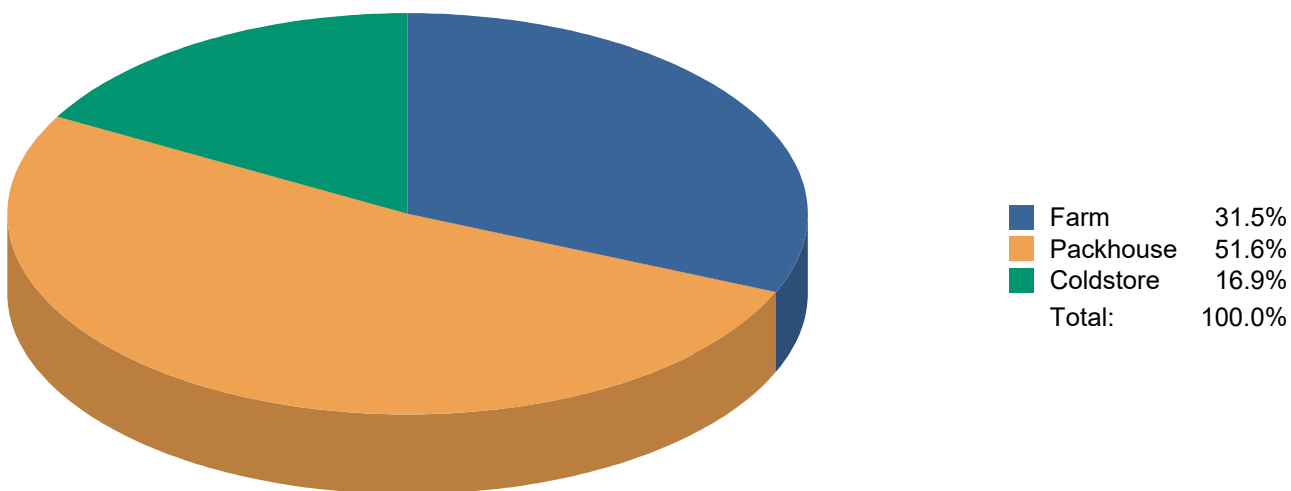


Carbon Calculator Results

Business Name: Achtertuin Farming CC
Country Name: South Africa
Creation Date: 2025/09/23 09:10:43
Data Collection Period: Aug 2024 to Jul 2025
Report Grade: B1 - This dataset has been checked by CCC and is part of the benchmark.

Business Unit - Boundary View



Boundary	Tonne CO ₂ e	%
Farm	162.53	31.50
Packhouse	266.43	51.64
Coldstore	86.95	16.85
Total	515.91	100.00

The Carbon Calculator must be completed on an annual basis. This allows users to monitor their carbon footprint trend and analyse improvements.

Business Name:

Achtertuin Farming CC

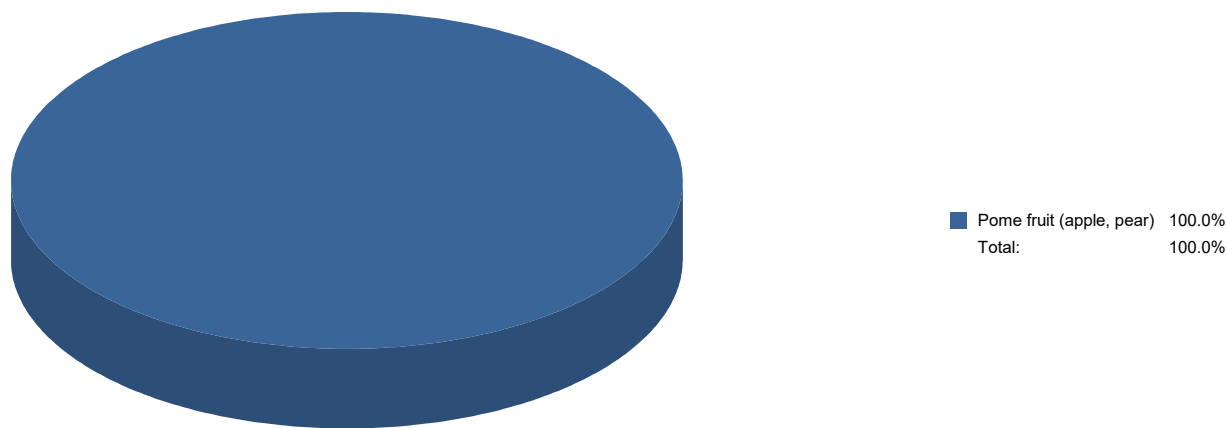
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Data Collection Period:

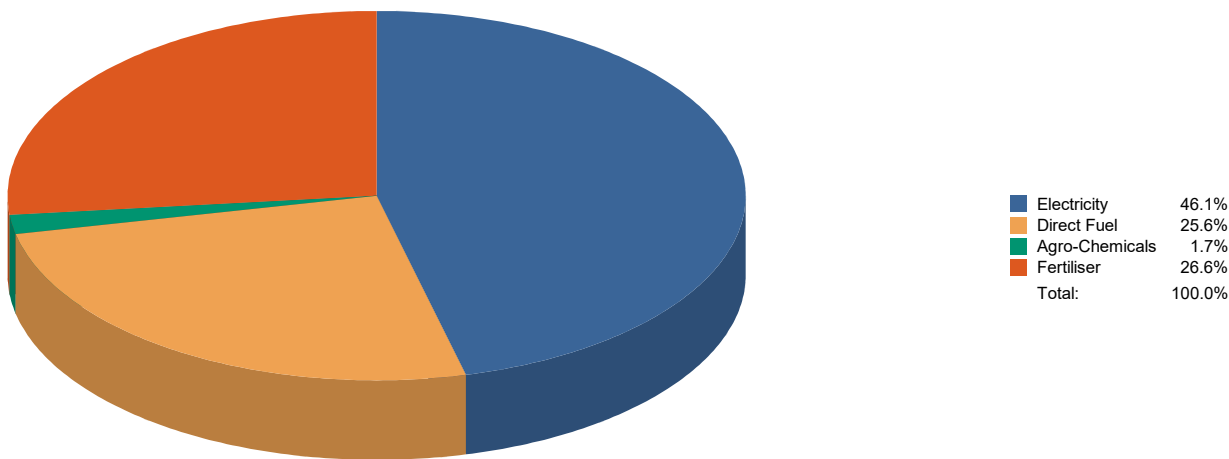
Aug 2024 to Jul 2025

Business Unit - Commodity View



Commodity	Tonne CO ₂ e	%
Pome fruit (apple, pear)	515.91	100.00
Total	515.91	100.00

