to areas offering the most promising yields and also indicate the factors likely to influence yield that could be the subject of further research and development to benefit the bioeconomy.

Elsewhere, there has been research into the greenhouse gas emission levels associated with growing rapeseed for biofuels in Germany. The intention behind the study was to determine if existing models of emissions from growing rapeseed were actually reflective of the real effects. A significant part of rapeseed's GHG emissions arise from Nitrous Oxide emissions from soil following fertiliser addition, but the authors claim the accepted models take insufficient account of the amount of fertiliser used in practice, and over estimate the amount of N₂O emitted per unit of fertiliser. This only results in a slight reduction in the calculated N₂O emissions, but when upscaled to the level of rapeseed farming in Germany, it amounts to a significant reduction in N₂O emissions. The researchers believe that this could be significant in allowing for an increase in rapeseed yields in Germany without compromising indirect environmental effects or compromising on GHG savings required to meet German biofuel sustainability requirements

Read on for the latest news.

Policy

Consumer demand will drive packaging to renewable feedstocks – EU chemical sector needs to take note



Max Pixel

Although 2050 seems a long way off, in terms of the chemical industry's investment cycle – where large capital investment produces assets that endure for decades – it should be on the horizon.

By then, according to the EU's 2050 vision, the EU will have an "innovative, circular economy where nothing is wasted and where natural resources are managed sustainably."

This long-term objective is driving current and future legislation including the objective, unveiled in January, of making all plastic packaging recyclable by 2030.

However, the implications of developing a truly circular economy go way beyond this to challenge the fundamentals underlying the petrochemical industry, namely its use of fossil fuel-derived feedstocks, according to consultants at PwC.

For an industry that currently relies in 90% of cases on oil or gas-derived feedstocks there will

be huge challenges ahead if customers, regulators and shareholders push this agenda hard.

A circular economy runs on renewable energy, biomass and smart usage of finite resources, but at present most of the chemicals industry is taking only modest steps in this direction, rather than re-examining core growth strategies with this in mind.

At the 2018 World Economic Forum (WEF) in Davos, Switzerland, 11 global companies pledged to work towards 100% recyclable or compostable packaging by 2025.

Chemical companies that can react quickly, adjust business strategies and cooperate with partners up and down supply chains will emerge as the winners. On the global scale, regulators in China and many other countries – with the exception of the US – are moving in the same direction as the EU.

Click [here](#) for more information.

ADBA welcomes UK soil health plan

The Anaerobic Digestion & Bioresources Association (ADBA) has welcomed a target for soils in England to be managed sustainably by 2030, saying AD can help achieve this objective with support from government.

The 25-year environment plan, published by the Department for Environment, Food and Rural Affairs (Defra), calls for "good nutrient management practices" in soil management and pledges to create "meaningful metrics" to assess soil improvements and "develop cost-effective and innovative ways to monitor soil at farm and national level". The AD industry can assist the management of soils by producing low-emission biofertiliser.

Despite the environment plan covering resource efficiency and waste, there were no new commitments on separate food waste collections, which as many as half of local authorities in England still do not offer to residents. AD plants recycle unavoidable and inedible food waste into renewable heat and power, low-carbon transport fuel, and biofertiliser, and have the potential to meet 30 percent of the UK's domestic gas or electricity demand. Evidence from Wales, Scotland, and Northern Ireland, which all have mandatory food waste collections, also shows that households and businesses that separate food waste tend to produce less waste due to greater awareness.

Click [here](#) for more information.

Markets

Global wheat stocks expected to drop

AHDB reports on the latest International Grain Council (IGC) report released on 18 January, in which a 2% fall in world wheat production was projected for 2018/19, to 742Mt. Given likely firm demand, the first drawdown of stocks is predicted since 2012/13.

