





What is Confronting Climate Change?

The Confronting Climate Change (CCC) Initiative is a carbon footprinting project, developed to support the South African fruit and wine sectors through identifying and responding to the risks and opportunities associated with carbon emissions.

The CCC Initiative includes an online carbon-footprinting tool. This tool is intended to support the long term viability of the industry and has a number of benefits for South African growers and service providers. The tool enables users to do the following:

-  Measure carbon footprint of the farm or business entity
-  Identify 'carbon hotspots' across the farm or business entity
-  Develop creative solutions to reduce CO₂ emissions
-  Manage the perceptions of buyers and policy makers

Project Partners

For more information, please go to www.climatefruitandwine.co.za

Why Should I Calculate My Carbon Footprint?

Mitigate Climate Change Impacts



Knowing your carbon footprint is necessary for the implementation of climate change mitigation and adaption programs which support business sustainability.



Respond to Rising Fossil Based Input Costs



Knowing your carbon footprint allows you to identify areas of high fossil fuels use. Addressing these high use areas will improve resource efficiencies, reduce input cost and reduce risk.



Manage Retail and Consumer Pressure



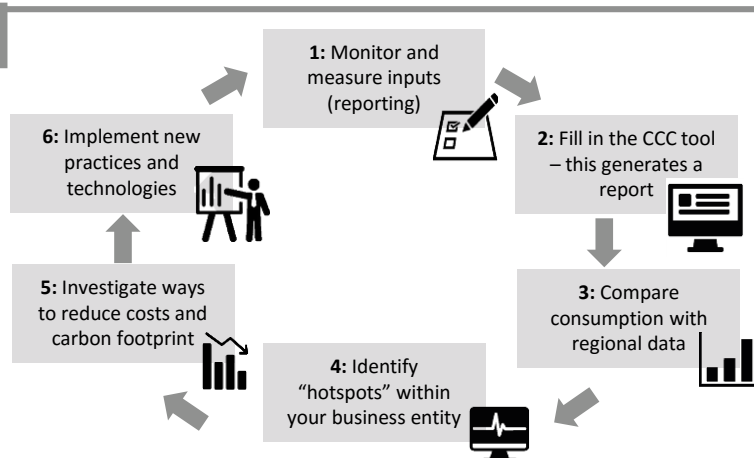
Knowing your carbon footprint promotes collaboration and alignment with increasing consumer pressure and retail strategies to reduce CO₂ emissions and mitigate the impacts of climate change.



How Does the CCC Tool Work?

The CCC tool helps you **manage** and **quantify** your carbon emissions risks.

You will need to collect the necessary input data and fill this in on the CCC tool. This generates an online report which not only enables comparison of the farm's data with other farms in the region, but also allows you to identify carbon "hotspots" and actions to reduce these. **This tool should be used on an annual basis to monitor progress over time.**



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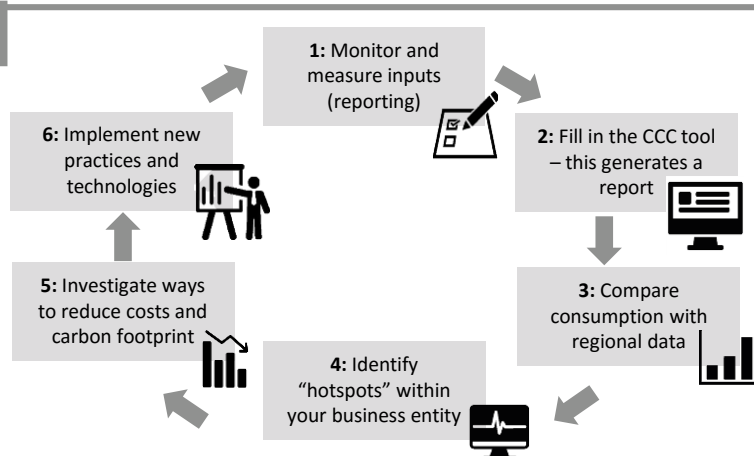
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Guidance Notes: Getting Started

1. Make sure that you have **Google Chrome** installed on your computer.

If you do not have Google Chrome installed, you can download it using the following link: <https://www.google.com/chrome/>.

