Benchmark Report 2023



SOUTH AFRICAN WINE GRAPES



www.climatefruitandwine.co.za

Introduction

The 2023 Confronting Climate Change (CCC) industry benchmark process builds on 2021 - 2022 datasets and provides a meaningful platform for the South African fruit and wine industries to improve their understanding of the use of fossil fuel-based resources and to reduce emissions over time.

The eleven years combined season data (2011 - 2022) for wine grapes were used for the assessment and analysed based on the following business boundaries: farm, winery and distribution. The farm and winery boundaries are presented in this report.



About the benchmark data

The CCC benchmark reports use combined season data from 2011 - 2022 to provide an industry-specific CO₂e benchmark. Users who calculate their carbon footprint using the CCC online carbon calculator have the option to submit their data for grading. This grading is undertaken by the CCC technical team who work with the user to ensure that all data is correctly entered and accurately reflects the entity's operations. To ensure the quality and accuracy of the benchmark results, only graded datasets are included in the benchmark calculation.

The benchmark values are determined using the mean value of graded datasets in the CCC database. Values falling beyond 1.5 times the standard deviation of the mean of the normally distributed dataset are considered outliers and are excluded from the benchmark calculation. All results are shown in the internationally accepted format of kilograms of carbon dioxide equivalent per unit (kg CO_2e/kg fruit). Please note that the carbon footprint between various fruit types or commodities should not be compared. Different commodities are functionally different and require different inputs. For example, more water might be needed by one commodity than another and therefore more electricity will be needed for the pumping of water. For more information, please contact the CCC Initiative (www.climatefruitandwine.co.za).

TWhich regions participate in the CCC Initiative?

From 2011 to 2022 the CCC database (incl. graded + ungraded data) has grown to cover **20 290** unique hectares of wine grape farms in South Africa. This represents **22%** of the wine grape industry in the country.



Region	Industry Ha	CCC Ha	%
Stellenbosch	14 932	8 063	54
Robertson	12 689	4 530	36
Klein Karoo	2 145	652	30
Swartland	12 333	2 252	18
Breedekloof	12 752	1 879	15
Paarl	14 631	1 832	13
Worcester	6 417	555	9
Olifants River	8 784	418	5
Northern Cape	3 197	109	3

🖧 Farm CO₂e Benchmark



Winery CO2e Benchmark

From 2011 to 2022 the CCC database (incl. graded + ungraded data) has grown to cover **227** wineries. This represents **42%** of the wine cellars in the country.

In the winery, carbon reductions can be made by switching to solar electricity usage, investigating lighter glass bottles, and packaging with a higher recycled content percentage.



Red wine: 0.73 kg CO2e/L wine

Processing: 0.57 kg CO₂e/L wine Bottling: 0.94 kg CO₂e/L wine

White wine: 0.76 kg CO₂e/L wine

Processing: 0.64 kg CO₂e/L wine Bottling: 0.90 kg CO₂e/L wine







😳 Carbon Heroes



Carbon Heroes are proud to announce the launch of our new QR code – scan the image on the left to visit our digital recognition platform...

Through this digital recognition platform, we celebrate the Carbon Heroes taking part in the Confronting Climate Change Initiative for their considerable effort in calculating and understanding their carbon emissions.

Each Carbon Hero has their own digital QR code that can be displayed on their own website and other marketing material, linking directly to their individual profile on the Carbon Heroes website. The QR code provides a simple and innovative way for customers to learn about each Carbon Hero's carbon offsetting and other sustainability initiatives, as well as engage with them on social media and other marketing channels.

With the Carbon Heroes QR code we aim to support a global transition towards sustainable development by recognising and celebrating the positive environmental impact of each Carbon Hero. By having a transparent display of their commitment to reducing emissions, Carbon Heroes demonstrate their dedication to a sustainable future, while building trust in their brand.



Disclaimer: The results shown in this report represent the approved data points of the CCC wine grape sample group representing combined data from the eleven-year seasonal period of 2011-2022. In line with the leading international carbon footprinting protocol of PAS 2050-1:2012, a three-year period is required to reflect seasonal and production variances. The data range covers the required three-year period, and therefore accounts for seasonal and production variances. However, the data range of the sample is not yet representative of the industry at large. Due to this consideration, the results should NOT be distributed on behalf of or representing the South African wine grape industry. It is aimed to be used as an internal evaluation exercise for those South African producers and exporters wanting to compare their carbon footprint results with the CCC regional sample group averages. This report has been compiled by Blue North Sustainability (Pty) Ltd.