

Green Grass Project

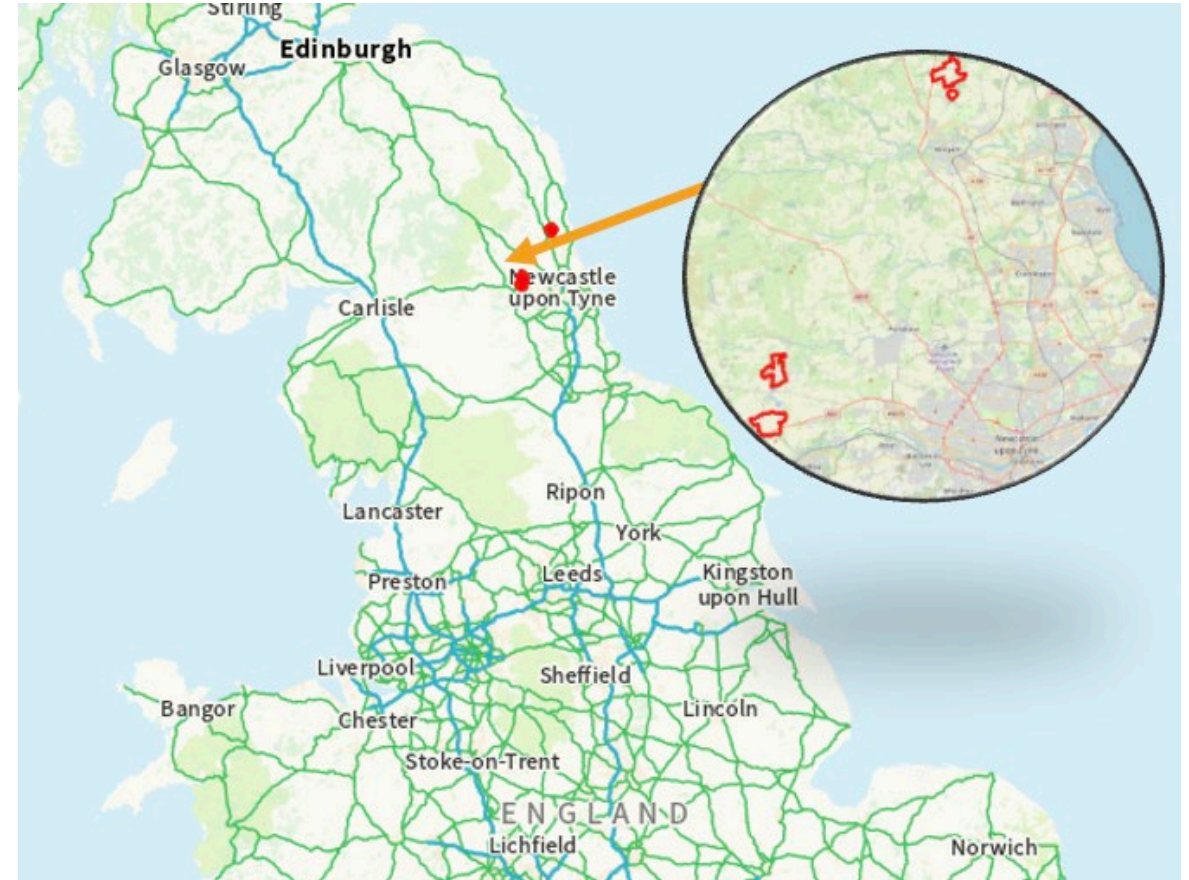
James Standen



Newcastle University Farms

University Farm

- Mixed Farm – Across three sites
 - Dairy
 - 250 cow split block herd
 - Grazing system
 - Arable
 - 450-500ha area
 - Direct Drill/Regen Type System
 - Beef
 - 60-80 Finished cattle each year
- Commercial/Teaching/Research



