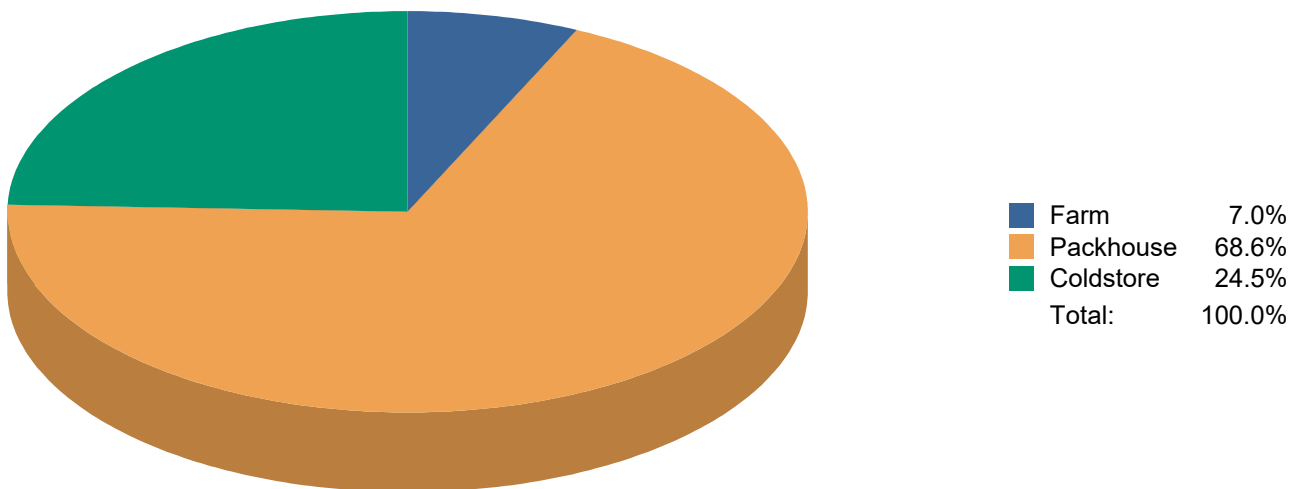


Carbon Calculator Results

Business Name: Misgund Boerdery
Country Name: South Africa
Creation Date: 2025/08/13 10:05:59
Data Collection Period: Jul 2024 to Jun 2025
Report Grade: B1 - This dataset has been checked by CCC and is part of the benchmark.

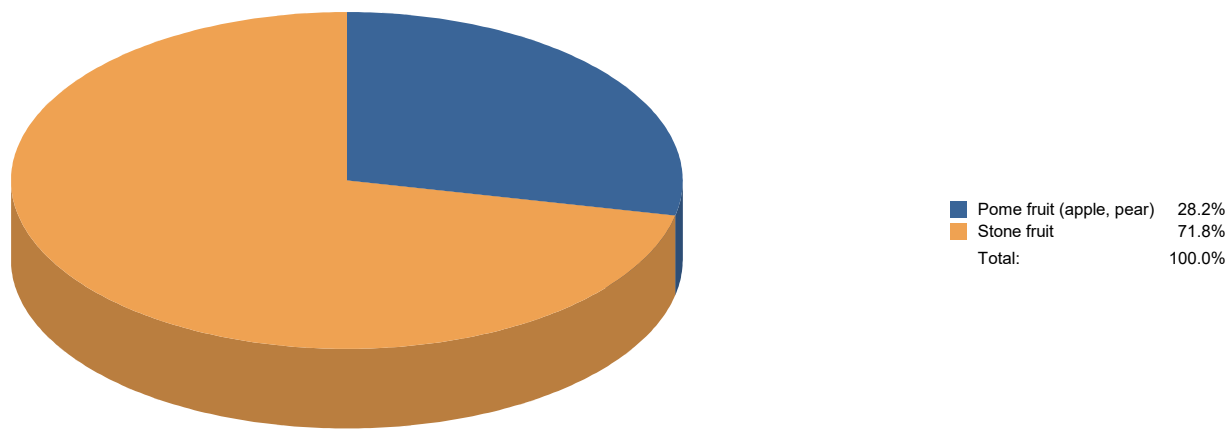
Business Unit - Boundary View



Boundary	Tonne CO ₂ e	%
Farm	78.98	6.97
Packhouse	776.70	68.57
Coldstore	277.00	24.46
Total	1,132.67	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 Unit - Commodity View



Commodity	Tonne CO ₂ e	%
Pome fruit (apple, pear)	319.65	28.22
Stone fruit	813.02	71.78
Total	1,132.67	100.00

Business Name:

Misgund Boerdery

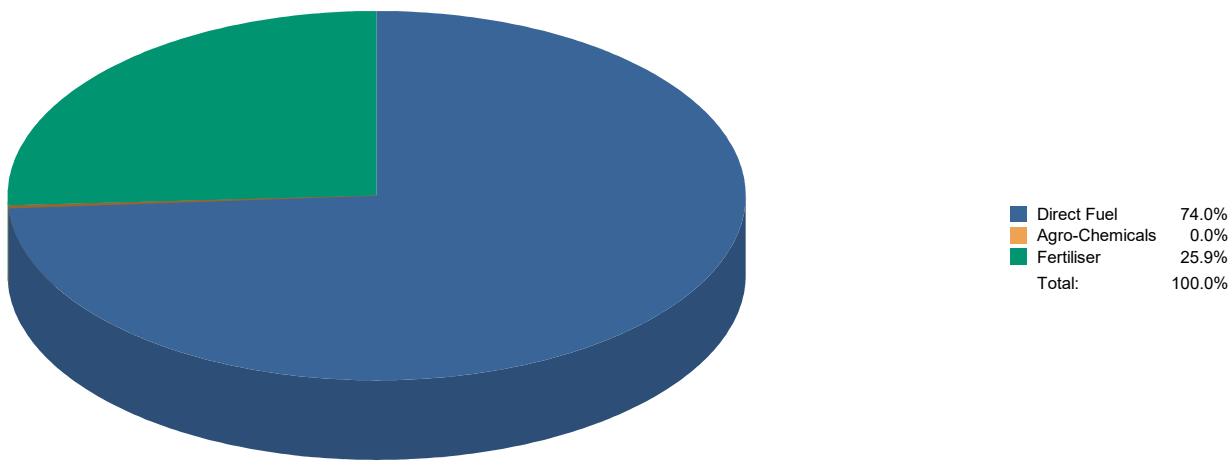
Dataset:

