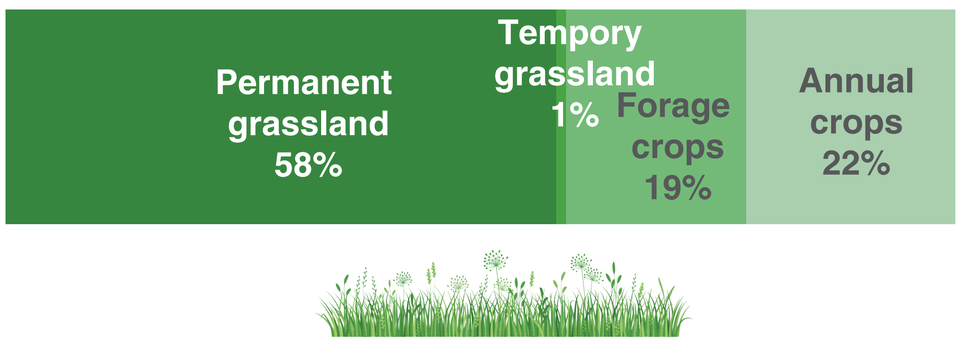
Spanish Dairy Sheep Farming Sustainability Benchmarking

SPAIN - YEAR 2021

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

Land use & area

Total Sheep Area (UAA): 35 (0-268) ha
Main Forage Area (MFA): 48 (0-437) ha
Stocking rate: 16.4 (2.2-124.3) ewes/ha

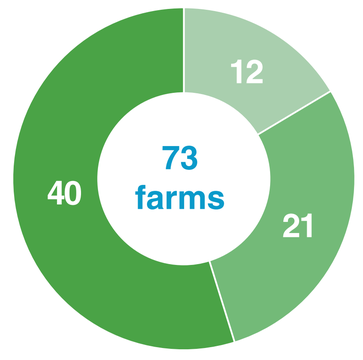


Productivity & dairy performance

Flock size (N° of ewes): 644 (80-2 337)
Milk Yield: 224 (24-708) kg FPCM*/ewe/year
*FPCM = Fat and Protein Corrected Milk 75-55

Useful Dry Matter (UDL): 117 (104-149) g/l
Litter size: 1.07 (0.32-2.16) lambs/ewe

Dairy sheep systems



ENVIRONMENTAL AND ECOSYSTEM SERVICES FOR SPANISH DAIRY SHEEP FARMS

Food performance*

30 (1-380) *people/ha UAA*
**PerfAlim. Cereopa*

Maintenance of biodiversity*

1.38 (0-13.83) *ha biodiversity eq/ha UAA*
**Hedgerows included*

Nitrogen balance surplus*

224 (30-1 794) *kg N/ha UAA*
**(N_{inputs}-$N_{outputs}$)*

Direct fossil energy

3.93 (0.37-21.37) *MJ/kg FPCM*
**Fuel & Electricity consumption*

CARBON FOOTPRINT ASSESSMENT

Gross GHG* emissions

4.15 (1.49-14.2) *kg CO_2 eq/kg FPCM*
**GHG = GreenHouse Gases (CO_2 + CH_4 + N_2O)*

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Carbon sequestration*

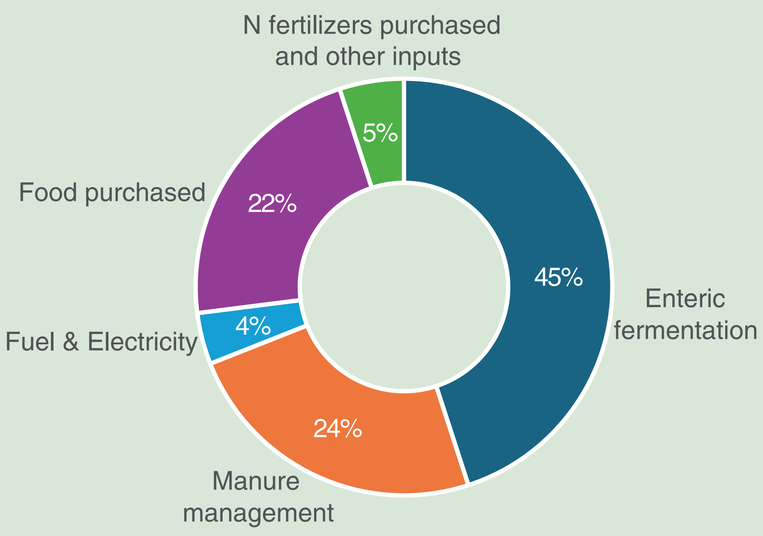
1.25 (0.07-8.99)
kg CO_2 eq/kg FPCM
*Hedgerows included

