AgTech partnership announce world-first technology that enables farmers to measure grass from space

Tuesday 18 July, 2023

Dublin (July 18, 2023) - A world-first technology breakthrough that could revolutionise grassland farming has today been announced by technology companies Origin Digital and Aspia Space.

Launching in Ireland later this year as part of Origin Digital's 'GrassMax' service, the new technology accurately measures the height of grass from space, offering ground-breaking insight for increasing farm productivity and profitability while also enabling organisations and businesses to verify sustainability practices in the livestock supply chain.

Duncan Robertson, Head of R&D at Origin Digital, said: "This is a game-changing moment for grassland farmers and the businesses that partner with them. For the first time, they can remotely and automatically calculate the quantity of grass in their fields and paddocks, on a regular basis and at scale. This enables farmers to make better-informed decisions regarding grazing schedules, animal nutrition, and silage cuts for example, resulting in less waste and a more stable, sustainable food supply."

Kieran Holden, Grassland Digital Specialist at Origin Enterprises, added: "As a farmer myself, I'm really excited about the ability to measure grass height remotely, because it brings huge benefits to grass management while eliminating what is currently a laborious manual measurement process. This will save Irish farmers around 2 hours per week, or €1,600 per year, in measurement costs alone.

"But the main benefit is in how farmers like me can use this data through the GrassMax app to increase grass utilisation on their farms. It's remarkable to consider that grass utilisation alone accounts for 44% of the variation in net profit per hectare on dairy farms. In Ireland, each additional tonne of grass utilised per hectare translates to a €256 increase in profit. Integrating this automated grass measurement data into GrassMax will give it even more power to help farmers optimise their grass use, with even a half tonne per hectare increase in utilisation equating to a €10,000 increase in profitability on an 80 hectare farm."

Devlyn Hardwick, GrassMax Product Manager at Origin Digital, said: "The businesses that partner with grassland farmers can also benefit through our GrassMax service, which uses this game-changing new technology alongside the on-farm decision-support app to build a real-time picture of aggregated farm insight. This insight has many applications, from helping businesses and farmers achieve sustainable growth to verifying sustainability practices and scope 3 emissions on farm, and enhancing supply chain security and sustainability.

"In particular, GrassMax enables businesses to track live and forecasted grass yield, how many days animals are at grass in the fields, and a host of other metrics targeted at increasing fertility, yield, and efficiency to meet the growing demand for milk and dairy products sustainably. This insight not only helps strengthen their relationships with individual farmers through a better understanding of their situation, it also provides increased visibility across their portfolio on metrics from overall feed and fodder requirements to key sustainability targets."

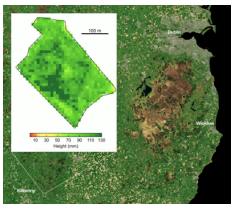
Through Irish parent company Origin Enterprises, Origin Digital has unique access to a vast pool of ground-truth and field-trial data alongside a strong network of farmers and agronomic experts, which has helped them build this breakthrough measurement technology in partnership with Earth observation and AI experts Aspia Space.

Aspia Space co-founder and Director of AI Dr Mike Smith said: "Earth Observation satellites literally provide an eye in the sky that offer the potential to monitor every single field on a regular basis. Aspia Space's patented ClearSky technology uses a generative AI algorithm to deliver cloud-free imagery of the ground, making satellite data more reliable, especially for agricultural applications.

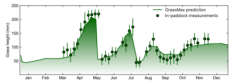
"Through our partnership with Origin Digital, we have developed a new AI solution that uses ClearSky imagery to estimate grass height to within an accuracy of just 1.5cm from a vantage point of nearly 700 kilometres up in space. To put it in context, imagine standing in a field in Amsterdam and being able to

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accurately measure the height of the grass in a field in Dublin. Not only can we map the grass height down to a resolution of 10 metres and see variations across a paddock, but we can also monitor how it is changing over time. This is a great demonstration of how we can combine space imagery with ‘ground truth’ data, magnifying its power. Our algorithms allow us to provide physically meaningful insights that enable better decision making here on Earth. We are proud that this technology is being rolled out in the GrassMax product.”

The potential of the new technology extends beyond agriculture. Any organisation involved in grass management could potentially benefit, from local councils monitoring grass length and cutting in parks and verges to amenity providers and estates optimising their land use.

GrassMax will launch in Ireland later this year, with Origin Digital and Aspia Space then planning to localise their breakthrough remote measurement technology to more countries and climates around the world, as well as developing further products that unlock innovative data insights to promote sustainable, profitable farming.

Company Contact:

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Origin Digital

E. dan.wood@digital.originenterprises.com
W. https://digital.originenterprises.com/

Additional Contact(s):
anne.visintin@fourtold.eu

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