In separate news, UK wheat exports (September – November) totalled 158Kt, down 71% on the same period last year and the smallest volume since 2013. The low export volumes observed are a reflection of the tighter supply seen in the UK this year. In contrast, UK maize imports (July–November) are the highest on records back to 1992/93, driven in part by an increased demand from the animal feed sector.

Click [here](#) for more information.



Pexels

Developing the Canadian cannabis value chain

With sweeping legislation aimed to come into play in July 2018, fulfilling an election promise by Prime Minister Justin Trudeau, Canada will be the first large industrialized nation with a broad system permitting recreational as well as medical use of marijuana. The real opportunity is about understanding the entire cannabis value chain, from crop science to health research and all the high-value product development opportunities along the way.

One region that plans to take advantage is the province of New Brunswick. With the premier stating that New Brunswick will build a “best-in-class” hub of infrastructure and research clusters to attract new investment, New Brunswick is receiving strong support from its provincial leaders and has task forces dedicated to supporting the entire value chain. Most notable is the team dedicated to mapping private and provincial land as well as indoor growing facilities. This initiative dovetails into the province's recent broad Cannabis Strategy, which was released in June of 2017. New Brunswick is intent on de-risking investments for producer groups and transformational technologies while helping to develop new target markets and ensuring ongoing economic benefit to the province and the region.

A strategic R&D focus on cannabis has been established. At l'Université de Moncton researchers are working on the biology of the cannabis plant. At le Collège Communautaire du Nouveau-Brunswick a training program on cannabis cultivation has been established to ensure these new companies have trained employees and provide job opportunities across the province. It will also serve to create innovation in the sector by linking small-scale entrepreneurship to educational programs and building a hub of infrastructure and research clusters to attract investment.

Click [here](#) for more information.



Max Pixel

Carillion collapse raises fears for waste sector SMEs

There are major concerns that the collapse of the giant support services business Carillion in the UK will leave some SMEs in the waste sector struggling to recover.

Jenny Watts, chief executive of waste industry trade body UROC, told letsrecycle.com that she fears its demise may be the "make or break" for many small and medium sized businesses (SMEs).

Concerns have been raised over the fate of smaller waste businesses after the collapse of Carillion.

However, larger national waste management companies seem unperturbed by the announcement with the Environmental Services Association (ESA) taking the opportunity to promote the role of the private sector.

Click [here](#) for more information.

Changes to WRAP will see job losses

The Chief Executive of the UK's WRAP has announced proposals to make fundamental changes to the organisation. The changes will ensure WRAP can continue to drive sustainable production and consumption in the UK and globally, and remain financially stable.

Successive reductions in government funding along with challenges in diversifying its revenue streams mean WRAP needs to cut fixed costs to offset the significant drop in income it has faced since 2015. Subject to consultation with staff that is now under way, this is anticipated to lead regrettably to the loss of around 25 members of staff.

Click [here](#) for more information.

Research & Development

Mapping the most suitable energy crops across the US



Wikimedia Commons

Biomass magazine reports on work reported by the University of Illinois, from a coalition of 26 institutions, that sought to map the best biomass option to different areas of the US, drawing on field research into biomass yields.

The team has also examined the biomass potential of 'prairie mixtures', a mix of grasses and native wildflowers sown (with some public support) as a soil conservation measure in the Conservation Reserve Programme (CRP).

They evaluated the bioenergy potential of switchgrass, Miscanthus, sorghum, energycane, and prairie mixtures in long-term trials spanning a wide geographical area. Due to shortages in plant materials, Miscanthus and energycane were grown on smaller plots than the other crops, but researchers say the new results are still valuable for producers.

Crops were grown for five to seven years in multiple locations and with varying levels of nitrogen fertilizer. Although most of the crops are

known to tolerate poor soil quality, the researchers found that they all benefitted from at least some nitrogen under US conditions.

No one feedstock "won" across the board. Instead of highlighting specific yields obtained in good years or locations, a group of statisticians used field-based yield and environmental data to create maps of yield potential for the five crops across the U.S.

