

Sweet Potatoes Australia

Direct Piloting Case Study

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Australia's largest producer of sweet potatoes identifies high-value alternatives for waste with Direct.

Customer Profile:

Sweet Potatoes Australia, based in the Bundaberg region of Queensland, supplies both domestic and international markets year-round.

The largest producer of sweet potatoes in Australia, the company focuses heavily on data, sustainability, and transparency to bring consistent quality to consumers.



Situation

Limited scenario modeling

No tools for capturing financial and resource efficiency.

Forecasting scenarios is one strategy Sweet Potatoes Australia leverages to make business decisions. Without a complete understanding of the true cost of waste, the company is unable to map out accurate alternatives to current processes.

“Comparative analysis to drive decisions, that's what I'm really excited about. Right now, we make those decisions, but they're not based on data. They're just based on what we think.”

Limited opportunities

No way to communicate value opportunities.

Until waste resources are fully analyzed, there's no way for Sweet Potatoes Australia to tabulate and demonstrate waste's impact on bottom-line. This limits the availability of opportunities and presents enterprise-level challenges as it relates to capital expenditure.

“What changes when we adjust the model? How does that affect business? Are we creating more waste?”

Limited measurements

No way to track use and wastage.

Environmental sustainability and corporate impact are major priorities for Sweet Potatoes Australia. The company has significant waste reduction targets in mind. In order to achieve them, granular datasets are needed for forecasting and modelling efforts.

“One of our targets is to reduce waste. For modelling, we have no tool that does that.”

Solution

With the UN's Sustainable Development Goals in mind, Empauer, RMIT University and the Fight Food Waste Cooperative Research Centre have created a business-ready tool that quantifies the 'true cost of waste' by identifying where food and non-food material losses flow across the food supply chain.

Called Direct, the solution is aligned to two international standards: The Food Loss and Waste Accounting and Reporting Standard (FLW Standard), developed by the global and multi-stakeholder FLW Protocol (convened by the World Resources Institute); and ISO-14051, a general framework for material flow cost accounting (MFCA).

This level of granular attribution enables both consistency in output and flexibility in the analysis of material flows and costs, with regard to product and non-product/waste destinations, in the food supply chain.

In 2020, Sweet Potatoes Australia participated in a pilot study that utilized Direct to capture process data and built out the scenarios they were looking to model.

Able to model their value-add facilities, where product is placed into different weighted bags, the company now sees the impact of different approaches and which value-add products are best.

The straightforward interface made it easy for Sweet Potatoes Australia to assess their true cost of waste, one of the first steps on the path to the development of new strategies to combat it.

“DIRECT is user friendly and had a nice dashboard. That was a key thing that attracted me to the tool.”



Outcomes

Empowered by new data from Direct, Sweet Potatoes Australia has seen the possibilities capability of utilizing the true cost of waste in its financial decisions.

Improved scenario modeling

In order to communicate the value of business decisions to key internal stakeholders, Sweet Potatoes Australia has seen the power of DIRECT to validate a variety of data-based decisions. Paired with the ability to present a variety of scenarios or products which reduce cost and waste, the company could more readily illustrate the value of capital expenditure.

“If we introduce a new line or process with the goal of reducing waste, the associated cost can be used for demonstrating return on investment.”



New business opportunities

Direct's assessment results revealed that while waste was minimal, 5-percent of all sweet potato material inputs end up in non-income destinations.

A substantial portion of the true cost of waste is attributable to business costs.

By redirecting these materials to higher value destinations, such as animal feed or food rescue, and extracting nutrients from leaves and vine waste, Sweet Potatoes Australia could transform waste into additional income.



Better Corporate Social Responsibility data

With waste reduction being a major driver for Sweet Potatoes Australia, DIRECT gave the company exposure to fast and accurate insights into cost and mass waste hot spots. Future updates, such as introducing GHG emission and nutritional content metrics, would only empower them with a better tool to reinforce their environmental goals.

Access to Direct and its insights are available by either subscription or as a service.

“I'm really excited about being able to map carbon footprint and nutrition. That sets DIRECT apart from these other accounting programs.”

The above case study was created in partnership with The Fight Food Waste Cooperative Research Centre (CRC) as part of the piloting of Direct. Empauer, RMIT University and The Fight Food Waste CRC gratefully acknowledge the Australian Government's financial contribution and support through the Cooperative Research Centres program.

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