



Love Food Hate Waste Campaign Evaluation

National Report
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Executive Summary

The purpose of this research was to evaluate the effectiveness of the Love Food Hate Waste campaign in reducing household food waste in New Zealand.

More specifically, the goals of this research were firstly, to investigate whether awareness of the issue of food waste had increased and, secondly, to examine whether there had been a shift in perceptions, attitudes and behaviours of New Zealanders concerning household food waste.

This research was conducted in September 2018. It was based on and designed to be compared to a similar survey that was conducted in 2014, prior to the commencement of the Love Food Hate Waste campaign. The research was conducted online and involved 1,000 New Zealanders who were primarily or jointly responsible for food shopping and preparation.

Households were divided into three segments according to the level of food waste they believe that they generate. This was calculated both in volume and the proportion of food expenditure wasted.

1. *Low food wasters* accounted for 38% of New Zealand households in 2018 (up from 35% in 2014). In 2018 low food wasters wasted an average of \$2.40 worth of food per week, a 20-cent increase on average wastage from 2014.
2. *Medium food wasters* accounted for 37% of New Zealand households in 2018, compared with 38% in 2014. They wasted an average of \$10.00 worth of food per week in 2018, an increase of \$2 on average monetary value since 2014.
3. *High food wasters* accounted for 25% of New Zealand households in 2018 (down from 37% in 2014). In 2018, the monetary value of food wasted by high food wasters increased significantly and they waste an average of \$27.20 worth of food per week (up \$6.20 compared with 2014).

The demographic profile of high food wasters remained consistent compared to 2014, with these respondents more likely to be:

- Younger people i.e., those aged 16 to 24 years in the household responsible or jointly responsible for food shopping and preparation.
- Large households i.e., those with four or more people living in them.
- Households with children aged 15 years and under.
- Households with a high annual income (\$100,000 per annum or more).

The first aim of the Love Food Hate Waste campaign was to raise awareness of the issue of food waste. The campaign was run using media and digital advertising, with a major focus on social media. Findings from this research show that half of the respondents surveyed (50%) had seen or heard some information about food waste in the last two years. Furthermore, this research found that 19% of New Zealand households had heard about the Love Food Hate Waste campaign (prompted response) with 6% of households mentioning the campaign without prompting.

The second aim of the Love Food Hate Waste campaign was to positively influence New Zealanders' perceptions, attitudes and behaviours in regards to reducing food waste. Half of those who recalled the Love Food Hate Waste campaign indicated that the campaign had an impact on how much food they waste. Encouragingly, high food wasters were more likely to claim that the campaign had an impact on their behaviour. In terms of behavioural changes, the Love Food Hate Waste campaign led respondents to use leftovers, plan meals in advance, write and use a shopping list and cook the correct serving sizes.

Two in five respondents who felt the campaign had an impact indicated that they were saving or avoiding throwing away two litres of food or more per week and believed they saved \$500+ per year through reducing/avoiding food wastage.

Respondents who had not seen the Love Food Hate Waste campaign or claimed the campaign had no impact on the volume of food waste from their household were asked about their food waste behaviours. Two thirds of this group of respondents indicated they were already minimising food waste.

Two thirds of respondents who have not heard of about the Love Food Hate Waste Campaign, or have heard it without it impacting on how much food they waste, indicated that they had taken steps to reduce their food waste over the past two years, with using left overs, writing a shopping list, storing leftovers or excess food in the freezer and planning meals in advance being the main actions taken. On average respondents who have done something to reduce food waste despite not having heard about the Love Food Hate Waste Campaign implemented six actions to reduce food waste, being the same number of actions taken by people who have heard of the Love Food Hate Waste Campaign.

The median dollar value spent on food per week was \$150, \$10 more than in 2014. While people are spending more money on food, the percentage of food wasted remained unchanged from 2014, with households still believing they only threw away food worth 5% of their weekly food expenditure. This was equivalent to \$7.50 a week on average, equating to \$390 a year per household, or \$144 a year per capita based on an average of 2.7 people per household. This extrapolates to over \$690 million of food wasted by New Zealand households each year.

Respondents perceived the volume of food they were throwing away to have declined from 2014, with nearly half of people throwing away less than 1 litre of food per week. This included 14% who wasted no food at all (up 4% since 2014). In general people did not view their own food waste behaviour as wasteful, with the majority estimating they threw away little/very little food that could have been eaten (81%, being no change since 2014). In 2018 only 2% of households perceived the amount of food waste they generate to be quite a lot.

The main motivation to minimise household food waste remained unchanged from 2014, being value placed on the food purchased (87%), potential monetary savings (84%) and a desire for efficient household management (79%). Nearly three quarters (71%) felt guilty when they threw away food, with a significant increase in respondents who wished to reduce their environmental footprint (up 11% to 71%) and those who acknowledged food shortages in other parts of the world (up 7% to 56%). Parental influence was the only motivation that declined, down 8% to 68%.

The general attitude to food waste has changed somewhat, with fewer respondents indicating that wasting food felt wrong to them (down 3% to 86% in 2018), and fewer respondents indicating that they were on a very tight budget (down 7% to 53% in 2018). The majority of respondents said they try not to waste food (86%), recycle everything in their area (80%) and take their own shopping bags for buying groceries (80%).

The reasons given for food wastage in households has changed considerably since 2014, with fewer respondents claiming that leftovers were not eaten or re-used (down 13% to 47%) and mentioning food in the fridge/freezer going off (down 6% to 43%). More respondents in 2018 indicated that food was wasted in their household as too much food was cooked (up 8% to 38%), too much food was bought (up 10% to 31%) and family members were fussy eaters or have specialist dietary requirements (up 4% to 26%). Around a quarter of respondents recognised that food was not stored as well as it could be (up 4% to 28% in 2018).

Good food shopping habits have increased considerably among respondents responsible for household food purchases, with respondents claiming to most times or always (in order of increase since 2014):

- Plan a weekly menu of meals (up 17% to 36%).
- Write a shopping list based on a menu plan (16% to 42%).
- Stick to menu plans and shopping lists (up 15% to 55%).
- Check what is in the house before doing a food shop (up 6% to 79%).
- Use a shopping list when buying food (up 6% to 74%).
- And shop to a set budget (up 5% to 48%).

Cooking and food preparation habits have changed significantly among respondents responsible for food purchasing for cooking and preparing meals, with respondents claiming to most times or always (in order of increase since 2014):

- Consider portion sizes and only make as much as needed (up 14% to 64%).
- Make extra in case it is needed (up 5% to 23%).

Increasingly, respondents were putting leftovers in the fridge and eating or reusing them afterwards (up 11% to 81% most times/always in 2018). Two thirds of respondents in 2018 froze their bread to stop it from going mouldy or stale, 59% kept potatoes and onions in separate places away from each other and 48% stored apples in the fridge. Increasingly respondents were freezing fruit and vegetables that were getting old for use later on (up 7% to 20%).

The majority (81%) understood the best before date to mean that food was still safe to eat after this date as long as it was not rotten or spoiled. Three in five respondents (60%) understood use by dates to mean that foods must be eaten or thrown away by this date, with a further 33% indicating that they understood foods were still safe to eat after this date as long as it was not rotten or spoiled.

Three quarters of respondents said they opened the food product to look and smell to see if it was okay (74%), with half (52%) doing a visual check on expired foods. Visual checks have increased considerably (up 7% since 2014), and more respondents said they get a second opinion from someone else (up 10% to 24% in 2018).

Conclusions

Awareness of food waste as an issue has increased since 2014, but people still don't think they waste a lot of food. Even amongst high food wasters (a quarter of New Zealand households in 2018), only 8% perceived their food waste as being quite a lot, while more than half perceived their food wastage as 'a little or very little'.

People were increasingly taking action to reduce their food waste, with six or more actions being implemented on average. There have been significant increases in positive behaviours such as making a shopping list, and a decrease in negative behaviours such as throwing away uneaten leftovers. Encouragingly, the overall number of high food wasters has decreased and the number of low food wasters has increased since 2014 which indicates that overall attitudes and behaviours are moving in the right direction.

However, there has been a significant decline in the number of respondents who felt that wasting food 'feels wrong', and fewer people think the volume of their food waste is 'a lot'. Compared to 2014, fewer households indicated that they were on a tight budget, and high food wasters especially mentioned being able to 'afford to waste food' as justification for negative behaviours. High food wasters thought it more important to reduce their use of plastic than to reduce their food waste.

The same motivations resonate for high food wasters as other groups e.g., valuing the food bought and not wanting to throw it away, the possibility of saving money by not having to buy more food, and wanting to manage their households efficiently by not having so much food stored that some will be thrown away. The motivating factors were however, endorsed at considerably lower levels among high food wasters.

Communication messages to create awareness of the food waste issue were necessary to bring attention to the issue and to inform, particularly high food wasters, of the contribution that certain household activities, such as throwing out leftovers, were having. Messages have met with relative success, with a significant decrease in the proportion of leftovers not eaten or re-used and food in the fridge or freezer going off.

Recommendations

The 2018 research confirmed that while the majority of households (including high food waste households) believe food waste was an important issue and that wasting food felt wrong, they did not perceive the amount of food waste they generate to be a lot. Even among high food wasters, only 8% perceive their food waste generated to be quite a lot.