Farm - Emission Source View



Emission Source	Tonne CO ₂ e	%
Electricity	74.96	46.12
Direct Fuel	41.56	25.57
Agro-Chemicals	2.73	1.68
Fertiliser	43.28	26.63
Total	162.53	100.00

Business Name:

Achtertuin Farming CC

Dataset:

2025/09/23 09:10:43

Data Collection Period:

Aug 2024 to Jul 2025

Farm Commodity Benchmark

Commodity	Kg CO2e per Kg Fruit	Benchmark
Pome fruit (apple, pear)	0.06	The CCC regional average is 0.14 Kg CO2e per Kg Fruit and consist of 90 data points.

Farm Hectare Breakdown

Commodity	Tonne CO ₂ e per Bearing Ha
Pome fruit (apple, pear)	3.24

Farm Scope Breakdown

	Tonne CO ₂ e	%
Scope 1	66.33	40.81
Scope 2	70.96	43.66
Scope 3	25.24	15.53
Total	162.53	100.00

Business Name:

Achtertuin Farming CC

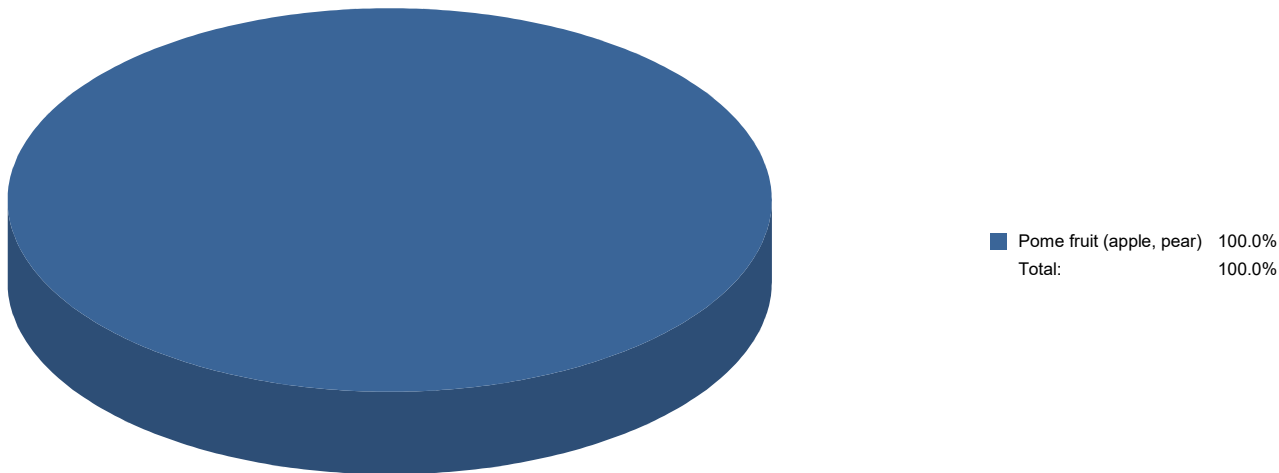
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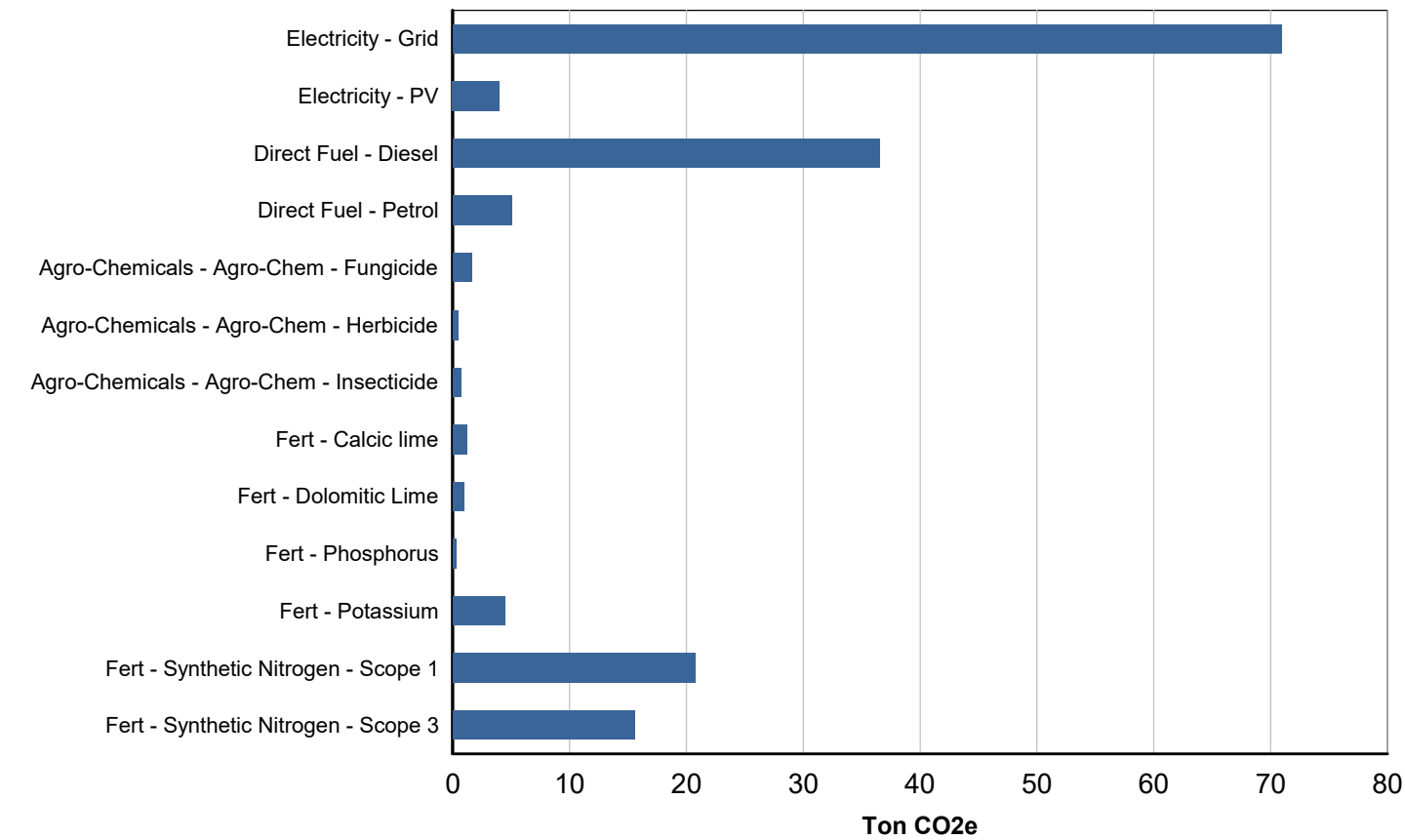
Aug 2024 to Jul 2025

