

25 June 2021

Putting a number on agricultural greenhouse gas emissions

A total of ten tools and calculators can now be used by farmers and growers to get an understanding of their current agricultural greenhouse gas emissions.

He Waka Eke Noa Programme Director Kelly Forster says the second set of tools and calculators has been assessed, following the first tranche earlier this year. Assessed tools now include: Foundation for Arable Research's (FAR) ProductionWise, Beef + Lamb New Zealand's GHG calculator (available in July), and Toitū's Farm emanage.

The full list and the industries they cover:

	Dairy	Sheep & Beef	Deer	Horticulture	Arable
Alltech	✓	✓			
E2M	✓	✓			
Farmax	✓	✓	✓		
Fonterra	✓				
Hort NZ				✓	
MfE	✓	✓	✓	✓	✓
Overseer	✓	✓	✓	✓	✓
ProductionWise (FAR)					✓
B+LNZ GHG Calculator		✓	✓		
Farm emanage (Toitū)	✓	✓	✓		✓

"By the end of 2022, all of our farms need to know their greenhouse gas numbers," says Kelly. "This is one of the milestones that the primary sector has agreed with Government under the He Waka Eke Noa partnership. Farmers have a variety of tool and calculators available now, to get a handle on their GHG numbers."

Farms need to know their numbers by the end of 2022 if they are 80ha or more, or have a dairy supply number, or are a cattle feedlot as defined in freshwater policy. Around 11,000 farmers already have a GHG number for their farm.

"We know that not all farms have the same opportunity to reduce emissions, and one of the principles of the He Waka Eke Noa partnership is to recognise the good work already done," says Kelly. "We don't expect every single farm to reduce their emissions from current levels."

"However, the choices each farmer makes will have a collective impact on Aotearoa's agricultural greenhouse gas emissions, and the first step is knowing your numbers."

The Partnership is working to develop the farm-level emissions pricing system for 2025, including recognising on-farm sequestration. The Review of Models highlights that different tools can give different outputs at this stage, due to a combination of differing assumptions around drymatter and energy utilisation, nitrogen content of forages, and assumptions made by the model operator on the farm system. This is one of the complexities being resolved in the process of developing the pricing system.

Preliminary recommendations for the pricing system, including recognising on-farm sequestration, will be shared more broadly with farmers and growers by industry partners in November. In March 2022 He Waka Eke Noa will present recommendations to Ministers.

The full report can be found here: <https://hewakaekenoa.nz/wp-content/uploads/2021/05/Review-of-Models-Calculating-Farm-Level-GHG-Emissions-2-June-2021.pdf>

Want to know your numbers?

Farmers wanting advice are encouraged to talk to their industry representative, supply company, or other trusted advisors, about knowing their numbers and incorporating GHG into Farm Environment Plans.

To find out more about agricultural greenhouse gas emissions and how they work at the farm level, have a look at www.agmatters.nz

To talk to the Partnership, contact yourfeedback@hewakaekenoa.nz.

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Editors' notes:

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About He Waka Eke Noa – the Primary Sector Climate Action Partnership

He Waka Eke Noa – the Primary Sector Climate Action Partnership – is the primary sector, Māori and Government working together on climate change and agricultural greenhouse gas emissions. Instead of a tax on emissions at the processor point, we agreed to work together, along with farmers and growers, to design a better system that recognises the good work our farmers and growers do.

The partnership is committed to achieving a solution that is practical for the primary sector, rewards efforts to reduce emissions and increase sequestration, and supports the sector's future success.

By 2025 the partnership will develop and implement a framework to empower farmers and growers to measure, manage and reduce on-farm emissions; recognise, maintain or increase integrated sequestration on farms; and adapt to a changing climate. This will include an appropriate on-farm pricing system recognising on-farm emissions and carbon sequestration.

This year He Waka Eke Noa is also working on:

1. Recommendations for an appropriate farm level emissions pricing system from 2025 as an alternative to the Emissions Trading Scheme
2. Recognition and measurement of on-farm sequestration that will be a part of the pricing system. Farmers and growers are involved in this ongoing work.

Partners:

- Beef + Lamb New Zealand
- Dairy NZ
- Federated Farmers of New Zealand
- Horticulture NZ
- Federation of Māori Authorities (FOMA)
- Ministry for the Environment (MfE)
- Ministry for Primary Industries (MPI)
 - Foundation for Arable Research (FAR)
- Dairy Companies Association (DCANZ)
- Deer Industry New Zealand (DINZ)
- Meat Industry New Zealand (MIA)
- Irrigation New Zealand
- Apiculture NZ

Supporting organisations include:

- NZAGRC
- PGgRc
- AgResearch
- Department of Conservation
- Fertiliser Association of New Zealand
- Manaaki Whenua
- Scion