

July 2021

Beef + Lamb New Zealand

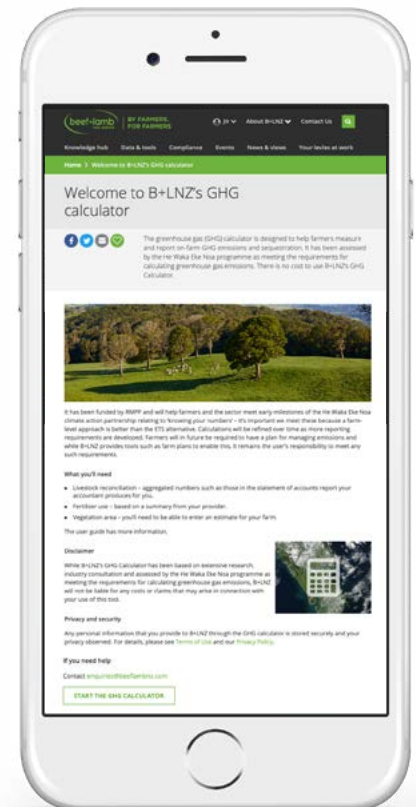
Greenhouse Gas Calculator: Frequently Asked Questions

The Greenhouse Gas (GHG) Calculator is a free tool for sheep, beef and deer farmers to easily measure and report on-farm GHG emissions and sequestration.

The calculator has been funded by the Red Meat Profit Partnership (RMPP) and developed and tested with farmers.

Equipping farmers to measure and manage emissions, including through sequestration, is the focus of the He Waka Eke Noa partnership programme. The agricultural sector has a role to play in meeting New Zealand's international commitments to reduce emissions. The He Waka Eke Noa approach is better for farmers than the alternative, which is a tax at processor level imposed by the Government.

Through B+LNZ, farmers can freely access the calculator to measure their emissions, and the Farm Plan Environment Module to help them plan to manage their emissions and identify sequestration opportunities.



Questions and answers

ABOUT THE CALCULATOR

How does the calculator work?

The calculator takes information about your farm and your stock, and applies science and data about average emissions at national, regional and farm system level to calculate your on-farm emissions.

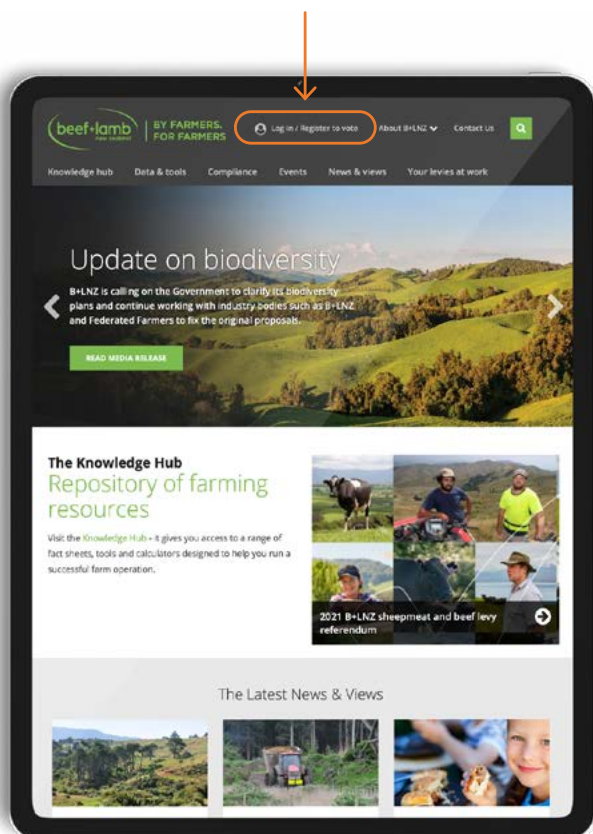
It's not the only calculator available, but the advantage of the B+LNZ GHG Calculator is that it's free and easy to use.

