BAYLEYS

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JUNE 2019

PASTORAL SECTOR POISED TO COPE WITH GAS LIMITS.

As the government's rules on managing green-house gases becomes clearer, New Zealand's pastoral sector is well positioned to handle the changes that the rules will bring to it.

Announced in early May, the Zero Carbon Bill aims to differentiate between carbon dioxide release and methane losses from livestock, and has set separate targets for each.

Farmers are required to reduce methane losses from livestock by 10% by 2030 and 24-47% by 2050, while the economy's entire carbon dioxide emissions have to drop to zero by 2050.

Splitting methane from carbon dioxide aims to distinguish the fact methane may be more potent in terms of global warming than carbon dioxide, but only last 12 years in the atmosphere, compared to many years for carbon dioxide.

Gas losses from livestock form 45% of New Zealand's total gas losses, almost rivalling losses from the transport sector, and pressure has been on farming to develop ways to mitigate those losses.

Labelled by some as a "mini Paris Accord" for how closely it mirrors that Accord's expectations, the bill comes as research into ways and means of reducing the primary sector's gas losses are well underway.

But meantime latest trial work across a range of New Zealand dairy farms is showing that reductions in green-house gas emissions are

possible using existing practices, and make the initial 10% drop less daunting than many farmers may have realised.

A dozen demonstration dairy farms operating across New Zealand through DairyNZ's Partnership Farm Project are highlighting the successes farmers can enjoy in not only lowering gas emissions, but also achieving gains in productivity and profitability along the way.

The first farm to open its gate on how well it has done over the past two year trial period was Owl Farm, owned by St Peters School near Cambridge.

At the farm's open day farmers learnt how management working alongside DairyNZ staff had managed to slice almost 13% off the farm's gas emissions while also increasing farm operating profit per hectare by 14%.

The reductions were achieved through a number of relatively straightforward moves that included cutting stocking rates back by 5%, dropping nitrogen fertiliser use by 13kg a hectare and slicing bought in feed from 20% of total feed down to 11%.

In addition to reducing gas losses, the farm also managed to lower its nutrient losses into waterways, slicing 14% off nitrogen losses.

Overall the farm managed to achieve a reduction of 1t of gas per hectare.

Its profile as a relatively typical "average" Waikato farm provides a positive example of what could be achieved by many other farms running similar grass based systems.

Bayleys national country manager Duncan Ross said the farm results were highly encouraging for the pastoral sector, and highlighted just how far it had come in developing a constructive response to the climate change challenge in a short time.

> The resulting reduction of 1t of gas per hectare is encouraging for the pastoral sector, and highlights just how far it has come in developing a constructive response to the climate change challenge in a short time.

"However there is also the issue there about what if anything will be asked of the rest of the economy when it comes to gas reductions – it would appear as farmers reduce methane emissions this is being used to subsidise the reductions in carbon dioxide also required from the rest of the economy. Many farmers are asking what is required from the rest of New Zealand to reduce emissions?"

DairyNZ chief executive Dr Tim Mackle said New Zealand is already one of the lowest emissions producers of dairy products in the world per kg of milk solids, and wanted to build on that advantage.

"The 2030 reduction target is the first step, which we know will be very challenging. But there is action farmers can take, and are already taking to reduce on farm emissions through farm systems changes and new technologies."

The development of that new technology is being headed up by the Agricultural Greenhouse Gas Research Centre, tasked with developing technologies and practices to enable New Zealand farmers to better manage gas losses in coming years.

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Fast approaching its 10th anniversary after being opened by Prime Minister John Key, the centre has proven invaluable in giving New Zealand farmers a head start in the race to develop technologies that will help mitigate methane losses from livestock in a sustainable, profitable fashion.

Centre head Dr Harry Clark has told farmers there are likely to be a combination of relatively small changes that will help them reduce gas losses in coming years, while prospects are positive in the medium term for methane inhibitors, and longer term for vaccines.

Duncan Ross said believed the ongoing work would do much to assure anyone already invested in the sector, or considering investment that sound science could help it address the gas loss challenge.

"This was in a way that puts New Zealand front and centre as the rest of the world wakes up to needing to address its own livestock gas issues, as consumer demand for sustainable food supplies grows."