2025/08/13 10:05:59

Data Collection Period:

Jul 2024 to Jun 2025

Farm - Emission Source View



Emission Source	Tonne CO ₂ e	%
Direct Fuel	58.45	74.01
Agro-Chemicals	0.04	0.05
Fertiliser	20.49	25.95
Total	78.98	100.00

Business Name:

Misgund Boerdery

Dataset:

2025/08/13 10:05:59

Data Collection Period:

Jul 2024 to Jun 2025

Farm Commodity Benchmark

Commodity	Kg CO2e per Kg Fruit	Benchmark
Pome fruit (apple, pear)	0.03	The CCC regional average is 0.14 Kg CO2e per Kg Fruit and consist of 88 data points.
Stone fruit	0.05	The CCC regional average is 0.24 Kg CO2e per Kg Fruit and consist of 75 data points.

Farm Hectare Breakdown

Commodity	Tonne CO ₂ e per Bearing Ha
Pome fruit (apple, pear)	1.22
Stone fruit	1.14

Farm Scope Breakdown

	Tonne CO ₂ e	%
Scope 1	68.81	87.12
Scope 3	10.17	12.88
Total	78.98	100.00

Business Name:

Misgund Boerdery

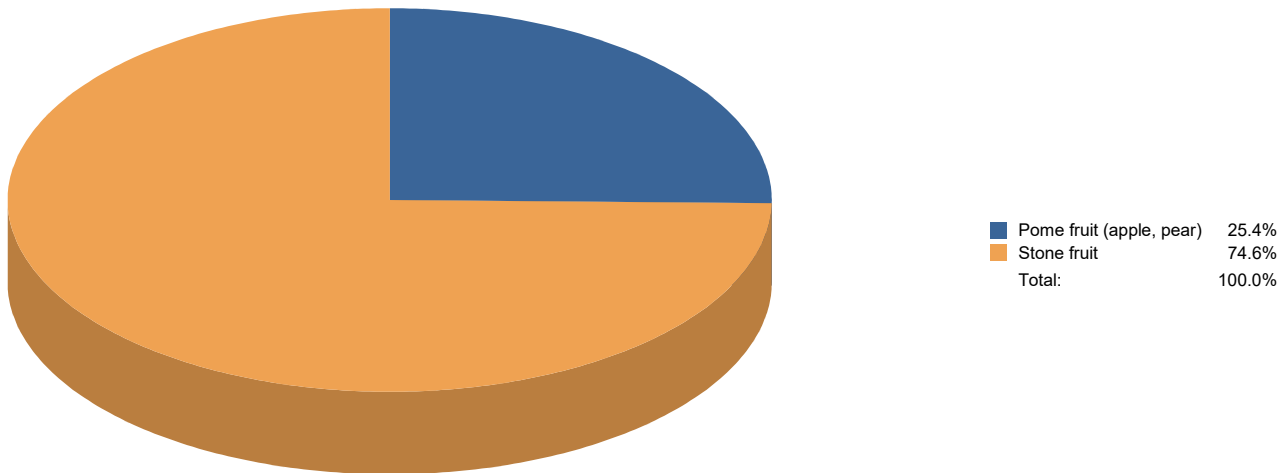
Dataset:

2025/08/13 10:05:59

Data Collection Period:

