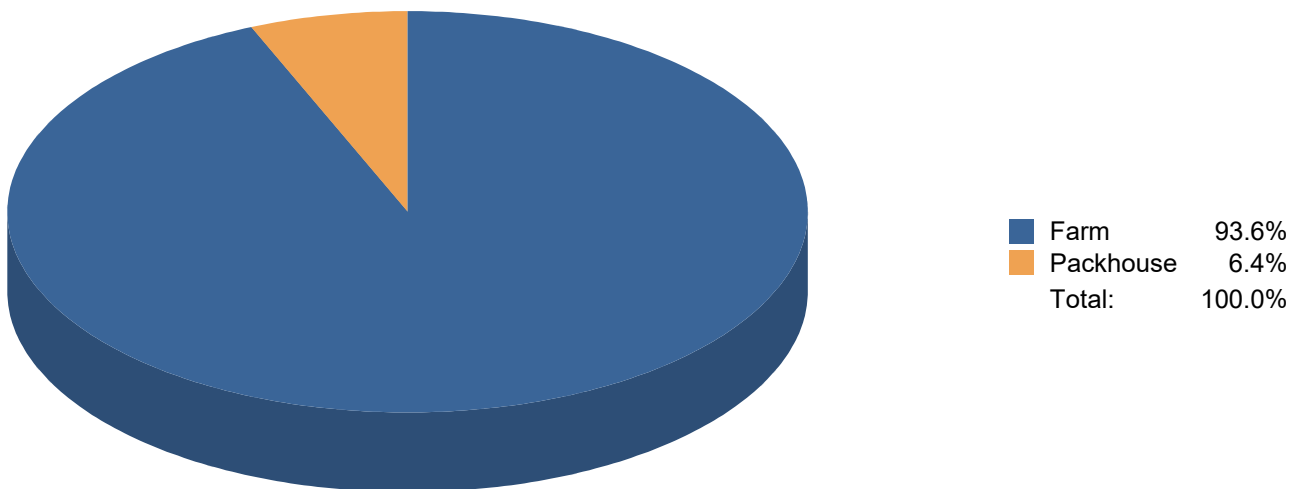


Carbon Calculator Results

Business Name: Radyn Boerdery / Welverdiend Boerdery / Wespak (Citrus) P
Country Name: South Africa
Creation Date: 10/15/2025 12:00:14AM
Data Collection Period: Nov 2023 to Oct 2024
Report Grade: B2 - This dataset has been checked by CCC and is not part of the benchmark.

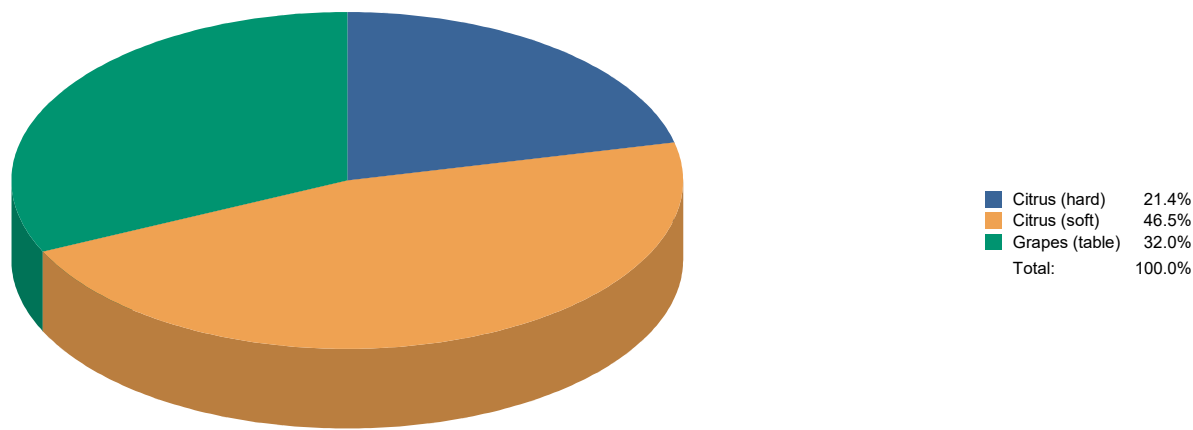
Business Unit - Boundary View



Boundary	Tonne CO ₂ e	%
Farm	2,903.24	93.60
Packhouse	198.50	6.40
Total	3,101.73	100.00

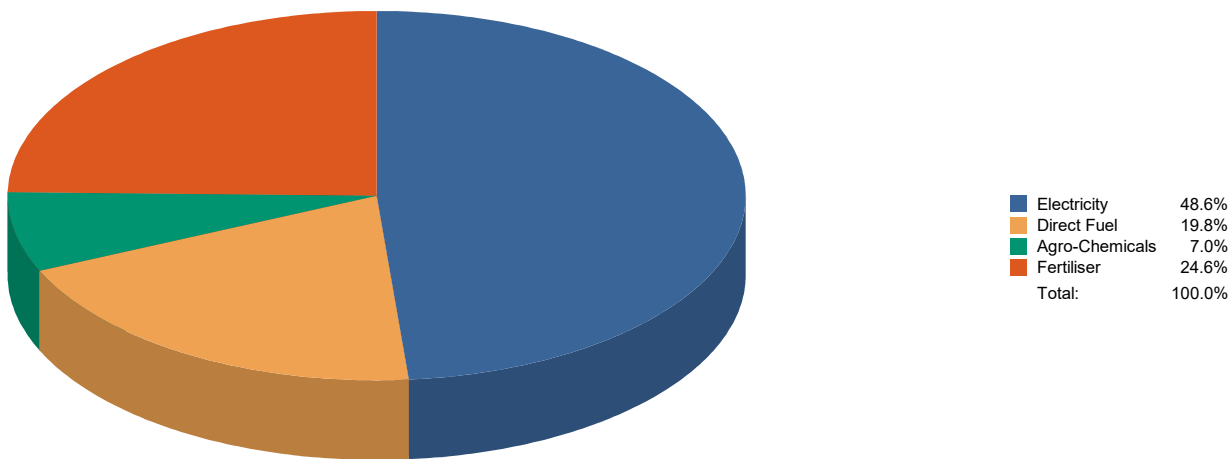
The Carbon Calculator must be completed on an annual basis. This allows users to monitor their carbon footprint trend and analyse improvements.

