

A LIFE CYCLE ANALYSIS OF THE MUSHROOM INDUSTRY

It's one thing to claim sustainability, and quite another to prove it.

A new R&D levy-funded project is bringing 'life cycle thinking' to the Australian mushroom industry, which will highlight the strengths and weaknesses in mushroom sustainability across the industry. With recent media attention and a new investigation by the ACCC exposing greenwashing, it is more important than ever to understand the real impact of a business and the effectiveness of any sustainability measures.

Life Cycle Assessment (LCA) is a powerful tool that measures the environmental impact of products and services throughout their entire life cycle. From production to disposal, LCA considers various environmental factors such as climate change and water scarcity, and gives businesses sufficient and accurate information to manage and communicate their impact on the environment.

LCA is governed by international standards and is an essential tool for the mushroom industry. Business owners can measure their environmental impact, including the carbon footprint, waste generated, materials recycled, the water and energy used.

With specific data about mushroom growing practices, growers can gain a comprehensive understanding of the sustainability of their businesses and identify unsustainable hotspots in production.

This two-year project aims to develop a benchmarking tool for the environmental performance of the Australian mushroom industry. Jeff Vickers, Steve Mitchell and Vi Kie Soo from sustainability firm thinkstep-anz are leading this work. The team will measure the industry's environmental performance and develop industry-average results.

Key points

- Life Cycle Assessment (LCA) measures the environmental impact of products and services throughout their entire life cycle.
- LCA considers various environmental factors including climate change and water scarcity.
- By applying LCA tools, mushroom growers will have a comprehensive understanding of the sustainability of their businesses, identify areas of improvement, and address unsustainable practices in production.
- Business owners can communicate any sustainability claims with confidence, not assumption.



The project aims to:

- Inform the mushroom industry of its environmental performance, including strengths and gaps in data and performance.
- Allow the mushroom industry to measure or track changes in its environmental performance in the future.
- Although the project is only in its early stages, some likely weaknesses have been identified, including:
- Transport distances from major raw material suppliers
- Substrate composting and pasteurisation.
- On-site energy use, such as emissions from diesel and thermal energy sources.
- Electricity use and source (grid average or renewable energy).

So how does an LCA help?

Information gathered as part of the LCA paves the way for sustainable mushroom cultivation. With reliable data, mushroom growers can avoid the pitfalls of greenwashing and communicate with customers in a credible manner.

Vi Kie Soo, who hopes to visit mushroom farms soon, emphasises the importance of data when discussing sustainable practices.

“Basing claims on solid facts rather than making vague and unsubstantiated assertions avoids greenwashing and builds trust and credibility,” she said.

“By promoting sustainable production practices and highlighting eco-credentials, the mushroom industry can appeal to environmentally conscious consumers seeking evidence of sustainable choices.”

The team is collaborating with Hort Innovation and will run a pilot with a small group of mushroom growers to develop key data before rolling out a questionnaire to the wider industry by late 2023.

About thinkstep-anz

thinkstep-anz is an independent sustainability firm helping businesses from many industries succeed sustainably. They work with government, NGO and business clients in both Australia and New Zealand across food services, utilities, construction, manufacturing, agriculture, horticulture, forestry, aquaculture, retail trade, finance, transport, and tourism sectors.

Their services span sustainability strategy and technical solutions to make products and businesses more sustainable.

Learn more at thinkstep-anz.com



Project Manager **Vi Kie Soo** –

Team Lead LCA with thinkstep-anz
Keep an eye out for Vi Kie as she visits mushroom farms over the coming months.

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