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Institution of Agricultural Engineers

Landwards Conference 2021 – Zoom Webinar

Future Fuels in Agriculture

Date: Wednesday 3 November 2021 – 10am-2.30pm

Location: Online via Zoom

Background

In an age where the media is full of stories about climate change, sustainability and carbon reduction, when would be a better time to talk about how engineers and technologists are achieving this in our industry? The creation of food from agriculture does not only consume fuel to power tractors, cool potatoes and heat glass houses for example, but also has the added advantage of being able to generate it from growing energy crops and composting waste. In this year's conference we are going to explore a range of activities from capturing methane from dairy waste to powering machinery with hydrogen. The diversity of our sector is clearly demonstrated by the diversity of the subjects that surround it when we talk about "Future Fuels in Agriculture" at our Landwards 2021 annual conference.

Mindful of the pandemic, we plan to run our conference online again this year, but this time as live session presentation via Zoom to ensure interaction`.

Our experienced presenters will take us through a range of interesting and diverse topics and developments in agriculture and horticulture. We will what some of the major OEMs are doing to enable alternative fuels and energy sources to power their products, ranging from battery electric propulsion, gas internal combustion and hydrogen. We also explore and understand the potential on-farm energy production, delving into technology that can generate fuel and power, such as liquified biomethane production and alternative ways to heat glasshouses.

The presentations will interest people working within agriculture and its associated industries, equipment and component manufacturers, dealers and service outlets, education, research and agri-tech organisations, and will give a taste of the technologies being explored whether adoption is imminent or several years away. As members of IAgrE, we do hope you will join us and attend, we also hope that you will inform your wider industry colleagues and connections.

Cost: FREE to IAgrE Members – £30 for non-Members (or free if you join us)

Booking: <https://www.eventbrite.com/e/iagre-landwards-conference-2021-future-fuels-in-agriculture-tickets-165263155547>

The Programme

9.55am	Arrival
10am	<p>Introductory Remarks - Paul Hemingway – President IAgrE</p>
10.10am	<p>Farmers - Fuelling the energy we need to succeed Caroline Drummond – Chief Executive LEAF</p> <p><i>We often forget the long history of renewable energy and how the convenience of fossil fuel derived energy has created many of the problems we face around climate change. Now is the time to accelerate the role of renewable energy on farm, building on the past, maximising the opportunities of the present and embracing the innovations and technologies of the future.</i></p> <p><i>What will a fossil fuel free farm look like in 2030?</i></p>
10.45am	<p>Methane – latest developments in tractor power Alastair Walshaw – Engineering Product Manager CNH Industrial</p> <p><i>Alistair will discuss the biomethane technology that CNH are working on as an alternative fuel, ideal for the farming community.</i></p>
11.20-11.30am	Short Break
11.30am	<p>Waste to Power – Upcycled Biomethane Energy Systems Nick Royal – Commercial Manager R&D – Ricardo UK Ltd</p> <p><i>Nick's talk will cover the following: Harvesting agricultural waste resources to meet farm and community energy requirements whilst addressing the environmental impact of potent greenhouse gases. Producing a valuable energy resource through efficiently refining and liquefying biomethane fuel from biogas mixes at small scale. Supporting grid infrastructure and providing renewable energy backup / storage through a distributed and democratised biomethane energy system. Disrupting the economics of farming.</i></p>
12.05pm	<p>Electricity & Hydrogen - potential future energy sources for Agricultural machines Jarno Ratia – Global Engine Product Management Director AGCO Power</p> <p><i>Jarno's talk will cover Emission legislation - now and in the future and Future fuels - their benefits and pitfalls</i></p>
12.40pm	<p>The challenges and practicalities of decarbonisation in Horticulture Jon Swain – Technical Consultant NFU Energy</p> <p>Jon will explore the challenges of achieving Net Zero by 2040 and discuss how to develop a Net Zero energy strategy</p>

1.15-1.45pm	Break for Lunch
1.45pm	Q&A and Speaker Panel Discussion hosted by Andy Newbold, FarmSmart
2.30pm	Close and thanks Charles Nicklin CEO IAgrE