

Mercian English Seed Potatoes 2022 31 Jan 2022

Prepared using UK as the region in the Farm Carbon Calculator.

Carbon balance

Emissions

144.28

tonnes CO₂e per year

Offset

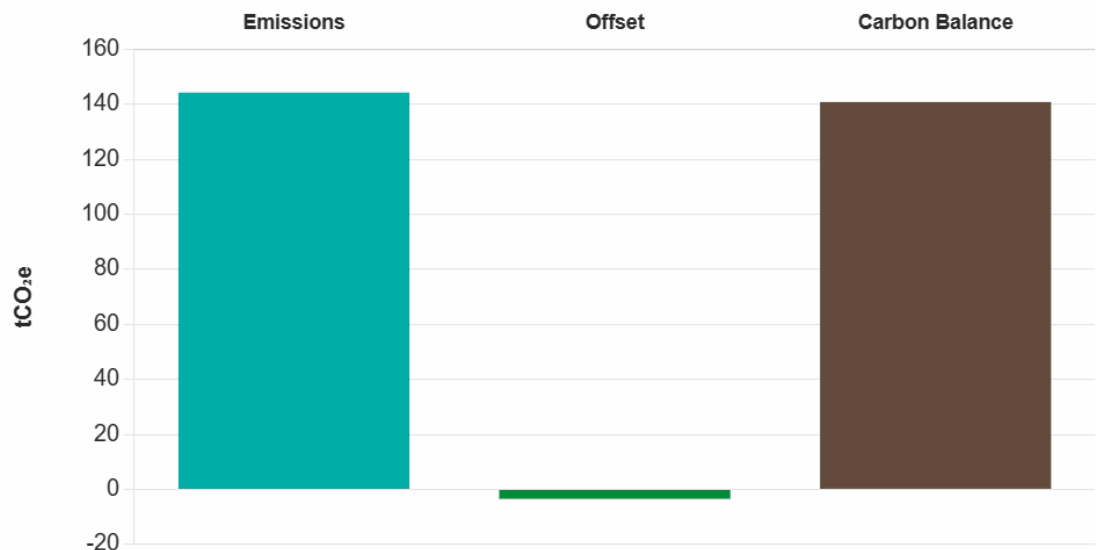
-3.42

tonnes CO₂e per year

Carbon Balance

140.85

tonnes CO₂e per year



KPIs

Carbon Balance / hectare:	Carbon Balance / tonne:	Fuel / hectare:
2.75	0.1084	1.2482
tonnes CO2e/hectare/year	tonnes CO2e/tonne of product	tonnes CO2e/hectare from fuel
Fertiliser emissions:		
0.9000		
tonnes CO2e per ha from fertilisers		

