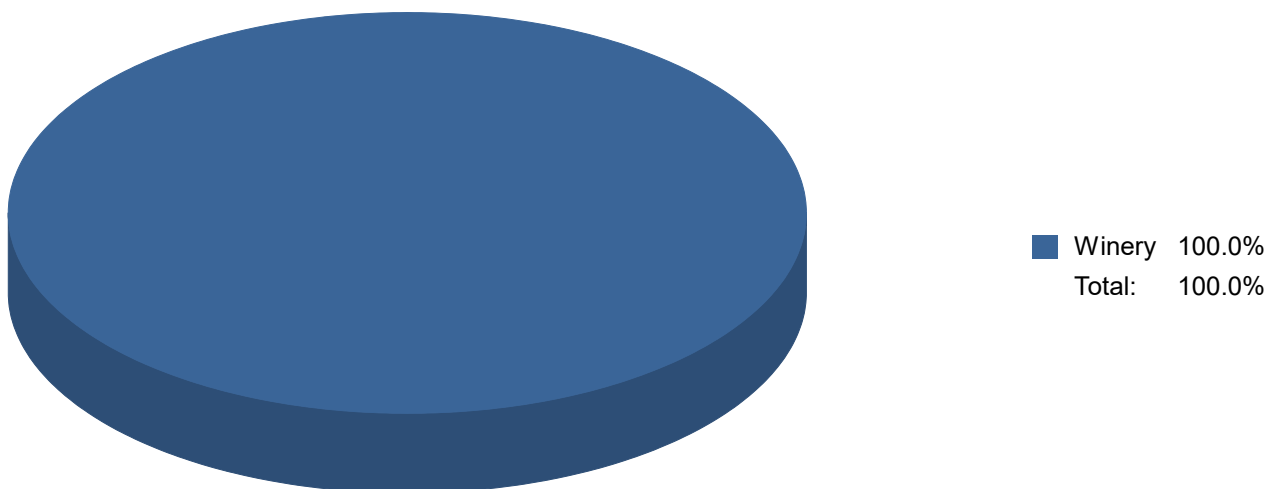


## Carbon Calculator Results

**Business Name:** Spier Wines  
**Country Name:** South Africa  
**Creation Date:** 2023/11/21 09:56:20  
**Data Collection Period:** Jul 2022 to Jun 2023  
**Report Grade:** B1 - This dataset has been checked by CCC and is part of the benchmark.

## Business Unit - Boundary View



| Boundary     | Ton CO2e        | %             |
|--------------|-----------------|---------------|
| Winery       | 1,593.15        | 100.00        |
| <b>Total</b> | <b>1,593.15</b> | <b>100.00</b> |

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

Business Name:

Spier Wines

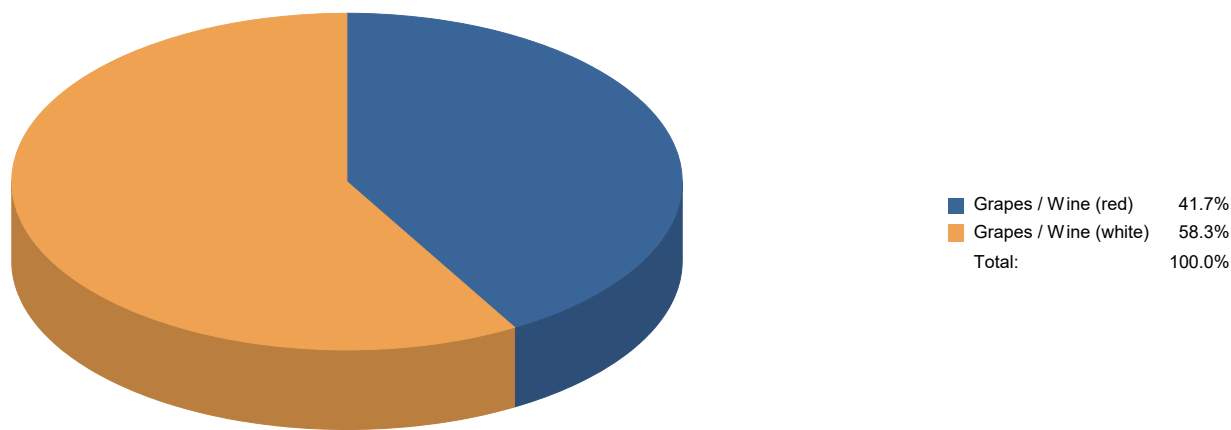
Dataset:

2023/11/21 09:56:20

Data Collection Period:

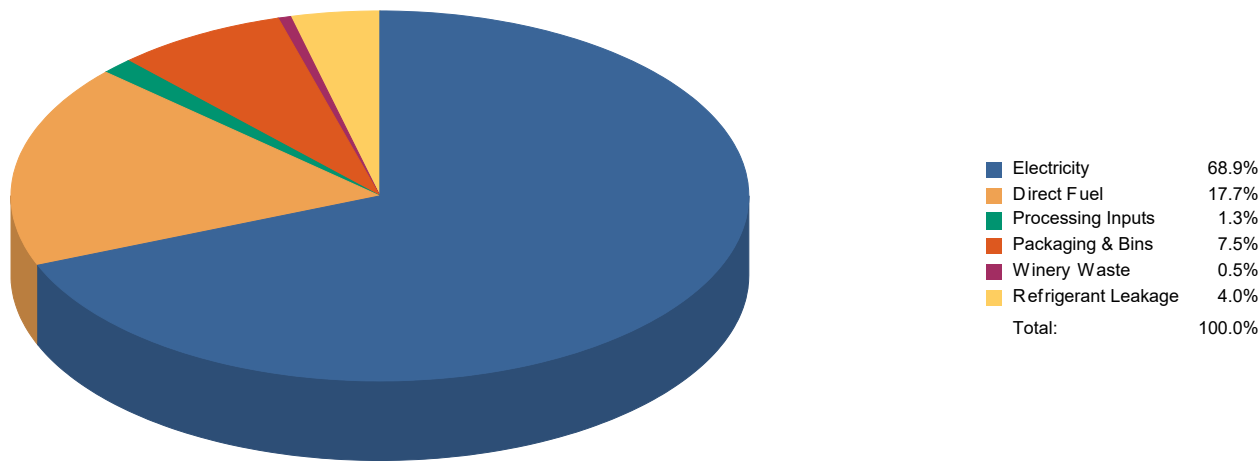
Jul 2022 to Jun 2023

# Business Unit - Commodity View



| Commodity             | Ton CO2e | %      |
|-----------------------|----------|--------|
| Grapes / Wine (red)   | 664.74   | 41.72  |
| Grapes / Wine (white) | 928.41   | 58.28  |
| Total                 | 1,593.15 | 100.00 |

# Winery - Emission Source View



| Emission Source     | Ton CO2e | %      |
|---------------------|----------|--------|
| Electricity         | 1,098.13 | 68.93  |
| Direct Fuel         | 282.46   | 17.73  |
| Processing Inputs   | 20.56    | 1.29   |
| Packaging & Bins    | 119.89   | 7.53   |
| Winery Waste        | 8.35     | 0.52   |
| Refrigerant Leakage | 63.76    | 4.00   |
| Total               | 1,593.15 | 100.00 |