Farm - Commodity View



Commodity	Tonne CO ₂ e	%
Pome fruit (apple, pear)	162.53	100.00
Total	162.53	100.00

Farm - Emission Source Breakdown



Emission Source	Tonne CO ₂ e	%
Electricity - Grid	70.96	43.66
Electricity - PV	4.01	2.47
Direct Fuel - Diesel	36.52	22.47
Direct Fuel - Petrol	5.04	3.10
Agro-Chemicals - Agro-Chem - Fungicide	1.61	0.99
Agro-Chemicals - Agro-Chem - Herbicide	0.44	0.27
Agro-Chemicals - Agro-Chem - Insecticide	0.68	0.42
Fert - Calcic lime	1.22	0.75
Fert - Dolomitic Lime	0.95	0.58
Fert - Phosphorus	0.28	0.17
Fert - Potassium	4.48	2.76
Fert - Synthetic Nitrogen - Scope 1	20.76	12.78

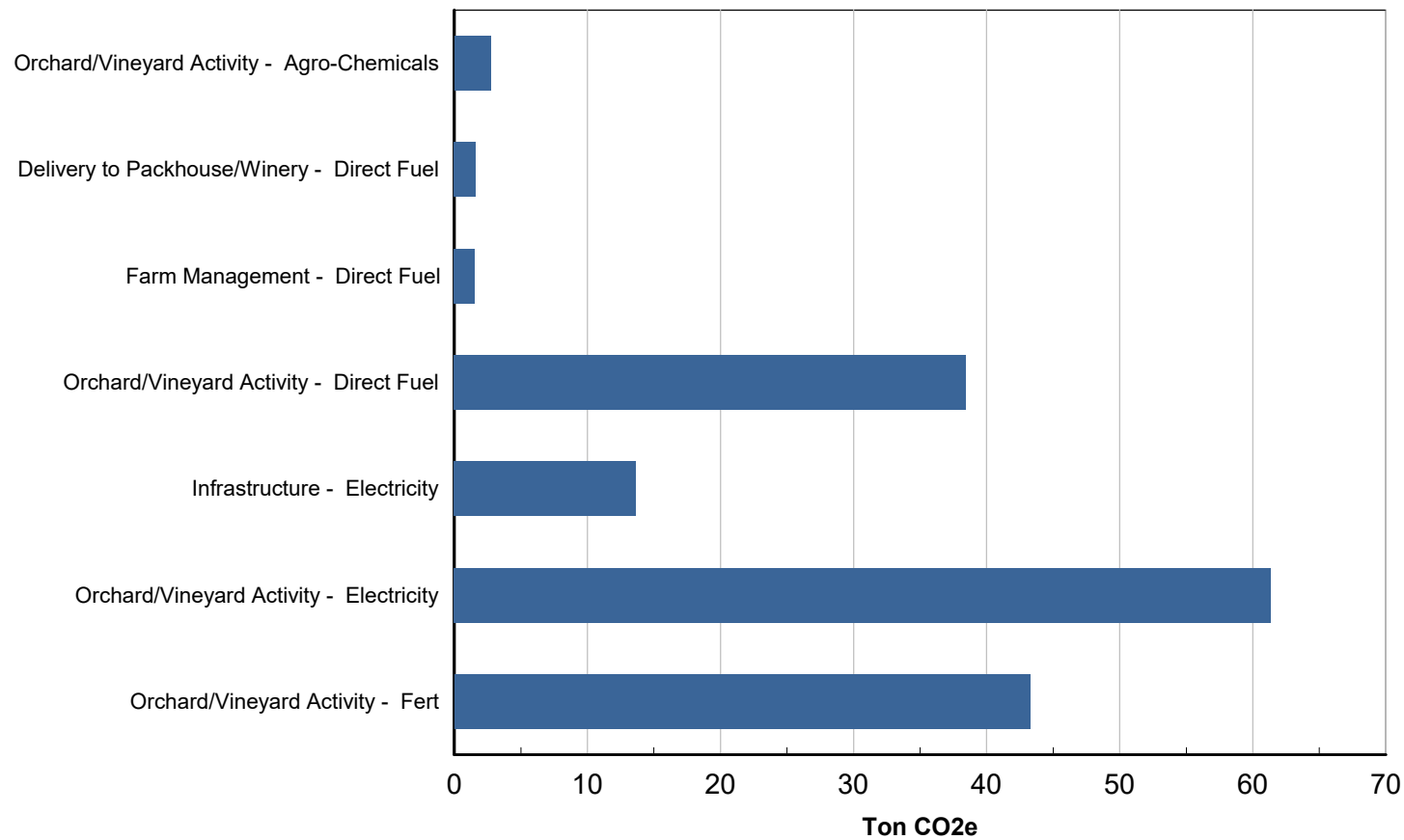
Business Name: Achtertuin Farming CC

Dataset: 2025/09/23 09:10:43

Data Collection Period: Aug 2024 to Jul 2025

Fert - Synthetic Nitrogen - Scope 3	15.57	9.58
Total	162.53	100.00

Farm - Activity Breakdown



Activity Breakdown	Tonne CO ₂ e	%
Orchard/Vineyard Activity - Agro-Chemicals	2.73	1.68
Delivery to Packhouse/Winery - Direct Fuel	1.61	0.99
Farm Management - Direct Fuel	1.52	0.93
Orchard/Vineyard Activity - Direct Fuel	38.43	23.64
Infrastructure - Electricity	13.63	8.39
Orchard/Vineyard Activity - Electricity	61.33	37.74
Orchard/Vineyard Activity - Fert	43.28	26.63
Total	162.53	100.00