The behaviours that were more likely to be demonstrated by high food wasters include:

- Putting leftovers in the fridge and throwing them out later.
- Throwing them out due to someone in the household not eating them.
- Throwing them out straight after the meal.
- Throwing them out from making more than planned.

Throwing out leftovers from making more than planned could be prevented by correcting portion sizes when cooking and preparing food. Communication around the best volume of food to buy, and determining the correct amount of food to cook, could address the increase in these factors leading to food waste. Communication around reducing food waste despite family members being fussy eaters or requiring specialist diets could also support people to avoid wasting food should their food preparation and cooking need to change or be non-standard.

While there has been a noticeable increase in people sticking to the list while shopping, two in five respondents still don't follow their shopping list. High food wasters were especially likely to not follow their shopping list. Therefore, promoting the message of making a shopping list and following it would be useful.

More people are now throwing out mouldy cheese rather than only cutting off the mouldy parts of the hard cheese and using the rest. There has been no change in the proportion of people who know leftover rice is still safe to eat the next day, indicating that more messaging is possibly required around food safety relating to rice.

There have been significant increases in the proportion of both high and low food wasters who believe that foods were still safe to eat after the 'use by date' as long as they are not rotten or spoiled, but improving understanding of use by and best before dates for high food wasters should remain a key priority.

1 Introduction

1.1 Love Food Hate Waste Campaign

Love Food Hate Waste is a three-year campaign funded by local and central government which aims to reduce household food waste in New Zealand. The campaign, which is delivered by WasteMINZ, began in February 2016 and ends in January 2019.

Research, in the form of a survey, was undertaken in 2014 as part of The National Food Waste Prevention Project to provide nationally representative data on attitudes and behaviours that lead to household food waste.¹ The insights gained from the 2014 research findings have informed the Love Food Hate Waste messaging and campaign focus.

1.2 Love Food Hate Waste Campaign evaluation

The aim of the 2018 research project was to identify whether there have been any changes in the attitudes and behaviours that lead to food waste since the launch of the Love Food Hate Waste campaign. These insights will help evaluate the effectiveness of the Love Food Hate Waste campaign in its mission to raise awareness of food waste and change people's behaviour.

The information will be used to inform the development of any future communications and messaging around household food waste.

1.3 Objectives of the Love Food Hate Waste Campaign Evaluation

The primary goal of this study is to evaluate the effectiveness of the Love Food Hate Waste campaign in reducing household food waste in New Zealand. More specific objectives aimed to:

- Identify the demographic groups who waste significantly more food than the total group and whether this has changed since 2014.
- Show where these groups significantly differ from the overall group in their attitudes, knowledge and behaviour.
- Recommend actions to increase behaviour change in these groups.
- Identify the extent to which behaviours and practices known to reduce food waste have increased in New Zealand, and to identify those behaviours which should be targeted as part of any subsequent programmes or messaging.
- Explore the influence of coverage on food waste in the media and the Love Food Hate Waste initiatives in encouraging good habits and behaviour to avoid and prevent food waste.

¹ WasteMINZ. (2014) National Food Waste Prevention Study <https://lovefoodhatewaste.co.nz/wp-content/uploads/2016/03/Online-Survey-of-attitudes-to-food-waste-.pdf>

1.4 Methodology

1.4.1 Questionnaire Design

The questionnaire developed for the National Food Waste Prevention Study in 2014 was used as a base for the 2018 questionnaire. In addition, the following research studies were reviewed:

- Food Waste Avoidance Benchmark Study (2009), New South Wales (NSW) Government, Office of Environment and Heritage.
- The Love Food Hate Waste Tracking Survey (2017), New South Wales (NSW) Government, Office of Environment and Heritage.
- The Love Food Hate Waste 2017/18 Campaign Evaluation Brand and Communication Tracker (2018), Corporate Communication Insights Team, Brisbane City Council.
- West London Food Waste Prevention Campaign Evaluation Report (2012), WRAP.

A draft questionnaire was created by Key Research and reviewed by the WasteMINZ Behaviour Change Steering Committee. The questionnaire was reviewed and edited by Key Research and the Love Food Hate Waste working group until a draft version was agreed. A pilot survey was undertaken with n=30 respondents from the Research Now online panel. The data was analysed by Key Research to determine if the questionnaire needed amending. No changes were required, and the questionnaire gained final approval for use in the survey (refer to the Appendix).

1.4.2 Data Collection Method

An online survey was considered to be more appropriate than a telephone survey for this project as an online format presents an opportunity to display images that can lead to a more accurate response. In addition, online surveys tend to get a better representation of younger respondents, and these were thought to be a key audience for food waste prevention campaign messages.

Survey respondents for the 2018 survey were sourced from the Research Now SSI online panel which covers the New Zealand wide general population. Quotas were enforced to ensure that the sample was representative of the general population demographic profile. This sampling approach is consistent with the 2014 National Food Waste Prevention Study.

To qualify for participation in the survey, respondents were to be the person in the household primarily or jointly responsible for food shopping and preparation. To reduce bias in the survey, a screening question was used to avoid surveying people in media and marketing research, collection or processing of waste materials, management roles in food retail or food service trades, and local government.

The survey was undertaken from the 5th September to 10th September 2018. It should be noted that a complete ban on single use plastic bags was announced by the Prime Minister, Hon. Jacinda Ardern, on 10 August 2018², raising awareness of sustainable care of the environment among the general public a month in advance of the 2018 survey.

² <https://www.stuff.co.nz/environment/106160806/new-zealand-to-ban-singleuse-plastic-bags>

1.4.3 Sample Size

Broad sample quota targets were set for age and geographic area, based on known population distributions. The survey obtained a sample of n=1,005 New Zealand residents aged 16 years or older. The survey data was weighted to best represent the regional population structure of New Zealand. The maximum sampling error for a sample of 1,005 is +/-3.1% at the 95% level of confidence.

The tables on this and the following page display the demographic profile of the sample compared with population statistics from the New Zealand Census 2013.

Demographic Profile of Sample Compared with Population (1)

	New Zealand population %	Food waste prevention study %
Age		
16 to 24	16%	14%
25 to 39	24%	23%
40 to 54	27%	28%
55+	33%	35%
Gender		
Male	49%	37%
Female	51%	63%
Region		
Northland	4%	4%
Auckland	33%	33%
Waikato	9%	9%
Bay of Plenty	6%	6%
Gisborne	1%	1%
Hawke's Bay	4%	4%
Taranaki	3%	3%
Manawatu / Whanganui	5%	5%
Wellington / Wairarapa	11%	11%
Nelson / Marlborough / Tasman	3%	3%
West Coast	1%	1%
Canterbury	13%	13%
Otago	5%	5%
Southland	2%	2%

Demographic Profile of Sample Compared with Population (2)

	New Zealand population %	Food waste prevention study %
Ethnicity (Multiple responses allowed)		
European	74%	85%
Māori	15%	6%
Pacific peoples	6%	2%
Asian	12%	13%
Dwelling type		
Separate House	81%	80%
Two or more flats/units/apartments joined together	19%	20%
Work status		
Employed	65%	53%
Unemployed	4%	5%
Not in labour force (not seeking employment)	31%	42%
Household composition		
Family	73%	73%
Shared	5%	11%
Single	24%	16%
Number in household		
1	23%	17%
2	34%	27%
3	16%	25%
4	16%	14%
5 or more	11%	17%
Household income		
\$20,000 or less per year	11%	8%
\$20,001 to \$40,000 per year	21%	21%
\$40,001 to \$100,000 per year	41%	46%
\$100,001 or more per year	27%	25%

1.5 Analysis

The maximum sampling error for a sample of 1,005 is +/-3.1% at the 95% level of confidence. Results were tested for significant difference at the 95% confidence interval for comparisons between the 2014 and 2018 findings, as well as within the 2018 sample between low, medium and high food wastage groups. Statistically significant difference has been indicated throughout the report with an orange *asterisk (*)* where differences were found between 2018 and 2014 results and in ***red/bold/italic*** where differences exist between results for food wastage groups.

This study uses the median dollar value as the measure of central tendency (the average) rather than the mean dollar value. This is because the median value is less affected by outliers and skewed data, which is characteristic of this data given that a minority of households spend a larger amount on food and throw out more food. As data becomes more skewed the mean loses its ability to provide the best measure of central tendency because the skewed data drags it away from the typical value.

It is important to note that when analysing food waste habits and behaviours in this survey, households were segmented in three groups: low, medium and high food wastage households. These groups were determined through a cross-analysis of the percentage of the money spent on food each week that is thrown away, and the volume of food (in terms of a 2L ice-cream container) thrown away each week.

- A high wastage household is one that throws away more than one 2-litre container of food waste per week and wastes more than 6% of the money they spend on food per week.
- In a medium wastage household 6% or more of money spent on food is thrown away that could have been eaten each week but the volume of food thrown away that could have been eaten each week is less than one 2-litre container *OR* if the volume of food thrown away that could have been eaten each week is more than one 2-litre container per week, it is 5% or less of money spent on food which is wasted.
- A low wastage house is where the volume of food thrown away that could have been eaten each week is less than one half of a 2-litre container and 5% or less of the money spent on food each week is wasted

2. Main Findings

2.1 Awareness of food waste issue

The primary goal of this study is to evaluate the effectiveness of the Love Food Hate Waste campaign in reducing household food waste in New Zealand. The first aim of the Love Food Hate Waste campaign was to raise awareness of the issue of food waste. This was done using media and digital advertising, and particularly used social media.