The greatest yield potentials for lowland switchgrass varieties are in the lower Mississippi valley and the Gulf coast states, whereas Miscanthus and prairie mixture yields are likely to be greatest in the upper Midwest.

A wider concern is that CRP enrolment is shrinking. CRP area has declined from 36 million acres nationwide. Now we're down to 26 million as farmers feel they can make more money from row crops. Biomass could provide revenue for farmers, if they were allowed to harvest it while also protecting the soil from erosion.

Energycane could reach very high yields, but in a relatively limited portion of the country. However, the crop that shows the highest potential yields in the greatest number of locations is sorghum. The annual crop is highly adaptable to various conditions and might be easier for farmers to work with.

Click [here](#) for more information.

IEA explores climate benefits of woody biomass

IEA Bioenergy has produced a brief on the question 'Is energy from woody biomass positive for the climate?'

The brief provides background and a number of concise arguments on this question. Overall, energy from woody biomass can be very positive for the climate, particularly when applying sustainable forest management practices, and when the biomass is used efficiently (such as in combined heat and power plants and biorefineries).

Considering the crucial role of forests to the climate and many other ecosystem services, sustainable forest management is key to maintaining healthy and productive forests, and for controlling harvest levels so as to maintain or increase carbon stocks in forests. Within this overall framework, efforts to increase global forest area through reforestation and afforestation, and management strategies aimed at maintaining or increasing carbon stocks, while also producing an annual sustained yield of timber, fibre and energy from forests are very important for climate change mitigation; these strategies contribute to replacing carbon-intensive materials and fossil fuels, which is crucial in future decarbonisation strategies.

Most woody biomass sourced for energy is a by-product or residue of forestry operations and forest industry. It is not recommended to use long-rotation high quality stemwood for energy or cutting entire forests to generate bioenergy. Nevertheless, lower-value roundwood from short rotation forestry, thinnings, diseased or low-quality trees should not be excluded.

Click [here](#) for more information.

New Canadian pilot plant to develop wood-based chemicals

FPInnovations and Resolute Forest Products have announced a significant investment in the implementation of a TMP-Bio pilot project in Thunder Bay, Ontario. The pilot project will focus on developing new ways to efficiently produce and commercialize innovative bio-chemicals derived from wood, contributing to the development of a bio-economy in Northern Ontario, as well as elsewhere in Canada.

The \$21 million project is part of an initiative to renew and transform the forest products industry, building on investments made in 2012 by Resolute, the Ontario Centre for Research and Innovation in the Bio-Economy (CRIBE), and Natural Resources Canada. This investment covers cost of capital and R&D and has the support of the Northern Ontario Heritage Fund Corporation (NOHFC), CRIBE, FedNor, the City of Thunder Bay CEDC and Natural Resources Canada.

Resolute is contributing \$3.5 million and hosting the pilot project at its Thunder Bay pulp and paper mill. TMP-Bio is a patented technology developed by FPInnovations with financial support from Natural Resources Canada's Transformative Technologies Program.

This project comes at a very opportune time as market interest for sustainably sourced green bio-chemicals and bio-fuels continues to build. The development and availability in significant quantities of bio-sourced chemicals, such as the cellulosic sugars and high-quality H-lignin produced by the TMP-Bio process, is a key step in growing new market value for the forest products sector by connecting it to the bio-chemical supply chain.

Click [here](#) for more information.

Myanmar businesses seek to use rice husks as biomass



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Some Myanmar businesses are hoping to receive technical and financial support from the government to convert rice husks into biomass products for export purposes. Rice husks are the hard protecting layers covering each grain of rice.

These are discarded during the rice milling process and can be converted into building materials, fertilisers, insulation material or fuel.

The Myanmar Rice Federation said companies involved in the rice husk-to-fuel conversion business, would be eligible to apply for small and medium enterprise (SME) loans to fund expansion. Workshops will also be conducted to train businesses on technique and know-how on converting rice husks to bio mass fuels.

