



**Dairy
Australia**

Your Levy at Work



**Profitable dairying in a
carbon constrained future**

Dairying in Australia

1.65 million cows

6398 dairy farms

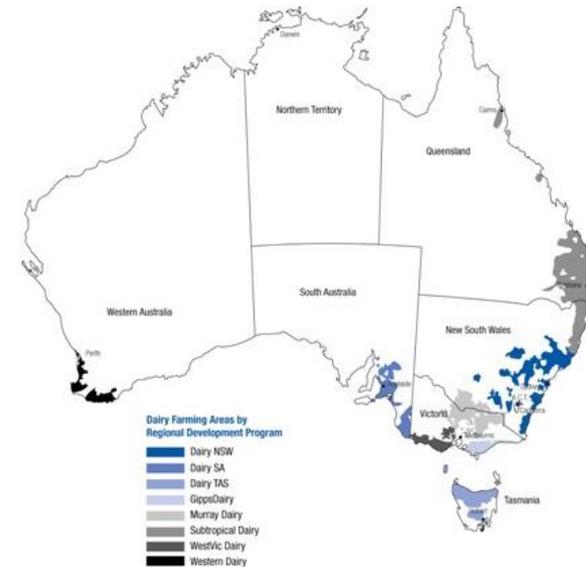
Milk Production 9,200 million litres

Australia's 3rd Largest Rural Industry \$13 billion

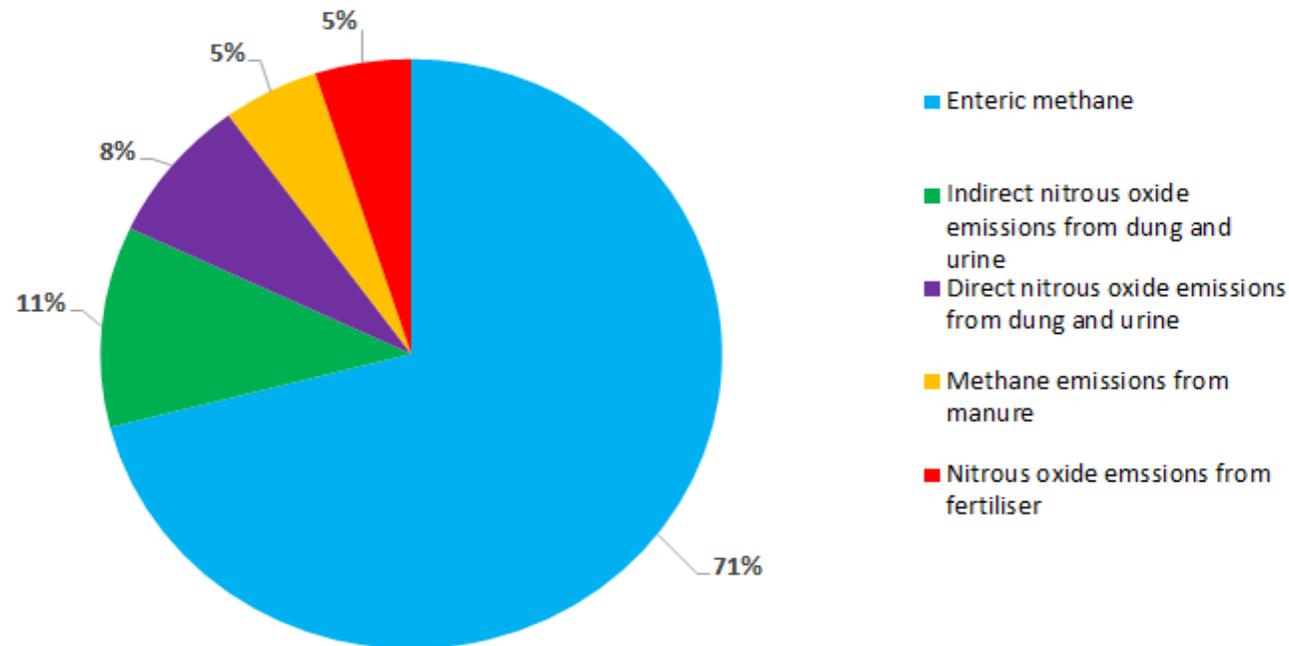
Major Export Industry \$2.76 billion - 7 per cent of world dairy trade (40% exported)

