



PUBLIC DISCLOSURE STATEMENT

**CARBON NEUTRAL AVOCADOS
PRODUCT CERTIFICATION
2021-2022 PROJECTED**

Australian Government
Climate Active
Public Disclosure Statement

Carbon Neutral Avocados



An Australian Government Initiative



NAME OF CERTIFIED ENTITY: Carbon Neutral Avocados

REPORTING PERIOD: 1 July 2021 – 30 June 2022 Projected

Declaration

To the best of my knowledge, the information provided in this Public Disclosure Statement is true and correct and meets the requirements of the Climate Active Carbon Neutral Standard.

Signature

A handwritten signature in black ink, appearing to read "J. Omodei".

Date : 23rd December 2021

Name of Signatory : Justin David Omodei

Position of Signatory : Director



Australian Government
Department of Industry, Science,
Energy and Resources

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1. CARBON NEUTRAL INFORMATION

Description of certification

This public disclosure statement supports the carbon neutral product certification for Carbon Neutral Avocados produced, packed, and distributed from the farm until point of retail within 1 July 2021 – 30 June 2022 (FY22). This includes the Life Cycle Assessment of the avocados grown, packed, and delivered until point of retail, and the quantification of Scope 1, 2 and 3 emissions associated with this process.

FY22 is the first year of certification, and the carbon inventory has been forecasted using a combination of prior year actual data from FY21 and some forecasted estimates, as well as forecasted production and distribution volumes. A true-up calculation will be performed at the end of FY22, with additional offsets to be purchased and retired should actual emissions exceed forecasted emissions.

The functional unit of one kilogram (kg) of Carbon Neutral Avocados' avocados produced, packed, and distributed until point of retail within FY22 will be used as a quantifiable reference point to the associated emissions from the avocado fruit. The emissions boundary has been established until point of retail due to the data gap that exists relating to the volumes of avocado waste and method of disposal by retailers and the consumer. We will continue to investigate opportunities to capture representative data and seek to broaden the boundary to include end of life consumption and disposal in the future.

Our certified avocado product will be sold under the EcoAvos brand. The EvoAvos trademark is to ensure all produce sold using this brand is Carbon Neutral certified. All emissions relating to the packaging process of EcoAvos have been captured and included within the Bendotti Avocado certification.