Half of the respondents surveyed (50%) had seen or heard some information about food waste in the last two years. Nearly three in five (58%) of those respondents recalled having seen or heard something relating to food waste on a television program or news story.

“A news items about community efforts to pool leftovers together in a place where locals can help themselves. News items about the amount of wastage by Fonterra, for example dumping of excess product.”

“I watched a news segment in the last week about the high amount of wastage in New Zealand households.”

Around one third had come across information on the internet (35%), or on social media (32%).

“I have randomly come across, on the Net, a couple of blogs and news articles about recycling, and how much food waste we throw out each week and month. Mainly about awareness of how much the majority of our nation throws out.”

“A few articles in the media or memes on social media about food wastage in Western countries. I also follow Love Food Hate Waste on Facebook. I think it popped up for me or I saw a friend like a post. I can’t remember seeing any other more official information, except that Auckland Council is now providing South Auckland with food scrap bins.”

Low food wasters were significantly more likely to have heard about food waste (55%) than high food wasters (41%).

2.2 Awareness of the Love Food Hate Waste campaign

This research found that 19% of New Zealand households have heard of the Love Food Hate Waste campaign when prompted, with 6% mentioning the campaign unprompted.

“The Council partnered with something like Love Food Hate Waste programme. The programme aimed to educate kiwis how to make their food go further, and they had been working with councils across the country.”

Those defined as high and medium food wasters are a little more likely to have heard about the campaign (20% and 21%) compared to low food wasters (17%), however this was not a statistically significant difference.

2.2.1 Demographic profile of those who have heard of the Love Food Hate Waste campaign

Those who have heard about the campaign are most likely to be:

- Aged between 25 and 39 (29%).
- Households of three people (24%), followed closely by homes with four or more people (22%).
- Families with children under the age of 16 (25%).
- Those with a household income of between \$80,000 and \$100,000 (28%).
- Within the segment of interest namely Females aged between 25 and 54 (23%).

Those who have heard of the campaign are least likely to be:

- Aged between 16 and 24 (16%).
- Households of 1 person (12%).
- Those with a household income of less than \$40,000 (11%).

2.2.2 Sources of hearing about the Love Food Hate Waste campaign

Among the respondents who had heard about the campaign, two out of five (40%) found out about it through social media such as Facebook, Instagram, Twitter, Pinterest and YouTube. One third (33%) had seen something on the internet, and just over a quarter (27%) had seen something on a television program or news story. More high food wasters compared to low food wasters had seen or heard about the campaign through social media (47% vs 33%), and the internet (37% vs 24%).

“We participated in Love Food Hate Waste activity in our local library. That's where we learned about it.”

“Local newspaper article regarding our Council supporting the Love Food Hate Waste campaign.”

“I get the Love Food Hate Waste newsletters and have heard politicians talking about Zero Waste policies, and how this relates to reducing climate change.”

“Love Food Hate Waste recipes online.”

2.3 Inspiring behavioural changes

The second aim of the Love Food Hate Waste campaign was to change behaviour so that people were wasting less food.

2.3.1 Impact of the Love Food Hate Waste campaign on food wastage behaviour

Just over half (52%) of the respondents who had heard about food waste from the Love Food Hate Waste campaign felt it had made an impact on how much food they waste. This was far more prevalent amongst the high food wasters (64%) compared to the low food wasters (39%).

Those whose behaviour was not impacted by the campaign said they were already taking steps to reduce their food waste (64%).

In total only 17% of people who had heard of the campaign weren't impacted by it or weren't already taking actions to reduce their food waste.

Low food wasters were much more likely to say they were already taking actions to reduce their food waste (93%) than high food wasters (27%).

"I was raised not to waste food, so this is not new to me."

"I used to do all of the above already even before knowing about "Love Food Hate Waste."

Just over two in five (44%) high food wasters stated that the campaign made them more aware of the issue but it didn't change their behaviour, whereas just one in five (21%) low food wasters felt the same.

Far more high food wasters, compared to medium and low food wasters, felt that it was more important for them to reduce their use of plastic than to reduce their food waste (29% high compared to 12% medium and 10% low).

"I have seen the recipes and tips on there, but so far haven't started to use them. I am more focused on plastic at the moment and our household is mindful of using food fully. Also, a lot of the tips are around non-vegan food which don't apply to me."

High food wasters were also more likely to believe that they could afford to waste food (22% of high wasters compared to 0% medium and 2% low).

2.3.2 Volume of avoidable food wasted per week

When thinking about actions taken in response to the Love Food Hate Waste campaign, 26% of respondents said they had saved or avoided throwing away more than four litres of food per week, with another 19% saying that they had avoided throwing away at least two litres of food per week.

In contrast, of those who had done something to reduce their food waste but had not heard of the Love Food Hate Waste campaign, or had heard of the campaign but felt it had no impact as they were already reducing their food waste, just over one quarter (23%) claimed to have saved more than four litres of food per week and 25% more than two litres of food per week.

There was a significant increase in the number of households stating that they did not throw away any food that could have been eaten, from 10% in 2014 to 14% in 2018.

More than half of respondents (54%) who waste more than 10% of their food spend, state that they waste little or very little food; this is relatively unchanged from 53% in 2014. This has been identified

as one of the barriers to behaviour change, with high food wasters still believing that they waste only a little or very little food.

2.3.3 Actions to reduce food waste

In total, 66% of all people surveyed had undertaken actions to reduce their food waste over the last two years. On average they had undertaken six behaviours to reduce their food waste.

The main behaviour was using more leftovers after meals (83%) followed by similar levels of writing a shopping list (65%), planning meals in advance (64%) and storing leftovers or excess food in the freezer (62%).

50% of people had not heard that food waste is an issue, and of those people, 57% had still taken actions to reduce their food waste. Of the 43% of people who could not specifically remember hearing about the Love Food Hate Waste campaign, but had still heard about the issue of food waste, 71% had taken actions to reduce their food waste.

Actions taken to reduce food waste by respondents despite not having heard about the Love Food Hate Waste campaign included:

- Using leftovers for other meals (87%).
- Writing a shopping list (68%).
- Storing leftovers or excess food in the freezer (65%).

After seeing or hearing information about food waste from the Love Food Hate Waste campaign, low food wasters were most motivated to:

- Use leftovers for other meals (77%).
- Store leftovers or excess food in the freezer (69%).
- Plan meals in advance (65%).

In comparison, high food wasters were most motivated

- Plan meals in advance (66%).
- Use leftovers for other meals (59%).
- Cook the correct serving sizes (47%).

However, high food wasters who have seen or heard about the Love Food Hate Waste campaign were far less likely to store leftovers or excess food in the freezer (30%) or write a shopping list (36%) than medium or low food wasters.

Low food wasters selected on average seven behaviours which they were motivated to do, whereas high food wasters only selected on average four behaviours. One in five respondents (21%) were motivated to visit the Love Food Hate Waste website. Low and high food wasters were equally motivated to visit the website.

Actions taken by respondents who have heard about the campaign and said it had no impact on how much food they waste included:

- Using leftovers for other meals (74%).
- Storing leftovers or excess food in the freezer (66%).
- Writing a shopping list (62%).

2.3.4 What more could you do to waste less food?

Nearly half of respondents (46%) indicated that using their leftovers for other meals would be an action they could implement to waste less food. Two in five also indicated that they should be cooking the correct serving sizes (40%) and/or plan meals in advance (39%). A third of respondents identified writing a shopping list as a potential action to help reduce food waste (33%) and a similar proportion of respondents (33%) felt that they could be storing their leftovers or excess food in the freezer to waste less food.

Respondents who indicated that they waste no food per week currently mention the same range of activities as potential actions that could reduce food waste further. However, they were less likely to plan to visit the Love Food Hate Waste website (11%) or change where and how they store their food (15%).

Respondents who are currently wasting more than two litres of food per week were more likely to feel they could be planning their meals in advance (47%), store leftovers or excess food in the freezer (40%), find out more about the issue of food waste (27%) and feed scraps to their animals (20%).

Around half of high food wasters would consider wasting less food by:

- Using their leftovers for other meals (52%).
- Cooking the correct serving sizes (50%).
- Planning meals in advance (47%).

“Get my daughter to eat her school lunches!”

“Not lose food in the back of the fridge”

“Know ahead of time when my husband will be travelling!”

“I’m already trying to go above my capacity to waste less food and also spend less money and get more groceries for less money!”

“I think I do pretty well with the amount of food I waste”

“Can’t do much more if I don’t waste it in the first place!!!”

2.3.5 Value perceptions of food saved

Respondents who have heard about the Love Food Hate Waste campaign, and felt it impacted on how much food they waste, as well as respondents who have taken actions to reduce food waste, despite not being aware of the Love Food Hate Waste campaign, were asked to estimate the dollar value of their savings.

For 37% the value of food that they are saving is more than \$11 per week or over \$500 per annum.

2.4 Comparisons with 2014

2.4.1 Segmentation of household wastage groups

Compared with results obtained in 2014, the number of low wastage households has increased from 35% to 38%, and high wastage households has decreased from 27% to 25%.

Significant changes in the profile of high wastage households include:

- A decrease in those aged 40 to 54 (from 31% to 23%).
- A decrease in those with households of five or more people (from 47% to 37%).

There has also been a significant increase in the number of low food wasters in the 40 to 54 age group, from 33% in 2014 to 41% in 2018.

