



Award-winning Tasmanian dairy shows that maximising milk production per cow reduces emissions intensity

Media Release

Wednesday, June 25th, 2014

A dairy farm at Montana in northern Tasmania has proven that high productivity does not necessarily mean high emissions, when expressed as emissions per unit of milk production.

Tasmanian Dairy Business of the Year 2014 award winners, Nigel and Rachel Brock, are focused on high production and efficiency, but it was found that the milk produced on farm also has a much lower than average greenhouse gas footprint.

Attending the Tasmanian Institute of Agriculture's (TIA) field day at the Brock's Montana farm in April, NRM North's Carbon Farming Extension Officer, Adrian James, approached Nigel and asked if he could run the farm's data through the DGAS dairy greenhouse gas calculator.

"During the lunch break, I started thinking that if the Brock's production was so efficient and profitable, it must also produce less greenhouse gas per litre of milk than the average dairy," Mr James said.

"It made sense, since emissions from livestock are wasted energy and nutrients, but it looked like a good opportunity to put it to the test."

TIA's Karen Christie helped, as she previously led the development of the DGAS calculator with funding from the Australian Government and Dairy Australia. Karen has estimated the greenhouse emissions of more than 100 Australian dairy farms, including more than 60 from Tasmania.

"The DGAS calculator is the industry-accepted calculator for estimating the carbon dioxide, methane and nitrous oxide emissions of Australian dairy farms and it's great seeing it used to compare the Brock's farm to a larger dataset containing a reasonable proportion of the Tasmanian dairy industry," Ms Christie said.

Based on the 2006-2007 year and farms that participated in the TasMilk 60 project, the Tasmanian average dairy farm emissions were 1.04kg of carbon dioxide equivalent per kilo of fat- and protein-corrected milk (CO₂-e/kg FPCM). They ranged from 1.39 kg CO₂-e/kg FPCM at the highest to 0.83 kg CO₂-e/kg FPCM at the lowest.

The Brock's emissions results from the 2012-2013 year were at the lower end of the scale at 0.89 kg CO₂-e/ kg FPCM, much lower than average.

The result came as a surprise to Nigel Brock, as the farm hadn't been managed specifically to reduce emissions.

“That’s fantastic news. It’s great to put a comparative figure on our emissions and know that we are performing efficiently with our current dairy practices. It is easy to get swallowed up in the hype surrounding greenhouse emissions but knowing exactly where we stand gives us confidence that we are producing milk in a sustainable way,” Mr Brock said.

The result shows that highly productive farming is better for more than farm balance sheets. Many factors can influence a farm’s greenhouse gas emissions. They can vary from year to year depending of factors such as nitrogen fertiliser price, and seasonal climatic conditions influencing pasture production. Therefore it can be worthwhile comparing several years to confirm that a farm has practices in place that can result in a long term reduction in greenhouse gas emissions compared to industry averages.

“Efficiently converting nitrogen fertiliser into palatable grass makes good business sense, and reduces nitrous oxide emissions, Mr James said.

“And efficiently turning pasture and other feeds into milk reduces methane emissions while making more profit. The Brock’s cows, which produced 95% of their bodyweight in milk solids in a year, are really efficient at converting inputs into milk.”

Other agricultural industries can also reduce emissions by increasing productivity. The ‘Tas Farming Futures’ project has extension officers in each region of the State, to help farms achieve this. The project is led by RM Consulting Group and is funded by the Australian Government.

For more information contact:

Adrian James, ajames@nrmnorth.org.au or 0448 318 873.

Donna Lucas, donna@rmcg.com.au or 0459 047 478.

