

Eco Flow

Novel 'Waste Reducing' Eco Flow Packaging

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Project description

Whilst significant work is being carried out in the industry to improve the recyclability status of plastics used in meat packaging, there is an opportunity to reduce the volume of plastics entering the retail market. The adoption of flow wrap packaging for mince products has the potential to improve meat packaging sustainability.

Flow wrap packaging is available in the dairy and fresh produce industries however it is novel to meat packaging in Australia. It involves forming a plastic film pouch around a food product, in this case a mince portion, gas flushing and sealing to provide a tamper resistant pillow pack. Flow wrap product launches carried out by European retail meat manufacturers have seen a reduction in plastic use by up to 70%. Other benefits include a reduction in carbon emissions due to a smaller shipper footprint and weight reducing the number of freight movements.

The purpose of the Eco Flow project was to validate flow wrap packaging technology for beef mince products and test the product in the Australian market for consumer acceptance.

Project content

Feasibility and validation trials were carried out on flow wrap technology at the Bindaree Food Group Burleigh Heads retail processing site. Sustainability attributes of the packaging were analysed and then the concept tested in the retail market in 500g beef mince.

Project outcome

Flow wrap technology was successfully commissioned and integrated with mince grinding and forming systems and various film types tested and validated. Flow wrap packaging offers a 70% reduction in plastic weight compared with the incumbent rigid tray and film and in BOPP form the film meets APCO V2 2025 targets. Flow wrap mince has been tested in the retail market in Queensland with positive feedback from consumers.

Benefit for industry

Technology

Flow wrap packaging technology is accessible and easily integrated into current mince forming and portioning systems. Packing through-puts are comparable and, in some cases, higher than the current tray sealing technology. Printed film means there is no need to label packs with end of line processing only requiring metal detection and check weighing. There are therefore few limitations for processors and retailers to transition to this type of packaging technology for mince products.

Sustainability

Flow wrap offers a 70% plastic reduction by weight compared to the incumbent rigid tray and film packaging for 500g mince. With the introduction of an APCO 2025 V2 compliant BOPP film and the development of soft plastics recycling infrastructure, flow wrap packaging of mince can provide a more sustainable packaging option compared to the incumbent packaging.