

# #05

## Beef enterprise, Tooma NSW

Net on-farm greenhouse  
gas (GHG) emissions

**115.27 t CO<sub>2</sub>-e**

(see Table 1 overleaf)

**This property is  
almost carbon  
neutral!**

*The landholder only  
requires a further 3 ha  
of tree plantings to  
completely offset the  
total GHG emissions  
from this property.*

### PROPERTY SUMMARY

This is a 910 ha property in the Tooma area of southern New South Wales with an annual rainfall of 980mm. The main enterprise on the property is beef cattle.

### STOCK

700 self-replacing, spring calving, European cross cattle.

### PASTURES

Approximately 75% of pastures are phalaris and sub-clover mix with the rest being native pastures consisting of microlaena, Red Wallaby and Kangaroo grass.

### FERTILISER APPLICATION

Single Superphosphate is applied annually at 125 kg/ha (based on soil test results) and some liming has been done to approximately 100 ha at 2.5 t/ha.

### SUPPLEMENTARY FEEDING

Occurs every year with approximately 60-70 tonnes of fodder purchased and fed out per annum.

### TREE PLANTINGS

57 ha (~ 6%) of the property has been revegetated.



## On-farm Greenhouse Gas Emissions Case Study Series

**TABLE 1. ANNUAL ON-FARM EMISSION SUMMARY**

Emissions	Current emissions (t CO <sub>2</sub> -e)
CO <sub>2</sub> - Carbon dioxide emissions from diesel & electricity usage	35.83
CH <sub>4</sub> - Enteric methane from livestock	1,941.92
CH <sub>4</sub> - Methane from livestock manure	0.33
N <sub>2</sub> O - Nitrous oxide from livestock dung & urine	195.24
N <sub>2</sub> O - Nitrous oxide from fertiliser; mainly urea	0
N <sub>2</sub> O - atmospheric deposition, leaching & volatilisation of nitrous oxide	267.13
Tree plantings (after 1990)	- 2,325.17
<b>Net on-farm GHG emission</b>	<b>115.27</b>

### EMISSION REDUCTION OPTIONS

#### Tree plantings

The landholder only requires a further 3 ha of tree plantings to offset the total GHG emissions from this property. This will increase the total area planted to 6.6% of the property.

#### Accumulate carbon credits

An option for this landholder is to look into further reducing and offsetting GHG emissions and begin to accumulate carbon credits by participating in a government or voluntary carbon crediting initiative. In the future they could look at trading these credits which could be a small income stream that may add capital value to the property.

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](http://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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