**Business Name:** Spier Wines

**Dataset:** 2023/11/21 09:56:20

**Data Collection Period:** Jul 2022 to Jun 2023

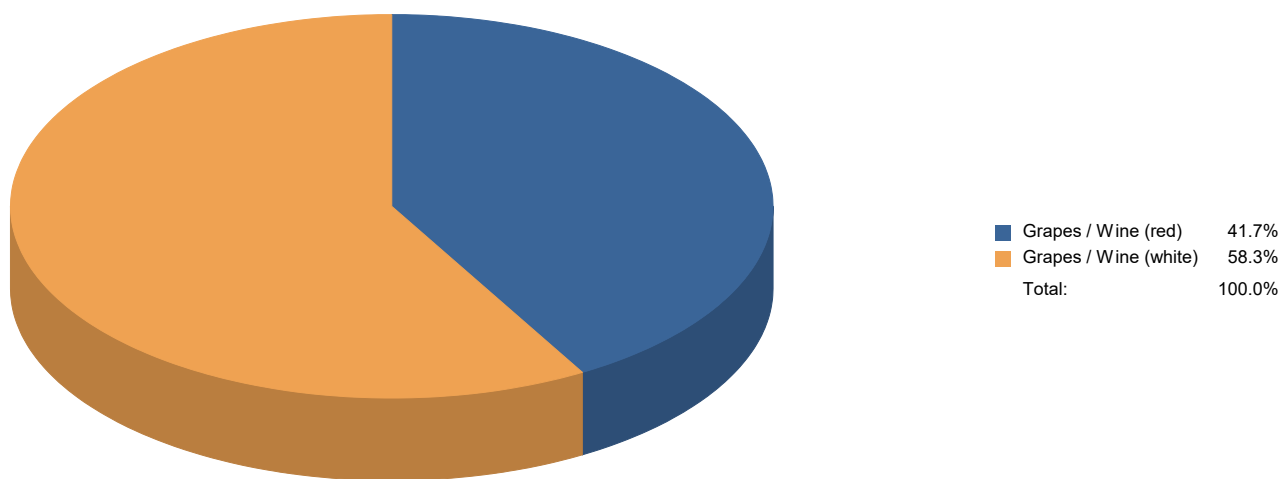
Winery Commodity Benchmark

| Commodity                          | Kg CO2e per L Wine | Benchmark  |
|------------------------------------|--------------------|--|
| Grapes / Wine (red) - Bottling     | 1.09               | The CCC regional average is 0.91 Kg CO2e per L Wine and consist of 56 data points. |
| Grapes / Wine (red) - Processing   | 0.39               | The CCC regional average is 0.52 Kg CO2e per L Wine and consist of 67 data points. |
| Grapes / Wine (white) - Bottling   | 0.95               | The CCC regional average is 0.89 Kg CO2e per L Wine and consist of 50 data points. |
| Grapes / Wine (white) - Processing | 0.39               | The CCC regional average is 0.53 Kg CO2e per L Wine and consist of 60 data points. |

