SheepLCA

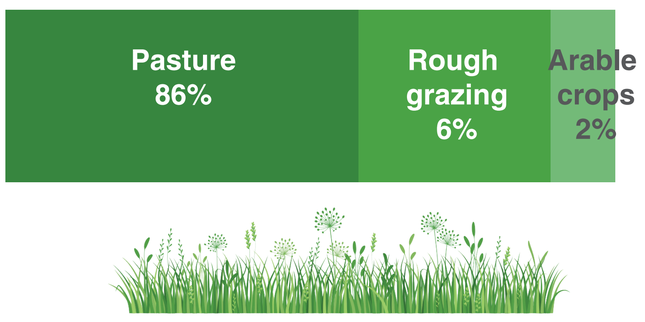
Irish Meat Sheep Farming Sustainability Benchmarking

IRELAND - YEAR 2021

MEAT SHEEP FARM PROFILE (AVERAGE (MIN-MAX))

Land use & area

Total Sheep Area (UAA): 64.8 (13-225) ha
Main Forage Area (MFA): 25 (2.5-232) ha
Stocking Rate: 6.9 (0.9-19) ewes/ha

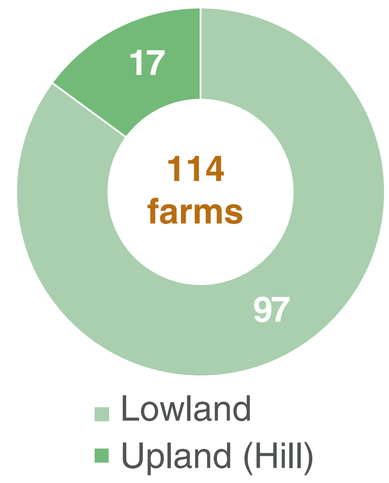


Productivity & meat performance

Flock size (N° of ewes): 158 (1.46-1414.5)
Lamb weaned/ewe: 1.5 (0.8-3.6)

Weight of lambs sold: 19.5 (11.9-32.8) kg carcass/lamb
Weight Productivity: 51.64 (2.3-86.9) kg carcass/ewe

Meat sheep systems



ENVIRONMENTAL AND ECOSYSTEM SERVICES FOR IRISH MEAT SHEEP FARMS

Food performance*

3.90 (0.3-14.3) *people/ha UAA*
**PerfAlim. Cereopa*

Nitrogen balance surplus*

67.5 (-13-206.8) *kg N/ha UAA*
**(N_{inputs}-$N_{outputs}$)*

Direct fossil energy*

29.54 (1.69-438.2) *MJ/kg carcass*
**Fuel & Electricity consumption*

CARBON FOOTPRINT ASSESSMENT

Gross GHG* emissions

29.65 (12.49-104.45) *kg CO_2 eq/kg carcass*
**GHG = GreenHouse Gases (CO_2 + CH_4 + N_2O)*

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Carbon sequestration*

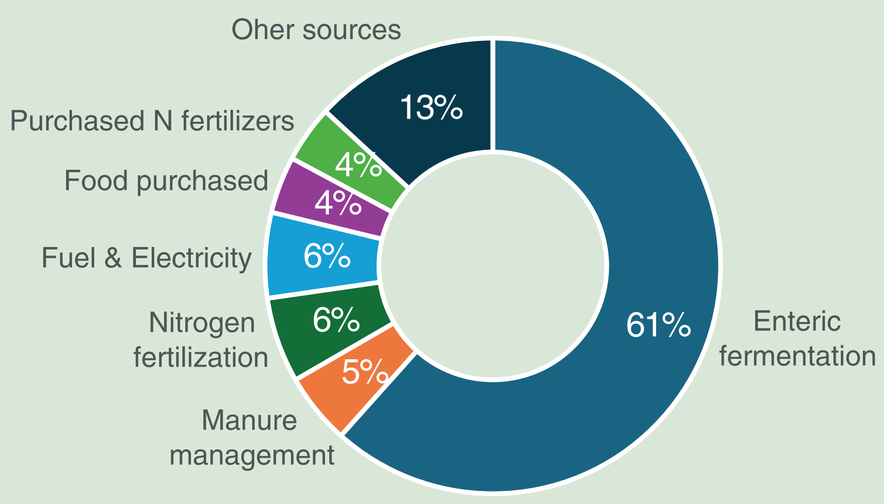
10.72 (3-127.2)
kg CO_2 eq/kg carcass
*Hedgerows excluded

