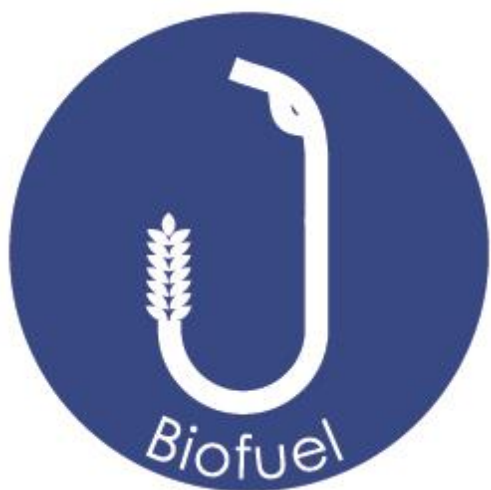


## News Review



**Issue Ninety-Seven**  
**April 2020**

Each month we review the latest news and select key announcements and commentary from across the biofuels sector.

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# Foreword

Welcome, subscribers and non-subscribers, to April's Biofuels News Review.

As could be expected during the Coronavirus pandemic, many industries, including the biofuels industry, have been disrupted. Used cooking oil (UCO) markets in Europe are expected to struggle in the coming months. Collection is an integral part of the process, and the current restrictions widespread across Europe makes collection of UCO difficult, although it is likely that larger companies won't be hit as hard. Chinese UCO has already been through a rough patch, what with their peak in the pandemic earlier in the year, but now that it sweeps across the rest of the world exports are unlikely to find the demand. The palm oil market too is struggling, with prices having fallen nearly 3% in Malaysia, in part as a result of domestic stocks but export demand has slowed. The Malaysian government too has decided to postpone the rolling out of B20, which won't be doing any favours for the current biofuel market.

Also suffering price cuts and reduced demand is the oil and gas company Shell. Drastic restrictions on movement have meant people driving about in their cars a lot less, and prices at the pump are noticeably much lower than they have been in years. However, Shell have recently revealed their strategy to reduce greenhouse gas emissions to net-zero by 2050, and their chief executive has confirmed that these plans will not be derailed by the Coronavirus crisis.

The economics of producing fuels from plants isn't yet on par with producing them from petroleum sources. However, one way to do this would be to increase the output of a particular plant – a valuable bioproduct would help offset the cost of making biofuels and make the whole process cheaper. A recently published study has been working towards defining exactly how much added value would need to be gained in order to make biofuel production economically feasible.

We hope you are all managing to stay safe in these difficult times and we look forward to supporting as many of you as possible with future developments in this sector so please don't hesitate to get in touch – we're continuing business as usual, albeit from home, through the current situation.

Read on for the latest news.

# Policy

## US coronavirus relief falls short for biofuels industry

In Washington, D.C., news came Friday evening that the U.S. Department of Agriculture created a new Coronavirus Food Assistance Program (CFAP) that will take several actions to assist farmers, ranchers, and consumers in response to the Covid-19 national emergency.

But it does not provide any assistance to America's ethanol and renewable fuels industries, which as reported in The Biofuels Digest have been hit hard. At that time, 'only' 30% of ethanol plants were offline, compared to today where about 50% are offline.

Click [here](#) for more information.

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## Brazil ethanol support dependant on banks

In Brazil, EPBR reports that the Brazilian Development Bank, BNDES, does not have the resources to fulfil the financing line demanded by the ethanol sector to help with the Covid-19 impact of drastic price and demand drops for ethanol and that the initiative will depend on a consortium of public and private banks.

It will be up to the Ministry of Economy to elect priority sectors that should be supported, due to the public health crisis of Covid-19.

Click [here](#) for more information.

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# Markets

## Palm oil price response to Covid-19



*Pixabay*

Palm oil prices are expected to decrease slightly from its current levels over the next three to six months due to fall in demand caused by the Covid-19 pandemic.

For Malaysia, Fitch Solutions revised down its 2019/20 production forecasts for the south-east Asian country's growth forecast previously, as disruptions are already apparent.

Fall in demand in the food and hospitality sector and tempering of economic growth are expected to temper future demand. The falling oil price will also limit use in biofuels.