Click [here](#) for more information.

Funding opportunity for biomass feedstock genomics research

The USDA and U.S. Department of Energy have opened a funding opportunity that aims to support genomics-based research to improve biomass and plant feedstock for the production of biofuels and biochemicals.

Selected research projects would aim to overcome biological barriers, such as resistance and tolerance to disease and weather. The projects could also support the low-cost, high-quality, scalable and sustainable production of dedicated bioenergy biomass feedstocks using the tools of genetics and genomics.

The USDA's National Institute of Food and Agricultural Research, in partnership with the DOE's Office of Biological and Environmental Research, are jointly supporting the effort, with NIFA's support funded through the Agriculture and Food Research Initiative, which aims to address challenges in food and agricultural sciences through research, extension and education.

There is up to \$6 million in funding available, with individual awards expected to range between \$200,000 and \$400,000. Additional information is available on the NIFA website.

Click [here](#) for more information.

M&S to pursue biobased recyclable packaging

Packaging news reports from the European Bioplastics conference in Berlin, where M&S food packaging technologist Kevin Vyse confirmed the importance of bio-based materials delivering a sustainable retail environment.

In a Q&A session, Vyse reports; "We've made two commitments: one is to be 100% widely recycled by 2022; and the other to have a strategy in place for the use of just one plastics polymer by 2025."

"Most of the industry wants a joined-up policy across the UK. Collaboration with others to bring about changes in local government recycling policy is vital, such as a single policy on collection. Meanwhile, we're the only retailer, as far as I'm aware, that's part of the CEFLEX project that brings together a wider group of people and interests from around Europe on a quarterly basis to discuss how we're going to make flexible films fully recyclable. Over 70% of the materials in use in the flexibles sector can be technically recycled right now if there was a facility for it. The other 30% is multi-layers; we're going to have to work hard on what comes next with those."

"We've set a goal to be a zero-waste business across all that we do – our operation, our supply chains and of course when our customers come to remove packaging and use our products. This includes designing packaging that underpins the creation of a circular economy; that's why we're looking seriously at how we can use bio-based sourced feedstock with this programme."

Click [here](#) for more information.

Wood & Crop

German rapeseed emissions lower than touted



Pexels

In work funded by the German Federal Ministry of Food and Agriculture through the Agency for Renewable Resources, a network of eight partners, coordinated by the Thünen Institute of Climate-Smart Agriculture, investigated greenhouse gas emissions from the cultivation of rapeseed. The aim was to find out whether the emissions in the framework of climate protection agreements are estimated realistically for Germany. The result of the project identified that the nitrous oxide emission factor for GHG accounting in rapeseed is too high for German conditions.

Biodiesel and other biofuels must save at least 60% (old plants: 50%) of GHG emissions compared to fossil fuels as of 1.1.2018. For the GHG balance, biofuel manufacturers can use EU Renewable Energy Directive (EU) default values or regionalized information on resources such as fertilizer and fuel. The studies by the TI project team have now demonstrated that these values are unrealistic for Germany. The estimated amount of nitrogen fertilizer is too low, and the nitrous oxide emission factor is too high: Instead of the assumed 34 kg nitrogen per tonne of rapeseed, 50 to 56 kg nitrogen per tonne of rapeseed are

common practice. The N₂O emission factor is not 1.0 percent, but only 0.6 percent of applied nitrogen fertilizer. The scientists come to this conclusion by applying a new, more differentiated methodology according to Stehfest & Bouwman (2006). They call for future use of this approach with realistic values so that the GHG balance of rapeseed biodiesel is not estimated to be worse than it actually is.

The researchers were able to show that in German commercial farming the rapeseed/wheat crop rotation compared to wheat/wheat saves an average of about 5 kg N/ha fertilization in wheat cultivation, and, despite this, a wheat yield increase of 5.6 dt/ha can be achieved. This pre-crop effect should be credited to the rapeseed. In general, a more holistic assessment, which looks at the entire crop rotation, is needed.