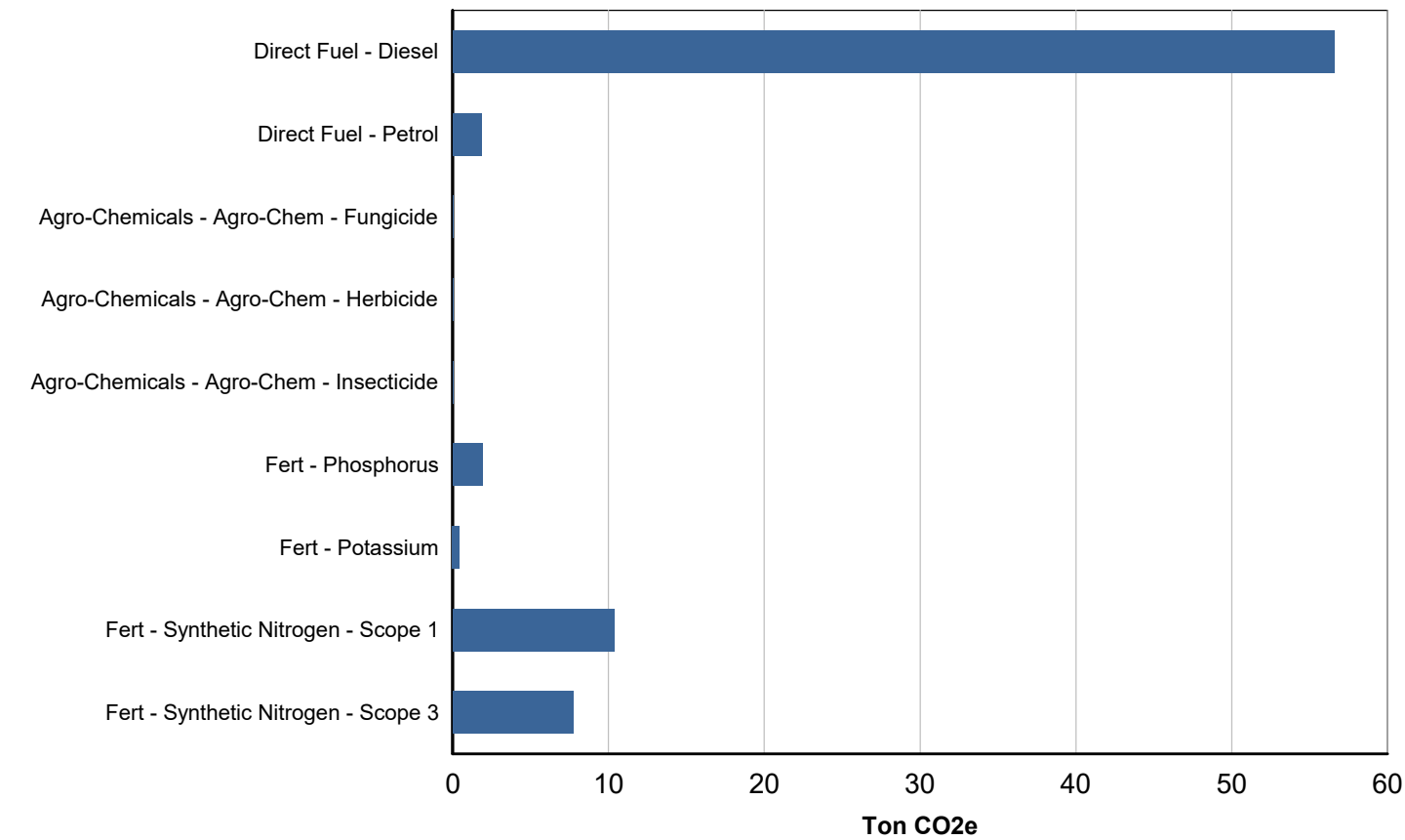
Jul 2024 to Jun 2025

Farm - Commodity View



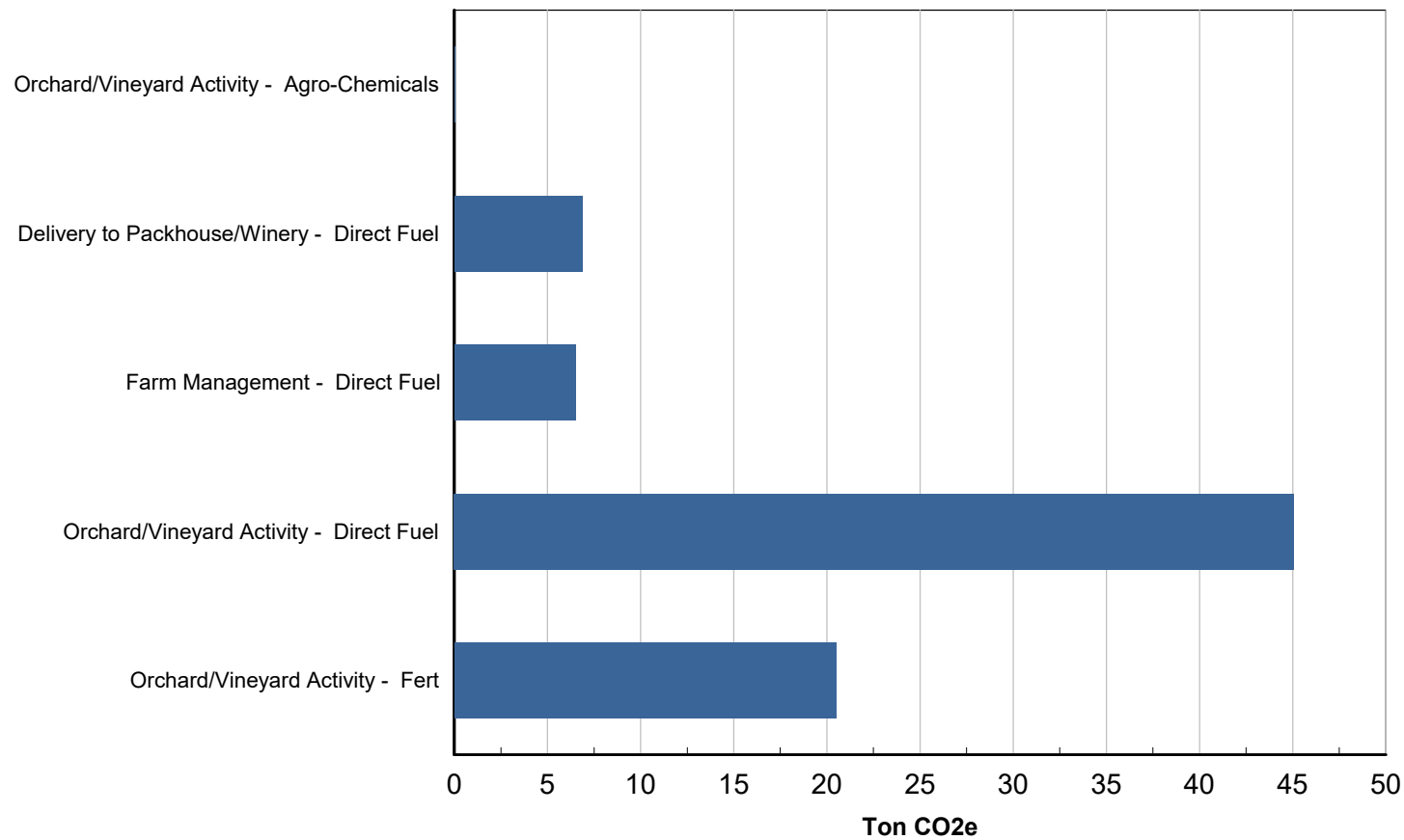
Commodity	Tonne CO ₂ e	%
Pome fruit (apple, pear)	20.07	25.41
Stone fruit	58.91	74.59
Total	78.98	100.00

Farm - Emission Source Breakdown



Emission Source	Tonne CO ₂ e	%
Direct Fuel - Diesel	56.59	71.65
Direct Fuel - Petrol	1.86	2.36
Agro-Chemicals - Agro-Chem - Fungicide	0.01	0.02
Agro-Chemicals - Agro-Chem - Herbicide	0.01	0.01
Agro-Chemicals - Agro-Chem - Insecticide	0.01	0.01
Fert - Phosphorus	1.93	2.45
Fert - Potassium	0.43	0.55
Fert - Synthetic Nitrogen - Scope 1	10.36	13.11
Fert - Synthetic Nitrogen - Scope 3	7.77	9.84
Total	78.98	100.00

