

Environment and Energy Sustainability

A supply chain based approach to carbon abatement: pilot study

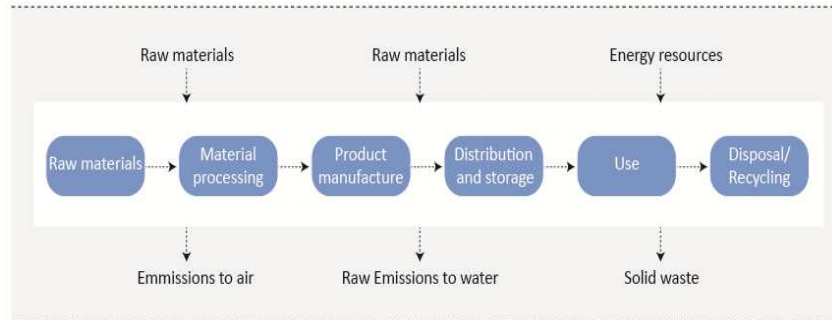
Leon Stackpole
Senior Adviser – Environment and Energy



The products



The scope



Primary project stages

1. Streamlined LCA
2. Workshop #1 with supply chain
3. Site assessments
4. Detailed LCA
5. Workshop #2 with supply chain
6. Develop supply chain road map
7. Monitor

PRESERVE and SAVE!
 For lasting pleasure, year in and year out, invest in a
FOWLER VACOLA BOTTLING OUTFIT

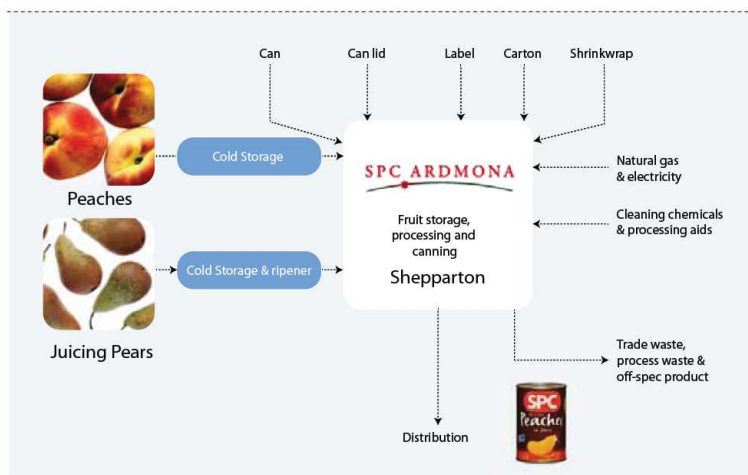


It's so easy, this modern way of preserving. Think what it means . . . fresh fruit all the year round . . . at low cost!

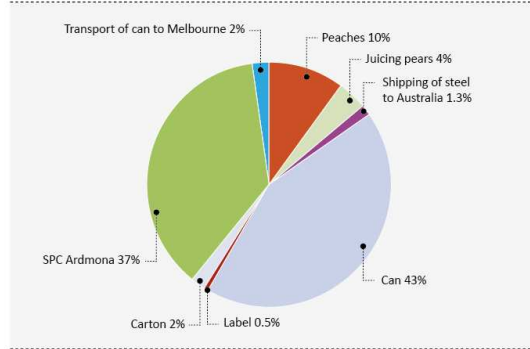
Ask to see the popular No. 2 Outfit complete with 24 bottles, Instruction Book, Thermometer and all accessories

Manufactured by—
FOWLERS VACOLA MFG. CO. LTD.
 HAWTHORN, E.2 - - - VICTORIA

SPC peaches – supply chain



SPC peaches: overall contributions



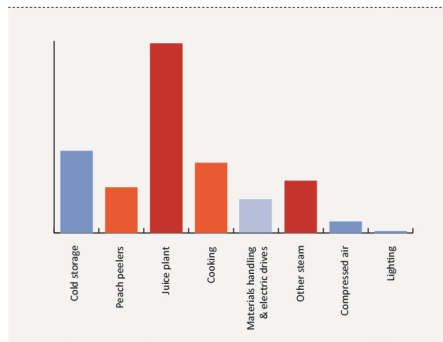
Delivered to a retail store in Melbourne