Business Name: Achtertuin Farming CC

Dataset: 2025/09/23 09:10:43

Data Collection Period: Aug 2024 to Jul 2025

Detailed Carbon Emissions Breakdown

Detailed Activities	Tonne CO ₂ e	%
Electricity - Grid - Orchard/Vineyard Activity - BO	55.18	33.95
Electricity - Grid - Orchard/Vineyard Activity - NBO	2.15	1.32
Electricity - Grid - Infrastructure	13.63	8.39
Electricity - PV - Orchard/Vineyard Activity - BO	3.86	2.37
Electricity - PV - Orchard/Vineyard Activity - NBO	0.15	0.09
Direct Fuel - Diesel - Orchard/Vineyard Activity - BO	33.67	20.72
Direct Fuel - Diesel - Orchard/Vineyard Activity - NBO	1.24	0.76
Direct Fuel - Diesel - Delivery to Packhouse/Winery	1.61	0.99
Direct Fuel - Petrol - Orchard/Vineyard Activity	3.52	2.17
Direct Fuel - Petrol - Farm Management	1.52	0.93
Fert - - Synthetic Nitrogen - Orchard/Vineyard Activity - BO	32.50	20.00
Fert - - Synthetic Nitrogen - Orchard/Vineyard Activity - NBO	3.84	2.36
Fert - - Phosphorus - Orchard/Vineyard Activity - BO	0.07	0.04
Fert - - Phosphorus - Orchard/Vineyard Activity - NBO	0.22	0.13
Fert - - Potassium - Orchard/Vineyard Activity - BO	4.25	2.62
Fert - - Potassium - Orchard/Vineyard Activity - NBO	0.23	0.14
Agro-Chemicals - Agro-Chem - Fungicide - Orchard/Vineyard Activity - BO	1.59	0.98
Agro-Chemicals - Agro-Chem - Fungicide - Orchard/Vineyard Activity - NBO	0.02	0.01
Agro-Chemicals - Agro-Chem - Insecticide - Orchard/Vineyard Activity - BO	0.68	0.42
Agro-Chemicals - Agro-Chem - Insecticide - Orchard/Vineyard Activity - NBO	0.01	0.00
Agro-Chemicals - Agro-Chem - Herbicide - Orchard/Vineyard Activity - BO	0.41	0.25
Agro-Chemicals - Agro-Chem - Herbicide - Orchard/Vineyard Activity - NBO	0.02	0.01
Fert - - Dolomitic Lime - Orchard/Vineyard Activity - BO	0.59	0.36
Fert - - Dolomitic Lime - Orchard/Vineyard Activity - NBO	0.36	0.22
Fert - - Calcic lime - Orchard/Vineyard Activity - BO	0.76	0.47
Fert - - Calcic lime - Orchard/Vineyard Activity - NBO	0.46	0.28
Total	162.53	100.00

Business Name:

Achtertuin Farming CC

Dataset:

2025/09/23 09:10:43

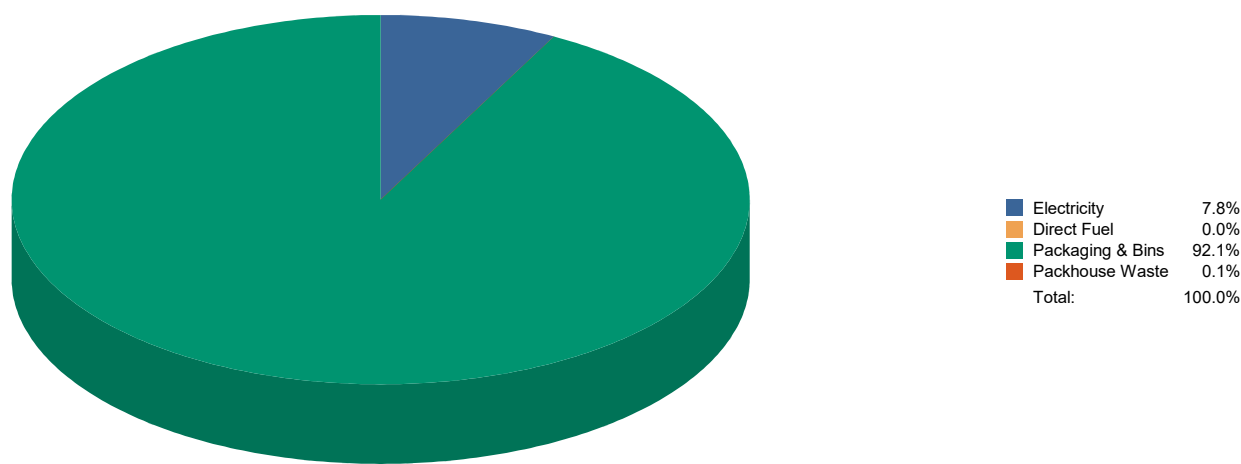
Data Collection Period:

Aug 2024 to Jul 2025

Farm Consumption Benchmarks

Commodity	Consumption Measure	Result	Benchmark
Pome fruit (apple, pear)	kL Water per Ton Fruit	160.58	The CCC regional average is 128.49 kL Water per Ton Fruit and consist of 67 data points.
Pome fruit (apple, pear)	kL Water per Bearing Ha	8,421.05	The CCC regional average is 5892.51 kL Water per Bearing Ha and consist of 67 data points.
Pome fruit (apple, pear)	kL Water per Non-Bearing Ha	7,200.00	The CCC regional average is 2054.23 kL Water per Non-Bearing Ha and consist of 67 data points.
Pome fruit (apple, pear)	kWh Orchard / Vineyard Electricity per Ton Fruit	64.89	The CCC regional average is 66.13 kWh Orchard / Vineyard Electricity per Ton Fruit and consist of 67 data points.
Pome fruit (apple, pear)	kWh Orchard / Vineyard Electricity per Bearing Ha	3,402.97	The CCC regional average is 3091.16 kWh Orchard / Vineyard Electricity per Bearing Ha and consist of 67 data points.
Pome fruit (apple, pear)	Liters Orchard / Vineyard Diesel per Ton Fruit	5.45	The CCC regional average is 12.35 Liters Orchard / Vineyard Diesel per Ton Fruit and consist of 67 data points.
Pome fruit (apple, pear)	Liters Orchard / Vineyard Diesel per Bearing Ha	285.87	The CCC regional average is 470.48 Liters Orchard / Vineyard Diesel per Bearing Ha and consist of 67 data points.
Pome fruit (apple, pear)	Kg Pure N per Ton Fruit	0.89	The CCC regional average is 2.54 Kg Pure N per Ton Fruit and consist of 67 data points.
Pome fruit (apple, pear)	Kg Pure N per Bearing Ha	46.55	The CCC regional average is 98.70 Kg Pure N per Bearing Ha and consist of 67 data points.

Packhouse - Emission Source View



Emission Source	Tonne CO ₂ e	%
Electricity	20.77	7.79
Direct Fuel	0.12	0.05
Packaging & Bins	245.39	92.10
Packhouse Waste	0.15	0.06
Total	266.43	100.00

Business Name:

Achtertuin Farming CC

Dataset:

2025/09/23 09:10:43

Data Collection Period:

Aug 2024 to Jul 2025

Packhouse Commodity Benchmark

Commodity	Kg CO2e per Kg Fruit	Benchmark
Pome fruit (apple, pear)	0.14	The CCC regional average is 0.11 Kg CO2e per Kg Fruit and consist of 56 data points.

Packhouse Scope Breakdown

	Tonne CO ₂ e	%
Scope 1	0.12	0.05
Scope 2	20.77	7.79
Scope 3	245.54	92.16
Total	266.43	100.00

Business Name:

Achtertuin Farming CC

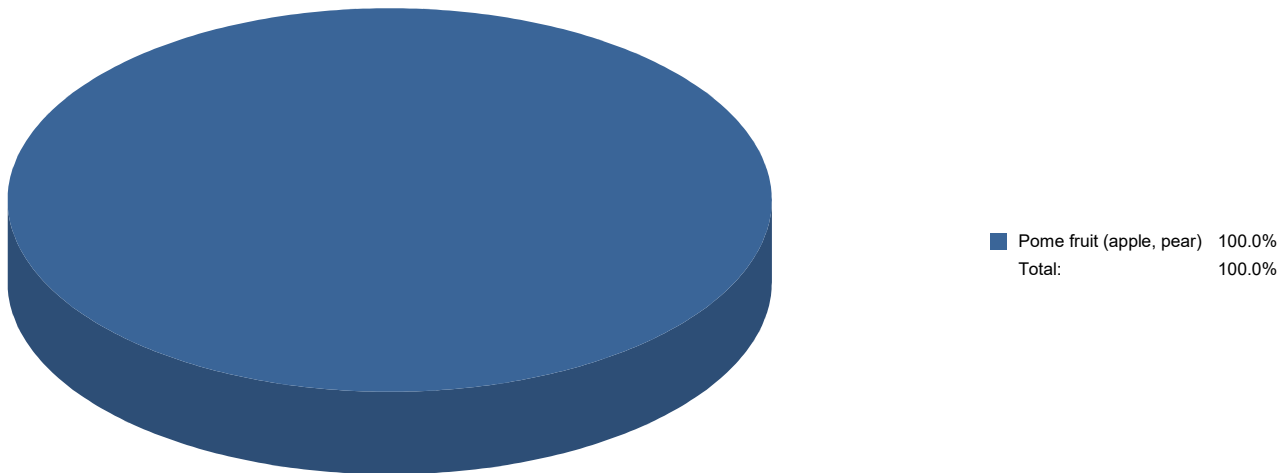
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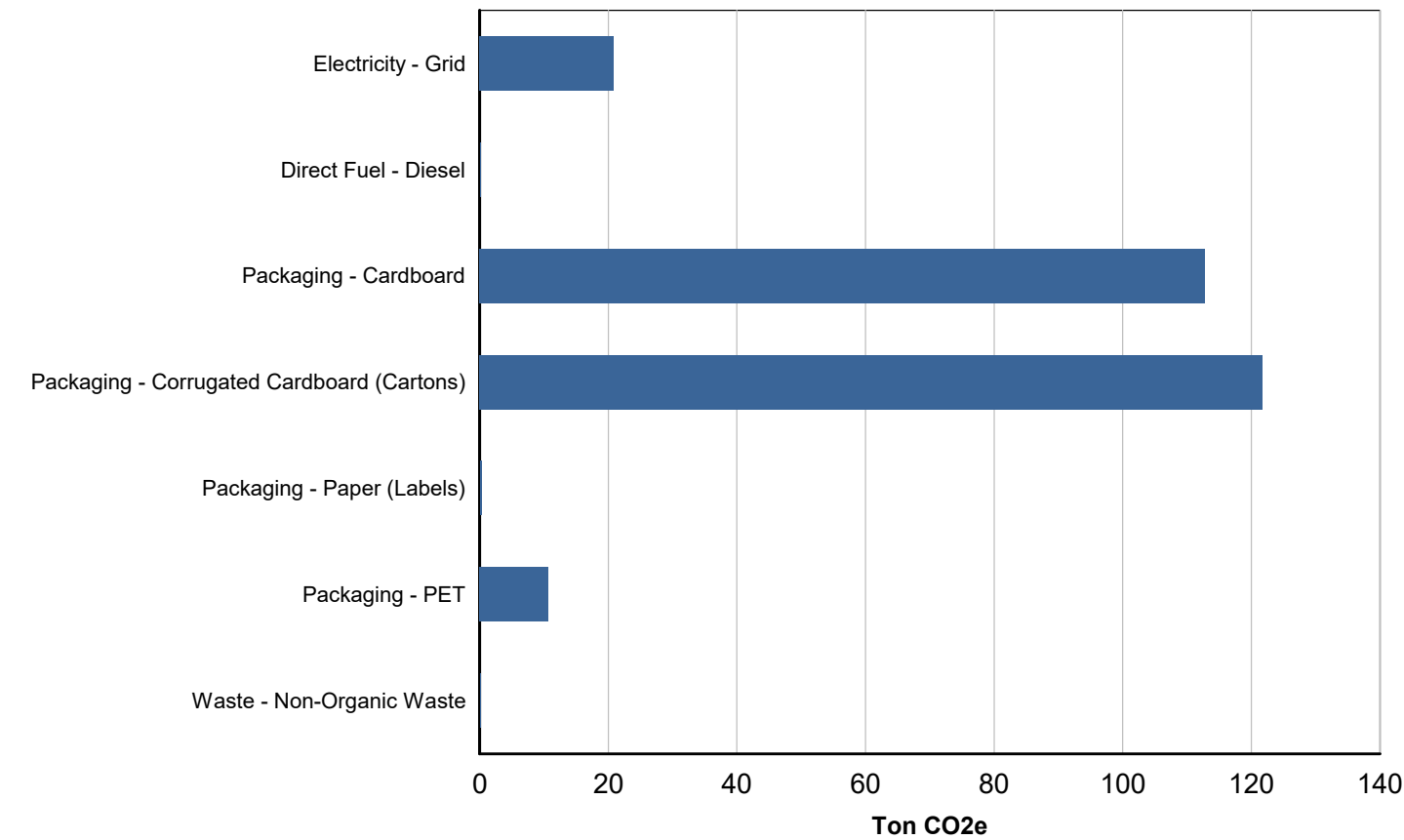
Aug 2024 to Jul 2025