You can do a simple calculation using your farm information and stock numbers or you can add further information about stock movements during the year, fertiliser use and woody vegetation cover, for a more complete picture.

Where do I find the calculator?

The GHG Calculator is accessed by logging in to the B+LNZ website. Logging in means data is securely saved for farmers so you can go back and add further information as it comes to hand, and access your data in future.

You will need an online account for the B+LNZ website. It's quick and easy to set this up – go to www.beeflambnz.com, click on 'Log in/Register to vote' at the top of the homepage and fill in the 'Please create online account' section.




How do I use the calculator?


You have to enter some basic information about your farm and your stock numbers. This will give you an indication of your emissions total and is enough to get started.


Where you can add further information about stock movements during the year, fertiliser use and woody vegetation cover, then you will get a more complete picture.

The basic information required about your farm includes your trading account GST number, as this is a unique identifier for your business and means we can avoid double-counting or confusion between farm businesses. B+LNZ will not share any of your information with anyone, including IRD.

The next level of information you can provide, to develop a more complete picture, is:

 **Stock movements** throughout the year including births, and time off the farm, for example grazing elsewhere. This information helps get a more complete picture of the percentage of time that stock are on your farm and their associated emissions. You can find this information in your annual Financial Statements (accounts) from your accountant.

 **Fertiliser use** (you can get these figures from your fertiliser company). This information contributes to a more complete picture of your inputs.

 **Woody vegetation cover.** This information helps identify where sequestration is happening on your farm, and adds to a more complete picture of your emissions.

More detailed guidance is included in the calculator itself and in the user guide. B+LNZ will also hold workshops covering how to use the calculator.

Will my information and data be secure?

Yes. B+LNZ will not share your individual data with anyone without your explicit permission. For details please see our privacy policy at www.beeflambnz.com/privacy-policy

B+LNZ will report on the number of farmers using the calculator; but will not report on any individual farm's GHG emissions total.

As more and more farmers use the calculator, we may consider whether it is helpful to farmers to release overall statistics such as averages for benchmarking, but we will only do this in a way that ensures no individual result is identifiable.

The calculator gives me a number for three different gases as well as a total – why and what does this mean?

The calculator records your methane (CH₄), nitrous oxide (N₂O) and carbon dioxide (CO₂) separately because their impact is different. Methane traps very large quantities of heat in the first decade after it is released into the atmosphere, but quickly breaks down. In contrast CO₂ and N₂O are long-lived gases.

The results are then translated into a carbon dioxide equivalent (CO₂-e) figure, because that's the figure currently used in international targets.

How do I know if my 'numbers' are high or low?

B+LNZ is working on benchmarking data, so that you will be able to compare your numbers against an average for your farm class and region. We expect that to be available in future updates.

Can I tell people my numbers?

It's your information so that's up to you. You might want to share your result with your Farm Advisor, or a peer group such as a catchment group, discussion group or action group.

You can print or take a screen-shot of the results page of the calculator, or log in again to see your numbers.

Why doesn't the calculator account for carbon sequestered in grass or soil?

Sequestration in grass or soil is difficult to measure and fluctuates a lot, for example as grass is eaten or soil dries out. The He Waka Eke Noa programme has therefore decided not to include it in sequestration calculations at this stage and so it is not part of the calculator. However, B+LNZ supports further research on sequestration opportunities and these could be incorporated into the calculator in future.

I'm a deer farmer – will this calculator work for me?

Yes, this calculator is designed for the red meat sector, sheep, beef and deer.

I've got a mixed arable farm – will the calculator account for my crops?

At this point, the B+LNZ GHG Calculator does not account for cropping. You could model the emissions from your livestock using the calculator as a starting point. We are looking at this as an area for future development.

I'm a dairy farmer – will this calculator work for me?

This calculator is designed for sheep, beef and deer farms. It can also be used for dairy support/run-off blocks provided none of the area is used for milking. Contact DairyNZ who are helping dairy farmers know their numbers.

ABOUT MEASURING AND REDUCING EMISSIONS

Why should we measure emissions?

