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**Final Report – Executive Summary**

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# Consumer Attitudes to Food Waste and Food Packaging



A qualitative and quantitative investigation into consumer attitudes to, and behaviour around, food waste and food packaging, which will inform action to help further reduce household food waste. In partnership with:



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**Front cover photography:** An example of pre-packed food

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# Executive summary

Approximately 60% of household food waste arises from products 'not used in time', with a value of around £6.7 billion. The majority of this is made up of perishable / short shelf life products, and includes 17 billion '5-a-day' portions of fresh produce (more than a fifth of purchases) bought but not eaten each year. Previous WRAP research suggested that behaviours around the use of packaging in home could be making a significant contribution to this. Examples include removing food from packaging after purchase but before storage (where the packaging is designed to keep the food fresher for longer), not making use of packaging functionality (such as reclosing packs to prevent dehydration in the fridge) and not looking at or following guidance on pack (when to consume by, how to store, whether the product can be frozen). In addition, previous research, and feedback from engagement with consumers, suggested that attitudes towards packaging might be a barrier to further reducing the amount of food thrown away. However, there was a lack of robust evidence in this area to inform a strategy partners could implement to help address consumer concerns, and enable them to take steps to prevent food going to waste.

The insights from this new piece of research will help in the development of more effective messages and products that will enable consumers to get more from the food they buy, and make savings through wasting less.

This summary sets out key findings from research undertaken by Icaro Consulting to explore consumers' attitudes to, and behaviours around, food waste and food packaging. The work was commissioned by a Steering Group comprising representatives from INCPEN, WRAP, The Packaging Federation, The Food & Drink Federation, Kent Waste Partnership and The British Retail Consortium.

The Steering Group wanted to explore a number of issues, including:

- How the use of packaging in home might influence the amount of food waste arising.
- What consumers might like to see in terms of packaging that could help them reduce food waste, and how aware they are of such innovations already on the market.
- How attitudes to packaging vary in different contexts (e.g. in store vs. in home), and how attitudes towards packaging might influence motivations to reduce food waste. How consumers respond to a variety of messages around packaging and food waste, and how this might influence attitudes and behaviour.

It should be noted that this research deals with packaging from a purely 'food' perspective and did not explore attitudes to packaging in the context of other products.

This research confirmed that a priority for consumers is how long food stays fresh for. Key insights from this new research, combined with previous research, show that currently consumers are not making best use of the information on pack, or the packaging itself to achieve this, nor are they aware of the benefits that packaging can offer to maximise in-home shelf-life.

However, there is a clear interest in packaging that can maintain food freshness, both before and after opening, and also in clearer on-pack messages about how to store food. Providing consumers with clear and consistent labelling on pack ('use by' / 'best before'; storage location; freezability etc.), communicating to them the benefits of utilising this information and providing improved packaging functionality (e.g. reclosability, materials to enhance life) could all help consumers waste less food in home.

Although much research has been carried out on food waste, and around food packaging, this new research has added significantly to our understanding, and our ability to help develop and deliver solutions to help consumers save money:

- For the first time attitudes to food and packaging have been explored together in a broad range of contexts, including shopping, food issues and the environment. This allows us to see how views on packaging compare to other factors, such as food freshness and food waste. This has highlighted the relative importance for consumers that their food stays fresher for longer, which gives confidence to be able to talk more positively about how packaging can deliver against this need.
- The research has also revealed which factors around packaging are considered most helpful (consistent with other research by WRAP, IGD and others) but also what consumers are aware of (which is new) – for example reclosable packs are most desired, but although there are many on the market consumers are less aware of this than they are of, for example, recyclability where levels of awareness and availability are similar. This shows that more can be done to highlight what is available now, including in terms of labelling, and also communicate to consumers more when innovations are launched. [Examples of what industry is already doing to optimise what is on the label, and through innovation to extend the life of food are included in a box at the end of this executive summary]
- The research confirms that there is an opportunity for consumers to make more use of labels and packaging, in terms of keeping food fresher for longer, but the larger sample size in this study provides much more detail on different socio-demographics groups. This will help organisations develop more effective solutions for a wider range of consumers.
- The assessment of responses to different statements and messages around food waste and food packaging, using a methodology not used previously in this area, shows the impact, both positive and negative, of different statements and combinations of statements which will inform the development of more effective communications.

Overall, this research shows that small changes in behaviour around packaging could deliver the benefits consumers are looking for – keeping food fresher for longer, saving money and reducing the impact of food on the environment.