Click [here](#) for more information.

Alkol Biotech to supply feedstocks to Europe's "largest" biorefinery

Alkol Biotech and Bio Refinery Development have signed a letter of intent (LOI) for the sourcing of up to 500 thousand tonnes of non-woody lignocellulosic biomass for what would be Europe's 'largest' biorefinery.

Alkol Biotech a UK based company focusses on the development of sustainable feedstocks to feed the new biobased economy. The company adapts plant varieties to grow in colder and drier climates, offering better resistance to pests and diseases, and higher productivities. Its first crop is EUenergyCane, currently the only sugarcane variety native to Europe and able to grow in cold regions. it is a hybrid of native cultivars grown in Europe for over 200 years.

Bio Refinery Development (BRD), also known as BioForever, is a 14-company consortium in Europe which aims to build a biorefinery to produce a number of products normally sourced from oil.

The LOI will see Alkol Biotech provide up to 500 thousand tonnes of non-woody biomass to BRD, from its production regions in Spain and Portugal to the port where the biorefinery will eventually be built. The biomass will be supplied at a maximum price of 70 euros per tonne on a dry mass basis.

As part of the deal, the future biorefinery will be committed to purchasing the biomass for the next ten years with automatic renewal. Once the final decision is made on whether to build the biorefinery or not, the LOI will become a supply contract under the same terms.

Click [here](#) for more information.

Long term prospects of Michigan forest biomass



Pixabay

Forest biomass is an important resource for producing bioenergy and reducing greenhouse gas (GHG) emissions. The State of Michigan in the United States (U.S.) is one region recognized for its high potential of supplying forest biomass; however, the long-term availability of timber harvests and the associated harvest residues from

this area has not been fully explored. In this study time trend analyses were employed for long term timber assessment and developed mathematical models for harvest residue estimation, as well as the implications of use for ethanol. The GHG savings potential of ethanol over gasoline was also modelled. The methods were applied in Michigan under scenarios of different harvest solutions, harvest types, transportation distances, conversion technologies, and higher heating values over a 50-year period. The results indicate that the study region has the potential to supply 0.75–1.4 Megatonnes (Mt) dry timber annually, with less than 0.05 Mt of dry residue harvested. This amount of forest biomass could generate 0.15–1.01 Mt of ethanol, which contains 0.68–17.32 GJ of energy. The substitution of ethanol for gasoline as transportation fuel has potential to reduce emissions by 0.043–1.09 Mt CO₂eq annually.

Click [here](#) for more information.

UPM's Brassica earns RSB certification

UPM Biofuels has received a sustainability certificate for the cultivation of the brassica carinata crop—a new feedstock for biofuel production—in Uruguay. The Roundtable on Sustainable Biomaterials certification in biofuel feedstock production complements UPM Biofuels' existing sustainability certifications, including International Sustainability and Carbon Certification and RSB certifications for its UPM BioVerno biofuel production.

RSB is one of the European Commission's approved voluntary schemes, which can be used to show compliance with the EU Renewable Energy Directive's sustainability criteria. In addition to EU RED criteria, the sustainability of biofuels is evaluated against 12 principles which have been approved by a wide variety of

stakeholders, including NGOs and UN agencies. In addition to greenhouse gas savings compared to fossil fuels, RSB principles cover biodiversity, human rights and environmental and social responsibility throughout the value chain.

Brassica carinata is an oilseed crop well suited for sustainable production of biofuels. UPM Biofuels has been developing and testing a new type of biofuel feedstock concept by growing brassica carinata as a secondary crop in South America. The crop works well in the climatic and agricultural conditions of Uruguay and has been tested by local farmers. Brassica carinata cultivation adds value to their use of existing agricultural land as it will be used productively also in winter.