New Zealand's agricultural sector has a role to play in contributing to meeting specific greenhouse gas emission reduction targets, as part of international commitments on climate change and in the Climate Change Response (Zero Carbon) Amendment Act.

The He Waka Eke Noa programme is developing a practical framework to achieve reductions. This will involve measuring emissions and offsets, and a farm-level pricing system will be developed (by 2025) that will recognise and incentivise action. One of the principles of the He Waka Eke Noa partnership is to recognise early adopters and the good work already done.

The alternative would be for agriculture to face liabilities for biological emissions under the Emissions Trading Scheme. The He Waka Eke Noa partnership approach is better for farmers because it gives them input into the process and is likely to be more effective than a blanket tax at the processor level.

Why is B+LNZ involved in He Waka Eke Noa?

B+LNZ's goal is for the sheep and beef sector to work towards being carbon neutral by 2050, as our contribution towards achieving New Zealand's climate change objectives.

B+LNZ sees He Waka Eke Noa as an opportunity to develop a New Zealand-specific agricultural emissions framework, which is a better approach than bringing agriculture into the Emissions Trading Scheme (ETS) through a tax at processor level.

Under He Waka Eke Noa, management and mitigation of greenhouse gas emissions is in the hands of farmers.

There are milestones that must be met, otherwise the Government has the ability under legislation to revert to the ETS approach – it's therefore important we make the programme a success.

What are our commitments through He Waka Eke Noa?

Through He Waka Eke Noa, we've signed up the following targets:

- By the end of 2021 a quarter of farms 'know their numbers' of greenhouse gas emissions and have a written plan to manage emissions (usually in their Farm Environment Plans).
- By the end of 2022 every farm knows their farm's greenhouse gas numbers.
- In 2025:
 - All farms have a written plan to measure and manage their greenhouse gas emissions (usually in their Farm Environment Plans).
 - A nationwide farm-level pricing system has been designed and tested with farmers and growers, and is up and running.

Meeting these milestones is essential to secure a farm-level approach and avoid the Government instead including agriculture in the Emissions Trading Scheme with a tax at processor level. The B+LNZ GHG Calculator is recognised as meeting requirements for calculating greenhouse gas emissions under He Waka Eke Noa.

What farms are included in the He Waka Eke Noa targets?

A farming enterprise larger than 80 hectares; a dairy herd with a milk supply number; or a feedlot. This covers about 97 percent of agricultural greenhouse gas emissions and 25,000 farms.

Who's keeping count towards the targets?

The He Waka Eke Noa partners collectively will report on numbers of farms who know their numbers and have farm plans. B+LNZ will report on the number of sheep and beef farms using its calculator and farm planning approach. Information will also be gathered from other sources. B+LNZ will have a unique identification number for each farm using its tools, to avoid double counting (this will be the farm's GST number).

WHY USE THIS CALCULATOR

There are a number of different calculators - why should I use this one?

B+LNZ has developed and tested this calculator with farmers, drawing on our Economic Service's deep knowledge of the sector, so it's easy to use and reflects the reality of sheep and beef farming.

It's free, and we believe it's the most comprehensive and accurate of the free tools available, because it enables you to more accurately record detail about stock types, numbers and time on the farm. This is important because 94-96 percent of emissions across the sheep and beef sector are from livestock.

How does it compare with the calculators, tools or models that you pay for?

Our tool is focused solely on enabling farmers to understand GHG emissions and sequestration at no cost to them, and as something they could complete themselves. It was designed to enable farmers to meet early milestones of the He Waka Eke Noa programme.

NEXT STEPS

Will there be new versions/upgrades to the calculator?

We are looking for opportunities to enhance the calculator to better represent your farm and to make it even easier to use.

We would welcome comments and suggestions.

Results from the current version will remain valid and will enable you to make comparisons year on year, regardless of improvements.

We encourage you to try the calculator out at the end of the financial year, and see how it works. You can always log back in and do it again later.

