16 TECH SPEAK

Save the date: Use By or Best Before?

From a packaging and food waste perspective, adjustment of date labelling communication systems has been identified as the most efficient measure to reduce food waste, which has the greatest economic value per tonne in terms of consumer food waste reduction and the lowest costs regarding the business practices. Nerida Kelton, executive director AIP, explains.



inimising food waste wherever possible is everyone's responsibility with all of us being able to make effective changes. So, let's start with an easy exercise.

Next time you are in your refrigerator, I invite you to find a product with a Use By date and one with a Best Before date. Do you throw the food away when it is nearing the date or when it is past the date? What triggers you to automatically throw the food away? Is it judgement, common sense, or simply because somewhere deep inside you believe that food will be unsafe to eat after that date?

Now ask yourself: would your attitude to date labelling change if you understood the difference between a Use By date and a Best Before date?

USE BY OR BEST BEFORE?

Date labelling is designed to guide consumers on how long food can be kept before the quality deteriorates, or once the item is unsafe to eat. Use By dates and Best Before dates are the next step in date labelling, and are the responsibility of the food manufacturer.

In the simplest of terms, a Use By date is designed for the health and safety of the consumer, and you should not eat the item after this date. Items are also not legally permitted to be sold after this date, as they pose health risks.

A Best Before date, however, does not mean that you can't eat the food after then; it simply means the quality or taste may not be 'at its best' after the recommended

STUDYING DATE LABELS

A study currently underway by the RMIT University, Australia; the Department of Management and Engineering, Linköping University, Sweden; and the Service Research Centre, Karlstad University, Sweden, identifies that on-pack daterelated labelling is one of the most direct information carriers used by the food industry to communicate product shelf-life attributes to consumers.

Through applying an activity theoretical lens to analyse the literature and empirical results, the researchers found that consumers' interaction with date labels and storage information in their food consumption activity is highly influenced by their shifting motivations, the changing sociocultural contexts, and the dynamic interplay between the use of internal sensory perceptions and external on-pack date labels.

The study aims to systematically understand the interplay between on-pack date labels and consumer food waste behaviour and develop design implications and interventions to better support consumers in reducing food waste. Given the broad scope of the topic, this study specifically focuses on the consumer-food packaging interaction in household levels. The effects of date labelling and storage related packaging attributes in consumers' purchasing behaviour are excluded in the study.

A design for sustainable behaviour perspective is taken as the main research perspective. Design for sustainable behaviour is a relatively new field of enquiry aiming to reduce negative environmental and social impacts of products and services through influencing user behaviour towards a more sustainable direction (Wever et al., 2008; Wever, 2012).

Recent developments in this field attempt to understand the sustainability problems through both a synthetic and analytical approach, which can enable us to incorporate the factors such as the context of consumers' food consumption, consumer behaviour transition and evolution, and the emerging technological mediation into the on-pack date labelling and storage information evaluation and design process. The Australian Institute of Packaging (AIP) will provide updated outcomes from this study as a part of its CRC Save Food Packaging project. date. This style of date-labelling is determined by the manufacturer's recommendation of 'optimum consumption' to achieve the best quality product.

According to Food Standards Australia New Zealand (FSANZ), which is responsible for all date labelling definitions, "food items are legally permitted to be sold after a Best Before date and until they are no longer fit for human consumption".

Legally, the only food item that can have different date marking is bread, which, according to FSANZ, can be labelled with a Baked On or Baked For date if its shelf life is less than seven days.

Foods that have a shelf life of two years or longer, for example some canned foods, do not need to be labelled with a Best Before date. FSANZ says this is because it is difficult to provide a consumer with an accurate guide as to how long these foods will keep, as they may retain their quality for many years and are likely to be consumed well before they spoil.

PLAYING OUR PART

So next time you see a date label on your food, have a look and see whether it is a Use By or Best Before date, and then make informed decisions when discarding the items. The AIP encourages you to educate everyone within your tribe about the differences, to help make a contribution to minimising food waste.

As an industry we need to openly and collectively discuss how to improve consumerbased date labelling marketing campaigns, and how to design packaging with better onpack communications, so that people make informed and conscious decisions before wasting food unnecessarily. Everyone has a role to play to help drive change that effectively minimises or prevents food waste. ■

AIP TO HELP FIGHT FOOD WASTE

The Fight Food Waste Cooperative Research Centre (CRC) has approved the AIP's Save Food Packaging project as one of the first the CRC will undertake.

The AIP is the project leader on the Save Food Packaging Criteria and Framework 1.2.1 project, and has established an extensive Save Food Packaging Consortium that is made up of leaders in Save Food Packaging design and innovations to ensure that the guidelines are practical for the industries they will serve.

The Save Food Packaging Consortium is made up of the AIP as project lead, and RMIT as the research partner, alongside project contributors ZipForm Packaging, Sealed Air, Multivac, and APCO; project partners Plantic Technologies, Result Group, and Ulma Packaging; and an extension network comprising AFCC, AFGC, and AIFST.

The Save Food Packaging Design Criteria and Framework will integrate current research literature with industry knowledge regarding the functional properties and role of packaging in saving food being wasted. While the primary functions of packaging are to contain and protect the content, as well as providing information about the product, the role of packaging in reducing food waste needs to be better understood by food producers, manufacturers, brand owners, retailers, and consumers.

The connection between packaging design and food waste needs to be discussed more openly in the industry. From field to fork, there are several possibilities for food loss and waste to occur, and it has been estimated that up

to 30 per cent of the edible food produced does not reach the fork. Packaging's role in reducing food waste is the next challenge for packaging technologists, designers, and engineers.

Using the industry networks via the Australian Institute of Packaging (AIP), in partnership with the Consortium, this project will produce packaging design criteria and communication material for the implementation into food packaging. This material aims to improve packaging design, material selection, and format selection using appropriate portioning, sealability, resealability features, and date labelling, to extend shelf life and provide the information required to assist retail, food service, and consumers to minimise food waste.

This project will focus initially on Australia and New Zealand. Future projects will look to other countries through the World Packaging Organisation (WPO). The global project will also be led and coordinated by the Australian Institute of Packaging (AIP) as the ANZ WPO Member.



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