Per Capita Consumption Drinking milk 107 L Cheese 13.5 kg

Dairy Industry Workforce Direct employment of approximately 43,000



What are the GHG emissions on a dairy farm?



Breakdown of greenhouse gas emissions generated on farm. Christie, K.J; Gourley, C.J.P; Rawnsley, R.P; Eckard, R.J; Awty, I.M. 2012. Whole-farm systems analysis of Australian dairy farm greenhouse gas emissions. *Animal Production Science*, 52, 998-1011.

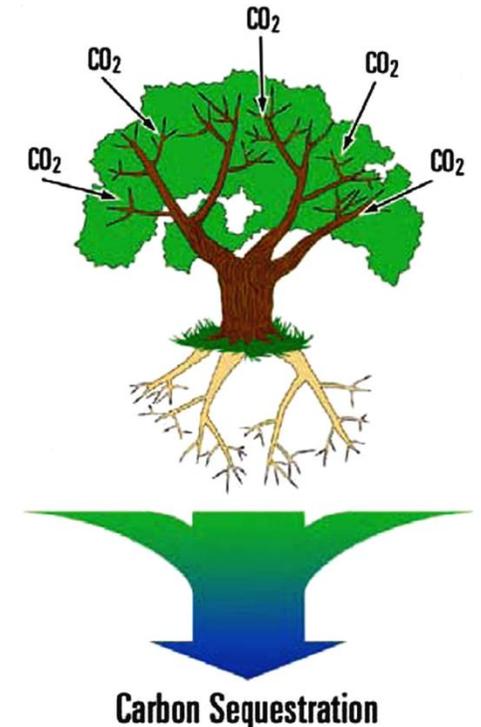
How can dairy farmers reduce emissions?

- Focusing on practices that **reduce emissions per litre of milk**
- Focusing on efficiency gains:
 - herd genetics and reproductive efficiency
 - diet quality
 - irrigation, soil, fertiliser and manure management.



What about locking up carbon?

- Tree plantings can lock up carbon and also provide additional benefits such as shade and shelter for cows.
- Soil carbon? Net increases are difficult to achieve on dairy farms...why?
 - Mostly high organic carbon levels already
 - Gains are easily lost through management practices such as cultivation, or due to drought.



Key messages for dairy farmers

- 1. Identify and cull less productive animals** - Your most productive cows make the most money and produce the least greenhouse gases (GHG) emissions.
- 2. High quality feed is always best** - Feed a high quality diet to increase milk production and reduce GHG emissions.
- 3. Get Your Nitrogen Strategy Right** - Apply nitrogen at the right time, in the right place, with the right product and at the right rate to improve on farm nitrogen use efficiency and reduce GHG emissions.
- 4. In calf, on time, every time.** This makes your herd more profitable and reduces GHG emissions intensity.
- 5. Keep cows comfortable** - During extreme weather events this will reduce stress and associated losses in milk production. Trees & shrubs can provide shade and shelter, enhancing milk production as well as storing carbon which may generate carbon credits.
- 6. Smarter Energy Use** - Monitor electricity consumption and equipment performance

Getting the message out

- Efficiency programs
- Extension materials
- Support network.
- Innovation Hubs and carbon focus farms (southern states)

The “Post Card” of key messages

Profitable Dairying - regionally driven and owned



Profitable Dairying

Good business management reduces greenhouse gases

Identify and cull less productive animals.
Your most productive cows make the most money and produce the least greenhouse gases (GHG) emissions.

