



Press release

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First Milk, Nestlé and Agricarbon launch pioneering soil carbon project

First Milk, Nestlé and Agricarbon have today announced the launch of a pioneering soil carbon capture project – the first of its kind in the world.

The project, which establishes a comprehensive and scientifically robust soil carbon baseline for First Milk farms, will use state-of-the-art machinery to carry out intensive soil carbon analysis at a fraction of the usual cost. The approach allows soil carbon sequestration to be quantified over time to support the net zero ambitions of First Milk farmers and customers.

The initial phases of the project are being conducted in partnership with Nestlé, which is supporting this as part of its climate journey roadmap, building robust scientific data, with partners, to effectively drive meaningful progress in carbon reduction through its supply chain.

The project will see high intensity, field-by-field soil carbon stock quantified across 40 farms, with the intention to extend this to 100 First Milk farms by the end of 2021. The project is being guided by Dr. Helaina Black, a leading soil-ecologist and Honorary Associate at the James Hutton Institute.

Commenting on the announcement, Mark Brooking, Sustainability Director, said:

“Just last week we announced a major development to our First4Milk sustainability programme that has seen us commit to net zero by 2040, to the launch of regenerative action plans for all our members, and to sequestering 100,000t of carbon in soils per annum by 2025.

“Having robust, scientifically-validated soil carbon data is absolutely critical to the successful delivery of this strategy, and we look forward to collaborating with Nestlé and Agricarbon as we roll out this ground-breaking initiative. Moving forward, we’ll be working with all of our farmer members and external advisers, using this data to understand soil carbon levels and inform the development of practical regenerative plans for farms that capture additional soil carbon through sequestration, whilst maintaining and enhancing productivity and efficiency.”

Annie Leeson, from Agricarbon, added:

“We are delighted to launch our service through this collaboration with First Milk and Nestlé. The project represents a breakthrough in the visibility of soil carbon stock for UK farms. Agricarbon’s baseline will provide the ideal foundation for First Milk farmers to demonstrate their commitment to proactive soil stewardship and the soil carbon sequestration they can achieve as a result.”

Robin Sundaram, Responsible Sourcing Manager, Nestlé UK, added:



“Climate change is one of the biggest threats to society and we are using our size, scale and reach to tackle climate change as part of our net zero roadmap. We have committed to supporting farmers in our supply chain to implement regenerative agricultural practices to improve soil health and increase soil carbon sequestration. This pioneering project with First Milk and Agricarbon will enable us to build a scientifically-robust baseline dataset on soil carbon levels, allowing us to accurately determine the effectiveness of regenerative practices over time in capturing additional soil carbon.”

ENDS

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Notes to editors:

- Unlike conventional soil carbon stock analysis, this project will use proprietary technology developed by Agricarbon, which has never been deployed commercially before. The technology is at the heart of an end-to-end service provided by Agricarbon, which starts with determining sampling strategy and ends with a report detailing carbon stock (tonnes), carbon levels (percentage) and soil ‘bulk density’ (a measure of soil compaction) for each field.
- Agricarbon starts by carrying out a detailed study of the land to determine appropriate points for extracting representative soil samples. This is undertaken using digital mapping and based on established principles applied by scientists around the world. To allow for in-field variation, fields are divided into zones (called ‘strata’), then sampling points are randomly selected within each strata.
- Agricarbon extracts soil samples from the field using a Giddings hydraulic probe – originally designed for use by NASA on their Mars mission - which takes a 4cm core to a maximum depth of 1m. This allows soil carbon stock and bulk density to be analysed at full soil depth and in different depth layers.
- Soil cores are transported, sealed and structurally intact, to centralised Agricarbon facilities where the machinery uses robotics and mechanisation to automate the complex process of soil sample preparation and analysis, usually carried out by hand.

Their service includes independent, scientifically robust methodologies at all stages of the process and secures an audit trail throughout to allow the data integrity to be validated by certification bodies in future.

- This intensive approach will give First Milk the most scientifically-robust soil carbon dataset possible, an essential foundation for shaping low-carbon farming practices and monitoring progress on soil carbon sequestration in the future.
- Many sustainable farming practices (often referred to as ‘regenerative’) can improve soil health by allowing the soil’s natural ecosystem to repair itself, encouraging plant, microbe, insect and animal life to replenish healthy levels of organic matter and rebuild critical soil structures. At the same time, this captures and fixes atmospheric CO₂ underground, as



carbon-based compounds within the soil, offering the potential for sustainably farmed land to act as a massive carbon sink.

About First Milk

- First Milk is a British farmer-owned co-operative with a vision to create value for members by delivering long-term dairy prosperity in the form of success, profitability, security and well-being.
- First Milk produces a fantastic range of great-tasting Cheddar, Red Leicester and Double Gloucester - which is sold in the UK through our partner, Ornu. We also export cheese to more than 26 countries.
- In addition to producing cheese, we produce bulk cream and whey proteins. We also focus on providing high quality, traceable fresh milk to a range of dairy manufacturers and processors across the UK. We work with many customers as their long-term supply partner, helping them to deliver their objectives through our responsible sourcing and supply chain management services.
- Our First4Milk sustainability programme, incorporating our First4Milk Pledge, sees us focus on a range of initiatives under three key themes – People, Animals and Earth.
- Find out more at www.firstmilk.co.uk

About Agricarbon

- Agricarbon is a Dundee-based start-up founded by entrepreneurial Scottish farmer, Stewart Arbuckle, and Annie Leeson, data services entrepreneur and decarbonisation expert.
- Their mission is to accelerate a widespread transition to more proactive soil stewardship, by unlocking the value of soil carbon sequestration as a major carbon sink and make a material contribution – this decade - to averting climate catastrophe.
- Their role in this transition is to address the main barrier to evidencing and valuing soil carbon sequestration: the need to quantify soil carbon stock, at low cost, but with high enough integrity to satisfy carbon market and accounting standards.
- The team developed their core technology with grant funding from Scottish Enterprise and additional grants from London Heathrow and the Indigo Ag Terraton Challenge.
- With interest in their services building rapidly, they plan to scale their operation quickly to establish an international footprint and make high integrity, affordable soil carbon quantification assessable to farm and land businesses everywhere.
- To keep abreast of Agricarbon's progress please visit www.agricarbon.co.uk