



Climate and carbon



Dairy Australia supports farmers looking to better manage and adapt to the changing climate and environment. We are delivering initiatives for improved efficiency of dairy farm inputs, such as water and energy, and supporting action on-farm to reduce greenhouse gas emissions (GHG).

What is driving the need to reduce carbon emissions in dairy?

All sectors of the economy will need to reduce emissions in order to achieve global and national agreements and emissions targets. Consumers, dairy processors, retailers and the finance sector have recognised these targets and are increasingly expecting that the dairy sector reduces emissions to help achieve them.

Stakeholders across supply chains are working together to achieve change both here in Australia and in overseas markets and for dairy having targets and 'doing our part' allows us to keep ahead of the regulations and imposition of legislation.

How is the dairy industry going to achieve its targets?

As an dairy industry we have commitments to reduce our carbon emissions intensity by 30 per cent by 2030. These are set out in the **Australian Dairy Sustainability Framework**.

The first step for dairy farmers is to understand your own farm's emissions by using the **Australian Dairy Carbon Calculator (ADCC)**. Once you've done that, you can use supporting Dairy Australia resources to identify and implement changes to reduce your emissions profitably; like adding solar panels to your dairy shed and figuring out how to maximise the use of the zero carbon energy you generate.

Dairy Australia is also investing in longer-term solutions like feed supplements and genetics to reduce the amount of methane each cow generates.

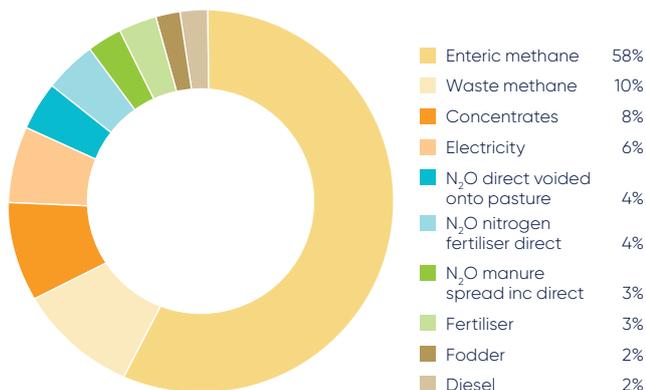


What are the main sources of greenhouse gas emissions on dairy farms?

The biggest source of emissions on Australian dairy farms is enteric methane, at about 60 per cent of emissions.

The rest of a dairy farm's emissions are made up from fossil fuels and energy use, fertiliser, manure and bought feed. Other ruminant industries, including sheep and beef, also have emissions profiles dominated by methane.

Figure 1 Sources of greenhouse gas (GHG) emissions on dairy farms



Source: Christie, K. 2020. Analysis of dairy farm greenhouse gas emissions data (DairyBase).

What are scope 1, 2 and 3 emissions?

Scope 1 emissions are those generated within your business. This includes methane from cows. Scope 2 emissions are those associated with the energy you use. This includes electricity from the national grid. Scope 3 emissions are those within your supply chain. For a dairy processor or retailer, dairy farm emissions are the scope 3 emissions they are looking at to reduce.

What can dairy farmers do today?

While there are a lot of things that are outside of farmers' control, the one thing you can control is your own enterprise and your own emissions on farm. The first step is to understand your dairy farm emissions. You can do this by using the Australian Dairy Carbon Calculator, either through DairyBase or with the Excel spreadsheet. Once you understand your emissions, you can use supporting Dairy Australia resources to identify and implement changes that profitably reduce your emissions.

What is the ADCC?

The Australian Dairy Carbon Calculator is a dairy-specific tool designed to help farm businesses understand their farms carbon footprint.

Written and updated by experts and recognised as the gold standard for dairy farms here and overseas, the calculator can be accessed free as a standalone downloadable spreadsheet.

You can also complete your farm carbon emissions calculation answering an additional seven questions in DairyBase.

How do I use the ADCC?

If using the ADCC spreadsheet, start by looking at the accompanying data collection sheet [here](#) to gather all the required information to get an accurate carbon footprint calculation. There is also a very comprehensive user manual and also some worked examples in the spreadsheet (which display as comments in the field) to help you.

What information will the ADCC tool provide?

The ADCC provides both total emissions and emissions intensity for your farm business, broken down by the different gases and sources. It also benchmarks you against the national average, quickly identifying areas for improvement and areas where you're already performing well. Once you know the areas for improvement, you can look at ways to reduce emissions by improving your business efficiency and saving money. Another key benefit of the ADCC is it allows you to identify emissions linked to milk production, separate to emissions associated with beef production (if for example, you also produce dairy beef as part of your enterprise).

Where can I learn more about climate change and dairy?

Dairy Australia's new Climate Change and Dairy online learning modules are a great place to start for a better understanding of the risks and opportunities presented by climate change. With three topics in this free to access online course, learn about the key sources of emissions from dairy farms, how to calculate your farm's carbon footprint and practical on-farm adaptation options to find efficiencies of inputs and reduce emissions.

Visit: enlight.dairyaustralia.com.au

Dairy Australia is developing extension programs to support farmers to know their carbon number. You can also find other resources, information and tools on our [website](#).

For more information on how Dairy Australia can help you with managing climate and environment on-farm, contact us on 03 9694 3777.