

CASE STUDY: CITRUS

By Carina Wessels

Komati Group & Naranja Packers share their user experience feedback on the CCC carbon calculator

About the CCC Initiative



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

CCC asked two citrus producers/packers and CCC users to share some of their experiences with the online carbon calculator.

About Naranja Packers



Naranja Packers is a specialised citrus pack house in the Burgersfort valley, suitably equipped for the sorting and packing of soft citrus fruit. They form part of ANB Investments (Pty) Ltd, a South African registered holding company of a diverse group of agricultural companies that developed individually. In 2008, these companies amalgamated as one operating group, known as the ANB Group. Naranja Packers pack all fruit produced by Indigo Fruit Farming in the Limpopo and Mpumalanga provinces, as well as fruit for other farmers in the Burgersfort region.

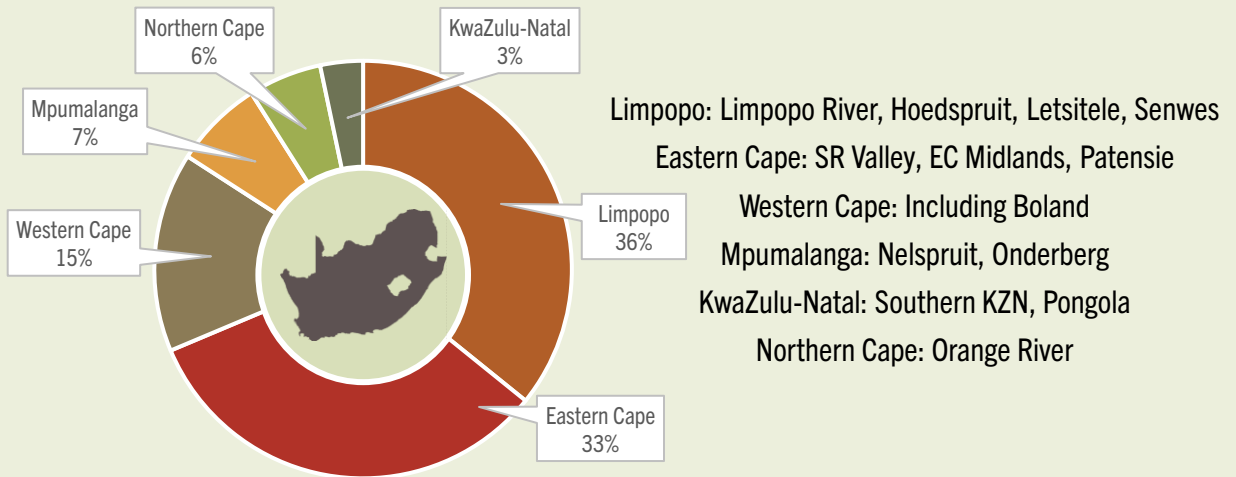
About Komati Group



The Komati Group is a family business that originated in 1954 when Theodore Maximillian Thalwitzer (Snr) bought his first farm along the banks of the Letaba River in Letsitele. The initial 100 hectare citrus farm has since been expanded to what the Komati Group is today. Today, the Komati Group consists of a number of farms, packhouses, and even a citrus tree nursery, in the Limpopo and Mpumalanga provinces. The company packs and exports more than 7 million cartons of citrus annually to more than 30 countries worldwide.

Regions that participate in the CCC Initiative

From 2011 to 2020 the CCC database (incl. graded + ungraded data) has grown to cover **19 775** unique hectares of citrus farms in South Africa. This represents **23%** of the citrus industry in the country.



CCC supports Komati Group in their carbon reduction strategy

The Komati Group currently have 11 active business units on the CCC platform and have been calculating their carbon footprint with the CCC carbon calculator for the past five years. Since they started using CCC, they have seen their carbon intense inputs decrease.

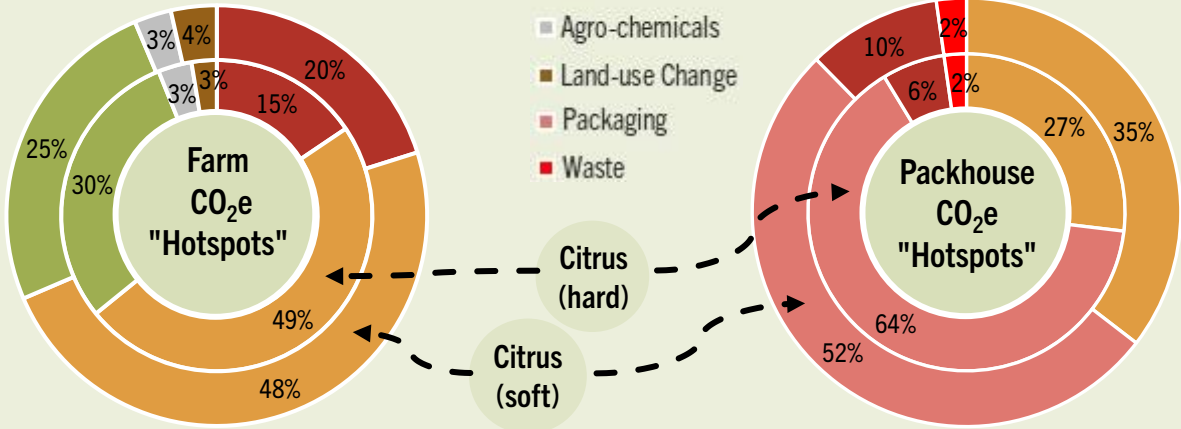
The Komati Group is driven by the concept of sustainable agriculture. They diligently measure all of their inputs and usage that the CCC tool considers farm hotspots. This includes their electricity and diesel use, their fertiliser, as well as agro-chemical inputs. They are looking into installing solar energy on some farms, and two of their farms are already making use of hydro energy. They also measure and manage their water use and pride themselves in their irrigation management practices that ensure that no water is wasted. They make use of specialists, such as entomologists, to see to it that pest management strategies and solutions are effectively implemented. The Komati Group are also committed to improving soil health, as healthy soil store more carbon, ensures healthy root systems, and leads to healthy trees that bear maximum fruit in season.