Winery Scope Breakdown

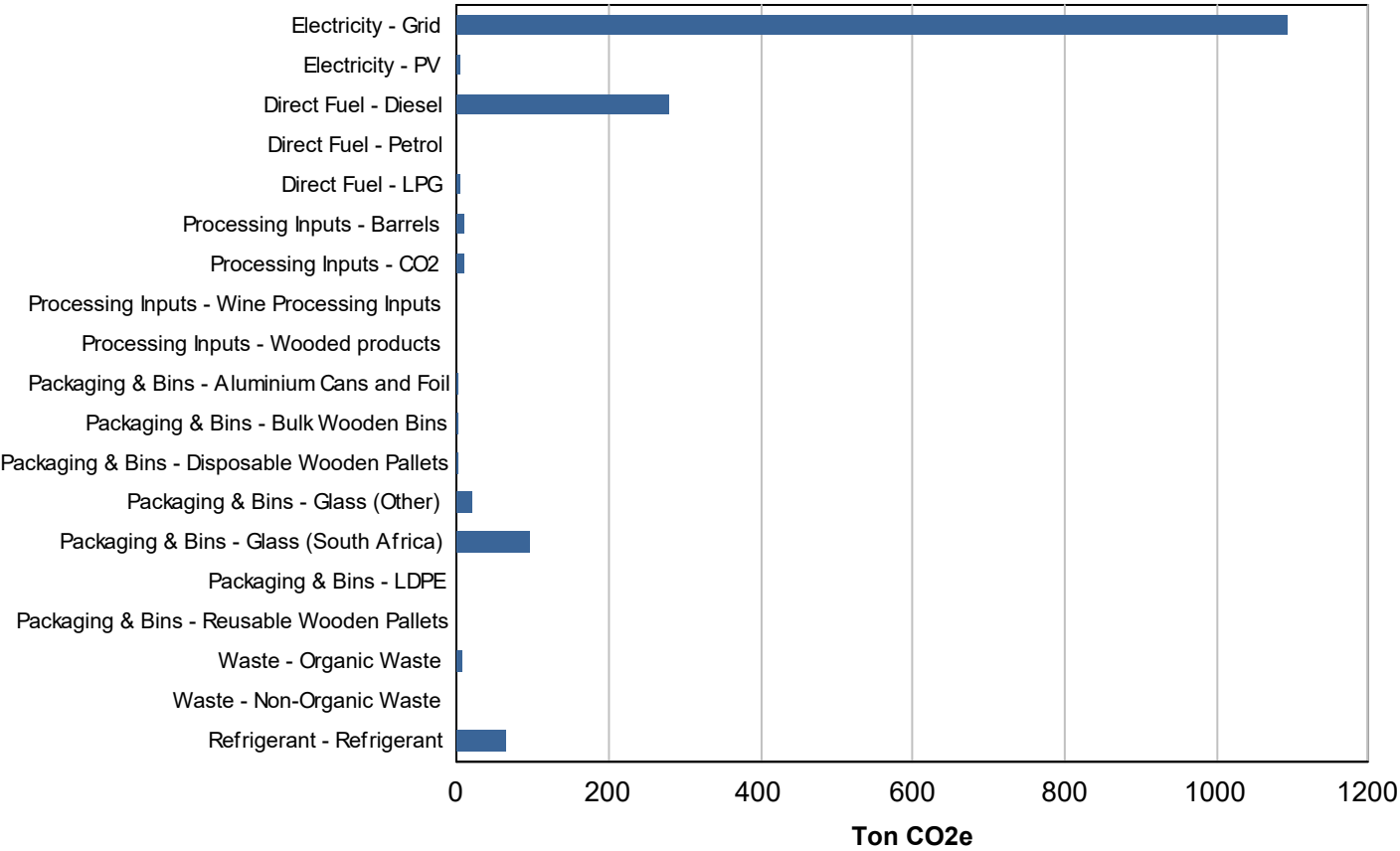
|         | Ton CO2e | %      |
|---------|----------|--------|
| Scope 1 | 369.99   | 23.22  |
| Scope 2 | 1,093.30 | 68.63  |
| Scope 3 | 129.86   | 8.15   |
| Total   | 1,593.15 | 100.00 |

# Winery - Commodity View



| Commodity             | Ton CO2e | %      |
|-----------------------|----------|--------|
| Grapes / Wine (red)   | 664.74   | 41.72  |
| Grapes / Wine (white) | 928.41   | 58.28  |
| Total                 | 1,593.15 | 100.00 |