Business Unit - Commodity View



Commodity	Tonne CO ₂ e	%
Citrus (hard)	664.71	21.43
Citrus (soft)	1,443.05	46.52
Grapes (table)	993.98	32.05
Total	3,101.73	100.00

Farm - Emission Source View



Emission Source	Tonne CO ₂ e	%
Electricity	1,411.21	48.61
Direct Fuel	574.99	19.81
Agro-Chemicals	202.12	6.96
Fertiliser	714.91	24.62
Total	2,903.24	100.00

Business Name:

Radyn Boerdery / Welverdiend Boerdery / Wespak (Citrus) PTY LTD

Dataset:

10/15/2025 12:00:14AM

Data Collection Period:

Nov 2023 to Oct 2024

Farm Commodity Benchmark

Commodity	Kg CO2e per Kg Fruit	Benchmark
Citrus (hard)	0.40	The CCC regional average is 0.23 Kg CO2e per Kg Fruit and consist of 24 data points.
Citrus (soft)	0.34	The CCC regional average is 0.27 Kg CO2e per Kg Fruit and consist of 21 data points.
Grapes (table)	0.55	The CCC regional average is 0.37 Kg CO2e per Kg Fruit and consist of 5 data points.

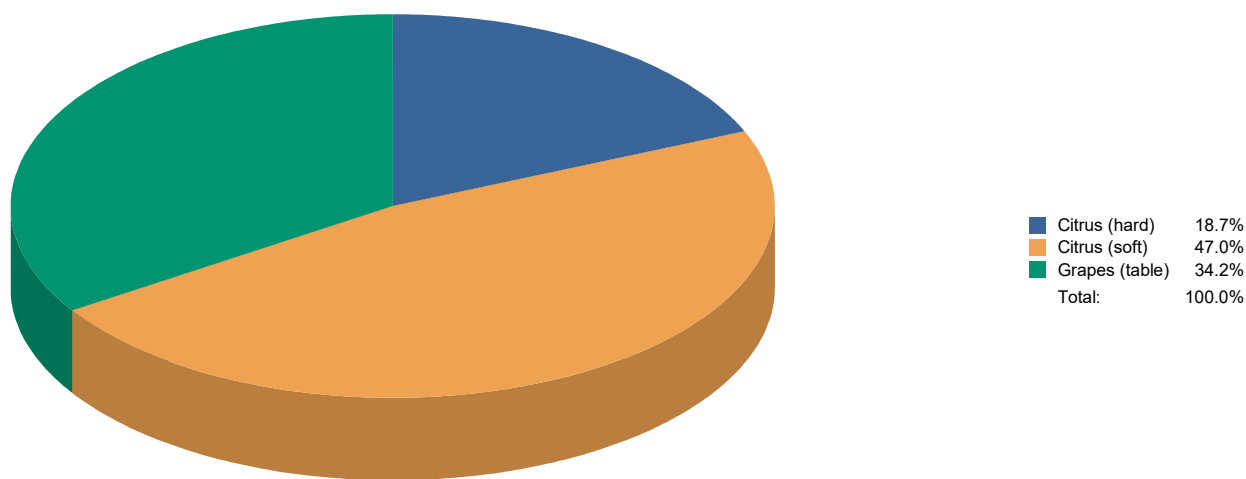
Farm Hectare Breakdown

Commodity	Tonne CO ₂ e per Bearing Ha
Citrus (hard)	13.56
Citrus (soft)	18.76
Grapes (table)	10.43