Click [here](#) for more information.



Flickr

Latest Enviva Track & Trace statistics

Enviva, the world's largest producer of industrial wood pellets, has released its latest Track & Trace sourcing data, marking one year of public reporting and two years of tracking the company's sustainable sourcing practices.

Before selling wood to Enviva, a supplier must provide detailed data on the specific forest tract being considered for harvest, including each individual tract's precise geographic location, acreage, forest type, species mix, age and the share of wood from each harvest earmarked for Enviva versus other consumers. Enviva does not accept any wood from a harvest without this information, and Enviva records the data and verifies the accuracy of its procedures through third-party audits.

The latest dataset shows that Enviva sourced wood from 1,183 working forest harvests in 77 counties and in 5 South-eastern states over the six-month period ending in September 2017. The forests in the Southeast continue to grow and thrive, with the total amount of forested land in Enviva's primary supply area increasing by 320,842 acres from 2011 through 2015, according to the U.S. Forest Service. Inventory in that area has grown by 10 percent during the same time period and continues to increase as forests grow at a faster rate than they are harvested.

Click [here](#) for more information.

Events

ECO-BIO 2018

Dublin, 4th-7th March 2018

ECO-BIO 2018 will highlight the latest research and innovation towards developing industrially viable, safe and ecologically friendly biobased solutions to build a sustainable society.

A topical and comprehensive programme will include plenary and invited speakers, forum discussions, contributed oral presentations, a large poster session and exhibition.

The conference will bring together all concerned with the biobased economy to review industrial, academic, environment and societal approaches, discuss the latest research and progress, and encourage new research partnerships to enable new cascaded biobased value chains.

Click [here](#) for more information.

2nd International Conference on Marine Biomass as Renewable Energy

Glasgow, 5th-6th March 2018

One source of biofuels has been identified as marine biomass or marine algae. Many researchers are working on the feasibility of using algae as a feedstock for producing bio-fuels.

The conference aims to explore the challenges and opportunities in the area of marine algae as a source of biofuel. It will highlight the recent developments in research areas such as cultivation of marine algae and research & development of algal—biofuel production.

Click [here](#) for more information.

World Bio Markets Amsterdam, 20th-22nd March 2018

With governments committed to reducing emissions and consumers becoming more educated about where their products come from, there are opportunities for the bio-based sector to become a true contender to fossil oil. Yet long development times, lack of investment, and challenges in attaining a secure and sustainable supply chain have made it difficult for the bio-economy to achieve commercial success.

This event provides a platform for the entire global value chain, from feedstock producers to consumer brands, to work together to overcome these challenges.

Click [here](#) for more information.

Global Bioeconomy Summit Berlin, 19th-20th April 2018

The first Global Bioeconomy Summit was held in 2015 and brought together more than 700 bioeconomy stakeholders from over 80 countries. Since then, Bioeconomy has taken a steep and exciting way forward. Many notable initiatives and collaborative efforts have been initiated by the bioeconomy community in order to drive the development of sustainable bioeconomies in their countries and regions.

The 2nd GBS will focus on emerging concepts and future trends in bioeconomy, the latest on challenges and opportunities related to ecosystems, climate action and sustainable development along with the bioeconomy innovation agendas and global governance initiatives to manage them.

Click [here](#) for more information.

International Conference on Bio-based Materials Köln, 15th-16th May 2018

The 11th International Conference on Bio-based Materials is aimed at providing international major players from the bio-based building blocks, polymers and industrial biotechnology industries with an opportunity to present and discuss their latest developments and strategies.

Click [here](#) for more information.

EUBCE 2018

Copenhagen, 14th-18th May 2018

We look forward to the 26th EUBCE in 2018 in Denmark and to the many vibrant topics that will be included in the agenda. The core of the traditional EUBCE conference will be held over 4 days.

