Net Zero & Decarbonisation: PepsiCo

As part of their global commitment to make their agricultural practices more sustainable, PepsiCo have been looking at ways to get the most out of their crops. In 2020, PepsiCo's Walkers brand joined forces with British clean-tech firm CCm Technologies to reduce their carbon footprint by turning potato waste into fertiliser.

Using innovative carbon-capture technology, potatoes leftover from making Walkers crisps in Leicester will be transformed into low-carbon fertiliser and returned to farms where potatoes for their crisps are grown across the UK.

The equipment will use by-product waste from the anaerobic digestion process to create fertiliser and ensures PepsiCo send zero-waste to landfill.

Progress to date

Fertiliser from a 2020 trial is already going onto farmers' fields. Walkers is planning to install CCm's specialist equipment in Leicester in 2021 to begin wider production in preparation for its 2022 crop.

Once supplied at scale, the fertiliser is expected to reduce PepsiCo's potato-based carbon emissions by 70%.

Opportunities and challenges

As we face into a very real climate crisis, the farming industry is tackling complex challenges and fertiliser is one such challenge. It is an essential part of farming practices, but most fertilisers are made in a very carbon and energy intensive way.

By turning potato waste into a reusable resource, PepsiCo are driving more circularity in the potato growing process, helping farmers reduce their impact on the environment. This initiative forms part of PepsiCo's broader award-winning agriculture programme, which has previously helped UK growers achieve a 50% cut in their water use and carbon emissions.

This initiative could set PepsiCo on a path to becoming carbon-negative in their potato production over the next decade. And, in addition to the low carbon status of the fertiliser itself, research projects that its long-term use will improve soil health, aiding a natural carbon sequestration process.

Therefore the technology offers agriculture the opportunity to play its part in combating climate change.

Lessons learnt

This project has strengthened PepsiCo's conviction that collaboration is essential to our industry reaching net zero.

It is something which they greatly value and they are constantly exploring innovative technology and partnerships that will not just offer sustainable agriculture practices but opportunities for collaboration across the food value chain.

What's next?

Across PepsiCo they are looking at how they can bring the benefits of this new, circular fertiliser to further European markets and other crops such as oats and corn.

But more broadly, as a business built on agriculture, PepsiCo are seeking to help build a more sustainable food system.

Their work is backed by ambitious sustainability performance goals, including the following:

- A science-based climate goal, targeting a reduction of absolute GHG emissions across their value chain by more than 40% by 2030. In addition, the company has pledged to achieve net-zero emissions by 2040, one decade earlier than called for in the Paris Agreement.
- They have joined the Climate Group's RE100 initiative, pledging to source 100% renewable electricity across their operations by 2030.
- They are publicly committed to sustainably source potatoes, corn, oats, oranges, palm oil, cane sugar and other priority crops.
- 100% of their packaging is to be recyclable, compostable or biodegradable by 2025. PepsiCo also plan to reduce the use of virgin plastic across their portfolio by 35% by 2025; and to increase recycled content in their plastics packaging to 25% by 2025.

"From circular potatoes to circular crops, this innovation with CCm Technologies could provide learnings for the whole of the food system, enabling the agriculture sector to play its part in combating climate change.

This is just the beginning of an ambitious journey, we're incredibly excited to trial the fertiliser on a bigger scale and discover its full potential."

David Wilkinson, Senior Director of European Agriculture, PepsiCo

For more information please see this video.