Life Cycle Assessment of Melons

*Disclaimer: Please note that the values/findings in this document are hypothetical.

Farm Info

Farm name	Location
Growing season	
Total farm area (ha)	Melons area (ha)
Watermelons (tonnes)	Rock melons (tonnes)
Honeydew (tonnes)	

Life Cycle Assessment

- This study follows **ISO 14040 and ISO 14044**. Full details of the study is available at www.xyz.com
- The functional unit is **one kilogram of melons** produced in Australia and ready for distribution. It covers the melons' lifecycle from orchards (cradle) through to retail (gate).

We're looking at these environmental impacts:

Global Warming Potential **(GWP-total)** measures greenhouse gas emissions from melon farming. This is also called your carbon footprint. It is measured in **kilograms of carbon dioxide equivalent (kg CO_2-eq)**.

Water Use (WDP) measures the freshwater consumed in production. This helps you to improve your water efficiency. It is measured in **cubic metres of water consumed (m^3 water-eq)**.

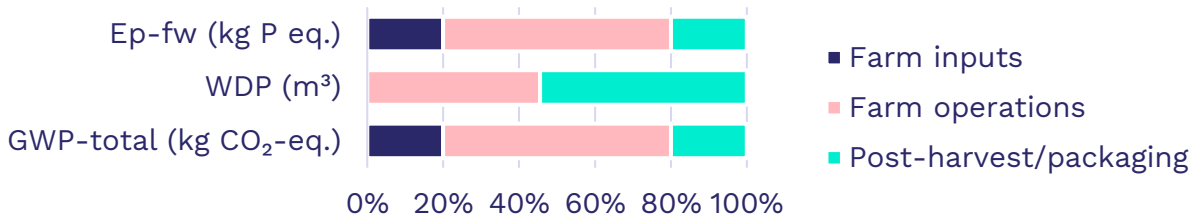
Eutrophication **(EP-fw)** measures the nutrient runoff, such as nitrogen and phosphorus from farming activities into freshwater systems. It is measured in **kilograms of phosphate equivalent (kg PO-eq)**.

The hotspot analyses where making changes had the biggest impact.

Results

Impact	Unit	Farm inputs	Farm operations	Post-harvest/ packaging	Total
GWP-total	kg CO_2-eq.	0.14	0.42	0.14	0.70
WDP	m^3		0.167	0.200	0.829
Ep-fw	kg P eq.	2.24 E-04	6.72 E-04	2.24 E-04	1.12 E-03

Hotspot Analysis



Key findings and recommendations

- Farm inputs – especially chemical use are major hotspot
- Packaging is another hotspot – investigate ways to reduce your packaging
- Investigate ways to maintain good water governance
- Investigate the potential of using electric-powered vehicles
- Improve farm productivity – so impacts per kg of melons will be reduced