Farm - Activity Breakdown



Activity Breakdown	Tonne CO ₂ e	%
Orchard/Vineyard Activity - Agro-Chemicals	0.04	0.05
Delivery to Packhouse/Winery - Direct Fuel	6.88	8.71
Farm Management - Direct Fuel	6.50	8.22
Orchard/Vineyard Activity - Direct Fuel	45.07	57.07
Orchard/Vineyard Activity - Fert	20.49	25.95
Total	78.98	100.00

Business Name: Misgund Boerdery

Dataset: 2025/08/13 10:05:59

Data Collection Period: Jul 2024 to Jun 2025

Detailed Carbon Emissions Breakdown

Detailed Activities	Tonne CO ₂ e	%
Direct Fuel - Diesel - Orchard/Vineyard Activity - BO	40.96	51.86
Direct Fuel - Diesel - Orchard/Vineyard Activity - NBO	4.12	5.21
Direct Fuel - Diesel - Delivery to Packhouse/Winery	6.88	8.71
Direct Fuel - Diesel - Farm Management	4.63	5.86
Direct Fuel - Petrol - Farm Management	1.86	2.36
Fert - - Synthetic Nitrogen - Orchard/Vineyard Activity - BO	16.47	20.85
Fert - - Synthetic Nitrogen - Orchard/Vineyard Activity - NBO	1.65	2.10
Fert - - Phosphorus - Orchard/Vineyard Activity - BO	1.76	2.23
Fert - - Phosphorus - Orchard/Vineyard Activity - NBO	0.18	0.22
Fert - - Potassium - Orchard/Vineyard Activity - BO	0.40	0.50
Fert - - Potassium - Orchard/Vineyard Activity - NBO	0.04	0.05
Agro-Chemicals - Agro-Chem - Fungicide - Orchard/Vineyard Activity - BO	0.01	0.02
Agro-Chemicals - Agro-Chem - Fungicide - Orchard/Vineyard Activity - NBO	0.00	0.00
Agro-Chemicals - Agro-Chem - Insecticide - Orchard/Vineyard Activity - BO	0.01	0.01
Agro-Chemicals - Agro-Chem - Insecticide - Orchard/Vineyard Activity - NBO	0.00	0.00
Agro-Chemicals - Agro-Chem - Herbicide - Orchard/Vineyard Activity - BO	0.01	0.01
Agro-Chemicals - Agro-Chem - Herbicide - Orchard/Vineyard Activity - NBO	0.00	0.00
Total	78.98	100.00

Business Name: Misgund Boerdery

Dataset: 2025/08/13 10:05:59

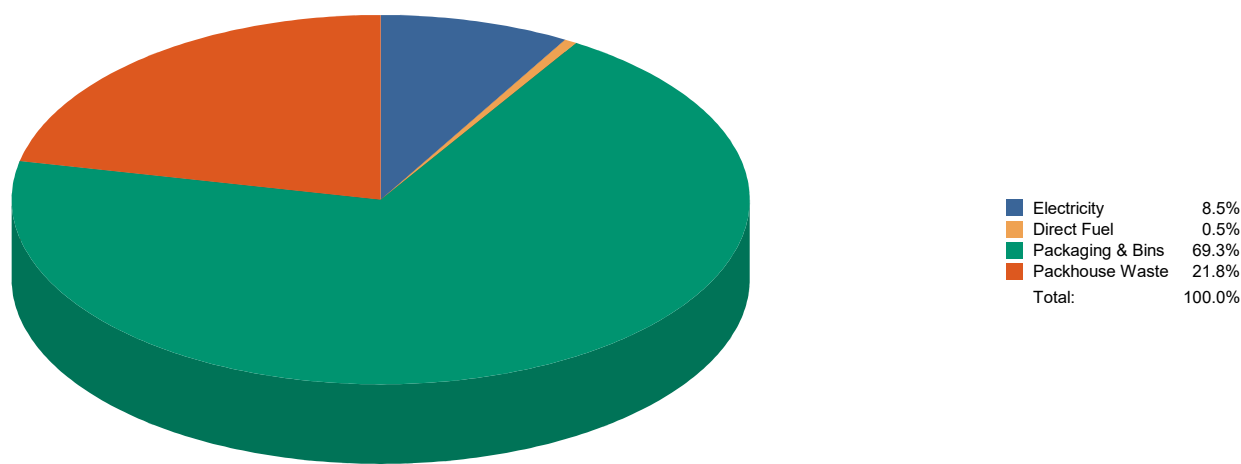
Data Collection Period: Jul 2024 to Jun 2025

Farm Consumption Benchmarks

Commodity	Consumption Measure	Result	Benchmark
Pome fruit (apple, pear)	kL Water per Ton Fruit	2.27	The CCC regional average is 129.94 kL Water per Ton Fruit and consist of 65 data points.
Pome fruit (apple, pear)	kL Water per Bearing Ha	101.45	The CCC regional average is 5942.71 kL Water per Bearing Ha and consist of 65 data points.
Pome fruit (apple, pear)	Liters Orchard / Vineyard Diesel per Ton Fruit	5.90	The CCC regional average is 12.55 Liters Orchard / Vineyard Diesel per Ton Fruit and consist of 65 data points.
Pome fruit (apple, pear)	Liters Orchard / Vineyard Diesel per Bearing Ha	263.45	The CCC regional average is 476.50 Liters Orchard / Vineyard Diesel per Bearing Ha and consist of 65 data points.
Pome fruit (apple, pear)	Kg Pure N per Ton Fruit	0.40	The CCC regional average is 2.60 Kg Pure N per Ton Fruit and consist of 65 data points.
Pome fruit (apple, pear)	Kg Pure N per Bearing Ha	17.87	The CCC regional average is 100.75 Kg Pure N per Bearing Ha and consist of 65 data points.