Fitch Solutions has maintained its view for palm oil prices to average RM\$2,300/tonnes (€466) in 2020, which compares to the 1st quarter average of RM2,626/tonne (€551). However, in 2021, prices are expected to be stronger and average around RM2,400/tonne (€508) as demand recovers.

Click [here](#) for more information.

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## Malaysian palm oil difficulties

In Malaysia, Reuters reported palm oil futures fell nearly 3%, weighed down by domestic stocks and falling export demand as the world shuts down to battle Covid-19. The government has decided to postpone the roll out of its B20 blending mandate as well, which will further add to stocks and put more pressure on prices. Already, cargo surveyors expect that exports during the first 10 days of April were as much as 12% lower on the month.

Click [here](#) for more information.

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## Shell commits to net-zero in 30 years



*Wikipedia*

Royal Dutch Shell has revealed the oil and gas sector's extensive strategy to reduce greenhouse gas emissions to net zero by 2050, stating its plans depended on its customers also mitigating emissions.

Oil and gas producers have announced spending cuts as oil prices have hit 18-year lows and drastic restrictions on movement to slow the spread of the new coronavirus have destroyed demand.

Chief Executive Ben van Beurden said the crisis would not distract it from the company's shift to low-carbon energy as it braces for "a complete overhaul" over the next 30 years.

Click [here](#) for more information.

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## Soybean demand increase predicted

Worldwide soybean output is expected to increase to a record high, according to the International Grain Council (ICG).

The ICG estimates another bumper crop in Brazil, a standard US crop and production increases in smaller soy-countries will assist the market in 2020/21.

After the almost one-fifth decline in production in the past season, the IGC estimates a rebound in US soybean production for the next 12 months.

Coupled with increases in Brazil and other countries, the world's soy harvest area could grow 4% compared to the previous year. In combination with slight yield gains, the ICG holds out the prospect of a 7% production increase to a new peak of 366 million tonnes.

Click [here](#) for more information.

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## Rapeseed doing well despite Coronavirus

Rapeseed prices in Paris increased 8% since their two-year low of €335.50 per tonne seen the middle of March as the scale of the coronavirus pandemic started to become clear and markets fell. The rapeseed market had previously been affected by uncertainty in the wake of the pandemic.

According to Agrarmarkt Informations-Gesellschaft (mbH), concerns over a decline in demand from the biodiesel sector and, consequently, also rapeseed feedstock put downward pressure on prices. Initially, support came from firm soybean prices in Chicago.

Recently, rising prices of crude oil and palm oil also contributed to the increase. The weaker euro provided additional support, as it makes rapeseed oil more attractive for foreign purchasers.

Whereas rapeseed prices continued to rise beyond the end of the month, soybean prices dipped 3%. Previously, brisk demand for soybean

meal and logistical problems in South America caused by the corona pandemic had led to a sharp jump in prices. But then the ongoing harvests in Brazil and Argentina moved back into focus.

Brazil expects a bumper crop of 126 million tonnes and Argentina also anticipates a large harvest. Slow US export business with China was another factor driving prices down.

Click [here](#) for more information.

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## Research and Development

### Synthetic palm oil brewed like beer

C16 Biosciences is the New York based start-up producing a synthetic version of palm oil that does not rely on deforestation. The company has just received a \$20 million 'series A' investment round from Bill Gates' Breakthrough Energy Ventures fund.

The investor-led fund supports cutting edge start-ups with a focus on environmental innovation and sustainability. Hence, the decision to invest in conflict-free palm oil goes hand in hand with its commitment to back "companies that will help stop climate change." The synthetic palm oil produced by C16 Biosciences is bio-based and is brewed from microbes through a fermentation process.

Click [here](#) for more information.

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### Agave – tequila and biofuels?



*Needpix*

The agave plant used to make tequila could be used to make biofuels. Found in the semi-arid Australia, the plant could become an environmentally friendly solution to Australia's transport fuel shortage as reported in the Journal for Cleaner Production.