## **Methodology**

The research involved a combination of qualitative and quantitative methods, comprising (i) a review of previous consumer surveys on food waste and packaging; (ii) 18 accompanied food-shops and follow up in home depth interviews; and (iii) an online survey of 4,000 UK consumers (the largest to date on this subject in the UK).

## Key findings

Below are distilled the main insights from the research:

**Many consumers do not recognise that packaging protects food in the home.** While there is recognition that packaging is important to keep the product safe *on its way to* and *in* the store, there is less recognition that it plays a role at home. In fact, the prevailing view is the opposite, i.e. that keeping products in the packaging leads them to spoil more quickly. This in turn leads many consumers to adopt unpacking strategies that potentially decrease the longevity of products (i.e. taking products out of their packaging or piercing the packaging to 'let it breathe').

These findings are consistent with previous WRAP research, both in terms of in-home behaviour and the potential reduction in product life resulting from this<sup>1</sup>. This finding is also important because, among the minority of consumers who do recognise that packaging can keep products fresher for longer, attitudes to packaging are significantly less negative.

- The top three benefits that consumers identify about packaging are that it 'keeps products safe and hygienic' (42% mentioning); that it 'provides important information on labels' (37%); and, that it 'protects the food (from the factory to the shop and on the way home)' (36%). In comparison, just 13% feel it has a role in protecting food in the home.
- However, when asked to identify their top three positive or negative associations with packaging, the two most frequent responses are negative: 'uses too much material' (52%) and 'bad for the environment' (50%). On balance, consumers give 1.4 positive answers out of three compared to 1.6 negative answers. They are far less likely to acknowledge that it 'extends the life of the product' (22%).
- Acknowledgement of this aspect, however, appears to engender more positive associations with packaging. For example, among those consumers who do acknowledge that packaging extends the life of the product, the balance of responses is notably different - 2.5 positive answers out of three (and just 0.5 negative answers). However, this group of consumers are currently in a minority and the prevailing view is actually the reverse - almost two in three (62%) agree with the statement 'keeping fruit and vegetables in their packaging makes them sweat and go off quicker'.

**Consumer confidence around storing food is high, but can be misplaced; the information on labels, and how they are used could both be more effective.** The majority of consumers are confident in their way of storing food items with habits developed through trial and error or passed down from parents. However, a large proportion are actually storing items under less than ideal conditions, in terms of ensuring they last as long as possible (see also point above).

Despite this confidence, there is demand for better on-pack guidance about storage and the majority of consumers say that they would use this (although it is tempered by the fact that many do not look for such information once they are familiar and confident with a product).

WRAP research on date labelling and storage guidance similarly found that consumers find simple, specific guidance most useful, and are more likely to take advantage of such guidance<sup>2</sup>.

- 90% of consumers say they are 'very' or 'fairly' confident they store their food in the best way to keep it fresh. However, nearly two-thirds unpack in a way that could reduce the

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<sup>1</sup> *Food Storage and Packaging* (WRAP, 2007; <http://www.wrap.org.uk/content/food-storage-and-packaging>); *Helping Consumers Reduce Fruit and Vegetable Waste* (WRAP, 2008; <http://www.wrap.org.uk/content/helping-consumers-reduce-fruit-and-vegetable-waste>)

<sup>2</sup> *Consumer insight: date labels and storage guidance* (WRAP, 2011; <http://www.wrap.org.uk/content/consumer-insight-date-labels-and-storage-guidance>)

longevity of the product – for example, 64% take apples out of the pack or do something to the bag (e.g. pierce it).

- 84% say they would be 'very' or 'fairly' likely to use clearer and more prominent on pack storage advice if it was highlighted to them.

**There is a noticeable gap between the amount of consumers who've seen particular packaging innovations and the number who say it would be a good idea.** Re-closable packs, packaging that makes the product last longer and split packs are three of the innovations that consumers rated as being most useful to them. Re-closable packs are highlighted as being relatively prevalent in shops currently, but there seems to be far fewer people who've noticed 'a lot' of packaging that keeps food fresher or split packs.

- 34% have noticed 'a lot' of re-closable packs in-store, but only 13% have seen packs that 'keep food fresh for longer' or 'split packs' (12%).

**There is recognition that food retailers and manufacturers have made progress in recent years to reduce the amount of packaging.** Even those who consider packaging to be a major environmental problem acknowledge progress.