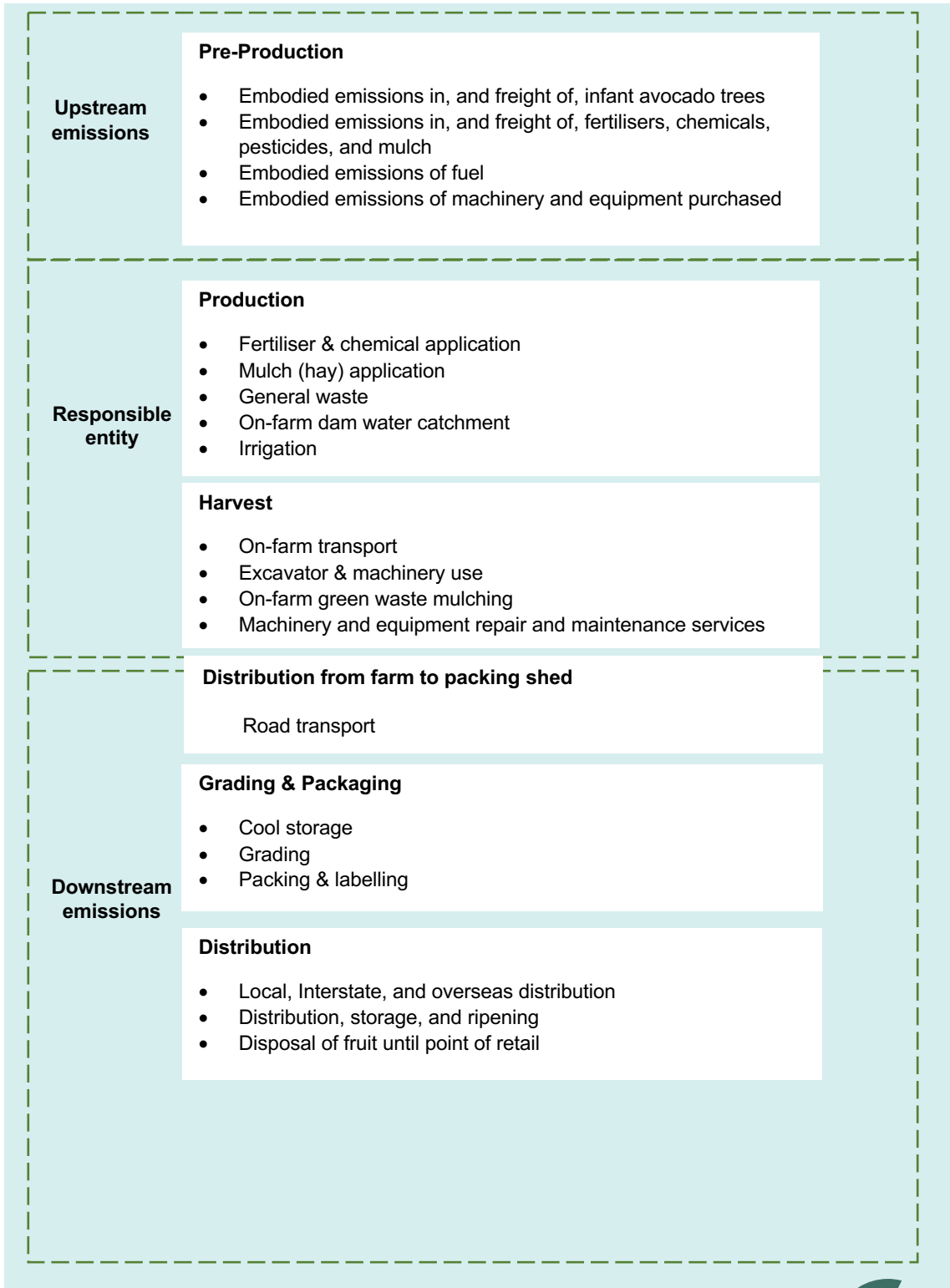
Organisation description

Carbon Neutral Avocados is owned and operated by Posciavo Holdings Pty Ltd ATF The Justin & Jodie Omodei Family Trust ABN 14 613 279 718, Pemberton, Western Australia. We are a small sized, nimble, hands-on avocado growing business that supplies the highest quality avocados to our local accredited packing and distribution facility. The path towards carbon neutrality has provided our business with the levers to continue to reduce and neutralize our carbon emissions.

“We at Carbon Neutral Avocados are very proud to be a part of the Climate Active community. We recognise that we are not just farmers, and that we play a critical role in sustainable development. We aspire to grow the best, most sustainable avocados that we possibly can and strive to make real change through utilising the latest agri-technology, measuring our footprint, and through understanding the interdependence of our land, water and ecosystems.”