2.4.2 Food shopping habits and behaviours

Compared to the survey conducted in 2014, there have been significant increases in all positive actions, habits and behaviours when shopping for food that lead to less food wastage.

The most common behaviours when planning food shopping, or while food shopping, are:

- Checking what is in the cupboards, fridge or freezer before doing a food shop (79% most times or always, up from 73%).
- Using a shopping list when buying food (74% most times or always, up from 68%).

While there has been a noticeable increase in people following a list while shopping (up 15% to 55%), two in five respondents (19%) still don't use a shopping list. When viewed by food wastage group, the only behavioural change where little change occurred was high food wasters using a shopping list when buying food. Therefore, promoting the message of making a shopping list and following it would be useful to help people manage their shopping behaviour.

2.4.3 Cooking and food preparation habits and behaviours

There has been a significant increase in the proportion of respondents who show positive behaviours when cooking and preparing main meals. Close to two thirds (64%) will most times or always consider portion sizes and only make as much as is needed. This is an increase from half the respondents (50%) in 2014.

2.4.4 Behaviours around leftovers

With leftovers after a main meal, these are most commonly put in the fridge and reused at a later date. The number of respondents undertaking this practice most times or always has increased from 70% in 2014 to 81% in 2018.

2.4.5 Food safety

Since 2014 there has been an increase in people throwing out mouldy bread, but with a score of 2.65 in 2018 (compared with 2.17 in 2014), the shift is towards people throwing away mouldy slices but eating the rest of the loaf. While it is wasteful, mouldy bread should be discarded as eating it can cause health problems. There has also been an increase in respondents using or freezing bread when it is stale for toast, breadcrumbs or cooking with a mean score of 3.58 in 2018 (compared with 3.46 in 2014).

More people are now throwing out mouldy cheese (mean score of 3.69 in 2018), moving away from only cutting off the mouldy parts of the hard cheese and using the rest (3.80 in 2014). There has been no change in the proportion of people who know leftover rice is still safe to eat the next day (mean score of 3.75 in 2018 and 2014), indicating that more messaging is required relating to food safety around rice.

2.4.6 Use by and Best Before Dates

Around one in five (19%) high food wasters believe that foods must be eaten or thrown away by the 'best before date' displayed on a product; a significant increase from the 11% who believed this in 2014.

"Some foods are safe after the date, others aren't."

There have been significant increases in the proportion of both high and low food wasters who believe that foods are still safe to eat after the 'use by date' as long as they are not rotten or spoiled; high food wasters increased by 7% to 26% and low food wasters increased by 6% to 41%. Improving understanding of use by and best before dates for high food wasters is still a key priority.

"Most likely needs to be thrown away, but use judgement"

"Sometimes a few days over is okay"

"Most food can be eaten after this date if they still look or smell ok"

2.4.7 General attitudes

A feeling that wasting food is wrong, resonated with most of this year's survey respondents (86%), however this is fewer than in 2014 (89%). This increases to 93% among people who have heard about the Love Food Hate Waste campaign.

Nearly three in five respondents (58%) felt it was more important though for them to reduce their packaging waste than their food waste. However, this result could have been influenced by high media coverage around single use plastic bags at the time of data collection, with the ban on single use plastic bans announced a month prior to fieldwork and receiving a lot of mainstream media attention at the time.

2.4.8 Food disposal

There has been a decline in the number of households who put their food waste in the rubbish for collection (from 62% in 2014 to 55% in 2018), and also a decrease in the number of households composting (from 47% in 2014 to 37% in 2018).

However, 16% of people say they use a council provided organics bin with 9% using it as their main method of food waste disposal. Although not prompted in 2014, the use of a council provided organics bin was mentioned by 2% of people, potentially indicating an increase in use. Of the 16% of respondents that use a council organic bin, 58% use it to get rid of most of their food waste, followed by putting it in the rubbish for collection (11%) and composting (9%).

This result should ideally be verified in the next survey iteration to better understand the trend in organic bin use.

2.4.9 Motivation to reduce food waste

The most common motivators to minimise the amount of food wasted include the value placed upon food (87%), the possibility of saving money (84%), and efficient home management to avoid food waste (79%).

Since 2014, significantly more people are motivated to limit food waste due to a desire to reduce their impact on the environment (11% increase to 71%) and awareness of food shortages elsewhere in the world (7% increase to 56%) than in 2014.

3. Profile of high food wasters

The following profiles highlight the attitudes, main causes of food waste, motivators and changing behaviours of the demographic groups found to waste significantly more food than the total sample.

3.1 Younger people (aged 16 to 24 years)

Households with younger aged people (aged 16 to 24 years) are more commonly high food wasters (47%) when compared with other age groups. Across the total group, this group has a median dollar value of \$15.00 of food wasted per week, compared to \$7.50 from the total sample. Of this group, over one half (57%) are living independently (not living with anyone aged 35 years or older), and this represents 8% of the total sample. The remaining 43% live in the same household as someone aged 35 years or older.

3.1.1 Attitudes

Many younger respondents admit that they aren't making a conscious effort to reduce their waste as much as possible in their everyday life (66% compared to 79% of the total sample). They are also less likely to admit that wasting food feels wrong to them (81% compared to 86% of the total sample). Younger respondents are more likely to agree that busy lifestyles make it hard to avoid wasting food (48% compared to 35% of the total sample), which could be an underlying cause of their high food waste.

3.1.2 Main cause of food waste

The main cause of food waste for respondents aged 16 to 24 years is leftovers not being eaten or re-used (29%), or food in the fridge or freezer going off (20%).

Shopping for food

Younger respondents are less likely to demonstrate good food waste prevention practices when shopping for food. For instance, younger people are less likely to follow menu plans and shopping lists while shopping (65% compared with 74% of the total sample) and less likely to check what is in the cupboards, fridge or freezer before doing a food shop (71% compared to 78% of the total sample).

Cooking and preparing food

Younger respondents are less likely to demonstrate good food waste prevention practices when cooking and preparing food. They are more likely to be cooking meals based on what they feel like and will buy new ingredients for this meal (24% compared to 16% of the total sample). The way younger respondents cook and prepare food has an influence on the food waste they generate, they are less likely to consider portion sizes and only make as much as needed (54% consider portion sizes, compared to 65% of the total sample), and more often make extra just in case it is needed (37% compared to 23% of the total sample).

Leftovers

Leftovers are more likely to be thrown out by younger respondents. This happens either because:

- They are put in the fridge, then thrown out later (57% do this some, most or all of the time, compared to 42% of the total sample).
- Someone in the household didn't eat them (47% compared to 34% of the total sample).
- They weren't put into the fridge or freezer (39% compared to 26% of the total sample).

Storing food

Younger respondents are less likely to practice storage behaviours that may prolong the life of food such as:

- Rotating food from the back to the front of the shelf so the oldest food is always at the front (19% do this most or all of the time, compared to 34% of the total sample).
- Labelling leftovers and food when storing in containers (13% compared to 26% of the total sample).

Expired or perished foods

Younger respondents are:

- More likely to throw out hard cheeses that have mould (26% compared to 22% of the total sample).
- Less likely to use or freeze stale bread (46% compared to 55% of the total sample).
- Less likely to eat bruised or over-ripe fruit and vegetables (43% compared to 54% of the total sample).

3.1.3 Motivations

Younger respondents are motivated to minimise their food waste by the possibility of saving money (82%). They are also motivated because they value the food they buy (83%), however they are less likely to be motivated by this factor when compared to the total sample (88%).

3.1.4 Changing behaviour

Younger respondents are more likely to change their shopping habits when making a change to waste less food (42%), with the majority of respondents in the 16-24 age group who had taken action to waste less food indicating that they have saved one 2-litre container worth of food per week or more (59%).

Eating food past its best before date (39%), finding out more about the food waste issue (38%), visiting the Love Food Hate Waste website (33%) and changing shopping habits (35%) are all actions the 16 to 24-year-old age group are likely to consider in order to waste less food.

3.2 Larger households (4+ household members)

In terms of the number of household members in a household, larger households are more commonly high food wasters (37% of households with 5 or more members, 38% of households with 4 members) when compared with the total sample. This total group has a median dollar value of \$15.00 of food wasted per week.

Compared with the ethnic mix of respondents in the overall sample, those living in larger households are more likely to be of Asian ethnicity (14% compared to 8% total sample) or Māori ethnicity (8% compared to 6% total sample) and are less likely to be of European ethnicity (69% compared to 76% total sample).

Nearly two in five (38%) of larger households are high food wasters.

3.2.1 Attitudes

Respondents from larger households are less likely to agree that they make a conscious effort to reduce their waste as much as possible in everyday life (70% for households of 4 members and 77% for 5+ compared to 80% of the total sample).

3.2.2 Main cause of food waste

Leftovers not being eaten or re-used is the main cause of food waste in larger households (27% for 5+ households; but only 21% for households of 4 compared to 23% of the total sample). Waste from leftovers not being eaten in households of 4+ is most commonly caused by:

- Leftovers being put in the fridge and thrown out later (54%).
- Leftovers being thrown out because someone in the household didn't eat them (49%).
- Leftovers being thrown out because they didn't get put into the fridge or freezer (35%).

Shopping for food

The majority of larger households (79%, compared to 78% of the total sample) are checking what is in the cupboards, fridge or freezer before shopping for food, 51% follow a menu plan and/or shopping list while shopping (compared to 54% of the total sample) and 50% shop to a set budget (compared to 48% of the total sample).