- Almost half of consumers (46%) say that manufacturers and supermarkets have made 'fair' or 'significant' progress on reducing the amount of packaging in the past few years, while a similar proportion (44%) say they have made 'a little progress'. Only one in twenty think that manufacturers and supermarkets have 'not made any progress'.

**Attitudes to packaging shift according to the context and the mind-set that consumers are in.** In store, in a shopping context, packaging is a low order priority and plays a supporting and practical role in product choice (aspects of packaging, such as re-closability can be factors influencing choice). When framed in the wider context of food issues, only a small minority identify packaging as one of their top concerns.

- In store, quality, freshness and the look/smell of the product are the most important factors with around two in three (65%) mentioning them unprompted. This compares to 53% who cite price, value for money or special offers, and just 6% who cite pack size or how the food is packaged.
- When asked to choose between two cheese products – one with re-closable packaging and the other without - one in five (20%) of the consumers who chose the re-closable pack specifically cited the re-closable function as the main reason for their choice.
- In the wider context of concerns about food, 'how it is packaged' is a low order issue – cited by only 16% of consumers. In contrast, 'the price of food' (64%) is the most frequent response, followed by 'how long fresh food lasts for' (48%). Furthermore, twice as many consumers identify 'food waste' as a concern (33%) compared with packaging.

**However, when prompted consumers' attitudes to packaging are negative in the context of the environment.** There is little doubt that once packaging is set within a framework of environmental concern, and this particular mind-set is triggered, then attitudes are negative.

- Close to four in five (81%) believe that it is a major environmental problem and 57% think it is wasteful and unnecessary.

**Concern about packaging reduces in response to more information.** There is evidence of 'shifting' in consumer attitudes when they are shown a series of positive, and factually correct, statements about packaging. However, when mixed in amongst an equal number of negative statements, attitudes to packaging changed little overall (shifting according to individual statements but with no overall net change).

- Consumers were shown five positive statements about packaging and asked to rate, on a scale of 0-100, how much of a problem they thought it was (with 0 = not a problem and 100 = a serious problem). From an average starting score of 73/100 (i.e. prior to seeing

the messages) concern about packaging fell by 21% to a score of 58/100. Two messages were particularly effective: 'Packaging allows food to stay fresher for longer – not just on shelves but in your home as well' and 'The vast majority of packaging can be recycled (85%) so the impact is less than you think'. A third message, 'Without packaging many of the food products that we enjoy would only be available for a few months of the year – rather than all year round as they are now', was particularly effective when it was the first message seen.

- However, when mixed in amongst an equal number of negative statements attitudes to packaging changed little overall. There were shifts in response to individual statements but the positive and negative statements largely cancelled each other out.

**Concern about food waste increases in response to more information.** The above style of question was also used with positive statements on food waste:

- Consumers were shown five positive (and factually correct) statements about food waste and asked to rate, on a scale of 0-100, how much of a problem they thought it was (with 0 = not a problem and 100 = a serious problem). From an average starting score of 71/100 (i.e. prior to seeing the messages) concern about food waste increased by 9% to a score of 80/100. Three messages were particularly effective: 'In the UK we throw away enough food, from our homes, to fill Wembley Stadium to the brim nine times over – every year'; 'Wasting food costs the average family £480 a year. For families with children the cost can be up to £690 a year' and 'Food waste gives off harmful gases like methane when it rots in landfill. Methane is 20x worse for the atmosphere than carbon dioxide'.
- In comparison to the similar question around packaging, a clear difference emerged: On average, concern for both the issue of food waste and packaging started around the 72 out of 100 mark. After seeing a series of factually correct statements, concern for food waste had risen to around 80 whilst concern over packaging had fallen to around 58 out of 100.

**Concern about packaging does not appear to be compromising action on food waste reduction.** Unlike previous surveys that suggested packaging may be a far more pressing issue for consumers than food waste, this research finds that, when prompted, they consider both issues to be 'equally problematic' and do not have a fixed opinion as to which is 'worse'. However, consumers appear comfortable holding both views at the same time, and those most concerned about packaging are indeed *also* those most concerned about food waste.

- 70% of consumers think that food waste is bad for the environment (rising to 76% of consumers when the phrase 'wasting food' is used instead of 'food waste').
- When asked whether food waste or packaging is worse for the environment, consumers tend to agree with whichever of the two is presented first. For instance, 44% agree that 'food waste is a bigger environmental problem than packaging'. When the statement is reversed, 50% agree that packaging is worse than food waste. However, a significant proportion of consumers are uncertain and opt for 'I think they're both about the same'.
- Only a small, but significant, minority (14%) say they will 'do no more to reduce their food waste until more is done by manufacturers / supermarkets to reduce packaging'.