Product/service process diagram

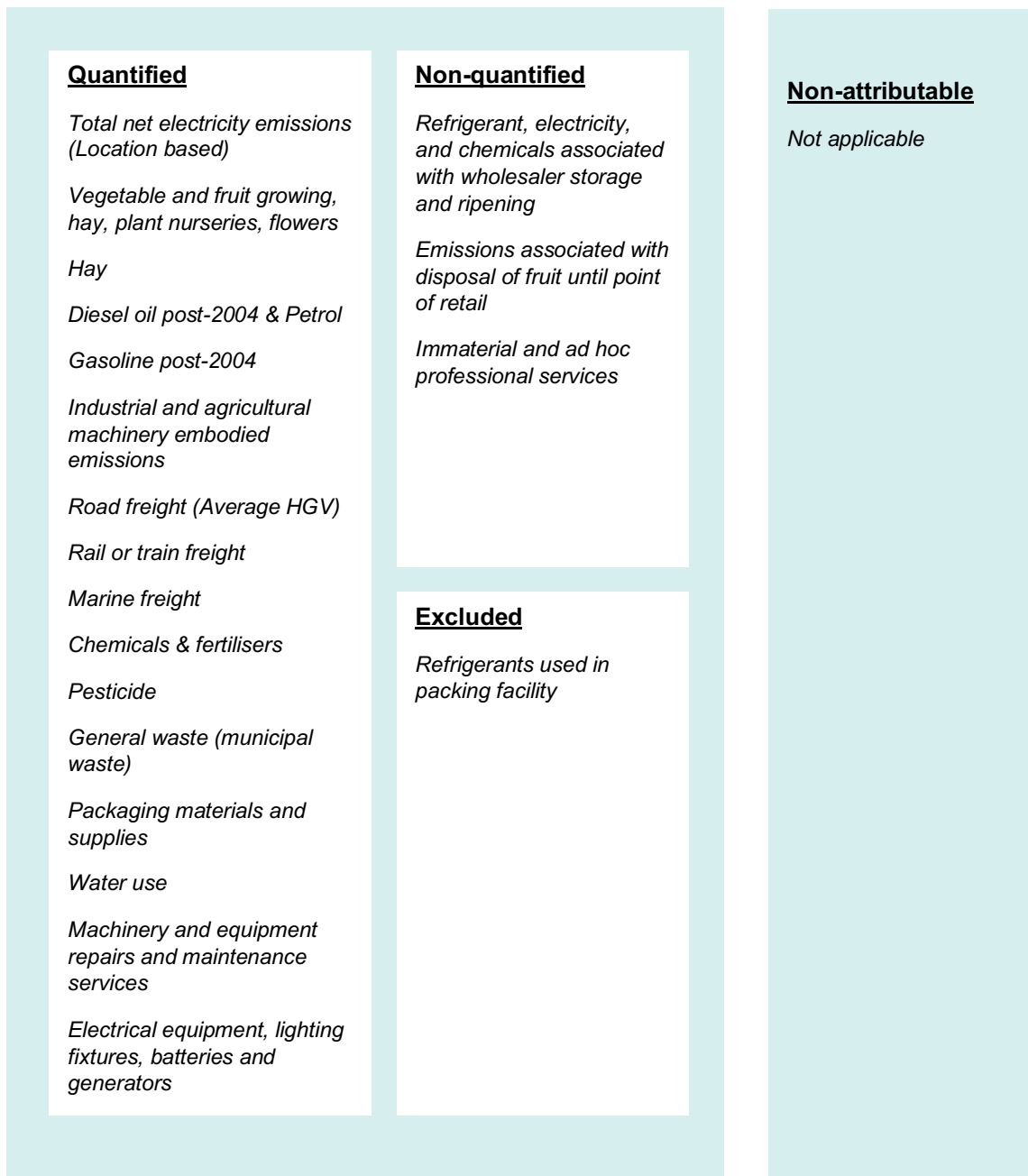
A product process diagram is detailed below to assess the environmental impacts associated with the relevant stages in the avocado fruit's lifecycle beginning with upstream emissions of purchase and transportation of inputs and downstream emissions until point of retail. As the carbon sequestered in the fruit has immediately been taken from the atmosphere, any emissions released from wasted fruit is considered net zero. Please refer to the figure below.



2. EMISSION BOUNDARY

Diagram of the certification boundary

The following diagram shows the certification boundary of avocado products and the emission sources considered.



Attributable non-quantified sources

Carbon Neutral applied an uplift factor to the following attributable emissions sources:

- Downstream storage, ripening and retail of avocados:**
 We are unable to obtain accurate data relating to the cool storage and ripening of Carbon Neutral at the downstream distribution centre. Given Carbon Neutral fruit is only stored in the distribution centre (which holds other growers' fruit) for approximately five days before being distributed to retail stores, the emissions associated with the electricity, ethylene gas (used for ripening) and refrigerants (for cooling) is likely to be immaterial, however Carbon Neutral have taken a conservative approach and applied a 1% uplift factor to account for the non-quantified emissions.
- Miscellaneous sources:** To account for immaterial emission sources such as professional services, and sources where there is a data gap, such as waste of avocados up until point of retail, we have applied a 5% uplift factor to the inventory.