Cooking and preparing food

Larger households (4+) are more likely to make extra just in case it is needed when cooking and preparing food (28% do this most or all of the time compared to 23% of the total sample). This group is also less likely to consider portion size and only make as much as is needed (60% compared to 65% of the total sample).

Leftovers

Leftovers are commonly wasted within larger households because they are put in the fridge and thrown out later (54% do this some, most or all of the time, compared to 42% of the total sample), or they are thrown out because someone in the household didn't eat them (49% compared to 34% of the total sample).

Storing food

Larger households are less likely to practice good food storage behaviours such as rotating products from the back to the front of the shelf, fridge or freezer so the oldest food is at the front, and the

newest food is at the back (30% do this most or all of the time, compared to 34% of the total sample), and are less likely to label leftovers so they know what they are (20% compared to 26% of the total sample).

Expired or perished foods

Larger households are more likely to discard older or perished foods than the total sample. For instance:

- Bread that is mouldy is more commonly thrown out by larger households which is the correct behaviour (57% compared to 51% of the total sample).
- However, whole blocks of hard cheese that have grown mould are discarded, when the mouldy section can be safely chopped off (28% compared to 22% of the total sample).

3.2.3 Motivations

Larger households are motivated to minimise food waste within their household by the possibility of saving money (87%) and because of the value placed on the food they buy (86%). Food shortages elsewhere in the world does motivate larger households (64% compared with 57% of total sample), and 78% of larger households feel guilty when they throw away food that could have been eaten (compared to 73% of total sample).

3.2.4 Changing behaviour

Half of larger households (52%) indicate that they could reduce food waste by using their leftovers for other meals (compared to 46% of total sample), with cooking the correct serving sizes being an attractive alternative to avoiding food waste for 47% of larger families (compared to 40% of total sample). Two in five larger households (42%) indicate that planning meals in advance would help them reduce food waste (compared to 39% of total sample).

3.3 Families with children (aged 15 years or younger)

Households with children are more likely to be high food wasters (42% of households with children) when compared with the total sample. This total group has a median dollar value of \$15.00 of food wasted per household per week.

3.3.1 Attitudes

Families with children are more likely to:

- Be concerned about environmental problems (81% compared to 77% of the total sample).
- Agree that their household is on a very tight budget (56% compared to 54% of the total sample).
- Believe that busy lifestyles make it hard to avoid wasting food (39% compared to 36% of the total sample).

3.3.2 Main cause of food waste

The main causes of food waste amongst families with children are family members who are fussy eaters or those with dietary requirements within the household (26%, same as 2014), or leftovers not being eaten or re-used (21% down from 32%).

Shopping for food

Households with children are more likely to shop to a set budget (51% compared to 48% of the total sample) and are less likely to use a shopping list when buying food (70% compared to 74% of the total sample).

Cooking and preparing food

Households with children tend to make extra food just in case it is needed when cooking and preparing meals (69% do this some, most or all of the time compared to 64% of the total sample).

Leftovers

Leftovers are commonly thrown out by families with children, because:

- They are put into the fridge and then thrown out later (55% do this some, most or all of the time compared to 42% of the total sample).
- Someone in the household didn't eat them (51% compared to 34% of the total sample).
- They weren't put into the fridge after the meal was served and eaten (40% compared to 26% of the total sample).

Storing food

Households with children are slightly less likely to use storage techniques such as:

- Label leftovers so you know what they are (17% do this most or all of the time compared to 26% of the total sample).
- Rotating products from the back to the front of the shelf, fridge or freezer so the older foods that need using first are at the front (28% compared to 34% of the total sample).
- Keep potatoes and onions in separate places away from each other (52% compared to 60% of the total sample).

Expired or perished foods

Households with children are less likely to use food that has passed its 'best before' date even if it looks and smells fine (52% compared to 63% of the total sample), are less likely to agree that leftovers that have been kept in the fridge are safe to eat for a few days after they were cooked (66% compared to 76% of the total sample), and are more likely to throw out bread that is mouldy rather than cut off the mouldy parts and use the rest (56% compared to 51% of the total sample).

3.3.3 Motivations

Families with children are motivated to reduce food waste because:

- They want to save money by not having to buy more food (87% from 84% 2014).
- They value food and don't want to throw it away (86% from 85% 2014).
- They feel guilty when throwing food away that could have been eaten (81%).

3.3.4 Changing behaviour

Families with children aged 15 years and younger are more likely to mention feeding scraps to animals as a potential action to reduce food waste (18% compared with 13% of total sample) and around a third of families with younger children (34%) would use a compost bin, worm farm or bokashi (compared with 25% of total sample).

A similar proportion (34%) of families with younger children indicate that they could buy less food more regularly in order to reduce food waste (compared to 29% of the total sample) and 44% could plan meals in advance (compared to 39% of the total sample).

3.4 High income households (\$100,000 or more per annum)

High income households, who earn at least \$100,000 per annum, are more commonly high food wasters (38% of households with income of \$100,000 or more per annum) when compared with the total sample. This total group has a median dollar value of \$13.00 of food wasted per week.

3.4.1 Attitudes

High income households are:

- Less likely to agree that they make a conscious effort to reduce their waste as much as possible in everyday life (77% compared to 80% of the total sample).
- The group that agrees least that their household is on a very tight budget (30% compared to 54% of the total sample).
- The group most likely to agree that it is more important to reduce packaging waste than food waste (68% compared to 61% of the total sample).

3.4.2 Main cause of food waste

The main cause of food waste within high income households is leftovers not being eaten or re-used (27%).

Shopping for food

This household group is least driven by budget (65% never or hardly ever shop to a set budget, compared to 52% of the total sample). They are also less likely to check what is in the cupboards, fridge or freezer before going food shopping (76% do this most or all of the time compared to 78% of the total sample).

Cooking and preparing food

High income households are:

- More likely to make meals based on what they feel like and will buy new ingredients for the meal (25%, compared to 16% of the total sample).
- Less likely to look in the cupboard, fridge or freezer and make a meal from ingredients that need using up first (43%, compared to 51% of the total sample).
- More likely to use a food delivery service such as My Food Bag (21% compared to 12% of the total sample).

Leftovers

Leftovers are more commonly thrown out within high income households. They are either:

- Put in the fridge and thrown out later (48% do this some, most or all of the time compared to 42% of the total sample).
- Thrown out because someone in the household didn't eat them (42% compared to 34% of the total sample).
- Thrown out straight after the meal (31% compared to 24%).

Storing food

Respondents from high income households are less likely to demonstrate storage behaviours such as:

- Labelling leftovers so you know what they are (19% do this most or all of the time compared to 26% of the total sample).
- Rotating products from the back to the front of the shelf, fridge or freezer so the food that needs to be eaten is at the front (24% do this most or all of the time compared to 34% of the total sample).

Expired or perished foods

High income households are more likely to throw away food that has passed its 'best before' date rather than use it if it looks and smells fine (23% compared to 18% of the total sample), are more likely to throw out hard cheese that is mouldy rather than cut off the mouldy parts and use the rest (28% compared to 22% of the total sample), and are more likely to believe that leftovers that have been kept in the fridge for more than one day are unsafe to eat (16% compared to 10% of the total sample).

3.4.3 Motivations

High income households are motivated to reduce food waste because:

- Of the possibility of saving money by not having to buy more food (88%).
- They value the food they buy (80% compared to 88% of the total sample).
- They want to manage their home efficiently by not having so much food stored that some will get thrown away (85%).

3.4.4 Changing behaviour

High income households mention the same potential actions to reduce food waste as the total sample, with 45% indicating that they could be using their leftovers for other meals, 42% saying they could be cooking the correct serving sizes and 40% indicating that they could be planning their meals in advance.

High income earners are more likely to put their food waste in a compost bin, worm farm or bokashi (32% compared with 25% of the total sample).

4. Segmentation

4.1 Household Food Wastage Groups

Household food wastage groups are determined through a cross-analysis of the percentage of the money spent on food each week that is thrown away, and the volume of food (in terms of a 2L ice-cream container) thrown away each week.

The survey found that the dollar value of food wasted is strongly influenced by household size. Generally, the more people in a household, the more food they buy, therefore the higher the dollar value of food they waste.

However, on a per person basis of food waste, large households (with five or more people) waste a similar dollar value of food per person as smaller households (with two to four people), but more than single person households.

The proportion of money spent each week of food, in addition to the volume of food thrown away each week, was found to be a better indicator of how much food a household was wasting, controlling for the size of the household. The table below illustrates how the household food wastage groups were established.

		Percentage of money spent on food thrown away that could have been eaten each week			
		0-2%	3-5%	6-10%	11+%
Volume of food thrown away that could have been eaten each week		Low wastage households		Medium wastage households	
	None at all	n=107 10.5%* (7.7%) ³	n=22 2.2%* (1.1%)	n=6 0.6% (0.2%)	n=9 0.9% (1.0%)
	Less than one half of a 2L container	n=122 12.0% (13.4%)	n=139 13.8% (12.6%)	n=51 5.0% (5.2%)	n=46 4.5%* (2.4%)
	One half to less than one 2L container	n=20 2.0% (3.1%)	n=60 6.0% (7.0%)	n=44 4.3% (5.5%)	n=43 4.2% (3.3%)
		Medium wastage households		High wastage households	
	One 2L container	n=18 1.7% (1.2%)	n=44 4.5% (5.8%)	n=58 5.9% (7.7%)	n=70 7.0% (5.5%)
	Two 2L containers or more	n=6 0.6% (0.4%)	n=22 2.2% (3.0%)	n=37 4.0%* (6.9%)	n=81 8.1% (7.2%)

³ Figures in this report in italic parentheses are the comparable results from a similar survey conducted in September 2014.