Environment and Energy

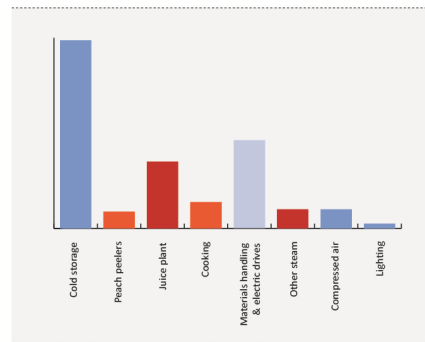
Ai AUSTRALIAN INDUSTRY GROUP

SPCA: fruit storage, processing & canning

SPCA contribution: 87% energy, 10% processing chemicals



Energy footprint at SPCA



Energy related carbon footprint at SPCA

Environment and Energy

Ai AUSTRALIAN INDUSTRY GROUP

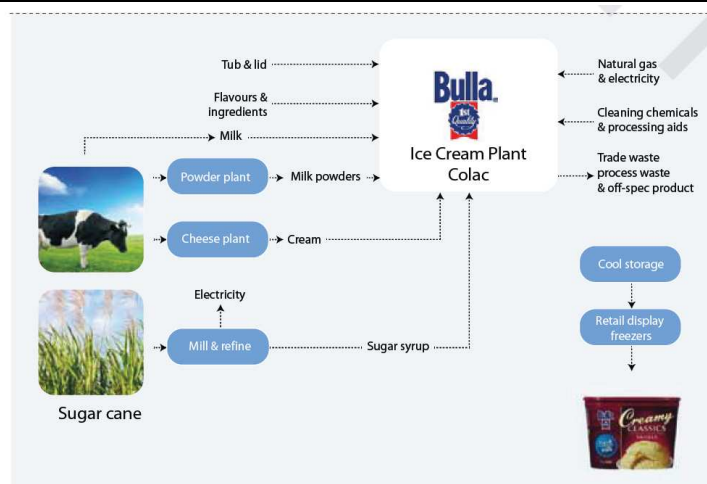
Insights for SPC peaches supply chain

- Carbon emissions driven primarily from material use and manufacturing
- SPCA's direct emissions account for around one third of the product footprint
- Cost effective carbon abatement opportunities exist at SPCA and within the supply chain
- A greater insight into site energy use can improve targeting of company resources
- Opportunities exist for cross supply chain collaboration

Environment and Energy

Ai AUSTRALIAN INDUSTRY GROUP

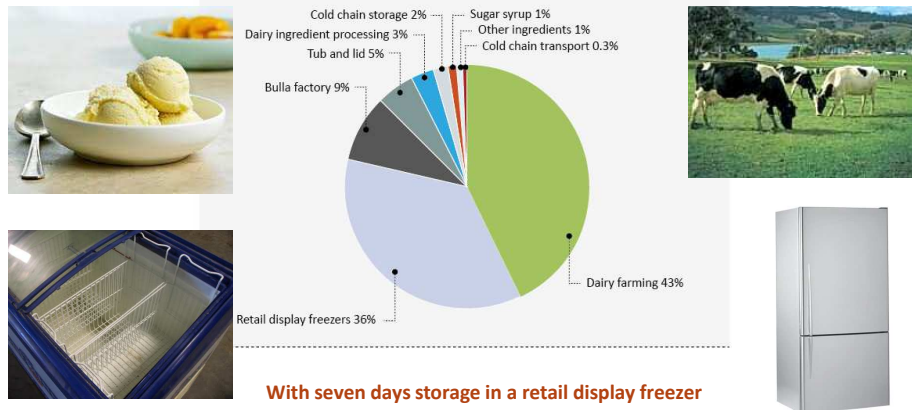
Bulla ice cream: supply chain



Environment and Energy

Ai AUSTRALIAN INDUSTRY GROUP

Bulla ice cream: overall contributions



Environment and Energy

 AUSTRALIAN INDUSTRY GROUP

Insights for Bulla ice cream supply chain

- Bulla's direct emissions account for less than 10% of the product footprint
- Cost effective carbon abatement opportunities exist at Bulla and within the supply chain
- Elements of the footprint may require a sector-wide approach to emissions reduction
- Consumer education may help to reduce emissions associated with the use of the product
- Opportunities exist for cross supply chain collaboration

Environment and Energy

 AUSTRALIAN INDUSTRY GROUP

Overall benefits

- Shared understanding of carbon issues between supply chain participants
- The LCA results and identified opportunities can be drawn upon by supply chain members on an ongoing basis
- The results aid identification of business opportunities and risks associated with carbon management
- Enables incorporation of learnings into company sustainability strategies

Primary challenges

- Opportunities that arise through supply chain collaboration are more challenging to implement and may require significant investment of time and resources
- Ensuring that the focus on carbon does not result in unintended environmental impacts (e.g. increased water use)

Life cycle assessment

- The streamlined LCAs were able to determine the carbon hot spots for each product. This was confirmed by the detailed studies
- Detailed LCAs can help to identify carbon abatement opportunities that would not be apparent from a streamlined study and will more accurately calculate the total carbon footprint

Carbon abatement opportunities

- On-site & within organisations
- Across supply chains
- Design related
- And those others...

Cross supply chain opportunities incorporated into a roadmap for each supply chain

Key learnings & next stages

Helps participants to:

- Proactively address customer expectations
- Stay ahead of legislated requirements
- Maintain a competitive edge

Environment and Energy

 AUSTRALIAN INDUSTRY GROUP

Contacts

Leon Stackpole

Senior Adviser – Environment and Energy, Ai Group
0406 603 153

Steve Mitchell

Environment Manager, Bulla Dairy Foods
03 5231 9300

David Sutton

Group Risk Manager, SPC Ardmona
03 5833 2227

Environment and Energy

 AUSTRALIAN INDUSTRY GROUP