Packhouse - Commodity View



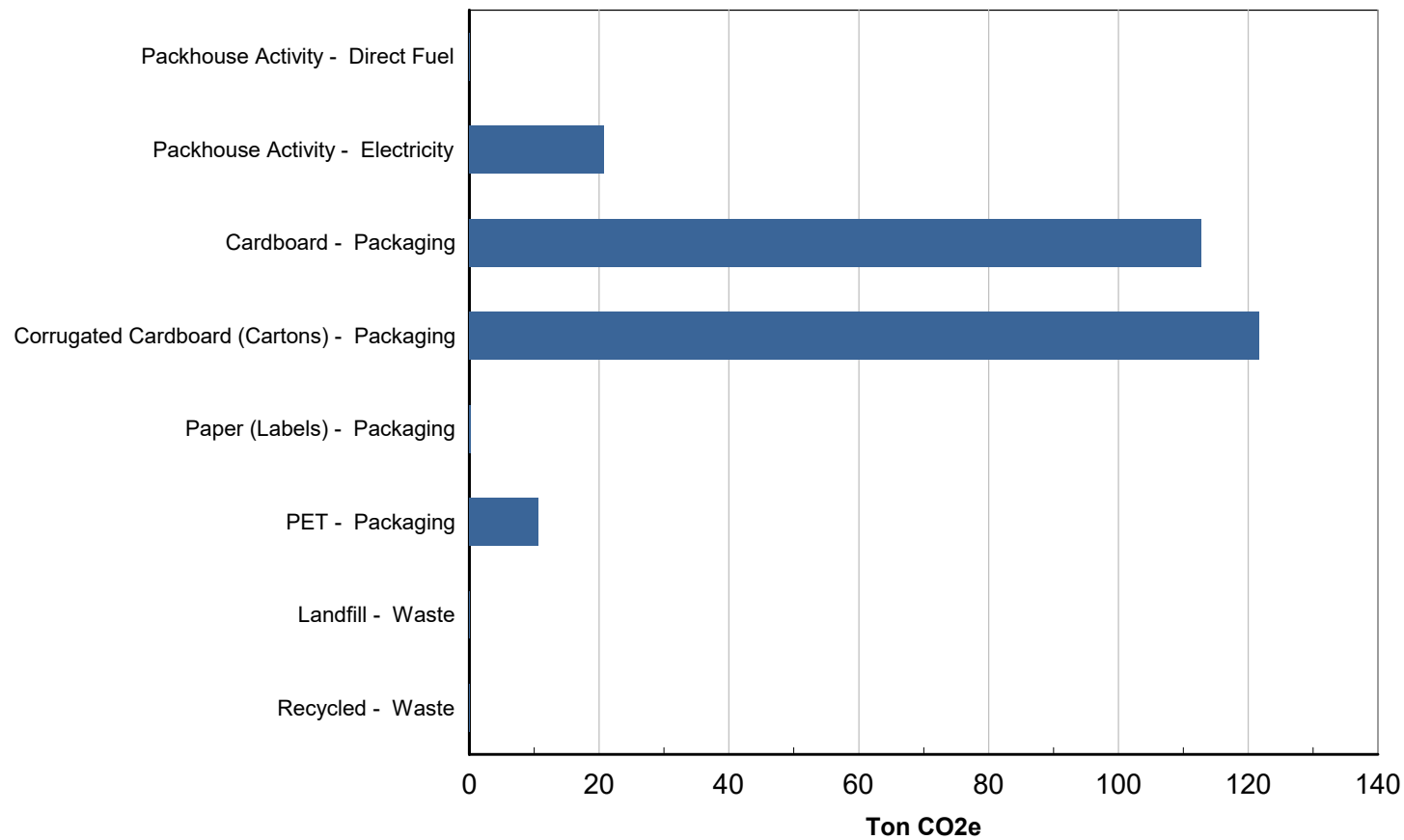
Commodity	Tonne CO ₂ e	%
Pome fruit (apple, pear)	266.43	100.00
Total	266.43	100.00