Totals:

	2018		2014
	Number of respondents	% of total sample	% of total sample
Low wastage households	390	38%	(35%)
Medium wastage households	369	37%	(38%)
High wastage households	246	25%	(27%)

Note: 37 respondents claimed to waste no food at all (in volume terms) but recorded money spent on food thrown away (3% or more). The respondents have been included in the segmentation according to their money spent on food thrown away. Those who claimed to waste no food at all but recorded 5% or less of money spent on food thrown away are included as low wastage households. Those who claimed to waste no food at all but recorded 6% or more of money spend on food thrown away are included as medium wastage households.

These groups are used to determine which demographic factors have the greatest influence on food wastage, in order to identify which demographic groups typically fall into the high food wastage household segment.

One quarter (25%) of those surveyed are high food wasting households; this is slightly lower than in 2014 (27%). This statistic is used as a baseline indicator of purported food waste behaviour to evaluate the effectiveness of behaviour change campaigns in future surveys. Over the long-term this percentage would be expected to decline as behavioural change campaigns to reduce food waste lead to changes in attitudes and behaviours to food waste.

5. Demographic influences on household food waste

The following demographic variables strongly correlate with the amount of food wasted in households. The same demographic variables also had an influence on the food waste generated by households on a per person basis.

Other demographic factors, such as if the respondent lived in a rural or urban location, their region, or their gender, did not have a significant relationship with the food waste generated.

Age has the greatest influence on the food wasted within households. Respondents aged 16 to 24 years are more commonly high food wasters (47% of respondents aged 16 to 24 years), whereas older respondents (aged 55+ years) are more commonly low food wasters (57% of respondents aged 55 years and older). There has been a significant swing in those aged 40 to 54, with a decrease in the those classified as high food wasters and an increase in those being low food wasters.

Age by wastage groups

	n	Household food wastage groups		
		Low	Medium	High
16-24	139	12% (16%)	41% (40%)	47% (44%)
25-39	236	25% (19%)	37% (44%)	38% (37%)
40-54	280	41% (33%)*	37% (36%)	23% (31%)*
55+	350	57% (54%)	35% (35%)	9% (11%)
Total sample	1,005	38% (35%)	37% (38%)	25 (27%)

*Significant change

There has been a significant decrease in high food wasters among those with five or more people living in the household (47% in 2014 to 37% in 2018).

The number of people living in the household has an influence on the amount of food wasted within a household. Larger households, particularly those with five or more people, are more commonly high food wasters when compared to other household sizes (48% of households with 5 or more people). Single person households showed minimal food wastage, with almost two thirds (62%) in the low food wasters segment.

Number of people living in the household by wastage groups

	n	Household food wastage group		
		Low	Medium	High
1	171	58% (62%)	33% (29%)	9% (9%)
2	270	48% (42%)	34% (40%)	18% (18%)
3	250	38% (34%)	35% (40%)	27% (26%)
4	146	21% (22%)	41% (40%)	38% (38%)
5+	168	19% (16%)	43% (37%)	37% (47%)*
Total sample	1,005	38% (35%)	37% (38%)	25% (27%)

**Significant change*

5.1 The median dollar value of household food wasted per person

The median dollar value of household food wasted per person in the household showed that on a per person basis, larger households still generated a higher dollar value of food waste than smaller households. On average, single person households have a lower dollar value of food wasted per person when compared with households with two or more people.

Median dollar value of food wasted per week per person in household

Base: All respondents (n=1,005)

	Number in household				
	1	2	3	4	5+
Median dollar value of household food wasted per person in household	\$2.13 (\$2.13)	\$2.50 (\$2.50)	\$2.33 (\$2.33)	\$3.16 (\$3.16)	\$3.00 (\$3.00)

The type of household has a strong influence on food wasted within households. Families with children are more likely to be high food wasters (43% of households with children), and single person households are more commonly low food wasters (63% of single households).

Household type by wastage groups

	n	Household food wastage groups		
		Low	Medium	High
Family only adults (16+)	454	44% (39%)	36% (39%)	20% (22%)
Family with children	280	20% (20%)	38% (37%)	42% (43%)
Shared	106	30% (26%)	45% (46%)	25% (28%)
Single	165	60% (63%)	31% (29%)	9% (8%)
Total sample	1,005	38% (35%)	37% (38%)	25% (27%)

Household income has an influence on how much food a household wasted. Households with higher household incomes (\$100,000 or more per year) tend to waste more food than households with lower household incomes, particularly households that earn less than \$40,000 per year.

Household income by wastage groups

	n	Household food wastage groups		
		Low	Medium	High
Less than \$40,000 per year	246	49% (52%)	35% (30%)	16% (18%)
\$40,000 to \$79,999 per year	266	39% (33%)	38% (42%)	23% (25%)
\$80,000 to \$99,999 per year	125	27% (29%)	43% (35%)	30% (36%)
\$100,000 or more per year	212	28% (21%)	34% (40%)	38% (39%)
Total sample	1,005	38% (35%)	37% (38%)	25% (27%)

There has been a significant decrease in the number of Māori households classified as being in the low food wastage group (down 13% to 11%), with more classified as 'medium' wasters.

Ethnicity by wastage groups

	n	Household food wastage groups		
		Low	Medium	High
New Zealand European	760	39% (35%)	35% (37%)	26% (28%)
Māori	58	11% (24%)*	44% (33%)	45% (43%)
Asian	85	35% (34%)	33% (30%)	32% (36%)
Indian	45	22% (30%)	53% (52%)	25% (18%)
Pacific Islander	22	31% (27%)	46% (34%)	23% (39%)
Other	125	51% (47%)	35% (40%)	14% (13%)
Total sample	1,005	38% (35%)	37% (38%)	25% (27%)

**Significant change*

Māori and Asian ethnic groups are more likely to generate higher food waste than the total sample. However, these households typically have more people per household than the total sample and this is likely to be influencing the higher food waste generated within these households.

There has been a significant increase in the number of single person households, from being 14% of the sample in 2014 to 17% now. Other significant changes have been; a decrease in Indian households with four people, and a decrease in NZ European and Pacific Islander households with five or more people.

People per household by ethnicity

	n	Number in household				
		1	2	3	4	5+
New Zealand European	760	18% (15%)	29% (30%)	25% (22%)	13% (14%)	15% (19%)*
Māori	58	13% (5%)	29% (25%)	17% (16%)	14% (24%)	27% (30%)
Asian	85	9% (7%)	16% (22%)	22% (23%)	28% (18%)	25% (30%)
Indian	45	7% (0%)	22% (19%)	31% (23%)	16% (38%)*	24% (20%)
Pacific Islander	22	14% (9%)	17% (11%)	18% (12%)	32% (21%)	19% (46%)*
Other	125	17% (15%)	29% (25%)	25% (23%)	15% (22%)	14% (15%)
Total sample	1,005	17% (14%)*	27% (29%)	25% (22%)	14% (16%)	17% (19%)

**Significant change*

6. Attitudes and behaviours regarding food waste

Most respondents (86%) believe that wasting food feels wrong and that food waste reduction is an important issue (79%).

More respondents (65%) believe that New Zealand households waste food compared with 11% who believed households don't waste much food. Recycling, even if it takes extra effort, is considered by many respondents (80%) to be an important issue. Overall, 79% of respondents make a conscious effort to reduce waste as much as possible.

Compared to the results obtained in the 2014 survey, there has been a significant decline in the number of respondents agreeing that wasting food feels wrong and that their household is on a tight budget.