Farm Scope Breakdown

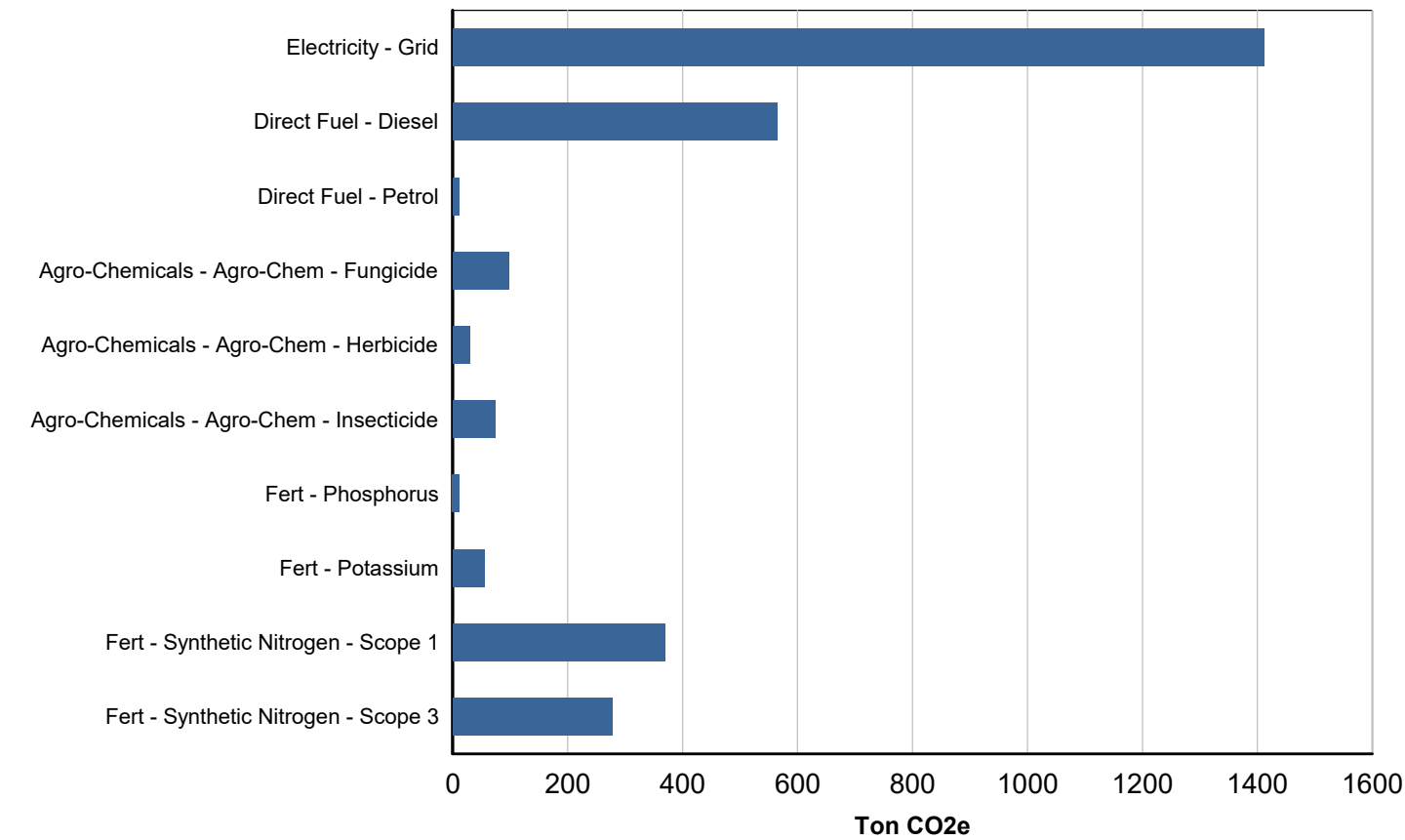
	Tonne CO ₂ e	%
Scope 1	945.02	32.55
Scope 2	1,411.21	48.61
Scope 3	547.00	18.84
Total	2,903.24	100.00

Farm - Commodity View



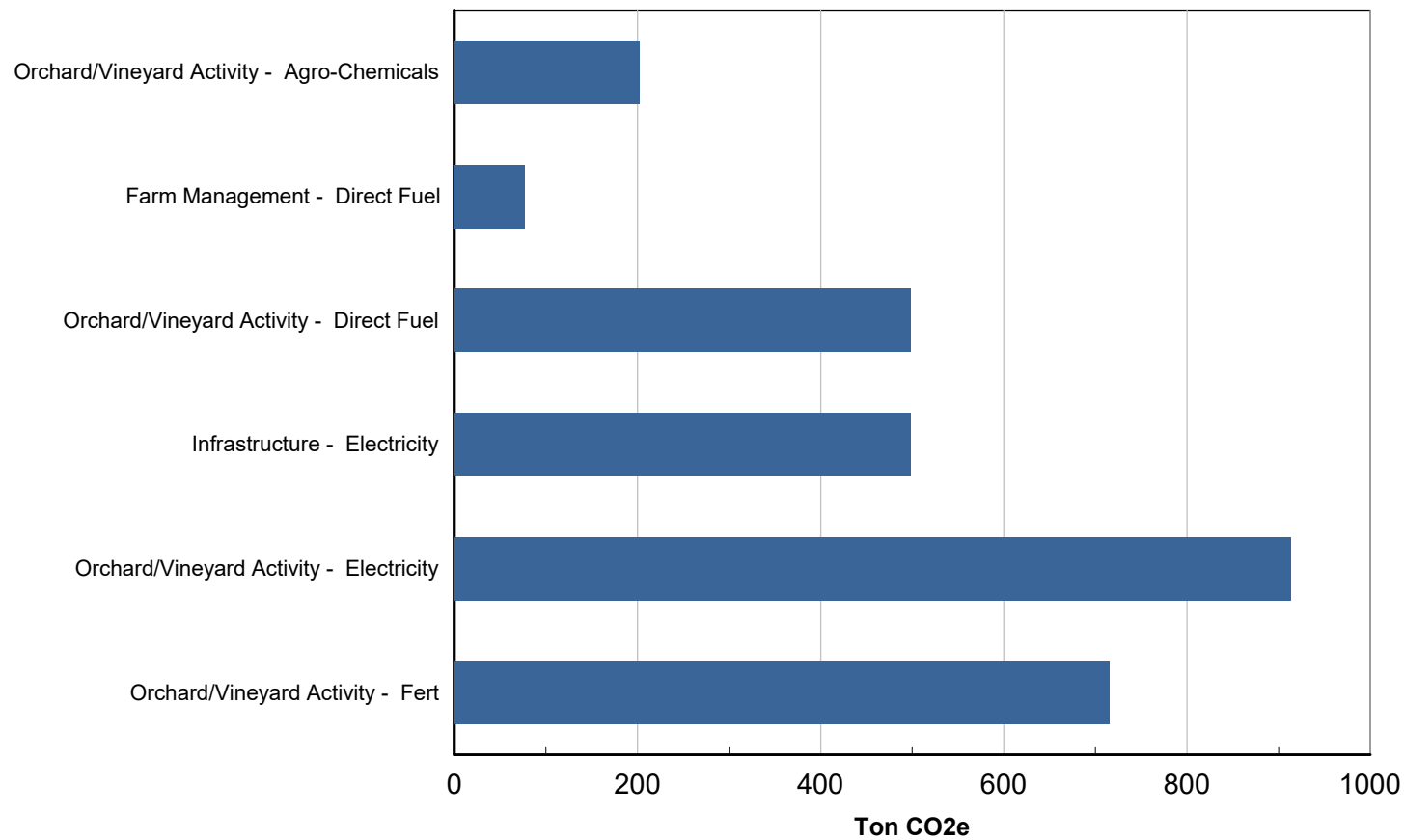
Commodity	Tonne CO ₂ e	%
Citrus (hard)	543.44	18.72
Citrus (soft)	1,365.82	47.04
Grapes (table)	993.98	34.24
Total	2,903.24	100.00

