

Reducing greenhouse gas emissions

NZ dairying leads the score in finding ways to reduce on-farm greenhouse gas emissions

A glass of milk, butter, ice cream, yoghurt... No matter what New Zealand dairy cows produce, we're consistently rated as being the best. And it's something all Kiwis can be proud of – at home and abroad.

Our temperate climate, good rainfall and abundant pastures are ideal for dairy cows, which in turn produce milk that is world-best for its high levels of proteins, minerals, and vitamins, thanks to our pasture-first legacy.

And there, at ground level, lies the challenge that not just the people wearing gumboots must help resolve.

The challenge of how to mitigate the inevitable methane and nitrous oxide emissions on dairy farms is one for scientific minds and business innovators, as well as farmers.

The industry has known for some time now that there is no silver bullet in the drive to safeguard the environment, and the economy; rather, it is a robust strategy, together with a suite of mitigations, that will give the best success.

The good news is that for nearly a decade now there has been an aggressive programme underway focussed on this complex challenge – and thanks to some of the initiatives underway gains are already being made.

DairyNZ leads some of the work, and collaborates with a range of partners.

Amongst the DairyNZ programmes is assisting farmers to tailor environment plans that consider the conditions specific to their farm and in their region.

More than 1,000 farmers already have plans in place and to date, in the Upper Waikato alone, an average eight per cent reduction in nitrogen has been



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achieved – with the net result not only reducing nitrogen going into waterways, but also reducing the nitrous oxide going into the atmosphere.

More farmers are planting trees, native and the likes of pine plantations, to help offset emissions, along with a growing number covenanting tracts of farmland to the Queen Elizabeth

II National Trust. This allows native bush wilderness areas to regenerate, good in off-setting emissions, and for the birds, the bees, and for recreational use.

DairyNZ is also behind the well-established network of dairy farmers that are environmental leaders in their regions. They work closely with fellow farmers to assist them in being more sustainable, and farmers interested in joining this network should get in touch with their DairyNZ consulting officer.

Amongst DairyNZ's partnerships with Government and the wider agricultural industry is the Biological Emissions Reference Group (BERG), which is playing an important role in assisting New Zealand meet the 2030 target of an 11 per cent reduction below 1990 levels.

DairyNZ also invests more than \$1m annually in the work being carried out by the Pastoral Green House Gas Research Consortium (PGgRC).

In development is a readily administered vaccine that stops methane in the digestive tract of milk-producing cows by up to 20 per cent, while geneticists are working to breed cows that emit less methane while producing more milk.

Also under development are pasture grasses that lead to lower gas outputs, methane inhibitors to be fed to cows and low emission animal feeds.

It is no secret that dairying is the backbone of New Zealand's economy, providing jobs directly and indirectly throughout the country, generating a GDP of \$12.2 billion – and, with the dollars, a pleasing 32 per cent of the globally traded dairy product.

It's logical – and desirable – then to protect the environment dairy animals graze in and ensure for the generations to come not only the source of economic wealth from successful dairying, but also New Zealand's rural environmental habitat and beauty

DairyNZ says reducing greenhouse gas emissions is not just the responsibility of people who wear gumboots.