the carbon farming project

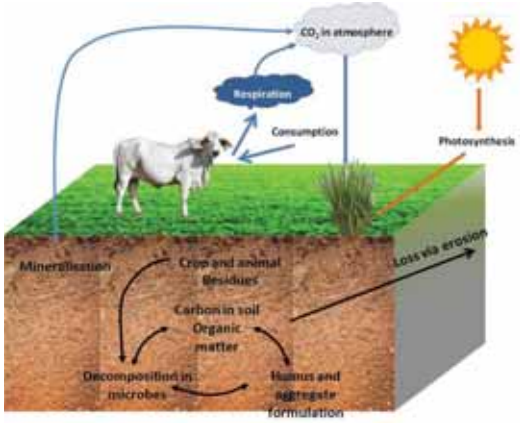
Calculators & Tools

the carbon farming project

SOURCE OR SINK

IS YOUR FARM A SOURCE OR SINK OF GREENHOUSE GAS?

As an industry, Australian agriculture is both a source and sink of greenhouse gases (**GHG**s) such as nitrous oxide, methane and carbon dioxide. These are collectively measured as carbon dioxide equivalents (CO_2e) so that the Australian Government can account for the amount of emissions produced by agriculture. Australian agricultural industries contributed 87.3Mt of CO_2e into the atmosphere in 2012. This is approximately 15% of our total national GHG emissions.



(Eckard 2011)

The Australian Government is committed to reducing our total national **GHG** emissions by 5% by the year 2020. Agriculture, or the 'land sector' as it is known, is one industry which can help in reaching that target.

Taking action to reduce emissions from a farming enterprise can result in a more efficient farm and productivity gains. The amount of nitrous oxide that enters the atmosphere from a cropping system, for example, could be reduced by optimising inputs by altering the timing, amount, placement and type of fertiliser used.

Reducing emissions from farming systems may also enable primary producers to earn **Australian Carbon Credit Units (ACCUs)**. For information on earning **ACCUs** please go to the website of the Clean Energy Regulator **www.cleanenergyregulator.gov.au**.

CALCULATORS

There are many tools and calculators available for primary producers to identify sources and sinks for emissions. Here are just a few that can help you calculate what your emissions are, where they are coming from, what actions can be adopted to manage emissions, and opportunities for emission sinks (sequestration). It's all about restoring the balance, reducing inefficiencies in farming systems and making production gains.

GREENGAUGE

GreenGauge is a whole farm **GHG** calculator developed by **QMDC** that will;

- calculate farm emissions and actions that capture or sequester carbon dioxide
- factor in all aspects of a farm including cropping, grazing, fuel, electricity use, vegetation management
- test management options and identify how a change on farm will affect farm emissions, and
- assist you in predicting the impact of management decisions on the greenhouse balance of your farm.

To use GreenGauge contact BMRG for a one-on-one visit to run your property through the GreenGauge calculator.

FARMGAS

A decision making tool developed to investigate how management and production practices might alter the emissions profile of a farm. FarmGAS can;

- create and compare different management scenarios for an individual farm
- use the production and emissions data to compare the financial and emissions performance of a farm with a range of emission reduction scenarios (projects), and
- help you to evaluate carbon farming projects that might be applicable to your enterprise.

The FarmGAS Calculator can be accessed online at the Australian Farm Institute website **www.farminstitute.org.au** for an off-line version contact **BMRG**.

PIGGAS

The Pork Industry Greenhouse Gas Calculator can calculate the on-farm GHG emissions for any type of piggery. Use it to;

- model ways in which emissions from a piggery can be reduced
- identify approved piggery Carbon Farming Initiative (CFI) methodologies that may be applicable for that piggery.

To use PigGas or for further information go to the Australian Pork Limited's website **http://australianpork.com.au**

HORTCARBONINFO

HortCarbonInfo is a calculator and learning tool similar to GreenGauge, but specific to the Horticulture industry. HortCarbonInfo can account for roughly 90% or more of the **GHG** emissions created in a growing operation. It has been developed by the Department of Agriculture Fisheries and Forestry (Queensland) and can be used to estimate **GHG** emissions and measure the carbon footprint of a Horticulture farming enterprise. It can help you to identify the areas where you can reduce the carbon footprint and compare results of the change in practices, over many years. To use HortCarbonInfo, contact the Bundaberg Fruit & Vegetable Growers – they can help you run your farm operation through the calculator.

Queensland Government

ABOUT THE CARBON FARMING PROJECT

The Carbon Farming Project is a regional initiative established to inform land managers about **GHG** emission mitigation technologies, carbon sequestration tools, and policy frameworks that are designed to reduce agricultural emissions. One-on-one assistance is available through the Carbon Farming Project to use these calculators. Contact the Burnett Mary Regional Group, Bundaberg Fruit & Vegetable Growers or the Burnett Catchment Care Association for further information.

Guna Nachimuthu, 2012, Department Agriculture, Fisheries and Forestry - Paddock to Reef project

our partners

SOME INFORMATION ABOUT US AND OUR PARTNERS;

THE BURNETT MARY REGIONAL GROUP (BMRG) is the peak body for natural resource management for a region comprising the Burnett and Mary river catchments. BMRG delivers practical solutions that protect and enhance our region's natural assets.

Telephone: 07 4181 2999
Website: www.bmrg.org.au

THE BURNETT CATCHMENT CARE ASSOCIATION (BCCA) is a member-based, not-for-profit organisation, employing professional staff to develop and implement natural resource management projects across the Burnett and associated river catchments. BCCA works directly with landholders to support sustainable land management practices and enhance their natural resources.

Telephone: 07 4166 3898
Website: www.betterburnett.com

BUNDABERG FRUIT AND VEGETABLE GROWERS (BFVG) is a non-trading, not-for-profit, grower-based cooperative comprising a membership base of horticulture growers and industry service businesses in the Bundaberg, Gympie and Gayndah regions. Bundaberg's horticulture industry alone is estimated at more than $500 million, therefore the Wide Bay Burnett region plays an integral role in the nation's food security.

Telephone: 07 4153 3007
Website: www.bfvg.com.au

DAIRY AUSTRALIA is the national services body for dairy farmers and the industry. Their role is to help farmers adapt to a changing operating environment, and achieve a profitable, sustainable dairy industry.

Telephone: 03 9694 3777
Website: www.dairyaustralia.com.au

further information

WHERE TO GO FOR FURTHER INFORMATION CARBON FARMING TOOLS AND CALCULATORS

There are many calculators for Dairy, Sheep, Beef, Grain and Horticulture available online for landholders. The Greenhouse in Agriculture website developed by the University of Melbourne has links to each of these
www.greenhouse.unimelb.edu.au

Alternatively, Extension officers of the Carbon Farming Project from **BMRG**, **BCCA** and **BFVG** can point you in the right direction.

WHERE TO GO FOR INFORMATION ABOUT POLICY

To follow the policy and legislative changes on reducing emissions and sequestering carbon, go to the website of the Department of Environment
www.environment.gov.au/emissions-reduction-fund

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