Carbon-footprint focus continues to im

Waste not,

Report reveals the significant carbon and water savings made by milk producers on the island of Jersey – in just 12 months – and what this really means for their dairy businesses.

text **David Butler**

Enough electricity to supply 1,343 houses for a year – or enough power to fly around the world 280 times. Those are the carbon saving equivalents made by Jersey-based dairy producers, during the past 12 months, as part of a scheme to monitor usage and reduce waste. Producer-owned processor co-operative Jersey Dairy began working with agri-environmental consultancy Alltech E-CO_2 in 2015 to monitor and reduce the carbon and water footprints of its dairy producer suppliers.

"Our aim is to establish a verified, sustainable supply network and to help our members produce milk as efficiently as possible. And they will also be reducing their greenhouse gas emissions and water usage as a result," says Jersey Dairy managing director Eamon Fenlon.

Measuring emissions

CowManagement initially reported on the project 12 months ago, shortly after Alltech E-CO_2 first calculated the weighted average carbon footprint for the 21 producer suppliers to be 1.183kg of CO_2 emitted per litre of fat and protein corrected milk (FPCM). One year on, many producers have demonstrated substantial reductions in GHG emissions with the average figure across the group falling by 7% to 1.108kg CO_2 emitted per litre of FPCM.

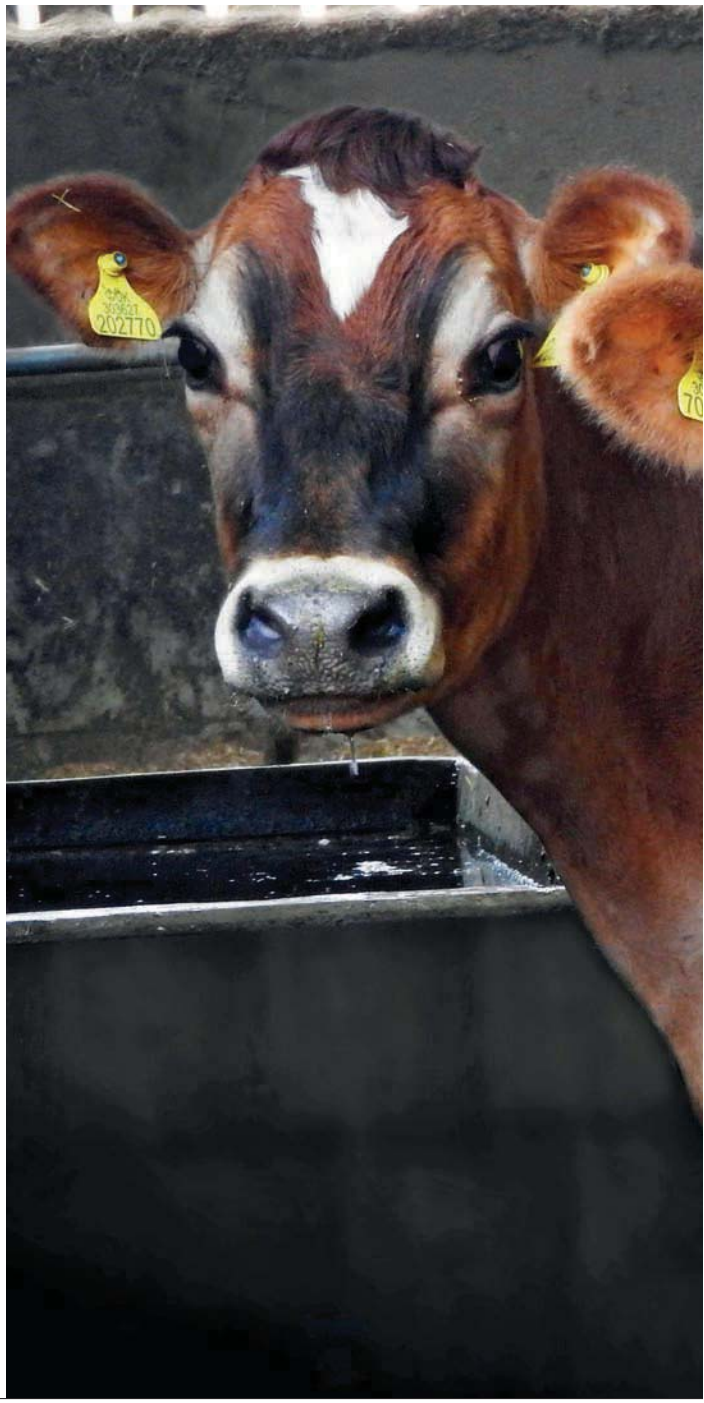
The company says that the carbon footprint reductions have been achieved through improvements in on-farm practices and increasing other efficiencies.