There will however be an extension to the core conference and exhibition in order to showcase the many achievements in the field of full scale biomass utilisation in Denmark that are an integral and major part of the country becoming fossil-free by 2050. Members of the national organising committee will organise special technical visits to sites in the centre of the country where biomass is the key renewable feedstock into processes producing renewable energy, biofuels, biochemicals and biomaterials as well as integrating bioproducts into traditional established fossil-based systems.

Click [here](#) for more information.

RRB 14

Ghent, 30th May - 1st June 2018

The 14th edition of the International Conference on Renewable Resources & Biorefineries will take place in Ghent, Belgium from Wednesday 30 May until Friday 1 June 2018. Based on the previous RRB conferences, this conference is expected to welcome about 350 international participants from over 30 countries.

The conference will provide a forum for leading political, corporate, academic and financial people to discuss recent developments and set up collaborations.

The three-day international conference will consist of plenary lectures, oral presentations, poster sessions and an exhibition. Companies and research organizations are offered the opportunity to organize a satellite symposium.

Click [here](#) for more information.

International Conference of the European Industrial Hemp Association Köln, 12th-13th June 2018

Specialists from all over the world will meet in order to exchange information regarding the latest developments in hemp applications for fibres, shivs, seeds and oil as well as cannabinoids. Applications are biocomposites in automotive and construction, textiles, food, food supplements and pharmaceuticals. We are expecting again more than 300 international participants from more than 40 countries – we are looking forward to the biggest event on industrial hemp ever!

Click [here](#) for more information.

Feedstock Prices

UK spot prices of bagged wood pellets, and wheat and barley straw. Arrows indicate rise ↑, unchanged – or fall ↓ from previous month.

Date	UK Wood Pellets Delivered	UK Ex-Farm Barley Straw	UK Ex-Farm Wheat Straw
	(£/tonne, 5% VAT)	(D1000) (£/tonne)	(D1000) (£/tonne)
10 Feb	240-357 (–↑)	70-96(–↓)	65-86(–↑)

For wood pellets prices we considered UK pellet traders selling prices.

For details on straw spot prices, see <http://www.farming.co.uk>

UK (LIFFE), French (MATIF) and US (CBOT) future prices for wheat, rapeseed, maize, and soybean. Arrows indicate rise ↑, unchanged – or fall ↓ from previous month's predictions.

Date	UK (LIFFE) Feed Wheat (£/tonne)	MATIF Wheat (€/tonne)	MATIF Rapeseed (€/tonne)	CBOT Wheat (cnts/bsh)	CBOT Maize (cnts/bsh)	CBOT Soyabean (cnts/bsh)
Mar-18	134.9 (↓)	157.0 (↓)		444.7 (↑)	358.5 (↑)	975.75 (↑)
May-18	137.0 (↓)	159.7 (↓)	345.0 (↓)	458.0 (↑)	366.7 (↑)	987.25 (↑)
Jul-18	139.5 (↓)			472.2 (↑)	374.5 (↑)	997.00 (↑)
Aug-18			344.0 (↓)			1000.2 (↑)
Sep-18		165.5 (↓)		486.2 (↑)	381.5 (↑)	996.25 (↑)
Nov-18	141.0 (↓)		348.0 (↓)			997.00 (↑)
Dec-18		168.5 (↓)		504.7 (↑)	389.7 (↑)	
Jan-19	143.2 (↓)					
Feb-19			349.7 (↓)			
Mar-19	144.7 (↓)	171.5 (↓)		519.2 (↑)	397.7 (↑)	
May-19	145.7 (↓)	173.5 (↓)	354.2 (↓)			
Jul-19	146.1 (↓)					
Aug-19			345.0			
Sep-19		175.0 (↓)				
Nov-19	143.8 (↓)					
Dec-19		176.5 (↓)				
Jan-20	145.5					

For details on future prices see <http://www.hgca.com>

Other biomass feedstock prices are available upon request, simply contact enquiries@nnfcc.co.uk

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