Commodity	Consumption Measure	Result	Benchmark
Stone fruit	kL Water per Ton Fruit	5.26	The CCC regional average is 175.37 kL Water per Ton Fruit and consist of 57 data points.
Stone fruit	kL Water per Bearing Ha	115.28	The CCC regional average is 5002.82 kL Water per Bearing Ha and consist of 57 data points.
Stone fruit	kL Water per Non-Bearing Ha	158.73	The CCC regional average is 2756.02 kL Water per Non-Bearing Ha and consist of 57 data points.
Stone fruit	Liters Orchard / Vineyard Diesel per Ton Fruit	12.03	The CCC regional average is 13.46 Liters Orchard / Vineyard Diesel per Ton Fruit and consist of 57 data points.
Stone fruit	Liters Orchard / Vineyard Diesel per Bearing Ha	263.45	The CCC regional average is 355.17 Liters Orchard / Vineyard Diesel per Bearing Ha and consist of 57 data points.
Stone fruit	Kg Pure N per Ton Fruit	0.82	The CCC regional average is 4.32 Kg Pure N per Ton Fruit and consist of 57 data points.
Stone fruit	Kg Pure N per Bearing Ha	17.87	The CCC regional average is 113.21 Kg Pure N per Bearing Ha and consist of 57 data points.

Packhouse - Emission Source View



Emission Source	Tonne CO ₂ e	%
Electricity	65.81	8.47
Direct Fuel	3.86	0.50
Packaging & Bins	538.06	69.28
Packhouse Waste	168.97	21.75
Total	776.70	100.00

Business Name:

Misgund Boerdery

Dataset:

2025/08/13 10:05:59

Data Collection Period:

Jul 2024 to Jun 2025

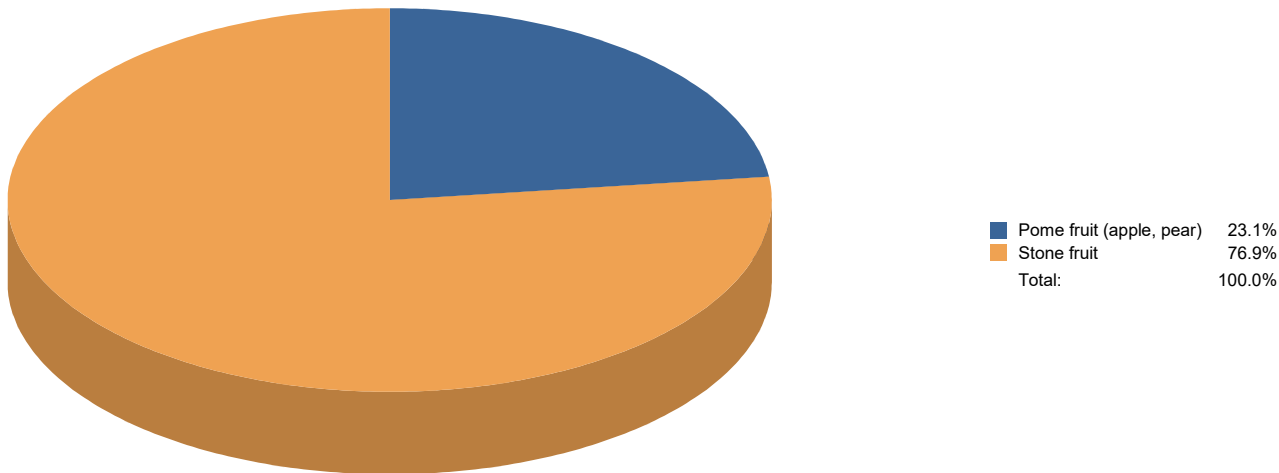
Packhouse Commodity Benchmark

Commodity	Kg CO2e per Kg Fruit	Benchmark
Pome fruit (apple, pear)	0.30	The CCC regional average is 0.11 Kg CO2e per Kg Fruit and consist of 54 data points.
Stone fruit	0.63	The CCC regional average is 0.16 Kg CO2e per Kg Fruit and consist of 49 data points.

Packhouse Scope Breakdown

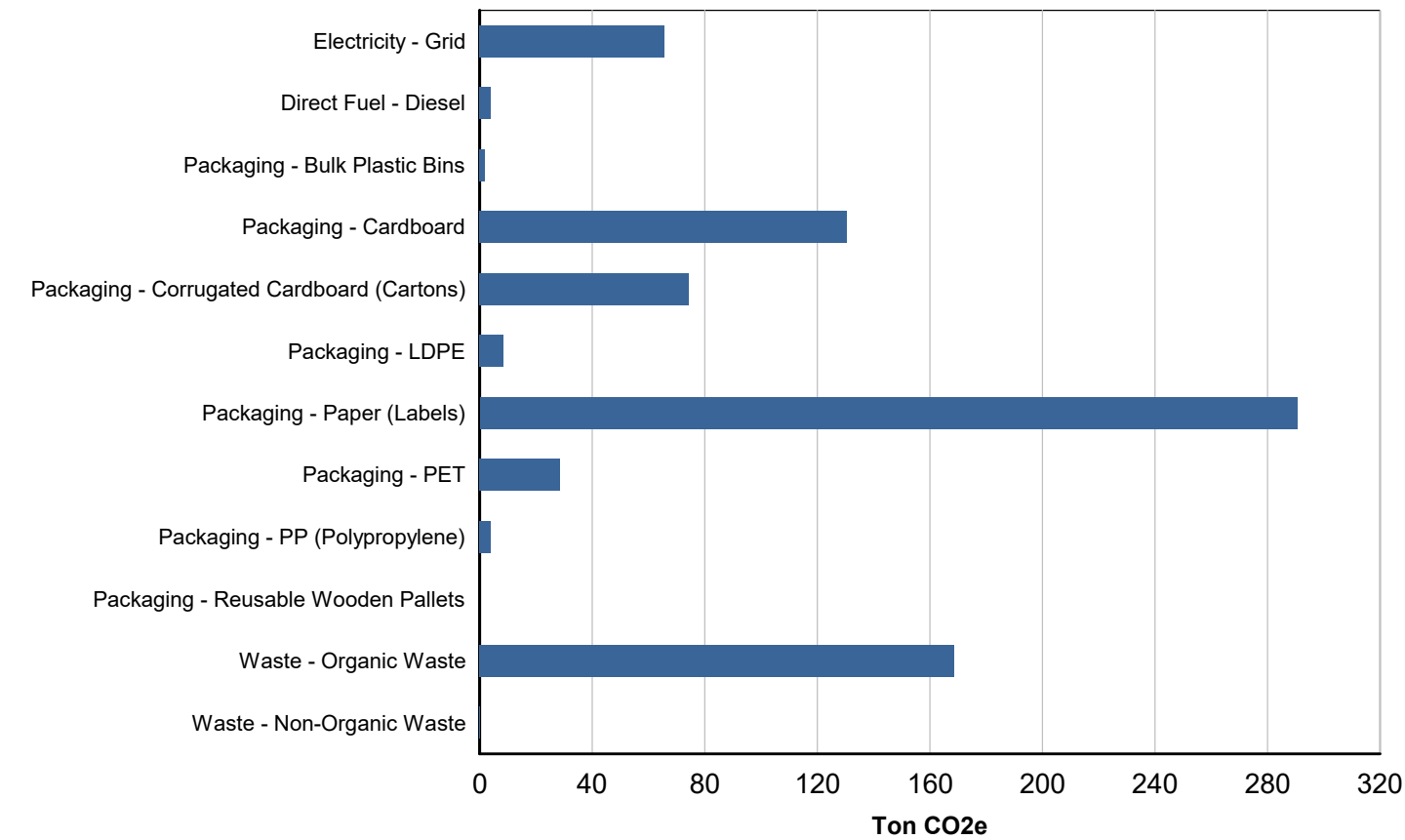
	Tonne CO ₂ e	%
Scope 1	3.86	0.50
Scope 2	65.81	8.47
Scope 3	707.03	91.03
Total	776.70	100.00

