

# 10 Steps

## Reducing the carbon footprint of Tasmanian dairy

1



### Know where emissions come from

Methane & nitrous oxide are main greenhouse gases from dairy farms. There are carbon calculators and rules of thumb to estimate emissions. Cape Grim, Tasmania is a global baseline greenhouse gas monitoring station. [capegrim.csiro.au](http://capegrim.csiro.au).



2



### Make every cow count

Cow performance = genetics + environment. Aim for optimum genetic gain in each generation of replacements. Use high HoofPrint® rated sires in your breeding program. In calf, on time, every time for profitable herds with lower emissions intensity.



3



### Efficient cows are key – breed for energy use over cow size

Breed for the type of cow that fits within your farm system. Consider what production is your “sweet spot” and target a cow producing at 90-100% of liveweight. e.g. cow producing 450 kg MS should be no heavier than 500 kg.



4



### Enduring Cows

Increase lifetime animal profit with longer lasting, efficient producing cows. Increasing average number of lactations from 4 to 5 for the herd = dropping replacement rate from 25% to 20%, leading to net decrease in emissions for the herd. Milk less cows, milk better cows.



5



### Home grown goodness

Maximise % home grown feed in diet. NZ Lincoln University Dairy Farm achieved 12% decrease in emissions by 1) fewer, higher producing cows; 2) reducing supplement feed & nitrogen fertiliser inputs; 3) improving pasture management.



6



### Smarter Energy Use

Do maintenance, get efficient and invest in renewables. Make energy efficient decisions for irrigation upgrades. Do energy audits and benchmark energy use.



7



### Be Fert\$mart

Strategic use of N fertiliser, good effluent management/using effluent as a fertiliser, minimising build up of manures, managing wet areas and good soil management will reduce nitrous oxide emissions.



8



### Keep cows comfortable and plant trees

Any cow compromised by lameness, mastitis, heat/cold stress or poor feeding will compromise emissions efficiency & farm profitability. Trees on dairy farms = multiple benefits.



9



### Farming carbon - rivers, soils and trees

Whole farm planning and good farming practices to store carbon in shelterbelts, woodlots, riparian buffers and soils have multiple benefits.



10



### Keep learning - New Technologies and potential solutions

Research is underway in feed additives (seaweed, 3-NOP), methane vaccines and breeding/genetic modification for feeds and animals. There is growing investment in alternative protein sources.