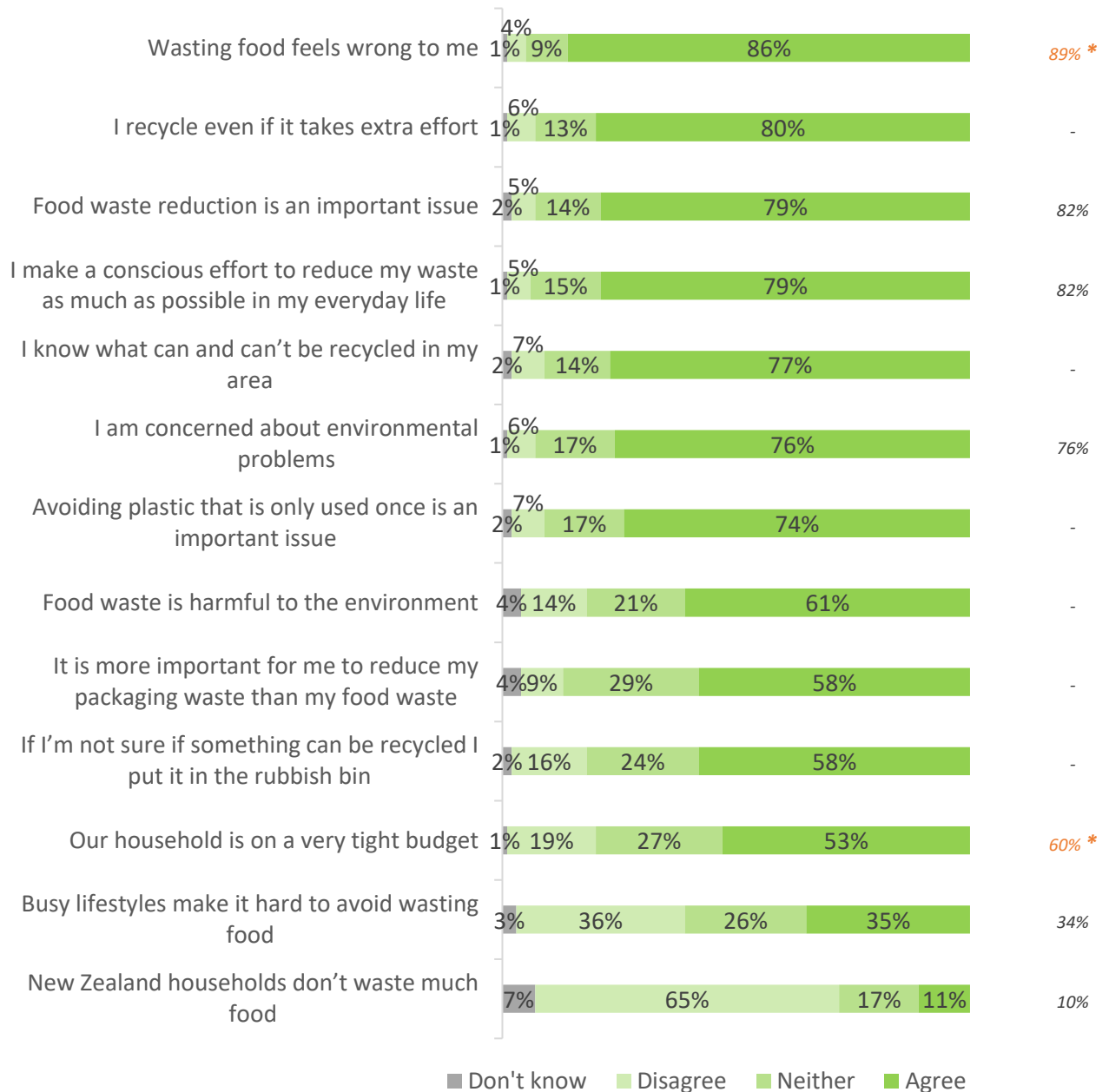
A slightly smaller number of high food wasters (52%) feel that their household is on a tight budget compared to the medium and low food waster groups (both 54%).

General attitudes

Base: All respondents (n=1,005)

Q1: Please indicate the extent to which you agree or disagree with the following statements:

2014



*Significant change

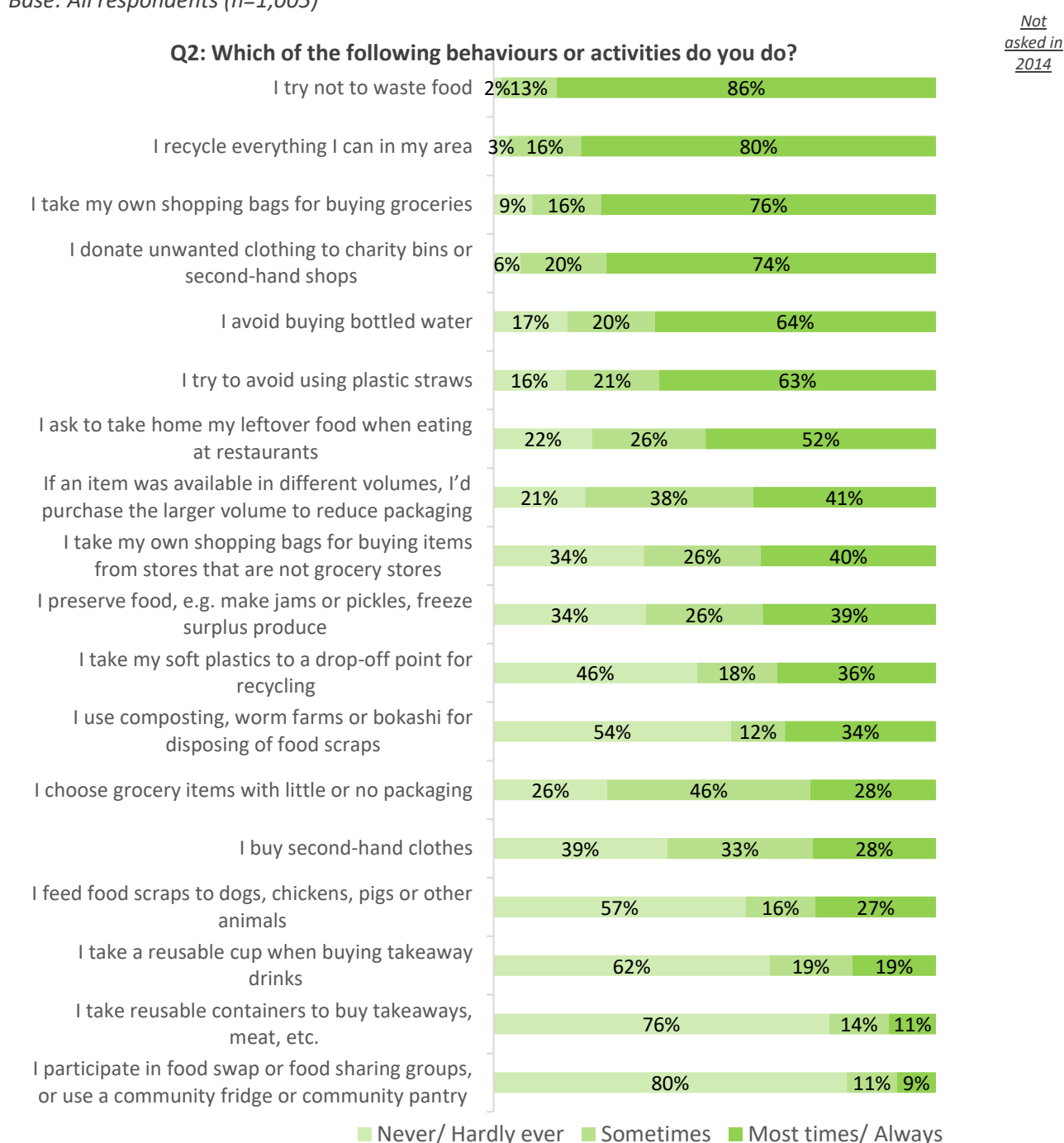
6.1 Behaviours and activities

A new question introduced in 2018 asking respondents about their behaviours and activities found that 86% try not to waste food, and four out of five people recycle everything they can in their area, most times or always. Of interest, due to the recent marketing and media around discouraging use of single use plastic shopping bags, three quarters of respondents indicated that they most times or always take their own shopping bags when purchasing groceries but only 40% do so in other stores.

From a list of 18 positive behaviours and activities, just over half of all respondents (54%) stated that they always did between one and five of them, being consistent across all defined food waste groups.

Behaviours and activities

Base: All respondents (n=1,005)



As expected, high food wasters are more inclined to always do none of the behaviours or activities listed while low food wasters are more inclined to always do between six and ten.

Behaviours and activities by wastage groups

Base: All respondents (n=1,005)

Q2: Which of the following behaviours or activities do you do?

Number of behaviours or activities that a respondent does "Always"	Total n=1,005	Household food wastage groups		
		Low n=390	Medium n=369	High n=246
None	17%	8%	17%	31%
1 to 5	54%	54%	54%	55%
6 to 10	23%	31%	23%	11%
11 or more	5%	7%	6%	3%

6.2 Methods of household food waste disposal

The main method of food waste disposal is putting it in the rubbish for collection (33% main method), and overall 55% of respondents dispose of their food waste this way, being significantly less than the 62% using this method in 2014.

Composting (21% main method in 2018, down from 28% in 2014), and feeding to animals (14% main method in 2018) are the next most common ways of disposing of food waste. In general, composting as a method of food waste disposal decreased compared to 2014. This may be explained by the number of people using council provided organic collections.

