



Base GHG Emissions Summary

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GHG Biogenic Losses

The table below outlines the Biogenic GHG losses for the Base farm system.

eCO ₂ (carbon dioxide equivalents) tonnes/yr				
	Methane GHG Emissions	N ₂ O GHG Emissions	CO ₂ GHG Emissions	Total GHG Emissions
Base	1,276	310	0	1,586

Summary of Base Farm System

- 420 ha property (403 ha effective)
- 2,900 MA breeding ewes
- 800 replacements kept (27%)
- 3528 non replacement lambs sold prior to winter
- 50 yearling cattle purchased in December and sold the following September/October. On farm for 18 months.
- 30 ha kale grown for wintering
- Approximately 110 t DM baleage harvested on farm and fed back

Key Drivers of GHG

Methane emissions are driven predominantly by animal Dry Matter Intake - the more dry matter that is eaten (grazed or imported supplement) by ruminants, the more methane will be emitted. A key focus is maximising profitability from every kg DM consumed.

Nitrous oxide emissions are driven by the nitrogen cycle and the wetness of the soil. If animals urine contains higher concentrations of nitrogen, especially when soils are wetter, the rate of nitrous oxide emissions increase. Optimising the timing of nitrogen fertiliser application to minimise the risk of volatilisation also reduces the risk of nitrous oxide emissions.

Carbon dioxide is generated every time fossil fuels are burnt, woody vegetation is cleared & when lime or nitrogen fertiliser are applied.