Carbon Footprinting

Calculators

Whole Farm

- Agrecalc/Farm Carbon Calculator/Cool Farm Tool

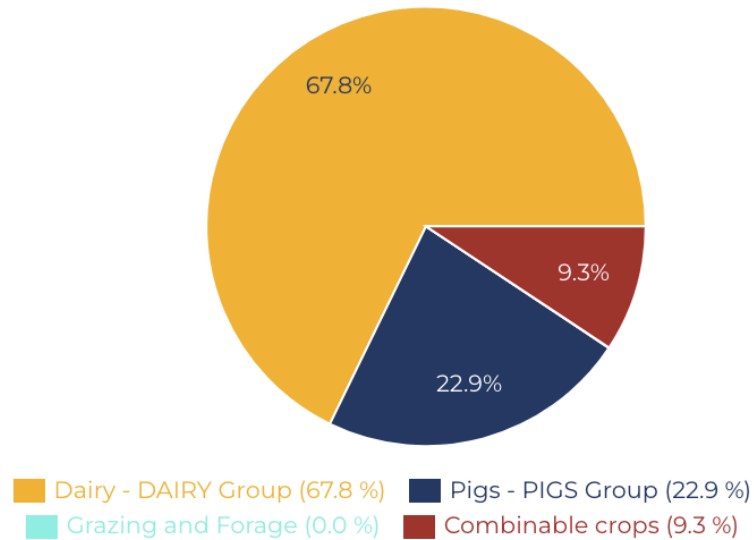
Enterprise

- Arla Farmahead Sustainability Tool

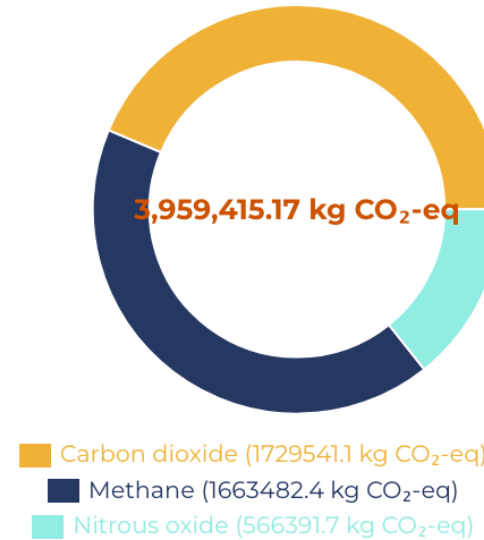
Farm Emissions



Emissions by Enterprise

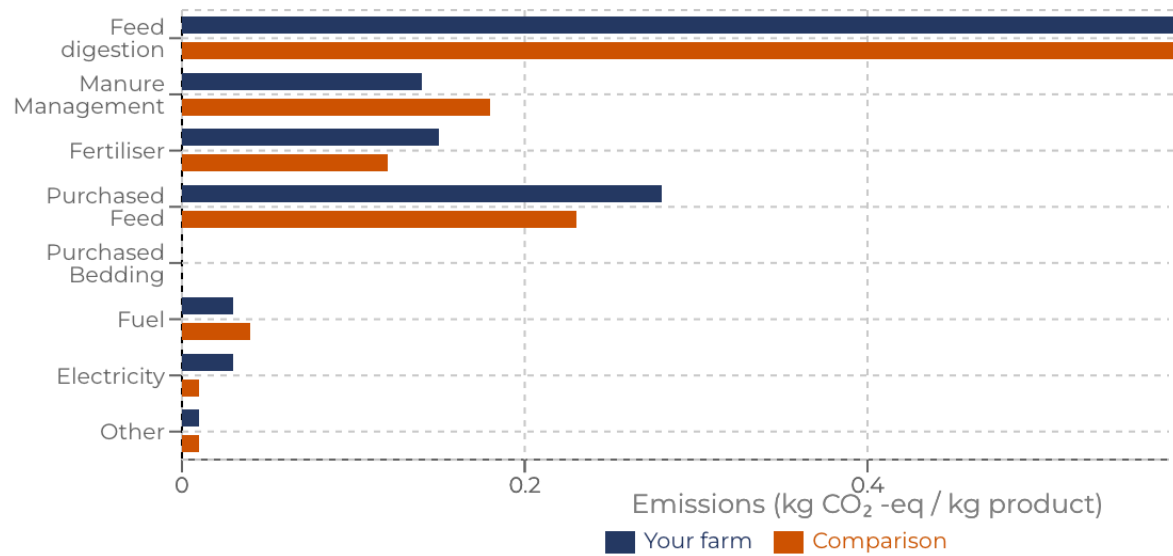


Emissions by Gas



Dairy Emissions

Emissions vs Comparison



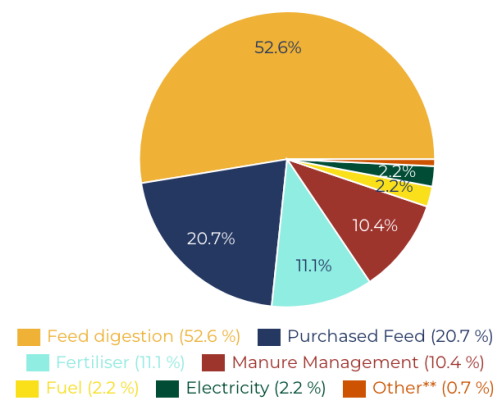
Total Emissions:
2,684,043 (kg CO₂-eq)

Product Emissions:
1.35 (kg CO₂-eq / kg product)

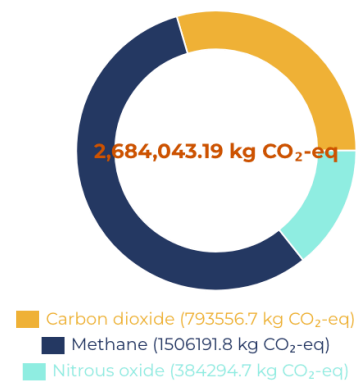
Largest Source:
Feed digestion

Highest Gas Emission:
Methane (56%)

Emissions by Source



Emissions by Gas



Approaches to Reduce Nitrogen

Grassland/GreenGrass Actions,

- Slurry/Manure
 - Harvest lab/targeted application, more storage, better nutrient management
- Fertiliser
 - Alternative sources, soil bacteria, N fixing bacteria, teas
 - Foliar N
 - Diversify swards, increase clover
- Mulches
- Grazing Management