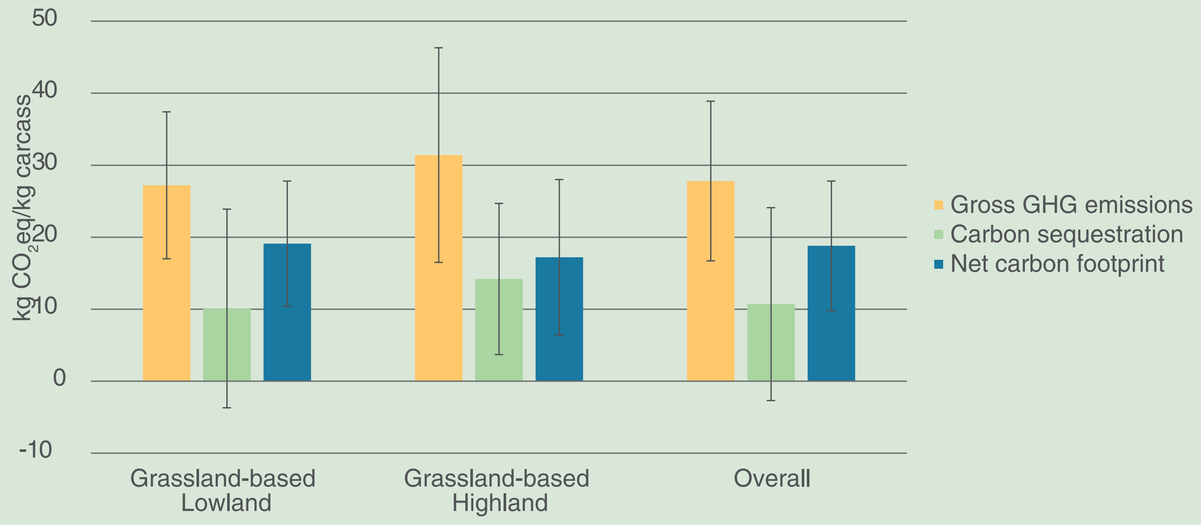
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Net Carbon Footprint

18.93 (-22.1- 57.1)
kg CO_2 eq/kg carcass

GHG emissions sources





SheepLCA

Irish Meat Sheep Farming Sustainability Benchmarking

IRELAND - YEAR 2021

GHG EMISSIONS AND TECHNICAL RESULTS WITHIN EACH SYSTEM

Grassland system -Lowland-97

Indicators		10% of farms that have the lowest emissions	Average (of the group)	10% of farms that have the highest emissions
GHG emissions	*kg CO_2eq/kg carcass*	15.1	27.2	50.2
Carbon sequestration	*kg CO_2eq/ha UAA*	1 517	1 468	1 402
Technical indicators for Flock Management and Production				
Lambs reared / ewe joined	*lambs/ewe*	1.61	1.50	1.40
Lambs weight	*kg carcass/lamb*	22.6	19.7	18.7
Weight Productivity	*kg carcass/ewe*	56.2	30.2	23.9
Concentrate consumption	*kg/ewe*	60	58	87
Concentrates self-sufficiency	*%*	0	0	0
Technical indicators for Land Management				
Mineral Nitrogen	kg N/ha UAA	75	69	67
Organic nitrogen pressure	kg N/ha UAA	86	80	82
Permanent grasslands & pastoral areas	%	86	91	99
Technical indicators for Manure management				
Grazing days for Ewes	days/year	309	303	305
Technical indicators for Energy consumption				
Electricity	kWh/kg carcasse	0.86	1.73	3.11
Fuel	litres/ha UAA	157	118	119

Grassland system -Upland/Hill-17

Indicators		10% of farms that have the lowest emissions	Average (of the group)	10% of farms that have the highest emissions
GHG emissions	*kg CO_2eq/kg carcass*	16.3	31.4	64.3
Carbon sequestration	*kg CO_2eq/ha UAA*	1 725	1 389	1 316
Technical indicators for Flock Management and Production				
Lambs reared / ewe joined	*lambs/ewe*	1.64	1.23	0.75
Lambs weight	*kg carcass/lamb*	20.2	18.3	15.0
Weight Productivity	*kg carcass/ewe*	38.5	24.1	8.8
Concentrate consumption	*kg/ewe*	59	47	36
Concentrates self-sufficiency	*%*	0	0	0
Technical indicators for Land Management				
Mineral Nitrogen	kg N/ha UAA	78	39	33
Organic nitrogen pressure	kg N/ha UAA	144	69	74
Permanent grasslands & pastoral areas	%	100	99	100
Technical indicators for Manure management				
Grazing days for Ewes	days/year	306	302	282
Technical indicators for Energy consumption				
Electricity	kWh/kg carcasse	0.80	0.59	0.19
Fuel	litres/ha UAA	135	45	21

Agriculture and Food Development Authority