A team of researchers at the University of Sydney, University of Exeter and University of Adelaide have been carrying out research into the plant. The plant could also help produce ethanol for hand sanitiser, which is in high demand following the Covid-19 pandemic.

In an article published, University of Sydney agronomist Associate Professor Daniel Tan with colleagues have analysed the potential to produce bioethanol (biofuel) from the agave plant, a high-sugar succulent widely grown in Mexico.

The agave plant is now being grown as a biofuel source on the Atherton Tablelands in Far North Queensland by MSF Sugar and it is showing some significant advantages over existing sources of bioethanol such as sugarcane and corn, according to the professor.

Click [here](#) for more information.

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## Biofuels towards cost parity with petroleum

Biofuels are an important part of the broader strategy to replace petroleum-based gasoline, diesel, and jet fuels that we use today. However, biofuels have so far not reached cost parity with conventional petroleum fuels.

One strategy to make biofuels more competitive is to make plants do some of the work themselves. Scientists can engineer plants to produce valuable chemical compounds, or bioproducts, as they grow. Then the bioproducts can be extracted from the plant and the remaining plant material can be converted into fuel. When produced in the plant itself, bioproducts can help reduce the cost of the resulting biofuel.

But one important part of this strategy has remained unclear – exactly how much of a particular bioproduct would plants need to make in order to make the process economically feasible?

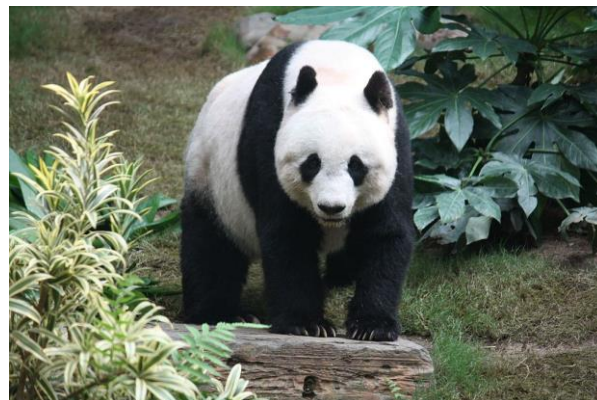
Now researchers at the Department of Energy's Lawrence Berkeley National Laboratory (Berkeley Lab) and the Department of Energy's Joint BioEnergy Institute (JBEI), which is managed by Berkeley Lab, have provided the first definition of this amount. Their study, jointly led by Corinne Scown and Patrick Shih, was published recently in the Proceedings of the National Academy of Sciences.

The researchers first gathered information on a group of well-studied bioproducts that plants can already effectively produce – ranging from flavours and fragrances to biodegradable plastic. Making a valuable bioproduct would help offset the cost of making biofuels and make the whole process cheaper.

Click [here](#) for more information.

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## Panda digestion key to biofuel production?



*Wikimedia Commons*

A new research project at Aarhus University will exploit millions of years of evolution to develop sustainable biofuels. Among other things, the solution lies in the digestive system of pandas.

By imitating natural biological degradation processes, a team of researchers from the Department of Engineering and the Department of Bioscience at Aarhus University aims to convert so-called lignocellulosic biomass (everything from wood and residual crops to waste and grass) into sustainable bioethanol.

There is massive potential for large-scale sustainable production of biofuel, because lignocellulosic biomass is currently a huge, but unexploited, carbon source. Unexploited because we have not yet developed a technology that can productively transform the energy bound in the substance.

Click [here](#) for more information.

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## US biofuel jobs on the increase

The Energy Futures Initiative and the National Association of State Energy Officials recently published the 2020 US Energy and Employment Report, which determined US jobs in woody biomass and biofuels were up 2% in 2019. Total jobs in bioenergy reached 121,093, which includes 107,915 jobs in fuels production and 13,178 jobs in electric power generation. Subcategories of bioenergy include ethanol, "other ethanol" fuels, wood biomass and "other biofuels."

Click [here](#) for more information.

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# Bioethanol

## Ethanol production falls to 6 year low in US

Ethanol production has plummeted to a six-and-a-half year low in the US. According to data from the Energy Information Administration that has been seen by the Renewable Fuels Association, production has fallen by 16.4%, or 165,000 barrels per day to a total of 840,000 barrels per day.