Reduce your carbon emissions by measuring and managing your hotspots!

On farm level, for both hard and soft citrus, electricity is the highest contributor to farm CO₂ emissions, followed by fertilisers and fuel.

Most of the emissions at packhouse level are related to packaging material.



Nitrogen:
(kg/bearing ha)
Citrus (hard): 133
Citrus (soft): 135



Electricity:
(kWh/bearing ha)
Citrus (hard): 2603
Citrus (soft): 3069



Diesel:
(L/bearing ha)
Citrus (hard): 234
Citrus (soft): 313

For both hard and soft citrus, packaging contributes to more than 50% of packhouse CO₂ emissions, with the amount of cardboard and corrugated cardboard (cartons) used being the biggest culprits. Electricity is the second largest emissions source in the packhouse.

CCC supports Naranja Packers in their carbon reduction strategy

Naranja Packers' data entries on the CCC platform go all the way back to 2011. They use the CCC carbon calculator, and have also started trials with the Sherpa sustainability management system (<https://mysherpa.co.za/>), to determine their sustainability strategy.

Every year Naranja sets their environmental goals and targets, and they make 100% use of the CCC carbon footprint report to do so. They've used CCC to make general waste reductions, and they have moved away from plastic wrapping when they realised how much it contributes to their carbon footprint. They have also replaced all light bulbs with LED lights in the packhouse. Naranja is currently in the process of installing about a hectare of solar panels, which will lead to significant reductions in their carbon footprint.



More on Komati Group and Naranja Packers' user experience with the CCC tool

How have you found the use of the online CCC tool, easy or challenging?

Komati: *Initially I attended some of your training workshops just to make sure I understand how it works. But the tool is quite straightforward to use. I'm used to it now and know exactly what to do and what to look for in my annual report.*

Naranja: *The tool is extremely user friendly. I find the guidance icons that show you when you have not entered something correctly really helpful.*

Has the carbon calculator been of value to your business?

Naranja: *We work 100% off your carbon report to make reductions in our carbon footprint. For example, we've made waste reductions, we're looking at installing solar panels, we've moved away from plastic wrapping, and we've replaced all light bulbs with LED lights. All of this surprisingly brought about a financial improvement as well.*

Komati: *For me it's of value because I can see where our biggest risk lies, our electricity and nitrogen fertiliser is our highest use, so I can bring it to management's attention. The format of the report, the pie charts, it's easy to understand. The benchmarking is also of tremendous value, because you can compare yourself to others in the industry.*

How do you find the support that is given?

Naranja: *Whenever I have a problem you sort it out very quickly. Thanks so much for your support and for being so helpful.*

Komati: *No problems, we always get the right answers and quickly too. I have never struggled to get a report.*

Have you found any particular value in having everything together online?

Komati: *Yes, it helps me a lot to have all the business units' information online. I have one login, and everything is together. I can even pull all the information from previous years. It helps a lot.*





Has CCC helped you communicate your carbon reduction journey to your clients?

Naranja: Yes, there are some clients who we have sent the report to before. I think the driving force in the industry these days is becoming more and more to see people and companies become more environmentally friendly.

Have you attended a training workshop? If yes, was it helpful?

Komati: Yes, it was definitely helpful to understand how the tool works. I also learned that you can't just use any carbon calculator. You explained very nicely in the workshop the impact South Africa's coal-based Eskom power has compared to some overseas countries that use more renewable energy. So it's important to use a local tool.

Would you recommend CCC to others?

Naranja: Yes, definitely. I recommended you to two of our other packhouses that are still fairly new. They started using CCC right away.

Komati: Yes! I had someone in my office the other day who just downloaded a carbon calculator from the internet. I told them how important it is to have one specifically for SA and gave them your details.

Contact Confronting Climate Change today to start measuring and managing your carbon emissions!



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