"Water footprint monitoring has also shown an encouraging reduction in litres during the past 12 months, falling from 8.4 litres of water consumed and used per litre of milk sold to 7.2 litres. This is predominantly due to an increase in water recycling and a 44% reduction in the use of 20-litre-per-minute volume washers," says Alltech E-CO_2 farm services consultant Carrie Bellas.

"Maintaining tight control of inputs is essential in modern dairying and water is an input – with an associated cost – just like feed, fertiliser or fuel. Our water foot-printing tool provides an easy but accurate way to measure water consumption per litre of milk production, and then allows producers to benchmark performance and take actions to improve efficiency," she says.

Jersey-based producer Paul Houzé hates waste. So when he recently took the decision to invest in an extra member of staff, it immediately gave him the opportunity to step back from the day-to-day farm business and identify ways to improve efficiency.

"Jersey Dairy is doing a great job of developing new markets for our milk and the export business has kept our heads above water. But it's not high volume and we are still restricted by quotas, although to be fair this has



prove Jersey's dairy industry efficiency

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also helped to maintain a decent price for our output. "All milk producers on the island must improve efficiency and most are diversifying to make a decent living. But, as far as we are concerned, it's about meeting our milk quota with as few cows as possible," he says.

Paul is the third generation of his family to run Lodge Farm in St Saviour. His herd of 220 Jerseys average 6,000 litres of milk per cow per year and he has successfully integrated a beef production enterprise with his dairy business. "A few of us have diversified into Jersey-Angus beef. The relaxation of the semen import ban in 2008 has also allowed us to import top quality beef semen, as well as pedigree Jersey genetics. But, to protect the pedigree of the island's milking herd, all Jersey-Angus bull calves are castrated.

Efficiency improvements

Employing extra labour has freed up time to implement strategies to capitalise on potential efficiency improvements, identified by his annual carbon and water assessments. "Looking back I used to be the proverbial 'headless chicken' in managing to keep most of the plates spinning, but now I spend more time overseeing the job and this has helped me spot opportunities to improve things. I am nearing retirement age but, because my daughter will probably take on the business, I'm keen to ensure we build a sustainable future," he says.

The unit is definitely becoming more efficient and proof lies in the herd's latest performance and carbon assessment. Carbon performance is now an impressively low 886g of CO_2 emitted per litre of FPCM milk – down from 1,343g of CO_2 for the previous 12-month period. The most obvious improvement has come from significant reduction in average feed rate per litre and per cow.

Paul has been striving for greater precision in feeding, and a desire to produce more milk from forage. "We now reseed our grass leys more often and think carefully about the alternative forage crops we can grow on our own land. We're also fortunate that we can make use of a neighbours' potato land to sow ryegrass once their Jersey Royal crop has been lifted in May."

Valuable resource

Paul's distaste for waste also holds him in good stead when it comes to the efficient use of water. Like many units on Jersey, the business' water comes from a borehole and, thanks to a relatively high water table, supplies are not particularly scarce. But Paul is conscious, nevertheless, of the need to take steps to conserve this valuable resource.

"I found out recently that mains water in Jersey is double the price of that in the UK, and this highlights just how valuable a commodity it is on the island. The good news is that our most recent water assessment suggests we are doing pretty well and only use 5.4 litres of water for every litre of milk sold off the farm. "

That's good for his business, its future financial sustainability, and the environment. "Our previous assessment measured seven litres of water per litre milk sold, against a Jersey dairy average of 7.2 litres. So, again, we are moving in the right direction." |