This is the largest drop since the Administration began reporting on ethanol production statistics 10 years ago. Ethanol stocks rose 6.5% to a record 25.7m barrels, eclipsing the previous high set just four weeks ago.

The volume of gasoline supplied to the US market, which is a measure of implied demand, fell to 6.6m barrels per day, which was 24.6% lower than the previous week and 27% lower than the same week last year.

This fall is reflected in the impact on the industry by the Covid-19 global pandemic and the effect social distancing and stay-at-home policies were having on the market.

Click [here](#) for more information.

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## Bioethanol to sanitiser expansion



*Defence Intelligence Agency*

BASF is significantly expanding the production of disinfectant at its Ludwigshafen site. In addition to the isopropanol-based hand sanitizer manufactured to date, BASF has now started production of hand sanitizer based on bioethanol. With the additional quantities of up to 100,000 litres of hand sanitizer per week, the company will support the new nationwide "Notversorgung Desinfektionsmittel" (Emergency Provision of Sanitizer) online platform of the German Chemical Industry Association (Verband der Chemischen Industrie, VCI) free of charge.

Click [here](#) for more information.

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# Biodiesel

## Used cooking oil supplies hit

The impact of the coronavirus pandemic has hit European used cooking oil supplies (UCO). Biodiesel producers who used UCO have confirmed that contracts for March have been fulfilled and plants are continuing to run smoothly.

But as the scale of the pandemic continues to bite, producers have raised concerns that there could be a fall of 70-90 % of UCO in the coming months. This is as deliveries are hampered by restrictions imposed to try and control the spread of Covid-19. However, it is thought that bigger



organisations and companies will largely be able to maintain their supplies of UCO.

Chinese exports of UCO were badly affected by the pandemic early in the new year, but this has spread to European countries as the continent feels the full force of the disease.

European Union imports of UCO as 2020 dawned were about 145,000 tonnes, but this latest data is from the start of the year, before the impact of the virus hit hard.

Click [here](#) for more information.

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## Other Biofuels

### **RNG for US distributor fleet**

US company KeHE Distributors, a natural & organic, fresh and speciality distributor has partnered with Clean Energy Fuels to add renewable natural gas (RNG) trucks to its fleet.

KeHE will add the low-carbon emission trucks to its California fleet in 2020, replacing five diesel trucks. In doing so, KeHE hopes to reduce its carbon emissions by 674 tonnes, equivalent to planting 11,120 trees and recycling 235 tons of landfill waste.

Clean Energy Fuels' Redeem RNG is a clean, low-carbon alternative fuel derived from organic waste. According to the company, it has been proven to reduce greenhouse gas emissions by at least 70% compared to diesel. Zero Now, an ultra-clean fuel and engine combination developed by Clean Energy Fuels, helps to achieve zero emissions in the trucking sector.

Click [here](#) for more information.

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## Events

### **Biogas Development Forum Amsterdam, 6th July 2020**

Event rescheduled due to Covid-19 outbreak.

Meet the people developing opportunities in power generation, grid injection and transportation.

Click [here](#) for more information.

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### **The 3rd World BioEconomy Forum Ruka, 9th-11th September 2020**

Bringing leading edge bioeconomy face-to-face with one of the world's unique areas of outstanding natural beauty and biodiverse forests. World BioEconomy Forum will bring together major think tanks, regulators, and operators in this famous holiday resort in northeast Finland.

Click [here](#) for more information.

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### **UK Green Gas Day Birmingham, 12th November 2020**

Event rescheduled due to Covid-19 outbreak.