Packhouse - Emission Source Breakdown



Emission Source	Tonne CO ₂ e	%
Electricity - Grid	20.77	7.79
Direct Fuel - Diesel	0.12	0.05
Packaging - Cardboard	112.75	42.32
Packaging - Corrugated Cardboard (Cartons)	121.75	45.70
Packaging - Paper (Labels)	0.27	0.10
Packaging - PET	10.62	3.99
Waste - Non-Organic Waste	0.15	0.06
Total	266.43	100.00

Packhouse - Activity Breakdown



Activity Breakdown	Tonne CO ₂ e	%
Packhouse Activity - Direct Fuel	0.12	0.05
Packhouse Activity - Electricity	20.77	7.79
Cardboard - Packaging	112.75	42.32
Corrugated Cardboard (Cartons) - Packaging	121.75	45.70
Paper (Labels) - Packaging	0.27	0.10
PET - Packaging	10.62	3.99
Landfill - Waste	0.12	0.04
Recycled - Waste	0.03	0.01
Total	266.43	100.00

Business Name:

Achtertuin Farming CC

Dataset:

2025/09/23 09:10:43

Data Collection Period:

Aug 2024 to Jul 2025

Detailed Carbon Emissions Breakdown

Detailed Activities	Tonne CO ₂ e	%
Electricity - Grid - Packhouse Activity	20.77	7.79
Direct Fuel - Diesel - Packhouse Activity	0.12	0.05
Packaging - Cardboard - Cardboard	112.75	42.32
Packaging - Corrugated Cardboard (Cartons) - Corrugated Cardboard (Cartons)	121.75	45.70
Packaging - Paper (Labels) - Paper (Labels)	0.27	0.10
Packaging - PET - PET	10.62	3.99
Waste - Non-Organic Waste - Recycled	0.03	0.01
Waste - Non-Organic Waste - Landfill	0.12	0.04
Total	266.43	100.00

Business Name:

Achtertuin Farming CC

Dataset:

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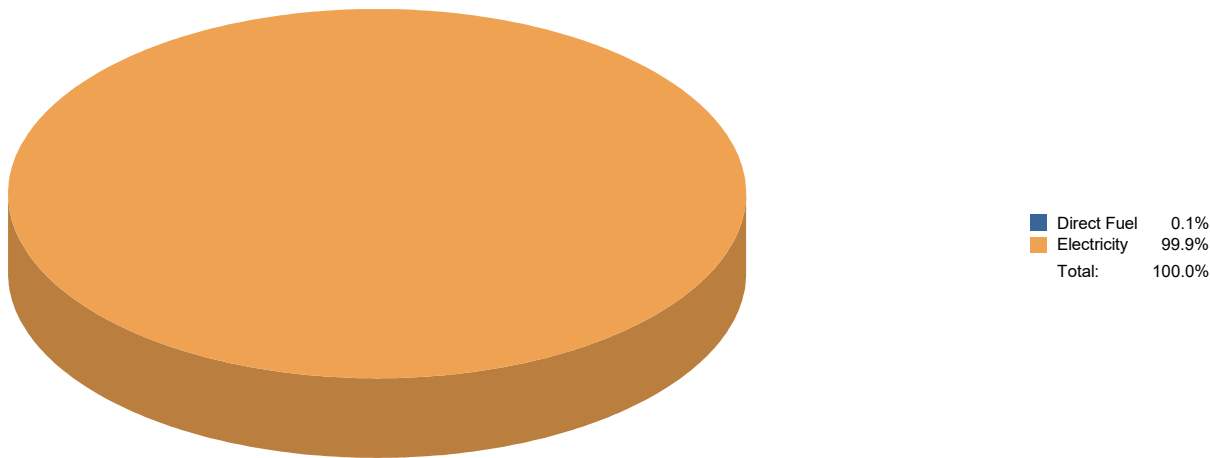
Data Collection Period:

Aug 2024 to Jul 2025

Packhouse Consumption Benchmarks

Commodity	Consumption Measure	Result	Benchmark
Pome fruit (apple, pear)	Liters Waste Water per Ton Fruit	0.38	The CCC regional average is 1900.42 Liters Waste Water per Ton Fruit and consist of 49 data points.
Pome fruit (apple, pear)	Liters Water per Ton Fruit	0.38	The CCC regional average is 2526.79 Liters Water per Ton Fruit and consist of 49 data points.
Pome fruit (apple, pear)	kWh Packhouse Activity Electricity per Ton Fruit	7.80	The CCC regional average is 49.72 kWh Packhouse Activity Electricity per Ton Fruit and consist of 49 data points.
Pome fruit (apple, pear)	Kg Corrugated Cardboard per Ton of Fruit packed	48.92	The CCC regional average is 31.60 Kg Corrugated Cardboard per Ton of Fruit packed and consist of 49 data points.

Coldstore - Emission Source View



Emission Source	Tonne CO ₂ e	%
Direct Fuel	0.11	0.13
Electricity	86.84	99.87
Total	86.95	100.00

Business Name:

Achtertuin Farming CC

Dataset:

2025/09/23 09:10:43

Data Collection Period:

Aug 2024 to Jul 2025

Coldstore Commodity Benchmark

Commodity	Kg CO2e per Kg Fruit	Benchmark
Pome fruit (apple, pear)	0.02	The CCC regional average is 0.07 Kg CO2e per Kg Fruit and consist of 57 data points.