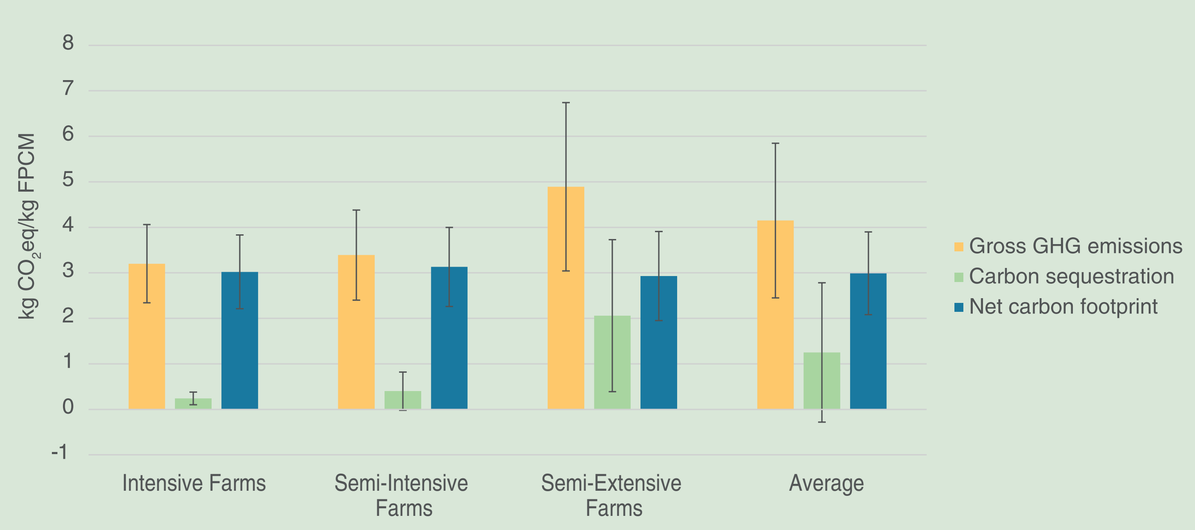
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Net Carbon Footprint

2.99 (0-5.21)
kg CO_2 eq/kg FPCM

GHG emissions sources





Spanish Dairy Sheep Farming Sustainability Benchmarking

SPAIN - YEAR 2021

GHG EMISSIONS AND TECHNICAL RESULTS WITHIN EACH SYSTEM

Intensive & Semi-Intensive Farms

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 FPCM*	2.02	3.27	4.79
Carbon sequestration	*kg CO_2eq/ha UAA*	980	1 714	1 608
Technical indicators for Flock Management and Production				
Milk Yield	*kg FPCM/ewe/year*	576	338	154
Litter size	*lambs/ewe*	1.66	1.29	1.19
Concentrate consumption	*kg/ewe*	964	582	397
Concentrates self-sufficiency	*%*	4	30	37
Technical indicators for Land Management				
Mineral Nitrogen	kg N/ha UAA	4	33	28
Organic nitrogen pressure	kg N/ha UAA	134	263	378
Permanent grasslands & pastoral areas	%	0	1	0
Technical indicators for Manure management				
Grazing days for Ewes	days/year	0	56	183
Technical indicators for Energy consumption				
Electricity	kWh/kg FPCM	0.05	0.1	0.18
Fuel	litres/ha UAA	157	211	120

Semi-Extensive Farms

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 FPCM*	2.94	4.63	8.6
Carbon sequestration	*kg CO_2eq/ha UAA*	2 101	2 865	3 058
Technical indicators for Flock Management and Production				
Milk Yield	*kg FPCM/ewe/year*	234	122	60
Litter size	*lambs/ewe*	1.24	0.8	0.73
Concentrate consumption	*kg/ewe*	200	143	85
Concentrates self-sufficiency	*%*	7	0	0
Technical indicators for Land Management				
Mineral Nitrogen	kg N/ha UAA	1	4	0
Organic nitrogen pressure	kg N/ha UAA	87	110	65
Permanent grasslands & pastoral areas	%	87	99	98
Technical indicators for Manure management				
Grazing days for Ewes	days/year	237	279	281
Hours outside for Ewes	hours/day	14.9	17.8	18.9
Technical indicators for Energy consumption				
Electricity	kWh/kg FPCM	0.32	0.21	0.10
Fuel	litres/ha UAA	92	120	70