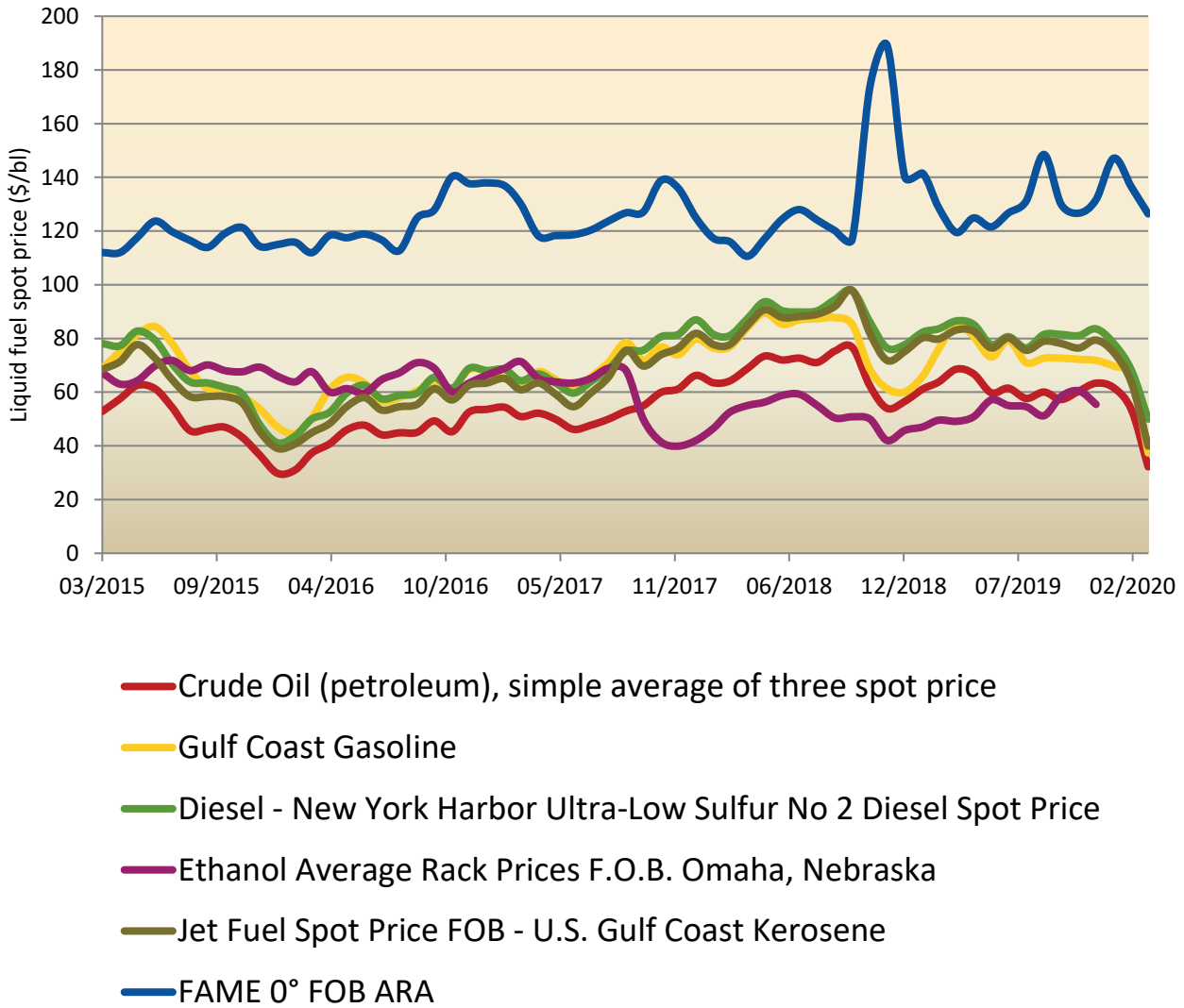
Come to Green Gas Day to meet project developers and operators, financiers, feedstock providers, waste hauliers, technology providers and government officials. Visit exhibition stands from all of the major suppliers to the biomethane industry. If you are interested in Green Gas, this is the one industry event you cannot afford to miss.

Click [here](#) for more information.

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# Price Information

Historical spot prices of liquid fossil fuels and liquid biofuels. Five years prices up to March 2020 are given in \$ per barrel.



Prices of Crude oil, diesel, gasoline, and jet fuel are recorded from [www.indexmundi.com](http://www.indexmundi.com); Price of ethanol from [www.neo.ne.gov](http://www.neo.ne.gov); Biodiesel spot prices from <http://www.kingsman.com>

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