Breakdown of Emissions and Sequestration

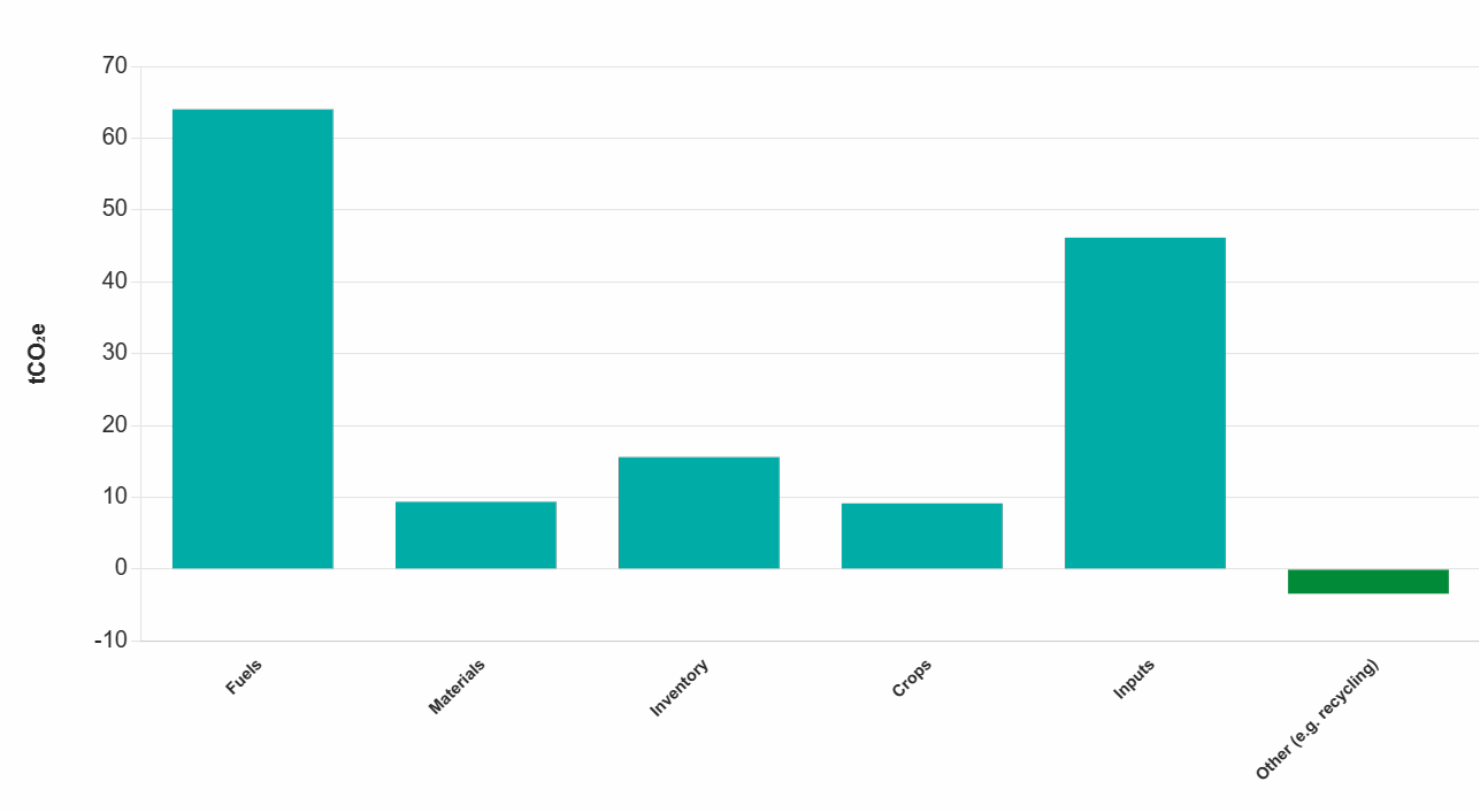


Table of Emissions and Sequestration

Emissions	tonnes CO ₂ e per year	%
Fuels	64.02	44.38%
Materials	9.36	6.49%
Inventory	15.59	10.81%
Crops	9.15	6.34%
Inputs	46.16	31.99%
Total	144.28	100%

Offset	tonnes CO ₂ e per year	%
Other (E.G. Recycling)	-3.42	100.00%
Total	-3.42	100%

Emissions by Scope & Greenhouse Gas

Emissions	Emissions by Scope				By GHGs			Total tCO ₂ e
	Scope 1 tCO ₂ e	Scope 2 tCO ₂ e	Scope 3 tCO ₂ e	Outside of Scope tCO ₂ e	CO ₂ tCO ₂ e	CH ₄ tCO ₂ e	N ₂ O tCO ₂ e	
Fuels	0.94	3.61	59.46	0.00	64.02	0.00	0.00	64.02
Materials	0.00	0.00	9.36	0.00	9.36	0.00	0.00	9.36
Inventory	0.00	0.00	15.59	0.00	15.59	0.00	0.00	15.59
Crops	9.15	0.00	0.00	0.00	6.72	0.00	2.42	9.15
Inputs	16.54	0.00	29.62	0.00	40.45	0.00	5.71	46.16
Total	26.63	3.61	114.03	0.00	136.15	0.00	8.13	144.27

Yield

Total Production	Yield (tonnes)
Crops: Vegetables	1,299.18
Total	1,299.18

Common Land

Area	Subdivision	Emissions (tCO ₂ e)	Active Livestock Units
	0	0.00	0
Total		0.00	0

Farm details

Region

UK

Report Description

Report prepared by Tilly Kimble-Wilde, Soil and Carbon Advisor at Farm Carbon Toolkit, in June 2023 for English seed potato supplier to Mercian potato farms.