Coldstore Scope Breakdown

	Tonne CO ₂ e	%
Scope 1	0.11	0.13
Scope 2	86.84	99.87
Total	86.95	100.00

Business Name:

Achtertuin Farming CC

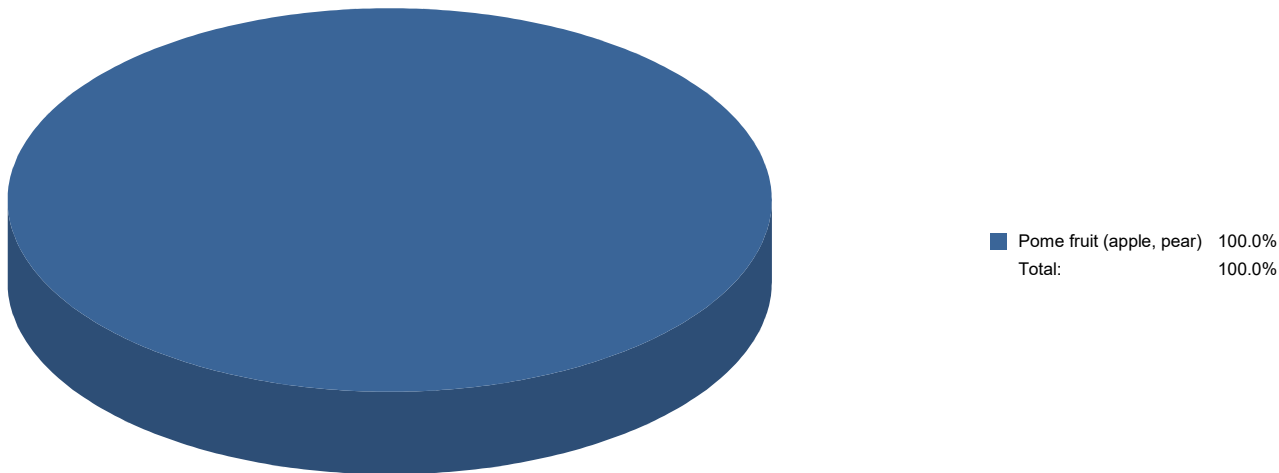
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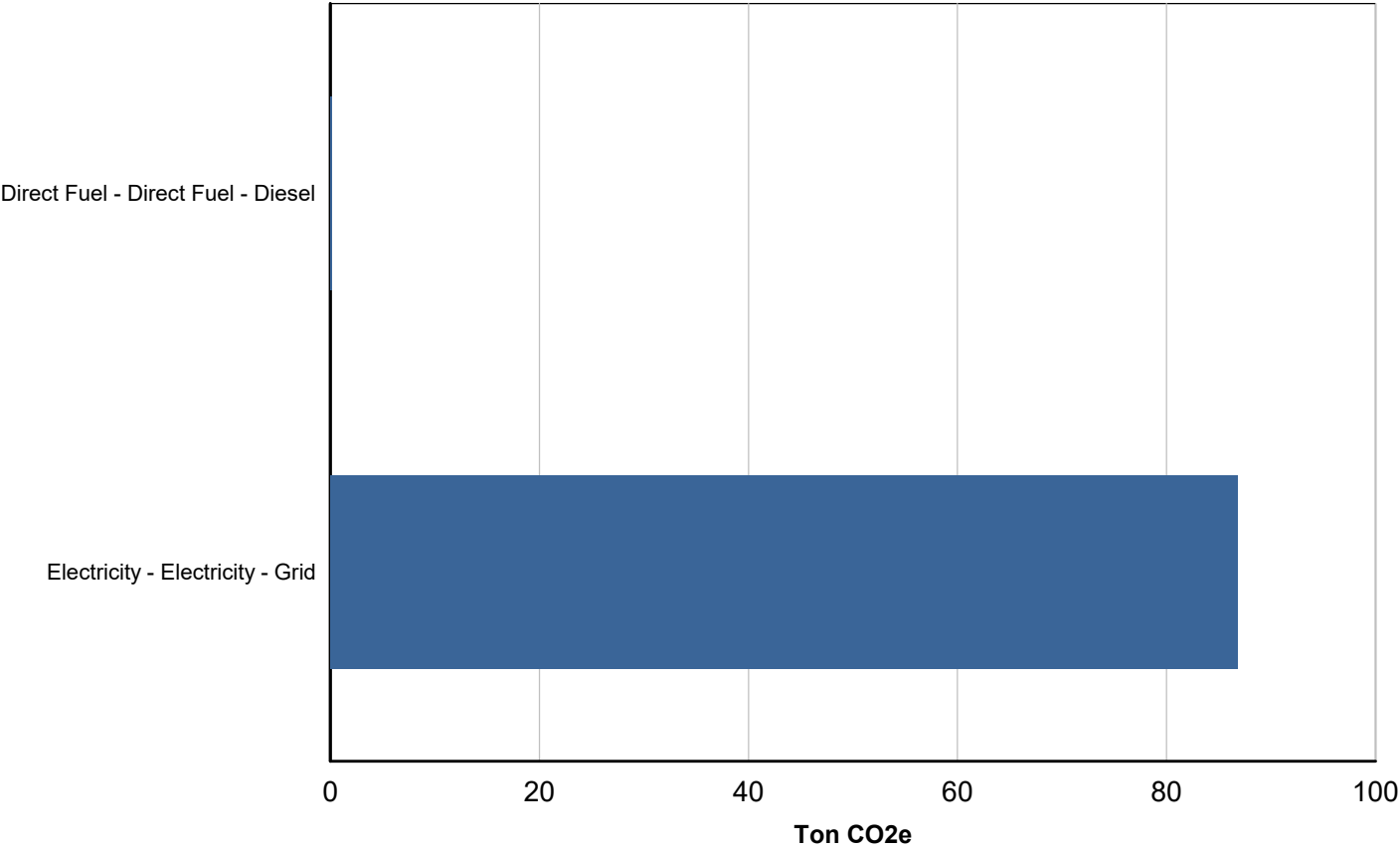
Aug 2024 to Jul 2025

Coldstore - Commodity View



Commodity	Tonne CO ₂ e	%
Pome fruit (apple, pear)	86.95	100.00
Total	86.95	100.00

Coldstore - Emission Source Breakdown



Emission Source	Tonne CO ₂ e	%
Direct Fuel - Direct Fuel - Diesel	0.11	0.13
Electricity - Electricity - Grid	86.84	99.87
Total	86.95	100.00

Business Name: Achtertuin Farming CC
Dataset: 2025/09/23 09:10:43
Data Collection Period: Aug 2024 to Jul 2025