Packhouse - Commodity View



Commodity	Tonne CO ₂ e	%
Pome fruit (apple, pear)	179.13	23.06
Stone fruit	597.56	76.94
Total	776.70	100.00

Packhouse - Emission Source Breakdown

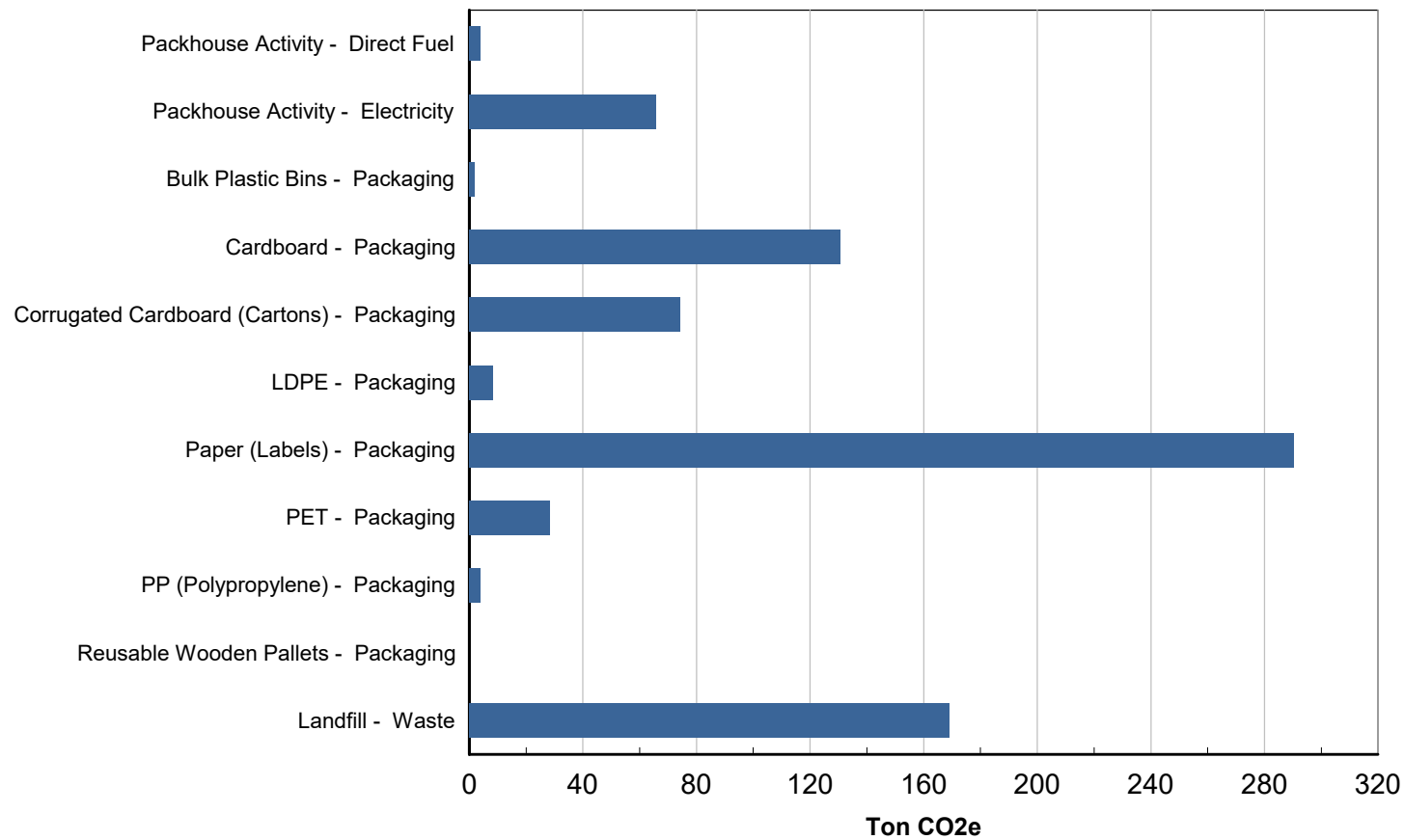


Emission Source	Tonne CO ₂ e	%
Electricity - Grid	65.81	8.47
Direct Fuel - Diesel	3.86	0.50
Packaging - Bulk Plastic Bins	1.73	0.22
Packaging - Cardboard	130.55	16.81
Packaging - Corrugated Cardboard (Cartons)	74.41	9.58
Packaging - LDPE	8.48	1.09
Packaging - Paper (Labels)	290.52	37.40
Packaging - PET	28.50	3.67
Packaging - PP (Polypropylene)	3.85	0.50
Packaging - Reusable Wooden Pallets	0.00	0.00
Waste - Organic Waste	168.80	21.73
Waste - Non-Organic Waste	0.17	0.02