Data management plan

Downstream storage, ripening and retail of avocados: Activity data associated with the downstream storage and ripening at the distribution center is difficult to obtain. The attributable portion of the emissions from the distribution center is not available due to the lack of specific data, the ratio of Carbon Neutral fruit compared to total fruit in the distribution center not being constant, and the time period the fruit is in the distribution center being dependent on retailers' needs. Given the challenge to obtain specific data, the use of an uplift factor will be maintained to account for the emissions associated with the storage and ripening at the downstream distribution centers.

Disposal of fruit until point of retail: Specific data relating to the volumes of fruit waste and the disposal methods from farm until point of retail is not available. Given this cannot be obtained, Carbon Neutral Avocados will continue to apply an uplift factor to account for waste treatment.

Excluded sources (within certification boundary)

Refrigerants used in the packing facility: Carbon Neutral Avocados are stored and packed offsite at a packing facility which is not within Carbon Neutral Avocados operations. Downstream emissions from the refrigerants used in the packing facility cooling shed have been excluded on the basis that the packing provider has confirmed that the refrigerant has not been required to be topped up since the equipment was installed approximately 13 years ago. Carbon Neutral Avocados will re-confirm with the packing provider at the end of the year whether there have been any changes in the refrigerant levels and include any changes to this source as part of the true-up at the end of the financial year.

Onsite Dam water catchment: Water is captured from rainfall surface runoff from pastured paddocks, into large catchment reservoirs (dams) and an offsite natural water catchment. While water usage is attributable to the production process, given this is captured by natural water sources, there are no upstream (scope 3) emissions and therefore water emissions are nil. Note, the electricity used for irrigation and diesel used to pump the water from the offsite catchment has been captured within the electricity data.

Organic waste: Organic waste from harvest is mulched onsite and used in the mid row in the orchard and therefore emissions associated with offsite waste treatment are considered nil. Emissions associated with the use of the machinery has been captured in the diesel and petrol data and included in the inventory.

Non attributable sources (outside certification boundary)

Not applicable.

3. EMISSIONS SUMMARY

Emissions reduction strategy

Accurately recognizing where our emissions are generated from is the first step in formulating a plan for reducing them. As part of our emissions reduction strategy to reduce our carbon emissions per tonne of production, we are investigating opportunities to:

- Adopt emerging technologies in photovoltaic/battery power generation for our irrigation requirements.
- Reducing our fuel use in the orchard.
- Minimizing the freight of both our inputs and our produce (through supplying localised customers)
- Growing our own fodder for mulching around the trees, rather than purchasing hay/straw from our current supplier
- Adapting and refining our agronomy to maximize our yields

In future years, we will continue to seek new opportunities to reduce our emissions and will report on our progress against our emissions reduction strategy in future Public Disclosure Statements.

Functional units

The functional unit for this certification is one kilogram (kg) of Carbon Neutral Avocados' avocado fruit produced, packed, and distributed from within FY22.

Table 2

	Number of functional units
a) <i>Number of functional units sold this period (forecasted)</i> Avocados	550,000 kg
b) <i>Number of functional units to be forward offset demonstrating commitment to carbon neutrality (true-up to be conducted at the end of the reporting period)</i> Avocados	550,000 kg

Emissions summary (inventory)

Table 3

Emission source category	tonnes CO ₂ -e
Total net electricity emissions (Location based)	58.78
Hay	38.89
Chemicals & fertilisers	75.69

Pesticide	9.55
Vegetable and fruit growing, hay, plant nurseries, flowers	18.02
Diesel oil post-2004	212.69
Petrol / Gasoline post-2004	2.68
Machinery and equipment repair and maintenance services	9.38
Road freight (Average HGV)	30.13
Rail or train freight	65.29
Road freight (\$)	62.32
Packaging materials and supplies	8.04
Electrical equipment, lighting fixtures, batteries, and generators	0.70
General waste (municipal waste)	1.73
Industrial and agricultural machinery embodied emissions	82.19
1. Total inventory emissions	676.07 t CO ₂ -e
2. Emissions per functional unit (based on the number of functional units represented by the inventory) Total tCO ₂ -e divided by the number of functional units in table 1.	0.0012 t CO ₂ -e (1.23 kg CO ₂ -e)
3. Carbon footprint (Emissions per functional unit (2)* number of functional units (a or b from table 2))	676.07 t CO ₂ -e