Farm - Emission Source Breakdown



Emission Source	Tonne CO ₂ e	%
Electricity - Grid	1,411.21	48.61
Direct Fuel - Diesel	564.49	19.44
Direct Fuel - Petrol	10.50	0.36
Agro-Chemicals - Agro-Chem - Fungicide	98.18	3.38
Agro-Chemicals - Agro-Chem - Herbicide	29.37	1.01
Agro-Chemicals - Agro-Chem - Insecticide	74.57	2.57
Fert - Phosphorus	11.78	0.41
Fert - Potassium	55.57	1.91
Fert - Synthetic Nitrogen - Scope 1	370.03	12.75
Fert - Synthetic Nitrogen - Scope 3	277.52	9.56
Total	2,903.24	100.00

Farm - Activity Breakdown



Activity Breakdown	Tonne CO ₂ e	%
Orchard/Vineyard Activity - Agro-Chemicals	202.12	6.96
Farm Management - Direct Fuel	77.16	2.66
Orchard/Vineyard Activity - Direct Fuel	497.84	17.15
Infrastructure - Electricity	498.17	17.16
Orchard/Vineyard Activity - Electricity	913.04	31.45
Orchard/Vineyard Activity - Fert	714.91	24.62
Total	2,903.24	100.00

Business Name:Radyn Boerdery / Welverdiend Boerdery / Wespak (Citrus) PTY LTD

Dataset:10/15/2025 12:00:14AM

Data Collection Period:Nov 2023 to Oct 2024

Detailed Carbon Emissions Breakdown

Detailed Activities	Tonne CO ₂ e	%
Electricity - Grid - Orchard/Vineyard Activity - BO	812.14	27.97
Electricity - Grid - Orchard/Vineyard Activity - NBO	100.90	3.48
Electricity - Grid - Infrastructure	498.17	17.16
Direct Fuel - Diesel - Orchard/Vineyard Activity - BO	414.98	14.29
Direct Fuel - Diesel - Orchard/Vineyard Activity - NBO	81.77	2.82
Direct Fuel - Diesel - Farm Management	67.73	2.33
Direct Fuel - Petrol - Orchard/Vineyard Activity	1.08	0.04
Direct Fuel - Petrol - Farm Management	9.42	0.32
Fert - - Synthetic Nitrogen - Orchard/Vineyard Activity - BO	608.00	20.94
Fert - - Synthetic Nitrogen - Orchard/Vineyard Activity - NBO	39.56	1.36
Fert - - Phosphorus - Orchard/Vineyard Activity - BO	10.20	0.35
Fert - - Phosphorus - Orchard/Vineyard Activity - NBO	1.58	0.05
Fert - - Potassium - Orchard/Vineyard Activity - BO	53.97	1.86
Fert - - Potassium - Orchard/Vineyard Activity - NBO	1.60	0.06
Agro-Chemicals - Agro-Chem - Fungicide - Orchard/Vineyard Activity - BO	93.18	3.21
Agro-Chemicals - Agro-Chem - Fungicide - Orchard/Vineyard Activity - NBO	5.00	0.17
Agro-Chemicals - Agro-Chem - Insecticide - Orchard/Vineyard Activity - BO	74.19	2.56
Agro-Chemicals - Agro-Chem - Insecticide - Orchard/Vineyard Activity - NBO	0.38	0.01
Agro-Chemicals - Agro-Chem - Herbicide - Orchard/Vineyard Activity - BO	29.09	1.00
Agro-Chemicals - Agro-Chem - Herbicide - Orchard/Vineyard Activity - NBO	0.28	0.01
Total	2,903.24	100.00

