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Summerley Hall Fruit Farm

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Summerley Hall Fruit Farm > Resource use and Emissions

widescreen view

Resource use and Emissions

Coefficients used: Default (Default Coefficients 2023 ID: 339)

Quickjump to another report

A summary of emissions from carbon dioxide, methane and nitrous oxide for the whole farm and per enterprise is presented below. Total emissions are also expressed per unit of output, per hectare and per livestock unit equivalent to allow comparisons to be made. Per unit of output is the most common way to express emissions associated with the production of food products.

Details of where the emissions came from can be seen by selecting View detailed results.

If you have created other reports or scenarios for your farm, you can view the results by selecting another report from the Quickjump to another report drop down list.

If you wish to compare resource use and emissions to the results from the previous two years, or to another scenario select the Comparisons and Year on Year Results from the Results menu on the left hand side of the page. Pie and bar charts of the results can also be found by selecting Charts from the same Results menu.

Examples of practical measures to improve efficiency and reduce emissions are shown at the foot of the page.

Summerley Hall Fruit Farm report 2023_01_10 (Summerley Hall Fruit Farm 2022)

View detailed results | View without Soil Carbon results

		Whole Farm	Beef
		kg CO_2e	kg CO_2e
CARBON DIOXIDE			
	Direct CO_2	**6,752**	**6,752**
	Biochar	0	0
	Indirect CO_2 (inc. Biochar)	**3,945**	**3,945**
	Total CO_2 from energy & waste (inc. Biochar)	**10,697**	**10,697**
METHANE			
	Total CO_{2e} from methane	**104,470**	**104,470**
NITROUS OXIDE			
	Total CO_{2e} from nitrous oxide	**36,507**	**36,507**
Total CO_{2e} emissions from farming		**151,674**	**151,674**
CARBON SEQUESTRATION - soil			
	Soil carbon	-146,967	-146,967
	Biochar	0	0
	Total CO_{2e} from soil carbon sequestration	**-146,967**	**-146,967**
CARBON SEQUESTRATION - Hedges			
Sequestration by hedges (allocated by land area)	**(kg CO_{2e})**	0	0
Total CO_{2e} emissions from farming (inc. Soil Carbon)		**4,707**	**4,707**
Sequestration by forestry	**(kg CO_{2e})**	70,567	
Net emissions from land use (inc SoilCarbon)		**-65,860**	
Whole farm CO_2e emissions per kg of farm output (inc. Soil Carbon)	**($KgCO_2e$/kg output) (2)**	**0.98**	
Product CO_2e emissions			
Meat (inc. Soil Carbon)	**Total $KgCO_2e$**		**4,707**
	($KgCO_2e$/kg lwt)		**0.52**
	($KgCO_2e$/kg dwt)		**0.98**
Wool (inc. Soil Carbon)	**Total $KgCO_2e$**		
	($KgCO_2e$/kg wool)		
Milk (inc. Soil Carbon)	**Total $KgCO_2e$**		
	($KgCO_2e$/kg FPC milk) (3)		
Eggs (inc. Soil Carbon)	**Total $KgCO_2e$**		
	($KgCO_2e$/kg eggs)		
Forage, grain, seeds, roots (inc. Soil Carbon)	**Total $KgCO_2e$**		
	($KgCO_2e$/kg crop)		
Straw (inc. Soil Carbon)	**Total $KgCO_2e$**		
	($KgCO_2e$/kg straw)		
Emissions per LU equivalent (inc. Soil Carbon)	**($KgCO_2e$/LU)**	**0**	**170**
Emissions per hectare (inc. Soil Carbon)	**($KgCO_2e$/ha)**	108	129
Farm and enterprise output	**(Kg)**	**4,823**	**4,823**

(1) - Power for farming activity (excludes personal and household demand)

(2) - Beef, sheep, dairy, pig & poultry meat expressed per net kg dwt of cold carcase; milk expressed per kg FPC milk, poultry eggs expressed per kg, crops and straw expressed per kg

(3) - Fat protein corrected (FPC) milk

Practical Measures To Improve Efficiency And Reduce Emissions

Energy and fuels

Install smart meter to monitor electricity use, assess efficiency of equipment and activities, use thermostats, time clocks, motion sensors and low energy bulbs, increase lagging on hot water pipes.

Record fuel use per tractor and activity, assess efficiency of vehicles and operations, undertake regular machinery checks and maintenance, use correct tyre pressure, improve journey planning.

Renewable energy

Undertake an energy audit to investigate the scope for renewable activities, such as wind, solar or hydro-electric power, anaerobic digesters, ground source heat pumps, biomass.

Fertiliser and manure

Prepare a farm nutrient management plan to identify opportunities for better utilisation of organic and inorganic fertiliser, analyse soil and organic manure, apply nitrogen at optimum rate and timing for crops, maintain or increase clover content of swards or other legume crops.

Livestock management

Carry out technical benchmarking of farm performance to highlight scope for improvements, increase calving or lambing percentage, reduce mortalities, increase weaning percentage, reduce age of calving, regularly review animal health plans, analyse silage or other homegrown forage.

Locking carbon into the soil

Protect peatland and moorland from damage by avoiding over grazing, consider reduced tillage and ploughing in stubble and other crop residues, control soil erosion, create wildlife corridors along water margins, field margins and headlands, retain and conserve semi-natural grasslands, manage existing woodlands on farm and create new ones.

Further information

Technical advice should be sought before making any business changes. Further information about SRUC services or to find your local office, please visit the page: http://www.sruc.ac.uk/info/20005/sac_consulting (opens in a new tab / window)

For further information and advice on practical measures you can implement to reduce emissions and improve the efficiency of your business can be found in the Practical Guides on the Farming for A Better Climate section of SRUC's website. These can be accessed by visiting the page: http://www.sruc.ac.uk/downloads/120198/improve_farm_efficiency (opens in a new tab / window)