# Winery - Emission Source Breakdown

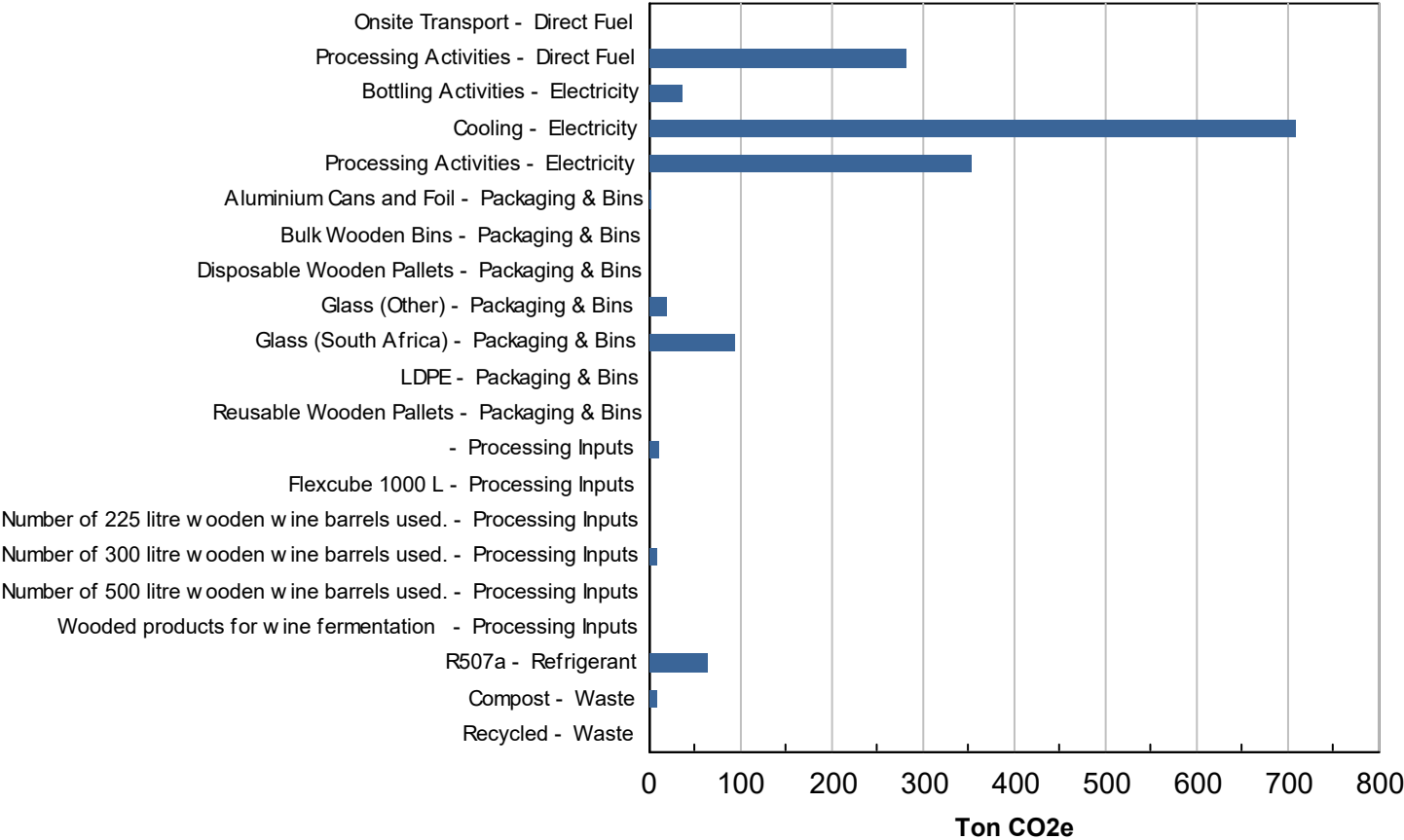


| Emission Source                              | Ton CO2e | %     |
|--|----------|-------|
| Electricity - Grid                           | 1,093.30 | 68.63 |
| Electricity - PV                             | 4.83     | 0.30  |
| Direct Fuel - Diesel                         | 277.55   | 17.42 |
| Direct Fuel - Petrol                         | 0.06     | 0.00  |
| Direct Fuel - LPG                            | 4.85     | 0.30  |
| Processing Inputs - Barrels                  | 9.18     | 0.58  |
| Processing Inputs - CO2                      | 10.68    | 0.67  |
| Processing Inputs - Wine Processing Inputs   | 0.15     | 0.01  |
| Processing Inputs - Wooded products          | 0.56     | 0.03  |
| Packaging & Bins - Aluminium Cans and Foil   | 2.93     | 0.18  |
| Packaging & Bins - Bulk Wooden Bins          | 0.68     | 0.04  |
| Packaging & Bins - Disposable Wooden Pallets | 0.67     | 0.04  |