Business Name: Radyn Boerdery / Welverdiend Boerdery / Wespak (Citrus) PTY LTD

Dataset: 10/15/2025 12:00:14AM

Data Collection Period: Nov 2023 to Oct 2024

Farm Consumption Benchmarks

Commodity	Consumption Measure	Result	Benchmark
Citrus (hard)	kL Water per Ton Fruit	151.44	The CCC regional average is 108.74 kL Water per Ton Fruit and consist of 22 data points.
Citrus (hard)	kL Water per Bearing Ha	5,147.90	The CCC regional average is 3757.61 kL Water per Bearing Ha and consist of 22 data points.
Citrus (hard)	kWh Orchard / Vineyard Electricity per Ton Fruit	78.34	The CCC regional average is 107.23 kWh Orchard / Vineyard Electricity per Ton Fruit and consist of 22 data points.
Citrus (hard)	kWh Orchard / Vineyard Electricity per Bearing Ha	2,663.18	The CCC regional average is 4112.58 kWh Orchard / Vineyard Electricity per Bearing Ha and consist of 22 data points.
Citrus (hard)	Liters Orchard / Vineyard Diesel per Ton Fruit	25.94	The CCC regional average is 9.17 Liters Orchard / Vineyard Diesel per Ton Fruit and consist of 22 data points.
Citrus (hard)	Liters Orchard / Vineyard Diesel per Bearing Ha	881.76	The CCC regional average is 335.51 Liters Orchard / Vineyard Diesel per Bearing Ha and consist of 22 data points.
Citrus (hard)	Kg Pure N per Ton Fruit	8.74	The CCC regional average is 5.81 Kg Pure N per Ton Fruit and consist of 22 data points.
Citrus (hard)	Kg Pure N per Bearing Ha	297.26	The CCC regional average is 236.96 Kg Pure N per Bearing Ha and consist of 22 data points.

Commodity	Consumption Measure	Result	Benchmark
Citrus (soft)	kL Water per Ton Fruit	107.43	The CCC regional average is 88.74 kL Water per Ton Fruit and consist of 19 data points.
Citrus (soft)	kL Water per Bearing Ha	5,942.52	The CCC regional average is 3696.30 kL Water per Bearing Ha and consist of 19 data points.
Citrus (soft)	kL Water per Non-Bearing Ha	561.40	The CCC regional average is 1450.77 kL Water per Non-Bearing Ha and consist of 19 data points.
Citrus (soft)	kWh Orchard / Vineyard Electricity per Ton Fruit	90.61	The CCC regional average is 110.05 kWh Orchard / Vineyard Electricity per Ton Fruit and consist of 19 data points.
Citrus (soft)	kWh Orchard / Vineyard Electricity per Bearing Ha	5,012.21	The CCC regional average is 4628.26 kWh Orchard / Vineyard Electricity per Bearing Ha and consist of 19 data points.
Citrus (soft)	Liters Orchard / Vineyard Diesel per Ton Fruit	16.04	The CCC regional average is 6.75 Liters Orchard / Vineyard Diesel per Ton Fruit and consist of 19 data points.
Citrus (soft)	Liters Orchard / Vineyard Diesel per Bearing Ha	887.42	The CCC regional average is 266.62 Liters Orchard / Vineyard Diesel per Bearing Ha and consist of 19 data points.
Citrus (soft)	Kg Pure N per Ton Fruit	6.87	The CCC regional average is 7.36 Kg Pure N per Ton Fruit and consist of 19 data points.
Citrus (soft)	Kg Pure N per Bearing Ha	380.17	The CCC regional average is 291.53 Kg Pure N per Bearing Ha and consist of 19 data points.

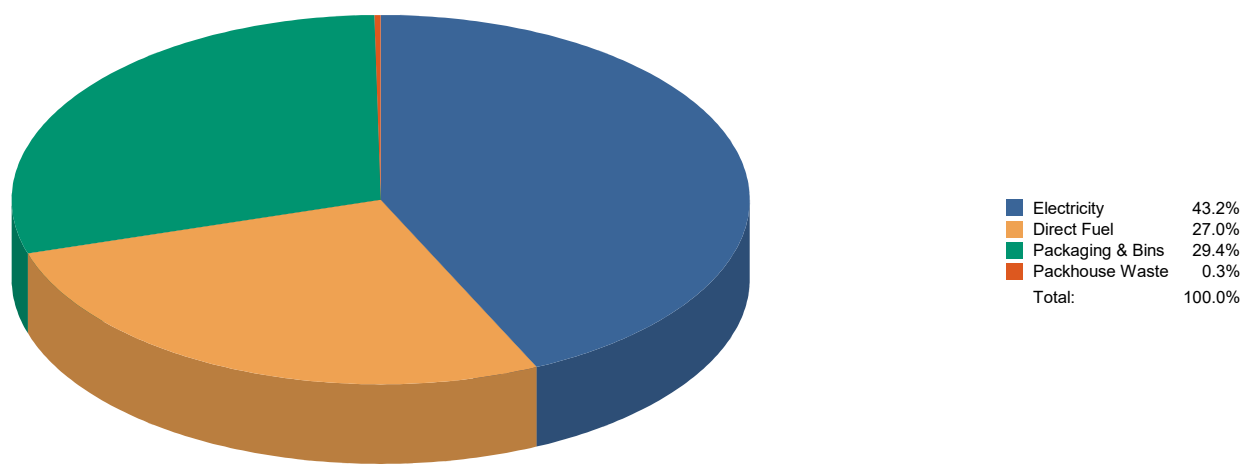
Business Name: Radyn Boerdery / Welverdiend Boerdery / Wespak (Citrus) PTY LTD