Business Name: Misgund Boerdery
Dataset: 2025/08/13 10:05:59
Data Collection Period: Jul 2024 to Jun 2025

Total	776.70	100.00
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Packhouse - Activity Breakdown



Activity Breakdown	Tonne CO ₂ e	%
Packhouse Activity - Direct Fuel	3.86	0.50
Packhouse Activity - Electricity	65.81	8.47
Bulk Plastic Bins - Packaging	1.73	0.22
Cardboard - Packaging	130.55	16.81
Corrugated Cardboard (Cartons) - Packaging	74.41	9.58
LDPE - Packaging	8.48	1.09
Paper (Labels) - Packaging	290.52	37.40
PET - Packaging	28.50	3.67
PP (Polypropylene) - Packaging	3.85	0.50
Reusable Wooden Pallets - Packaging	0.00	0.00
Landfill - Waste	168.97	21.75
Total	776.70	100.00

Business Name: Misgund Boerdery
Dataset: 2025/08/13 10:05:59
Data Collection Period: Jul 2024 to Jun 2025

Detailed Carbon Emissions Breakdown

Detailed Activities	Tonne CO ₂ e	%
Electricity - Grid - Packhouse Activity	65.81	8.47
Direct Fuel - Diesel - Packhouse Activity	3.86	0.50
Packaging - Cardboard - Cardboard	130.55	16.81
Packaging - Corrugated Cardboard (Cartons) - Corrugated Cardboard (Cartons)	74.41	9.58
Packaging - Paper (Labels) - Paper (Labels)	290.52	37.40
Packaging - PP (Polypropylene) - PP (Polypropylene)	3.85	0.50
Packaging - PET - PET	28.50	3.67
Packaging - LDPE - LDPE	8.48	1.09
Packaging - Bulk Plastic Bins - Bulk Plastic Bins	1.73	0.22
Packaging - Reusable Wooden Pallets - Reusable Wooden Pallets	0.00	0.00
Waste - Organic Waste - Landfill	168.80	21.73
Waste - Non-Organic Waste - Landfill	0.17	0.02
Total	776.70	100.00

Business Name: Misgund Boerdery

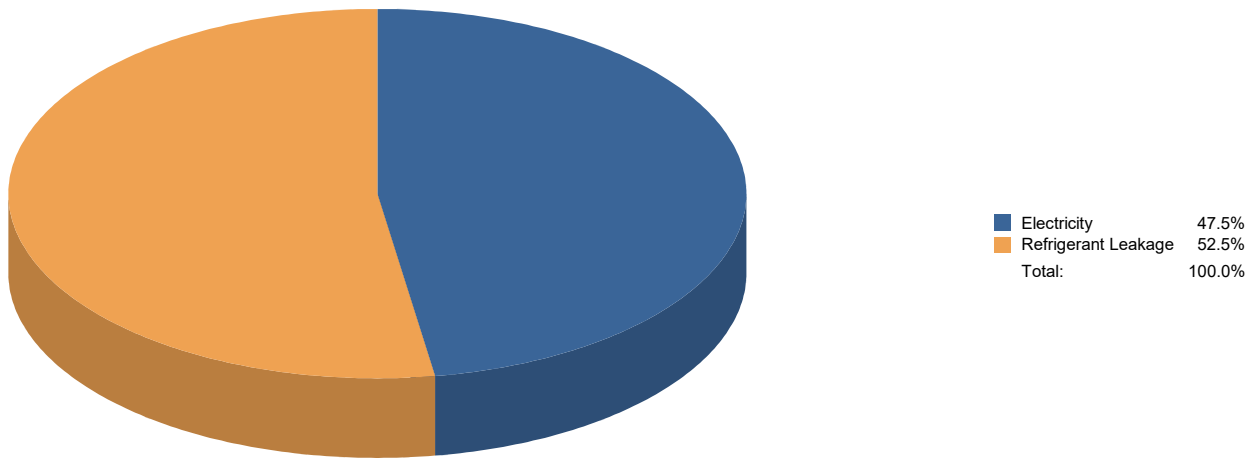
Dataset: 2025/08/13 10:05:59

Data Collection Period: Jul 2024 to Jun 2025

Packhouse Consumption Benchmarks

Pome fruit (apple, pear)	kWh Packhouse Activity Electricity per Ton Fruit	21.09	The CCC regional average is 51.22 kWh Packhouse Activity Electricity per Ton Fruit and consist of 47 data points.
Pome fruit (apple, pear)	Kg Corrugated Cardboard per Ton of Fruit packed	9.60	The CCC regional average is 31.70 Kg Corrugated Cardboard per Ton of Fruit packed and consist of 47 data points.
Stone fruit	kWh Packhouse Activity Electricity per Ton Fruit	48.84	The CCC regional average is 36.55 kWh Packhouse Activity Electricity per Ton Fruit and consist of 41 data points.
Stone fruit	Kg Corrugated Cardboard per Ton of Fruit packed	54.22	The CCC regional average is 48.66 Kg Corrugated Cardboard per Ton of Fruit packed and consist of 41 data points.

Coldstore - Emission Source View



Emission Source	Tonne CO ₂ e	%
Electricity	131.61	47.51
Refrigerant Leakage	145.38	52.49
Total	277.00	100.00

Business Name:

Misgund Boerdery

Dataset:

2025/08/13 10:05:59

Data Collection Period:

Jul 2024 to Jun 2025

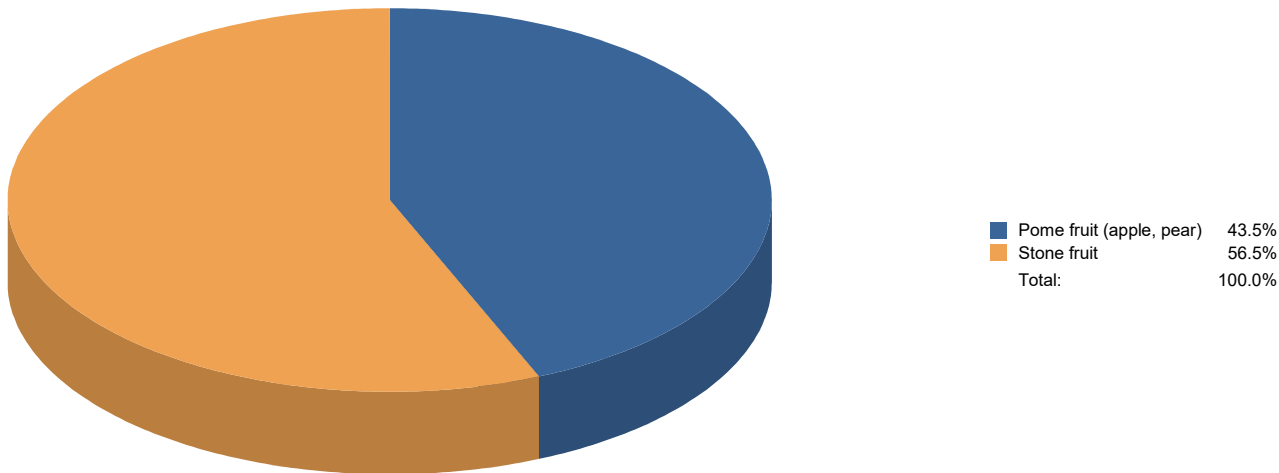
Coldstore Commodity Benchmark

Commodity	Kg CO2e per Kg Fruit	Benchmark
Pome fruit (apple, pear)	0.27	The CCC regional average is 0.07 Kg CO2e per Kg Fruit and consist of 55 data points.
Stone fruit	0.17	The CCC regional average is 0.05 Kg CO2e per Kg Fruit and consist of 46 data points.

Coldstore Scope Breakdown

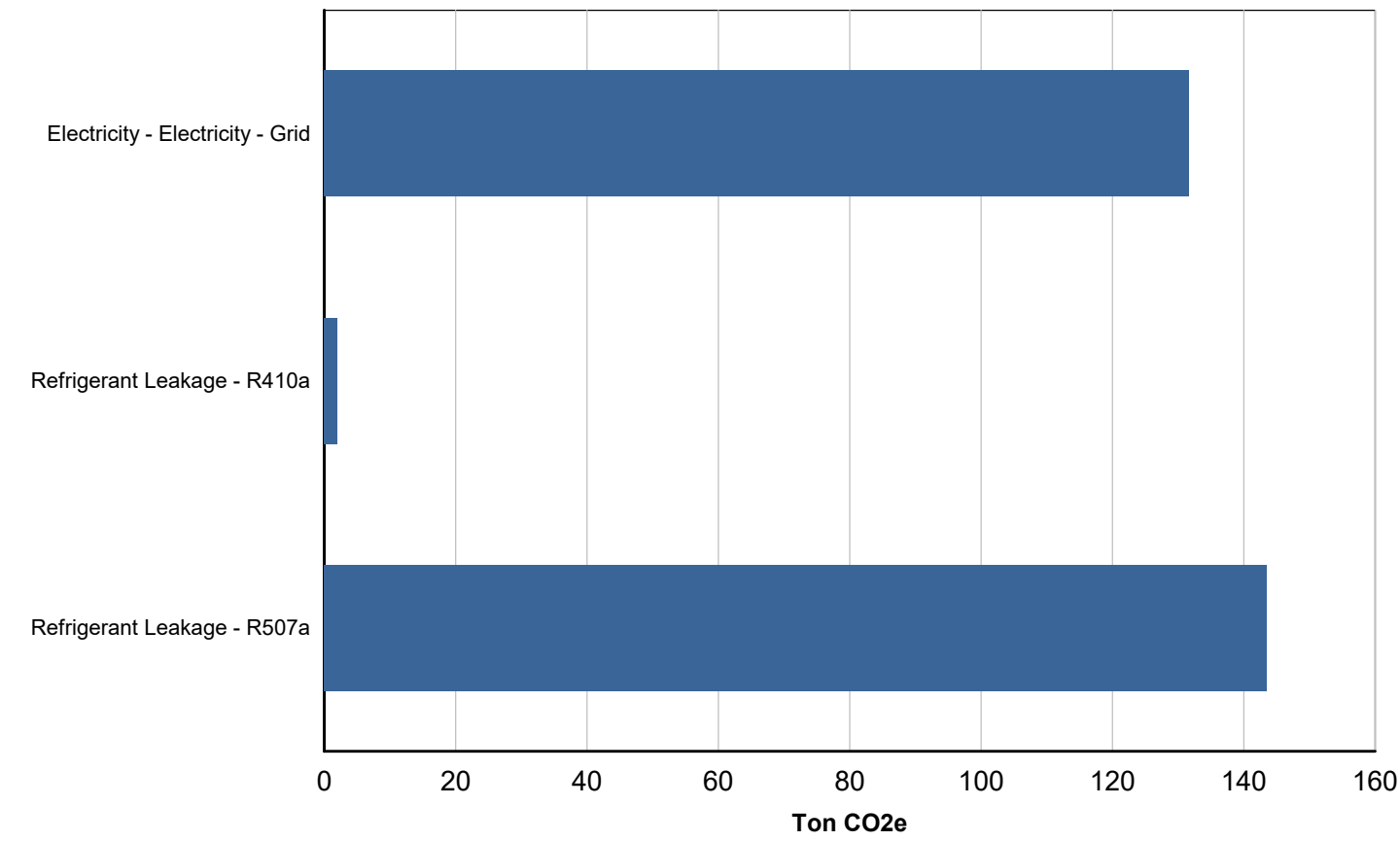
	Tonne CO ₂ e	%
Scope 1	145.38	52.49
Scope 2	131.61	47.51
Total	277.00	100.00

Coldstore - Commodity View



Commodity	Tonne CO ₂ e	%
Pome fruit (apple, pear)	120.45	43.48
Stone fruit	156.55	56.52
Total	277.00	100.00

Coldstore - Emission Source Breakdown



Emission Source	Tonne CO ₂ e	%
Electricity - Electricity - Grid	131.61	47.51
Refrigerant Leakage - R410a	1.92	0.69
Refrigerant Leakage - R507a	143.46	51.79
Total	277.00	100.00

Business Name: Misgund Boerdery
Dataset: 2025/08/13 10:05:59
Data Collection Period: Jul 2024 to Jun 2025