

#02

Beef enterprise, Bowna NSW

Net on-farm greenhouse
gas (GHG) emissions

- 3,252.88 t CO₂-e

(see Table 1 overleaf)

**CARBON
NEUTRAL**

*The impact of tree
plantings in is highly
significant; with
substantially more
CO₂-e sequestered than
emissions produced.*

PROPERTY SUMMARY

This is a 935 ha hectare property, in the Bowna area of southern New South Wales with an annual rainfall of 750mm. The property's main enterprise is beef cattle. The property is managed under holistic principles, with no fertilisers and minimal use of chemicals used. The property currently has 12 sites (76.73 ha) registered as eligible offsets for carbon credits under government initiatives.

STOCK

420 head of mixed breed, spring calving cattle.

PASTURES

There is a move away from phalaris-based pastures to native grasses.

FERTILISER APPLICATION

No fertilisers are used.

SUPPLEMENTARY FEEDING

No supplementary fodder is made or brought in.

TREE PLANTINGS

There is 114 ha (12% of the property) of tree plantings.



On-farm Greenhouse Gas Emissions Case Study Series

TABLE 1. ANNUAL ON-FARM EMISSION SUMMARY

Emissions	Current emissions (t CO ₂ -e)
CO ₂ - Carbon dioxide emissions from diesel & electricity usage	17.00
CH ₄ - Enteric methane from livestock	857.00
CH ₄ - Methane from livestock manure	0.15
N ₂ O - Nitrous oxide from livestock dung & urine	81.00
N ₂ O - Nitrous oxide from fertiliser; mainly urea	0
N ₂ O - atmospheric deposition, leaching & volatisation of nitrous oxide	110.00
Tree plantings (after 1990)	- 4,318.18
Net on-farm GHG emission	- 3,252.88

LANDHOLDER FEEDBACK

For this landholder, the future is to continue building soil profile and fertility. The current holistic approach has engendered a high degree of confidence that future financial, environmental and social goals combined with a balanced lifestyle can be met.

The landholder has 12 sites accredited as eligible offsets for carbon credits under government initiatives and this may be a small income stream that should add capital value to the property. The landholder adds “the principals of carbon farming encourage good regenerative farm practice, which we see as a win-win situation.”



The GHG emissions have been calculated by inputting the figures provided by the landholder into the Greenhouse Accounting Framework (GAF) calculators from www.greenhouse.unimelb.edu.au/Tools.htm. These figures and options only take into account actual on-farm emissions, and do not take into account any off-farm GHG emissions.

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