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Commodity	Consumption Measure	Result	Benchmark
Grapes (table)	kL Water per Ton Fruit	183.71	The CCC regional average is 58.99 kL Water per Ton Fruit and consist of 5 data points.
Grapes (table)	kL Water per Bearing Ha	3,890.96	The CCC regional average is 1310.55 kL Water per Bearing Ha and consist of 5 data points.
Grapes (table)	kL Water per Non-Bearing Ha	4,465.13	The CCC regional average is 0.00 kL Water per Non-Bearing Ha and consist of 5 data points.
Grapes (table)	kWh Orchard / Vineyard Electricity per Ton Fruit	205.49	The CCC regional average is 273.88 kWh Orchard / Vineyard Electricity per Ton Fruit and consist of 5 data points.
Grapes (table)	kWh Orchard / Vineyard Electricity per Bearing Ha	4,352.23	The CCC regional average is 4997.00 kWh Orchard / Vineyard Electricity per Bearing Ha and consist of 5 data points.
Grapes (table)	Liters Orchard / Vineyard Diesel per Ton Fruit	41.63	The CCC regional average is 9.35 Liters Orchard / Vineyard Diesel per Ton Fruit and consist of 5 data points.
Grapes (table)	Liters Orchard / Vineyard Diesel per Bearing Ha	881.76	The CCC regional average is 205.48 Liters Orchard / Vineyard Diesel per Bearing Ha and consist of 5 data points.
Grapes (table)	Kg Pure N per Ton Fruit	1.97	The CCC regional average is 2.16 Kg Pure N per Ton Fruit and consist of 5 data points.
Grapes (table)	Kg Pure N per Bearing Ha	41.73	The CCC regional average is 59.80 Kg Pure N per Bearing Ha and consist of 5 data points.

Packhouse - Emission Source View



Emission Source	Tonne CO ₂ e	%
Electricity	85.67	43.16
Direct Fuel	53.69	27.05
Packaging & Bins	58.45	29.44
Packhouse Waste	0.69	0.35
Total	198.50	100.00

Business Name:

Radyn Boerdery / Welverdiend Boerdery / Wespak (Citrus) PTY LTD

Dataset:

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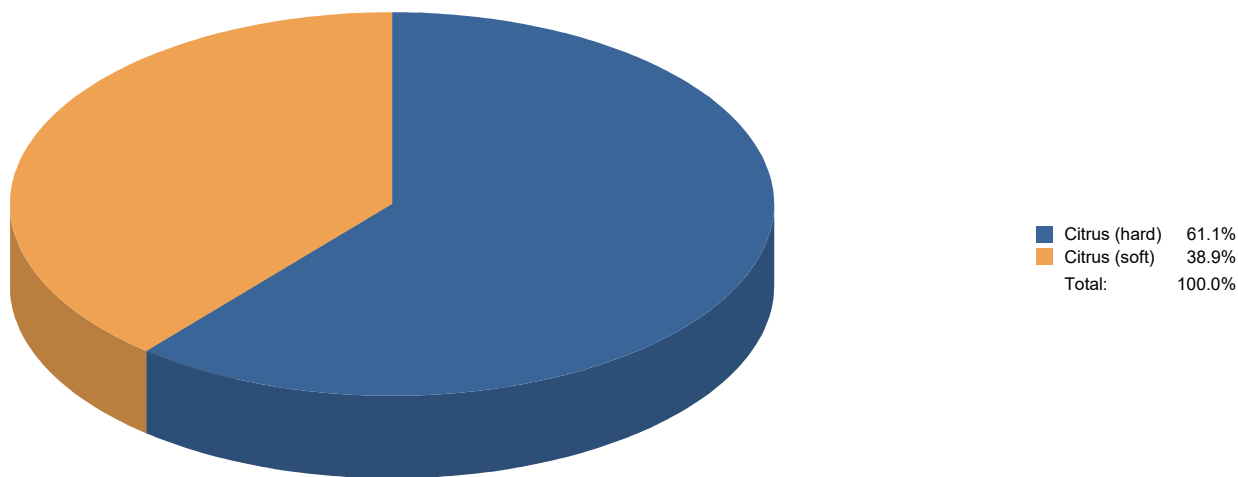
Packhouse Commodity Benchmark

Commodity	Kg CO2e per Kg Fruit	Benchmark
Citrus (hard)	0.01	The CCC regional average is 0.11 Kg CO2e per Kg Fruit and consist of 23 data points.
Citrus (soft)	0.01	The CCC regional average is 0.12 Kg CO2e per Kg Fruit and consist of 23 data points.