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Full Data

Fuels

Diesel

Description	Usage	tonnes CO ₂ e	%	Confidence	Link
Red diesel (gas oil)	343 Litres	1.16	1.81%	  	

Electricity

Description	Usage	tonnes CO ₂ e	%	Confidence	Link
Average tariff	17,025 Kilowatt hours (kWh)	4.96	7.75%	  	

Operations

Description	Usage	tonnes CO ₂ e	%	Confidence	Link
Mouldboard plough	51 Hectares (ha)	5.15	8.04%	<div><div>✓</div><div>✓</div><div>✓</div></div>	🔗
Mowing	51 Hectares (ha)	1.22	1.90%		
Potato Bed Preparation	51 Hectares (ha)	18.09	28.25%	<div><div>✓</div><div>✓</div><div>✓</div></div>	
Potato de-stoning	51 Hectares (ha)	11.31	17.66%	<div><div>✓</div><div>✓</div><div>✓</div></div>	
Potato Harvesting - Trailed	51 Hectares (ha)	6.96	10.87%	<div><div>✓</div><div>✓</div><div>✓</div></div>	
Potato Planting	51 Hectares (ha)	7.83	12.23%	<div><div>✓</div><div>✓</div><div>✓</div></div>	
Spraying	615 Hectares (ha)	1.67	2.61%	<div><div>✓</div><div>✓</div><div>✓</div></div>	🔗
Sub soiling	51 Hectares (ha)	5.69	8.88%	<div><div>✓</div><div>✓</div><div>✓</div></div>	🔗




Materials

Wood




Description	Usage	tonnes CO ₂ e	%	Confidence	Link
General Timber	19 Tonnes	9.36	100.00%	<div><div>✓</div><div>✓</div><div>✓</div></div>	🔗

Inventory




Farm Machinery - Fore end loaders

Description	Usage	tonnes CO ₂ e	%	Confidence	Link
Telehandler	293 Horsepower	11.69	74.99%	  	

















Farm Machinery - Forklift Truck

Description	Usage	tonnes CO ₂ e	%	Confidence	Link
Linde Forklift Truck	5 Tonnes carrying capacity	0.00	0.01%	  	

Farm Machinery - Sprayers

Description	Usage	tonnes CO ₂ e	%	Confidence	Link
Bateman	485 Horsepower	1.02	6.53%	  	

Implements (by weight)

Description	Usage	tonnes CO ₂ e	%	Confidence	Link
Manitou	8 Tonnes of metal	1.89	12.15%	  	
Potato implements	2 Tonnes of metal	0.49	3.16%	  	
Potato implements 2013	1 Tonnes of metal	0.25	1.58%	  	
Potato implements 2019	1 Tonnes of metal	0.25	1.58%	  	

Crops

Vegetables

Description	Usage	tonnes CO ₂ e	%	Confidence	Link
Potatoes	1,299 Tonnes harvested	9.15	100.00%	<div><div>✓</div><div>✓</div><div>✓</div></div>	🔗

Inputs

Fertiliser

Description	Usage	tonnes CO ₂ e	%	Confidence	Link
Custom blend	38 Tonnes	38.30	82.98%	<div><div>✓</div><div>✓</div><div>✓</div></div>	🔗

Sprays - Generic

Description	Usage	tonnes CO ₂ e	%	Confidence	Link
Fungicide	205 Kg of active ingredient	6.00	12.99%	<div><div>✓</div><div>✓</div><div>✓</div></div>	
Herbicide	70 Kg of active ingredient	1.85	4.01%	<div><div>✓</div><div>✓</div><div>✓</div></div>	
Insecticide	1 Kg of active ingredient	0.01	0.02%	<div><div>✓</div><div>✓</div><div>✓</div></div>	

Waste - Offsets

Description	Usage	tonnes CO ₂ e	%	Confidence	Link
Wood (general)	3 Tonnes	-1.38	40.19%	<div><div>✓</div><div>✓</div><div></div></div>	🔗

Plastics (Recycling)

Description	Usage	tonnes CO ₂ e	%	Confidence	Link
Average	2 Tonnes	-2.05	59.81%	<div><div>✓</div><div>✓</div><div></div></div>	🔗