Project Summary
National Date Labelling And Storage Advice Project – Phase 1

KEY POINTS

- Consumers are confused about the difference of "Use by" and "Best before" dates, often throwing food out without any sensory testing once it nears the date listed on the packaging, regardless of the date label type.
- Consumers want labels to be more visible and easier to read through larger print, visual cues such as icons, and clearer language. They want them placed consistently across products, so they know where to find information.
- When thinking of reforming current systems, consumers tended to focus on ease of use and food waste reduction, whilst stakeholders focused on compliance, food safety, and logistical feasibility.
- Meaningful changes to the food packaging system to help reduce household food waste require an overarching strategy with support from federal, state, and local governments. However, relying solely on policy is insufficient and we need collective action from stakeholders to unite and tackle the food waste problem effectively.

THE CHALLENGE

Describe the challenge your project addressed in a paragraph:

Food waste is a significant issue, both environmentally and economically. Effective packaging with clear, consistent date labelling and storage advice plays a crucial role in reducing food waste. However, the current systems for storage advice and date labelling in Australia are unclear. Consumers are left unsure on the difference between "Use by" and "Best before" labels and not knowing if food is safe to eat or how long it can be safely stored using different methods. These uncertainties contribute significantly to household food waste There is a clear need for better, more consistent date labels and storage advice to assist consumers in their food management.

THE OPPORTUNITY

To improve date labelling and storage advice systems in Australia so that consumers understand how they can better manage their food and reduce food waste.

OUR RESEARCH

This project used a mixed-methods approach and consisted of four stages conducted over two years. The stages were iterative with each building on the last.

STAGE 1A

Scoping literature review to identify both grey and academic literature published on how date labels and storage advice influence household food waste.

STAGE 1B

125 consumer interviews with questions relating to food purchasing habits, food selection considerations, understanding of date labels, knowledge and behaviours related to storage advice, and food waste behaviours.

STAGE 1C

Development of 20 pilot design concepts based on the literature and consumers' needs, including 10 date labels and 10 storage advice labels (See Figure 1 for an example).

STAGE 1D

Six collective intelligence workshops with consumers and industry stakeholders to gather feedback on the pilot design concepts, followed by one Future Scenarios workshop to reflect on the changes required to reform date labelling and storage advice systems.

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Figure 1. Example date label design concept encompassing visual cues such as icons and colour as well as detailed storage advice

OUTCOMES

From this research, we have identified that date labelling and storage advice should:

- Use colour and visual cues to help consumers differentiate between labels and understand information on food packaging.
- Be easy to find, understand, read, and interpret. On-pack information should be compliant, legible, and understandable to all consumers.
- Have consistent standards for date formats and storage information, ensuring consumers always engage with information on food packaging in similar ways.
- Have a packaging design standard and a design framework that allow food manufacturers and retailers to create a flexible and consistent system that can be implemented across different food categories and product types.

Furthermore, the following should be considered to assist, complement and enhance on-pack information:

- On-going collaboration between industry players, policymakers, and academia to ensure decisions are based on rigorous theoretically-driven consumer behaviour research.
- Technology-mediated solutions (such as smart & intelligent packaging) to complement date labels and storage advice information.
- Cues to assist consumers with sensory testing as another layer in decision-making about food.
- Clear specifications defining what information is mandatory on packaging and what types of information can be taken off the label while ensuring consumer decisions on food quality and food safety are not compromised.

To effectively tackle household food waste in Australia, systemic changes across the sector is necessary. This research echoes the findings and recommendations of previous research – that collaborative action across individuals, organisations, and the sector is needed to enact change. Each actor in the food system has specific roles to play and a shared responsibility of reducing food waste. Meaningful changes to the food packaging system to help reduce household food waste require an overarching strategy requiring support from federal, state, and local governments. However, this research also highlights that relying solely on policy is insufficient, because collective action from stakeholders is critical to tackle the food waste problem effectively and present a united front.

IMPACT

Phase 1 has received widespread media coverage including 183 news stories, reaching 43 million people, and valued at $1.6 million in ad space. The necessity of this work was also recognised by The Senate Select Committee on Supermarket Prices Final Report (2024). The report recommended that the Department of Climate Change, Energy, the Environment and Water should update the 2017 National Food Waste Strategy and consider “reform of the use-by and best-before labels and their role in food wastage and consumer confusion” (Recommendation 11).

Phase 1 of project has also set up the basis for broad industry and societal benefit in lieu of the commissioning of Phase 2 (which is yet to be confirmed). It is expected that Phase 2 impacts will include:

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- Increased profitability in the industry through the extension of shelf-life and better practices for date labelling and storage advice
- Training 200 people in the industry across packaging, food, and supply chain actors
- Successful PhD completion of two future leader graduates
- Food waste reduction. Based on FIAL (2021), 0.93 million tonnes of food waste could be avoided over 10 years, by better labelling practices and extended dates alone. Behaviour change campaigns that incorporate date labels and storage advice messages would save an additional 1.85 million tonnes. This food waste reduction would also reduce greenhouse gas emissions.

NEXT STEPS

The next steps of this project include the commission of the National Date Labelling and Storage Advice – Phase 2 Project. While Phase 1 was focused on gathering insights and identifying barriers to change, Phase 2 will take a practical approach, aiming to create and implement a new approach to date labelling and storage advice that will play a role in reducing consumer food waste. Phase 2 will comprise seven stages, including designing novel packaging, consulting consumers, industry, and policymakers, and developing an implementation plan that will be rolled out nationally to reduce consumer food waste.

PROJECT TEAM

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PROJECT REPORTS/PUBLICATIONS

Llagas, B. R., Jenkins, E L., Brennan, L., Parker, L., Schivinski, B. & Lockrey, s. (2025). Consumer perceptions of date labelling and storage advice and its relationship with food waste: A systematic scoping review of the academic & grey literature. *Future Food, 11*, 100577. https://doi.org/10.1016/j.fufo.2025.100577.

Parker, L., Schivinski, B., Jenkins, E. L., Llagas, B. R., Brennan, L., Phan-Le, N. T., and Lockrey, S. (2024). Date labelling and storage advice: Consumer interviews Insights Report, RMIT University & End Food Waste Cooperative Research Centre.

Llagas, B. R., Lockrey, S., Lowenstern, B., Brennan, L., Parker, L., Jenkins, E. L., and Schivinski, B. (2024). Phase 1c Pilot Designs: Date Labels & Storage Advice System Concept Exploration, RMIT University & End Food Waste Cooperative Research Centre.

Llagas, B. R., Brennan, L., Parker, L., Jenkins, E. L., Phan-Le, N. T., Lockrey, S., and Schivinski, B. (2025). Date Labelling and Storage Advice Collective Intelligence Workshops: Position Paper. RMIT University & End Food Waste Cooperative Research Centre.

PROJECT WEBPAGE

https://endfoodwaste.com.au/projects/national-date-labelling-and-storage-advice-phase-1/

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