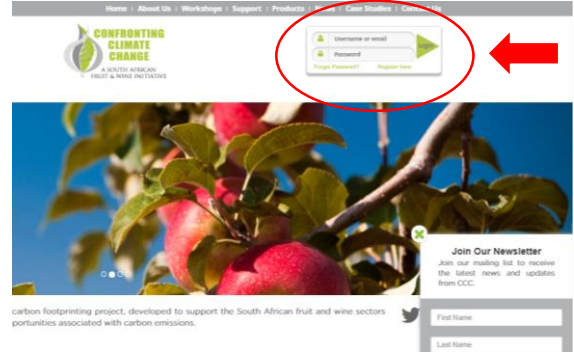
2. Using **Google Chrome**, access the CCC website using the following link:

www.climatefruitandwine.co.za

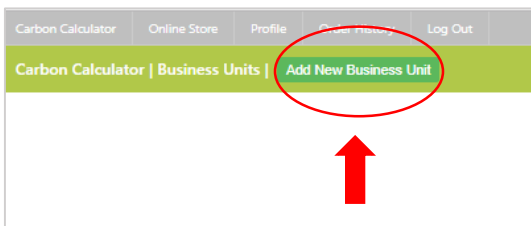


3. Log onto the website by entering your **username** and **password** into the portal on the top right hand side of the screen.

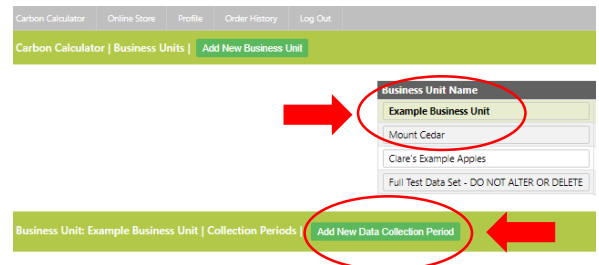
- If you have previously registered, you can use your old details.
- If you are a first time user, please click on “**register here**” and follow the steps.
- If you have forgotten your password, click on “**Forgot password**” and follow the steps.



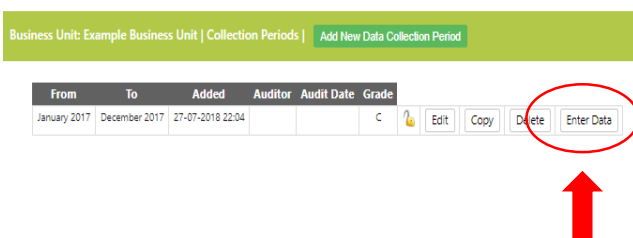
4. Once you are logged in, start by clicking on “**New Business unit**” and fill in all the required fields to create a new business unit.




5. Click on the business unit you created and then click “**Add new data collection period**”.





6. Click on “**Enter data**” and follow the steps to enter your data.



• Icons on the tool provide additional prompts and information

 Provides information on the input required or specific activity

 Indicates an error in the data provided

 Indicates data has been correctly entered

• Remember to **SAVE** frequently to avoid losing data

• Make sure you are using the **CORRECT UNITS**

Need more help?

Additional guidance is available online: <http://www.climatefruitandwine.co.za/Support.aspx>

Guidance Notes: Data Requirements



This page provides guidelines to the type of data requirements necessary to complete the CCC carbon calculator for **fruit** and **wine**. All information requested is for a 12 month period. Further detail and guidelines are available from the following link: <http://www.climatefruitandwine.co.za/Support.aspx>.

Farm Level



Total **bearing hectares** and **non-bearing hectares** per commodity



Tonnage produced per commodity and local and export **sales**



Electricity - annual grid (Eskom) electricity and renewable electricity (solar etc.) usage in kWh



Fuel – annual fuel usage for each fuel type (total litres of diesel/petrol etc.)



Fertilizers and agrochemicals – usage for the year (total kg of active ingredient)



Land use change – total hectares of non-agricultural land (e.g. virgin fynbos) converted to orchards/vineyards in the year of the audit

Packhouse Level



Total **tonnes IN** and total **tonnes OUT**



Packaging material – annual quantity of packaging material used (total kg per product, % recycled)



Electricity - annual grid (Eskom) electricity and renewable electricity (solar etc.) usage in kWh



Fuel – annual fuel usage for each fuel type (total litres of diesel/petrol etc.)



Total waste generated – waste tonnages by type (i.e. organic waste and non-organic waste such as tins etc.)



Waste disposal – tonnes of waste landfilled/composted etc.

Winery Level



Raw materials – tonnes of own grapes, tonnes of brought in fruit and kL of bulk wine



Total **kL wine bottled and packed** (own facility and offsite) and total **kL wine sales** (local and export)



Electricity - annual grid (Eskom) electricity and renewable electricity (solar etc.) usage in kWh



Waste water treatment – annual kL of waste water treated aerobically or anaerobically (kL of water treated and COD figures)



Coolant – total kg refrigerant type and “top-up” or leakage amount per year



Fuel – annual fuel usage for each fuel type (total litres of diesel/petrol etc.)