**Business Name:** Spier Wines  
**Dataset:** 2023/11/21 09:56:20  
**Data Collection Period:** Jul 2022 to Jun 2023

|  |                 |               |
|--|-----------------|---------------|
| Packaging & Bins - Glass (Other)           | 20.05           | 1.26          |
| Packaging & Bins - Glass (South Africa)    | 95.02           | 5.96          |
| Packaging & Bins - LDPE                    | 0.10            | 0.01          |
| Packaging & Bins - Reusable Wooden Pallets | 0.44            | 0.03          |
| Waste - Organic Waste                      | 8.26            | 0.52          |
| Waste - Non-Organic Waste                  | 0.09            | 0.01          |
| Refrigerant - Refrigerant                  | 63.76           | 4.00          |
| <b>Total</b>                               | <b>1,593.15</b> | <b>100.00</b> |

# Winery - Activity Breakdown



| Activity Breakdown                           | Ton CO2e | %     |
|--|----------|-------|
| Onsite Transport - Direct Fuel               | 0.06     | 0.00  |
| Processing Activities - Direct Fuel          | 282.40   | 17.73 |
| Bottling Activities - Electricity            | 35.42    | 2.22  |
| Cooling - Electricity                        | 708.47   | 44.47 |
| Processing Activities - Electricity          | 354.24   | 22.23 |
| Aluminium Cans and Foil - Packaging & Bins   | 2.93     | 0.18  |
| Bulk Wooden Bins - Packaging & Bins          | 0.68     | 0.04  |
| Disposable Wooden Pallets - Packaging & Bins | 0.67     | 0.04  |
| Glass (Other) - Packaging & Bins             | 20.05    | 1.26  |
| Glass (South Africa) - Packaging & Bins      | 95.02    | 5.96  |
| LDPE - Packaging & Bins                      | 0.10     | 0.01  |
| Reusable Wooden Pallets - Packaging & Bins   | 0.44     | 0.03  |
| - Processing Inputs                          | 10.68    | 0.67  |
| Flexcube 1000 L - Processing Inputs          | 0.15     | 0.01  |



**Business Name:** Spier Wines

**Dataset:** 2023/11/21 09:56:20

**Data Collection Period:** Jul 2022 to Jun 2023

|  |                 |               |
|--|-----------------|---------------|
| Number of 225 litre wooden wine barrels used. -<br>Processing Inputs | 0.74            | 0.05          |
| Number of 300 litre wooden wine barrels used. -<br>Processing Inputs | 8.16            | 0.51          |
| Number of 500 litre wooden wine barrels used. -<br>Processing Inputs | 0.28            | 0.02          |
| Wooded products for wine fermentation -<br>Processing Inputs         | 0.56            | 0.03          |
| R507a - Refrigerant  | 63.76           | 4.00          |
| Compost - Waste  | 8.26            | 0.52          |
| Recycled - Waste   | 0.09            | 0.01          |
| <b>Total</b>   | <b>1,593.15</b> | <b>100.00</b> |