**Attitudes to packaging are linked to the ability to recycle.** There is a strong correlation between concerns about packaging materials and how easy it is to recycle them at home. The more difficult it is to recycle an item the more concern is expressed about it.

- Levels of consumer concern about different packaging materials are linked to how easily they can recycle them. For example, plastic pots, trays and tubs are a concern for almost half (49%) of consumers who say they cannot easily recycle these, compared to 26% of consumers who say they can recycle them easily.

- When asked what changes in packaging consumers would find most useful, 'recyclable – i.e. can be recycled' was quoted as the second (equal with packaging that helps the product last longer) highest.

**Two sub-groups, in particular, show highly significant variation throughout:**

- **Age:** older consumers are more likely to think that packaging is a serious environmental problem and prioritise its perceived problems and disadvantages over any positives (in particular, they are most likely to think that storing food in the original packaging causes it to sweat and spoil quicker). Younger consumers, by contrast, are more ambivalent and more likely to recognise the benefits of packaging - in particular, its role in keeping products fresher for longer.
- **Environmental disposition:** consumers who define themselves as 'very' environmentally friendly are more likely to consider packaging to be a major environmental problem. However, they are also receptive to positive messages about packaging and more likely to acknowledge the progress that retailers and brands have made. They are also more likely to recognise food waste as a concern.

**Having been presented with the research, the steering group has identified several opportunities to help reduce food waste and also address concerns around packaging, for example:**

- As consumers we can all make more use of the information provided on packaging, particularly as much of this is being updated, and the packaging itself, to ensure that the way we store food at home keeps it fresher for longer.
- Food and packaging organisations (retailers, food and packaging manufacturers and trade associations) should consider whether they can do more to inform consumers about the innovations they are making around food labelling and packaging, to raise awareness of the benefits and encourage consumers to make use of these, and encourage / undertake further innovation.
- Consumer campaigns, such as Love Food Hate Waste ([www.lovefoodhatewaste.com](http://www.lovefoodhatewaste.com)), and other communications activities around food and food waste can do more to raise awareness of the benefits of reducing food waste, and the role that packaging can play in that. They can inform consumers about the innovations businesses are making around food labelling and food packaging, and give advice about, for example, buying the right pack size and looking more closely at labels. They could also offer updated guidance around the best way to buy food with the appropriate packaging to keep it fresher for longer, for example if it will be eaten straight away buying loose, if you want to keep it for longer buying packaged.
- Continued innovation in packaging recyclability along with increased provision of recycling services, and clear communication on how to use them, has the potential to reduce concerns around packaging, helping consumers deal with packaging at the end of its life.

## Examples of packaging innovation to help reduce food waste<sup>1</sup>

- Many more packs are now reclosable, with a big increase in some areas such as cheese (WRAP, 2011<sup>1</sup>). Keeping food sealed is particularly important in the fridge, to prevent drying out.
- There are a range of new types of packs in store to suit different needs, including smaller packs of bread, 'fridge packs' for baked beans (which last longer once opened), packs that are subdivided so that you can use some now and some later (e.g. salads, sliced meats, bakery products).
- Innovations to help keep food fresher for longer, which means there is more time to eat the food whilst it is still at its best. Examples include extra-filtered fresh milk, vacuum packed fresh meat, intelligent packs for fresh fruit & vegetables which helps stop them over-ripening.
- Food labels are undergoing a lot of change, to make them less confusing and more helpful for consumers:
  - Retailers and brands are removing 'display until' dates so that the 'best before' and most importantly 'use by' dates are easier to see, and there is only one date to look at.
  - More products have moved to a 'best before' date from a 'use by' date (for example most hard cheese and many pasteurised fruit juices), giving the flexibility to use the product after the date.
  - Most food packs have detailed storage advice, and many are highlighting on the front of pack where to store food to keep it at its best (for example most fresh fruit should be stored in the fridge – but not bananas; check the label to be sure).
  - Retailers and brands are now moving away from 'freeze on day of purchase' guidance to 'freeze before the date', which means if food isn't eaten when expected it can be frozen before the date to use at a later date.

<sup>1</sup> <http://www.wrap.org.uk/content/helping-consumers-reduce-food-waste-retail-survey-2011>

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