Packhouse Scope Breakdown

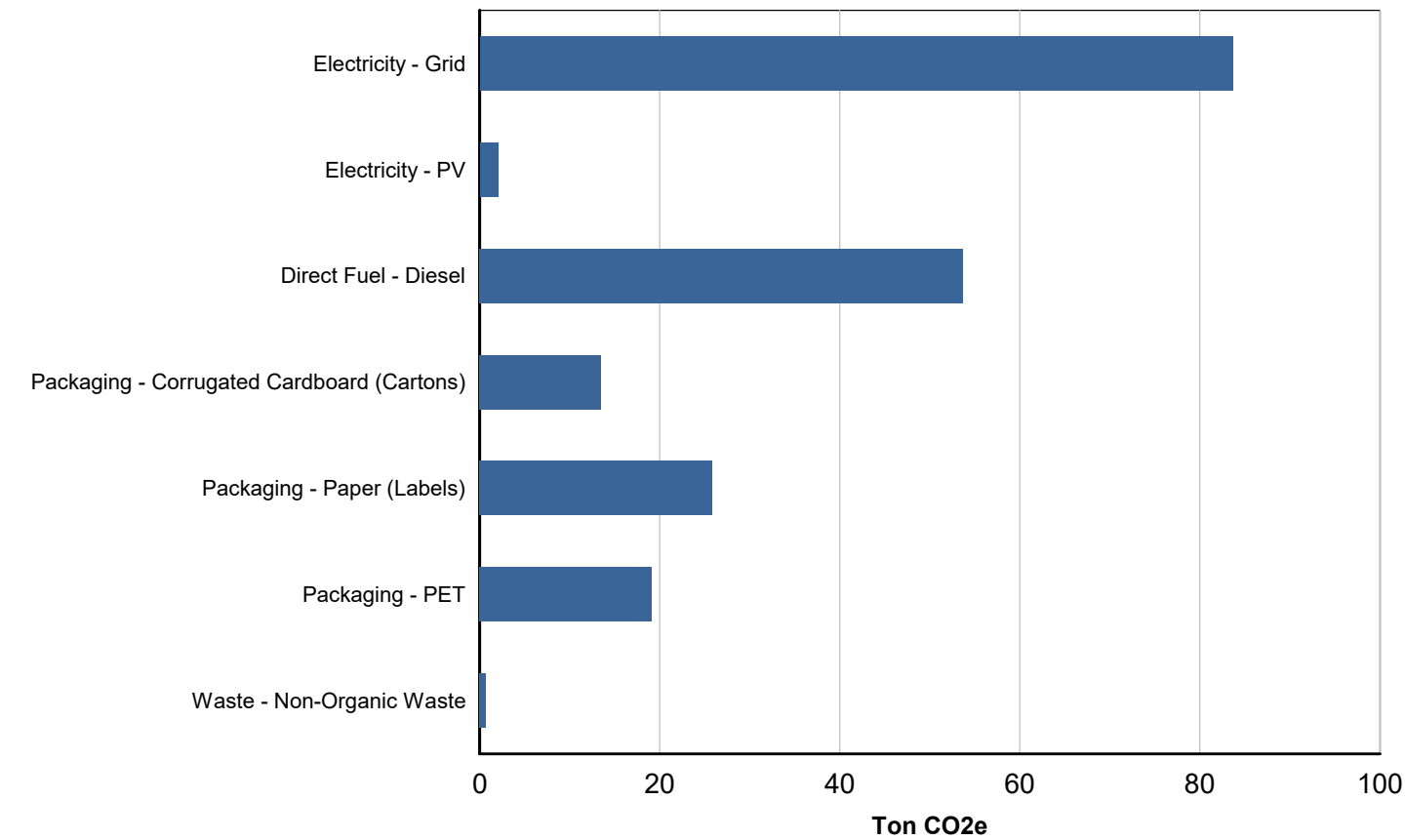
	Tonne CO ₂ e	%
Scope 1	55.72	28.07
Scope 2	83.63	42.13
Scope 3	59.14	29.79
Total	198.50	100.00