Uplift factors

Table 4

Reason for uplift factor	tonnes CO ₂ -e
Downstream storage, ripening and retail of avocados (1%)	6.76
Miscellaneous sources (5%)	33.80
Total uplift factors	40.56
Total to offset (Carbon footprint + total uplift factors)	717 t CO ₂ -e

Carbon neutral products

There were no carbon neutral products used for this certification.

4. CARBON OFFSETS

Offset purchasing strategy: Forward purchasing

Carbon Neutral Avocados has forward purchased offsets for the first year of certification (FY22) using previous year actual data and forecasted production and distribution volumes of avocados. Carbon Neutral Avocados has purchased, and retired carbon offsets based on the forecasted emissions outlined above in Section 3. A true-up calculation will be conducted at the end of the year and additional carbon offsets will be purchased should actual emissions exceed forecasted emissions. Where the forecasted emissions exceed actual emissions, then any surplus credits will be carried over to the next reporting period. The following table and summary include further information regarding offsets acquired and used.

Table 5

Forward purchasing summary	
1. Total offsets previously forward purchased and banked for this report	0 (First year certification)
2. Total emissions liability to offset for this report	717
3. Net offset balance for this reporting period	717
4. Total offsets to be forward purchased to offset the next reporting period	14
5. Total offsets required for this report	731

Offsets summary

Table 6

1. Total offsets required for this report				717					
2. Offsets retired in previous reports and used in this report				0					
3. Net offsets required for this report				717					
Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Quantity (tonnes CO ₂ -e)	Quantity used in previous report	Quantity banked for future years	Quantity used in this report
Hebei Yuxian Second Phase 49.5MW Wind Power Project, China,	VCUs	VERRA	26th Oct 2021	8097-455242118-455242848-VCU-034-APX-CN-1-814-01012016-31122016-0 https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=147112	2016	731	0	14	717
<i>Total offsets retired this report and used in this report</i>								717	
<i>Total offsets retired this report and banked for future reports</i>								14	

Co-benefits

So far the Hebei Yuxian Wind Power project has achieved net GHG emission reductions of 635,607 tonnes CO2-e. On average the project aims to achieve the avoidance of 111,243 tCO2-e annually.



Table 7

Description where trademark used	Logo type
Public Disclosure Statement (PDS)	Certified carbon neutral product
Product packaging	Certified carbon neutral product
Website and marketing	Certified carbon neutral product

5. ADDITIONAL INFORMATION

Not applicable for this certification

APPENDIX 1

Non-attributable emissions for products and services

To be deemed attributable an emission must meet two of the five relevance criteria. Non-attributable emissions are detailed below against each of the five criteria.

Table 8

Relevance test					
Non-attributable emission	<i>The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy, and fuel emissions</i>	<i>The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.</i>	<i>Key stakeholders deem the emissions from a particular source are relevant.</i>	<i>The responsible entity has the potential to influence the reduction of emissions from a particular source.</i>	<i>The emissions are from outsourced activities previously undertaken within the organisation's boundary, or from outsourced activities typically undertaken within the boundary for comparable organisations.</i>
Not applicable	N/A	N/A	N/A	N/A	N/A

APPENDIX 2

Non-quantified emissions for products/services

Please advise which of the reasons applies to each of your non-quantified emissions. You may add rows if required.

Table 9

Non-quantification test				
Relevant-non-quantified emission sources	<i>Immaterial <1% for individual items and no more than 5% collectively</i>	<i>Quantification is not cost effective relative to the size of the emission but uplift applied.</i>	<i>Data unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.</i>	<i>Initial emissions non-quantified but repairs and replacements quantified</i>
Downstream storage, ripening and retail of avocados	Yes	Yes	Yes	No
Miscellaneous sources such as professional services and avocado disposal until point of retail	No	Yes	Yes	No