Carbon dioxide – total tonnes of CO₂ used in cooling (i.e. dry ice) or fermentation (sparkling wine or tank flushing)



Packaging material – annual quantity of packaging material used (total kg per product, % recycled)



Total waste generated – waste tonnages by type (i.e. organic waste and non-organic waste such as tins etc.)



Waste disposal – tonnes of waste landfilled/composted etc.

CA/Cold Store Level



Total **tonnage stored** and **average number of days** per commodity



Coolant – total kg refrigerant type and “top-up” or leakage amount per year

Distribution Level



Road freight



Rail freight



Sea freight



Air freight

Tonnage travelled and total km (one day distance per trip)

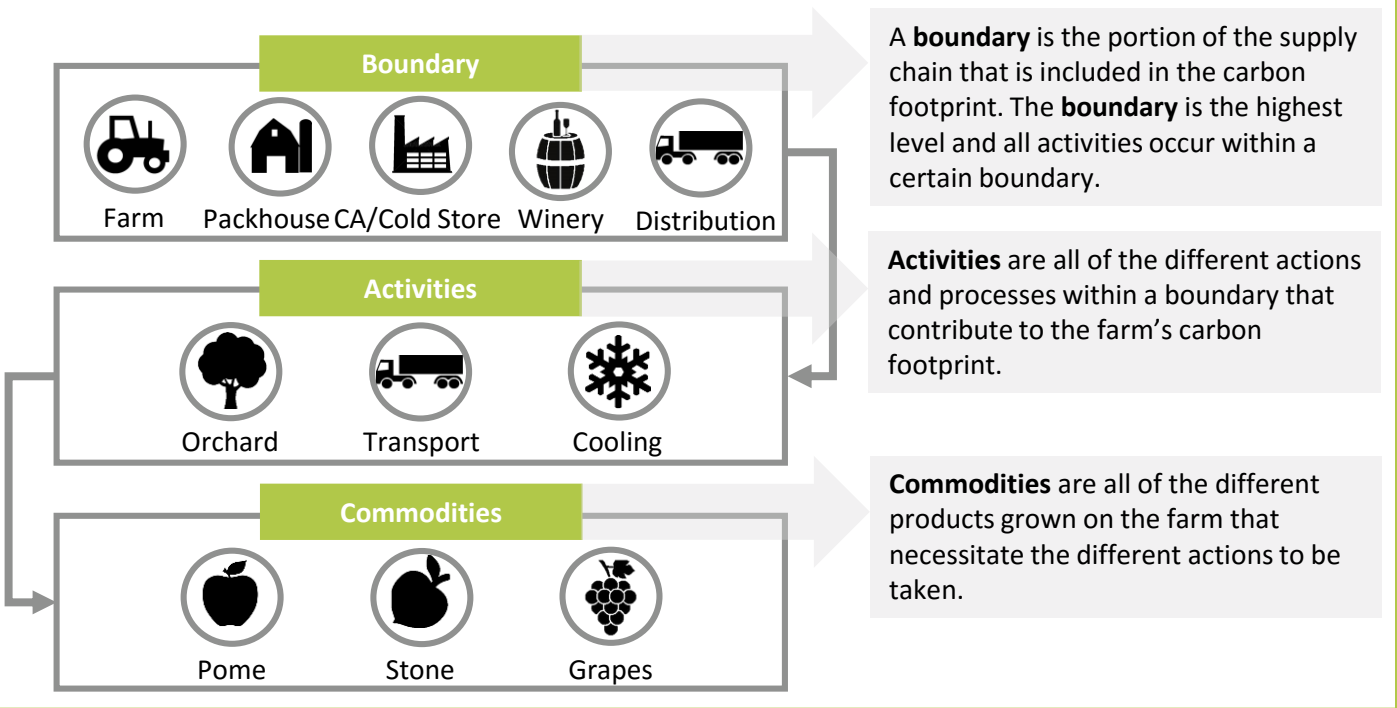


Allocation is defined as the partitioning of input and/or output flows in a process to the product system under study. This is necessary in order to assign the correct proportion of CO₂ emissions to the different activities undertaken and products produced.

How Does Allocation Work?



Data at your business is usually available at a high level (i.e. total electricity used). To calculate the carbon footprint of a particular product, it is therefore necessary to break this data down into **boundaries** and then **activities** and finally, **commodities**. Correctly allocating data is an important part of the CCC tool and is necessary to get an accurate measure of your farm's carbon footprint.



Allocation Example