Packhouse - Commodity View



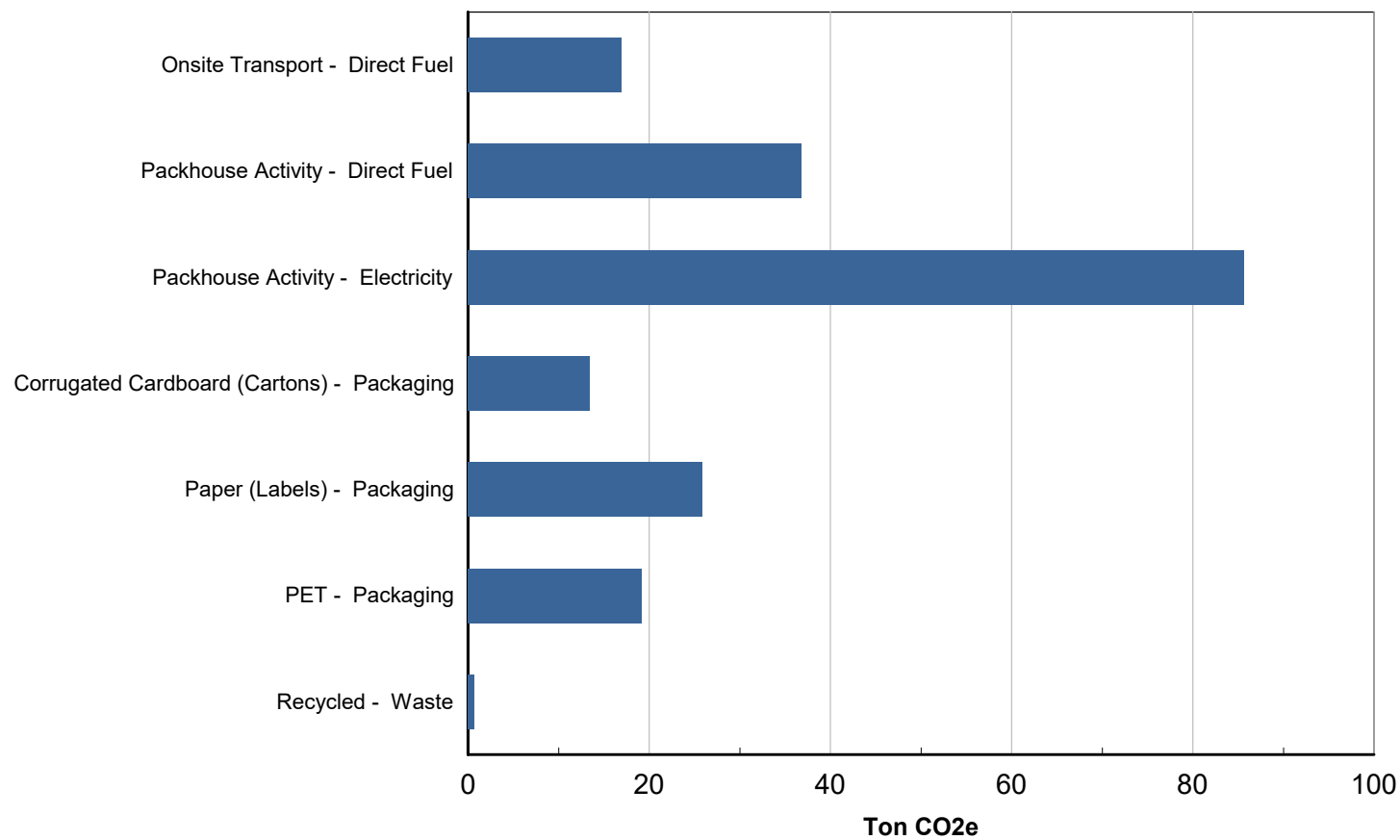
Commodity	Tonne CO ₂ e	%
Citrus (hard)	121.27	61.09
Citrus (soft)	77.23	38.91
Total	198.50	100.00

Packhouse - Emission Source Breakdown



Emission Source	Tonne CO ₂ e	%
Electricity - Grid	83.63	42.13
Electricity - PV	2.03	1.02
Direct Fuel - Diesel	53.69	27.05
Packaging - Corrugated Cardboard (Cartons)	13.47	6.79
Packaging - Paper (Labels)	25.85	13.02
Packaging - PET	19.13	9.64
Waste - Non-Organic Waste	0.69	0.35
Total	198.50	100.00

Packhouse - Activity Breakdown



Activity Breakdown	Tonne CO ₂ e	%
Onsite Transport - Direct Fuel	16.92	8.52
Packhouse Activity - Direct Fuel	36.77	18.53
Packhouse Activity - Electricity	85.67	43.16
Corrugated Cardboard (Cartons) - Packaging	13.47	6.79
Paper (Labels) - Packaging	25.85	13.02
PET - Packaging	19.13	9.64
Recycled - Waste	0.69	0.35
Total	198.50	100.00

Business Name:

Radyn Boerdery / Welverdiend Boerdery / Wespak (Citrus) PTY LTD

Dataset:

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Data Collection Period:

Nov 2023 to Oct 2024

Detailed Carbon Emissions Breakdown

Detailed Activities	Tonne CO ₂ e	%
Electricity - Grid - Packhouse Activity	83.63	42.13
Electricity - PV - Packhouse Activity	2.03	1.02
Direct Fuel - Diesel - Packhouse Activity	36.77	18.53
Direct Fuel - Diesel - Onsite Transport	16.92	8.52
Packaging - Corrugated Cardboard (Cartons) - Corrugated Cardboard (Cartons)	13.47	6.79
Packaging - Paper (Labels) - Paper (Labels)	25.85	13.02
Packaging - PET - PET	19.13	9.64
Waste - Non-Organic Waste - Recycled	0.69	0.35
Total	198.50	100.00

Business Name:

Radyn Boerdery / Welverdiend Boerdery / Wespak (Citrus) PTY LTD

Dataset:

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Packhouse Consumption Benchmarks

Citrus (hard)	Liters Water per Ton Fruit	379.79	The CCC regional average is 2323.15 Liters Water per Ton Fruit and consist of 19 data points.
Citrus (hard)	kWh Packhouse Activity Electricity per Ton Fruit	8.68	The CCC regional average is 28.12 kWh Packhouse Activity Electricity per Ton Fruit and consist of 19 data points.
Citrus (hard)	Kg Corrugated Cardboard per Ton of Fruit packed	0.71	The CCC regional average is 40.94 Kg Corrugated Cardboard per Ton of Fruit packed and consist of 18 data points.

Citrus (soft)	Liters Water per Ton Fruit	379.09	The CCC regional average is 2382.55 Liters Water per Ton Fruit and consist of 19 data points.
Citrus (soft)	kWh Packhouse Activity Electricity per Ton Fruit	8.67	The CCC regional average is 32.46 kWh Packhouse Activity Electricity per Ton Fruit and consist of 19 data points.
Citrus (soft)	Kg Corrugated Cardboard per Ton of Fruit packed	1.29	The CCC regional average is 41.85 Kg Corrugated Cardboard per Ton of Fruit packed and consist of 18 data points.

Business Name: Radyn Boerdery / Welverdiend Boerdery / Wespak (Citrus) PTY LTD

Dataset: 10/15/2025 12:00:14AM

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