**Business Name:** Spier Wines

**Dataset:** 2023/11/21 09:56:20

**Data Collection Period:** Jul 2022 to Jun 2023

## Detailed Carbon Emissions Breakdown

| Detailed Activities   | Ton CO2e        | %             |
|---|-----------------|---------------|
| Electricity - Grid - Processing Activities                                  | 352.68          | 22.14         |
| Electricity - Grid - Cooling  | 705.36          | 44.27         |
| Electricity - Grid - Bottling Activities                                    | 35.27           | 2.21          |
| Electricity - PV - Processing Activities                                    | 1.56            | 0.10          |
| Electricity - PV - Cooling  | 3.12            | 0.20          |
| Electricity - PV - Bottling Activities                                      | 0.16            | 0.01          |
| Direct Fuel - Diesel - Processing Activities                                | 277.55          | 17.42         |
| Direct Fuel - Petrol - Onsite Transport                                     | 0.06            | 0.00          |
| Direct Fuel - LPG - Processing Activities                                   | 4.85            | 0.30          |
| Processing Inputs - CO2 -   | 10.68           | 0.67          |
| Processing Inputs - Barrels - Number of 225 litre wooden wine barrels used. | 0.74            | 0.05          |
| Processing Inputs - Barrels - Number of 300 litre wooden wine barrels used. | 8.16            | 0.51          |
| Processing Inputs - Barrels - Number of 500 litre wooden wine barrels used. | 0.28            | 0.02          |
| Processing Inputs - Wooded products - Wooded products for wine fermentation | 0.56            | 0.03          |
| Processing Inputs - Wine Processing Inputs - Flexcube 1000 L                | 0.15            | 0.01          |
| Waste - Organic Waste - Compost   | 8.26            | 0.52          |
| Waste - Non-Organic Waste - Recycled  | 0.09            | 0.01          |
| Refrigerant - Refrigerant - R507a   | 63.76           | 4.00          |
| Packaging & Bins - Glass (South Africa) - Glass (South Africa)              | 95.02           | 5.96          |
| Packaging & Bins - Glass (Other) - Glass (Other)                            | 20.05           | 1.26          |
| Packaging & Bins - LDPE - LDPE  | 0.10            | 0.01          |
| Packaging & Bins - Bulk Wooden Bins - Bulk Wooden Bins                      | 0.68            | 0.04          |
| Packaging & Bins - Disposable Wooden Pallets - Disposable Wooden Pallets    | 0.67            | 0.04          |
| Packaging & Bins - Reusable Wooden Pallets - Reusable Wooden Pallets        | 0.44            | 0.03          |
| Packaging & Bins - Aluminium Cans and Foil - Aluminium Cans and Foil        | 2.93            | 0.18          |
| <b>Total</b>  | <b>1,593.15</b> | <b>100.00</b> |

**Business Name:** Spier Wines

**Dataset:** 2023/11/21 09:56:20

**Data Collection Period:** Jul 2022 to Jun 2023

## Winery Consumption Benchmarks

| Commodity           | Consumption Measure                         | Result   | Benchmark  |
|---------------------|---|----------|--|
| Grapes / Wine (red) | Litres Water per Ton Grapes Processed       | 2,701.99 | The CCC regional average is 5763.90 Litres Water per Ton Grapes Processed and consist of 53 data points.       |
| Grapes / Wine (red) | Litres Waste Water per Ton Grapes Processed | 3,082.33 | The CCC regional average is 3696.61 Litres Waste Water per Ton Grapes Processed and consist of 53 data points. |
| Grapes / Wine (red) | Processing kWh per Ton Grapes Processed     | 71.82    | The CCC regional average is 207.57 Processing kWh per Ton Grapes Processed and consist of 53 data points.      |
| Grapes / Wine (red) | Cooling kWh per Ton Grapes Processed        | 143.64   | The CCC regional average is 257.11 Cooling kWh per Ton Grapes Processed and consist of 53 data points.         |
| Grapes / Wine (red) | Kg Glass per Liter Wine                     | 0.99     | The CCC regional average is 1.08 Kg Glass per Liter Wine and consist of 48 data points.                        |

| Commodity             | Consumption Measure                         | Result   | Benchmark  |
|-----------------------|---|----------|--|
| Grapes / Wine (white) | Litres Water per Ton Grapes Processed       | 2,722.41 | The CCC regional average is 6204.23 Litres Water per Ton Grapes Processed and consist of 51 data points.       |
| Grapes / Wine (white) | Litres Waste Water per Ton Grapes Processed | 3,082.33 | The CCC regional average is 3716.20 Litres Waste Water per Ton Grapes Processed and consist of 51 data points. |
| Grapes / Wine (white) | Processing kWh per Ton Grapes Processed     | 72.36    | The CCC regional average is 211.39 Processing kWh per Ton Grapes Processed and consist of 51 data points.      |
| Grapes / Wine (white) | Cooling kWh per Ton Grapes Processed        | 144.72   | The CCC regional average is 362.34 Cooling kWh per Ton Grapes Processed and consist of 51 data points.         |
| Grapes / Wine (white) | Kg Glass per Liter Wine                     | 0.84     | The CCC regional average is 0.81 Kg Glass per Liter Wine and consist of 46 data points.                        |

**Business Name:** Spier Wines  
**Dataset:** 2023/11/21 09:56:20  
**Data Collection Period:** Jul 2022 to Jun 2023