High quality feed is always best.
Feed a high quality diet to increase milk production and reduce GHG emissions. Feeding supplements containing fat and oil is an approved Carbon Farming initiative methodology and can generate carbon credits.

Get your nitrogen fertiliser strategy right.
Apply nitrogen at the right time, in the right place, with the right product and at the right rate to improve on farm nitrogen use efficiency and reduce GHG emissions. (Dairy Australia – FertSmart).

In calf, on time, every time.
This makes your herd more profitable and reduces GHG emissions intensity (Dairy Australia – InCalf)

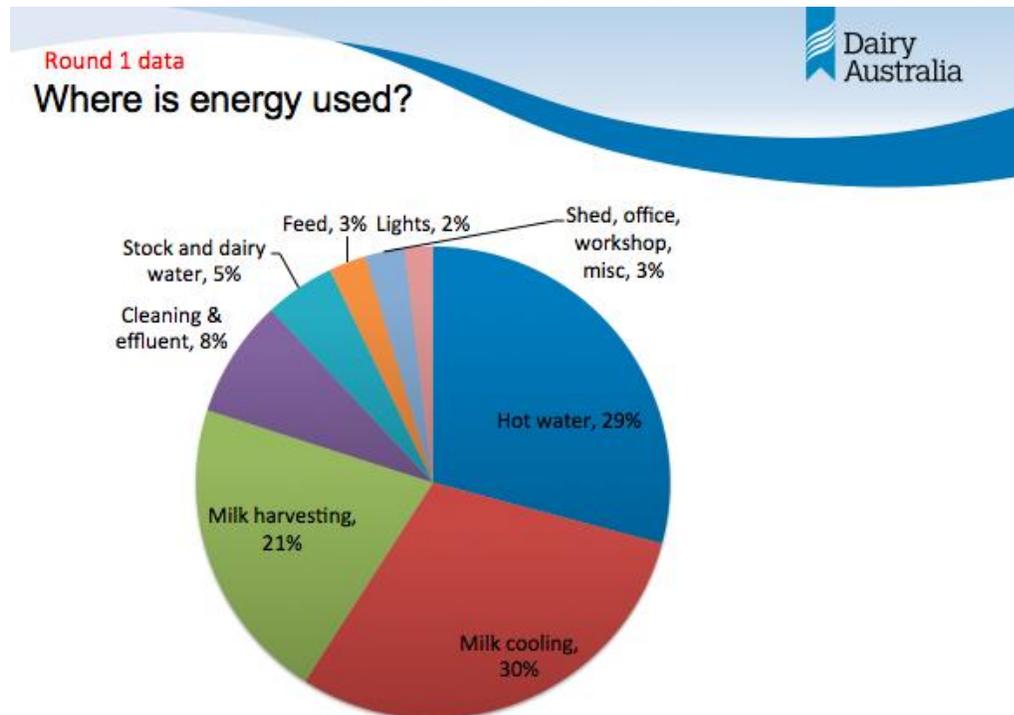
Keep cows comfortable.
During extreme weather events this will reduce stress and associated losses in milk production. Trees & shrubs can provide shade and shelter, enhancing milk production as well as storing carbon which may generate carbon credits. (Dairy Australia – Cool Cows)

Smarter energy use.
Monitor electricity consumption and equipment performance. (Dairy Australia – Smarter energy use on Australian dairy farms)

The Australian dairy industry has committed to reducing greenhouse gas emissions intensity by 30% by 2020. This project is supported by funding from Dairy Australia and the Department of Agriculture, Eickard, R.U., Grainger C, and de Klein GAM (2008) Options for the abatement of methane and nitrous oxide from ruminant production – a review.

Smarter Energy

900 shed energy audits across Australia



Dairy Australia Regional NRM technical specialists

Promote industry resource management programs and tools

Work closely with non-industry and industry stakeholders to ensure regional NRM activities targeting dairy farmers add value

Responsible for the regional delivery of Dairy Australia CC and NRM projects