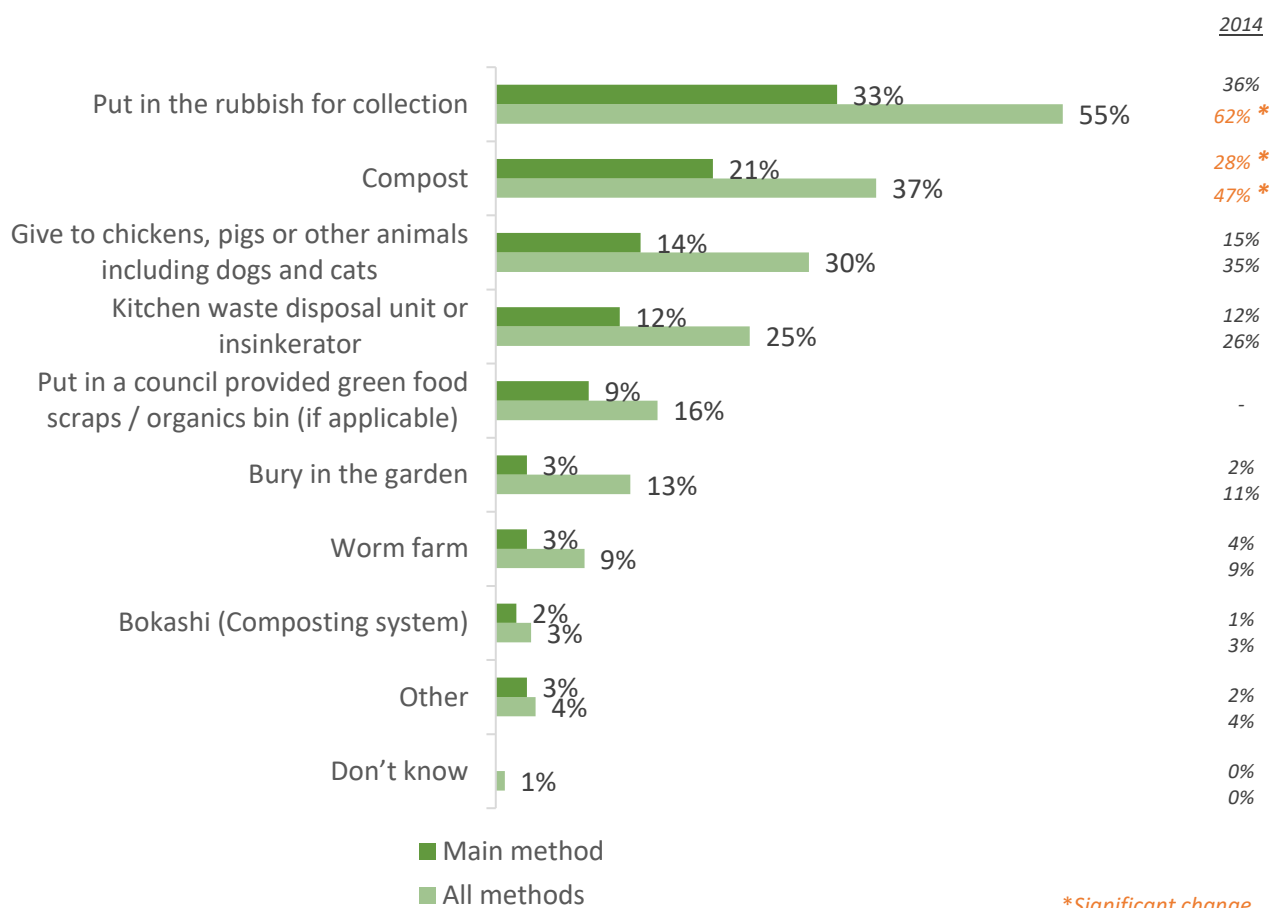
Other methods mentioned for disposing of food waste are by burning or by minimising the amount of food waste in the first place or reusing it in other meals.

Methods of household food waste disposal

Base: All respondents (n=1,005)

Q5: How do you usually get rid of food waste in your household? Tick all that apply

Q6: And, which of these do you use to get rid of most of your food waste? Pick only one



6.3 Method of household waste disposal by rural and urban living

Respondents who live in urban areas are more likely to:

- Dispose of food waste by putting it in the rubbish for collection (57% compared to 31% rural).
- Use kitchen waste disposal units or insinkers (26% compared to 4% rural).

Respondents who live in rural areas are more likely to:

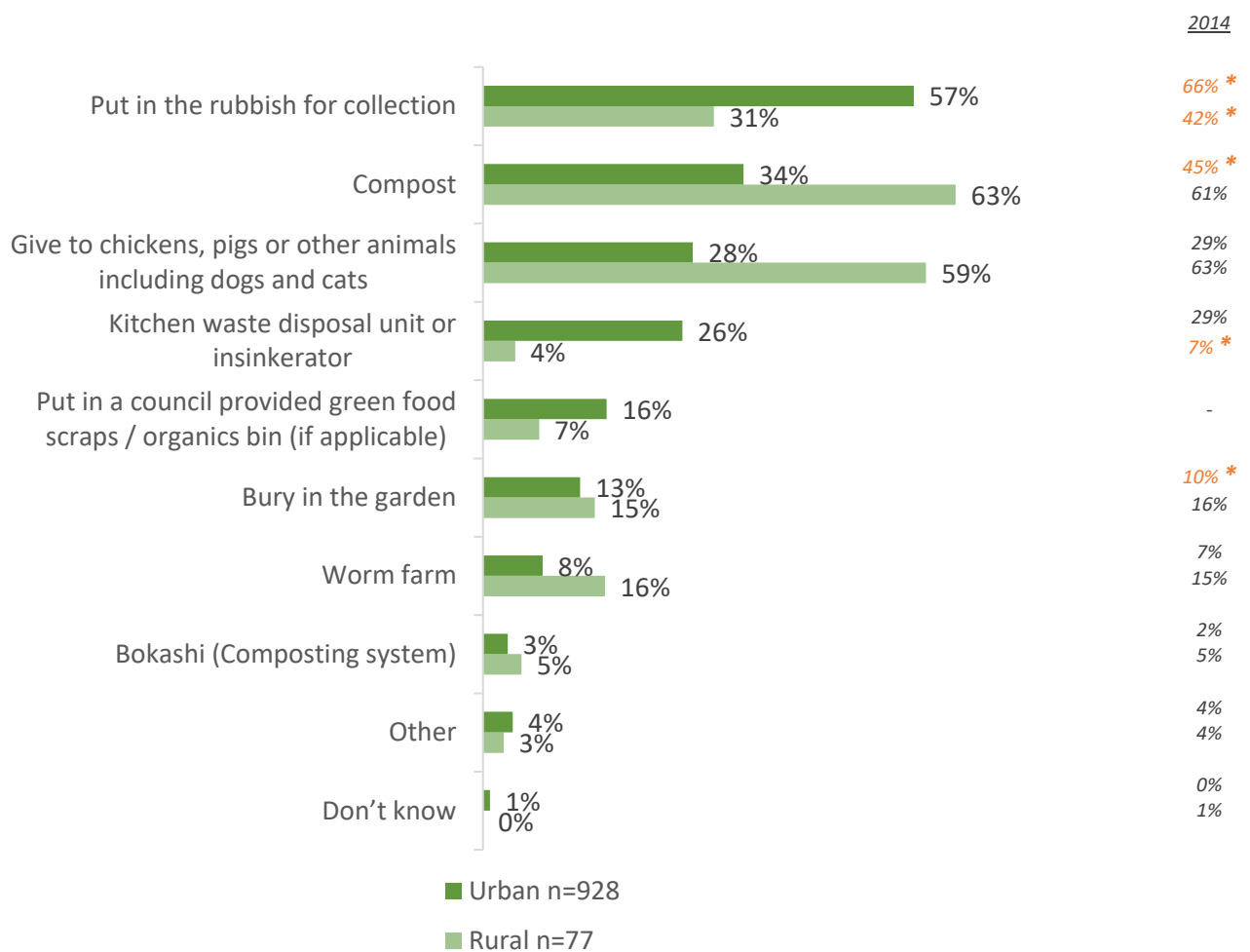
- Dispose of food waste by compost (63% compared to 34% urban).
- Give to animals (59% compared to 28% urban).

Therefore, the declining proportion of composting food waste shown in Chart 3 (above) can be attributed to urban residents rather than rural residents.

Methods of household food waste disposal by rural or urban living

Base: All respondents (n=1,005)

Q5: How do you usually get rid of food waste in your household? Tick all that apply



6.4 Amount spent on food per week

The median dollar value spent on food per week is \$150 per household, up from \$140 in 2014. This is greater than the rate of inflation which was 2.7% for food prices.

Amount spent on food per week

Base: All respondents (n=1,005)

Q7: On average, how much money do you or your household spend on food to be eaten at home per week?

Amount spent on food per week	% of total sample
\$100 or less	28% (31%)
\$101 to \$140	21% (20%)
\$141 to \$200	26% (26%)
\$201 and over	25% (23%)
Median dollar value spent on food per week	\$150 (\$140)

As illustrated below, this figure is strongly influenced by the number of people in the household, ranging from \$90 in single person households to \$200 in households with 5 or more members. However, on a per person basis, households with only 1 or 2 members spend more on food per person per week.

Amount spent on food per week by household size

Base: All respondents (n=1,005)

Q7: On average, how much money do you or your household spend on food to be eaten at home per week?

	Number in household				
	1	2	3	4	5+
Median dollar value spent on food per week per household	\$90 (\$80)	\$130 (\$120)	\$150 (\$140)	\$190 (\$180)	\$200 (\$200)

6.5 Proportion of weekly food spend wasted

Unchanged from 2014, in 2018 almost one half of respondents (45%) throw away food worth 6% or more of their weekly food spend. Those that throw away food worth over 10% of their weekly food spend has significantly increased to one quarter of respondents (25%) compared to 19% in 2014, however this is offset by the number of people throwing out 6% - 10% decreasing significantly from 26% to 20%.

The age of the respondent, number of people in the household, household income and the type of household have an influence on the proportion of food waste generated in relation to their weekly food spend (see table below). Those who waste food worth more than 6% of their weekly food spend are:

- Younger respondents aged 16 to 24 years (74% compared to 44% of the total sample).
- Households with 4 household members (61%).
- Households with a household income of \$100,000 or more per year (54%).
- Families with children (60%).

There were no significant changes observed for demographic groups when compared to their corresponding 2014 result.

Proportion of money spent on food that is wasted per week

Base: All respondents (n=1,005)

Q8: What percentage of this food bought does your household throw away that could have been eaten per week? This also includes any food that was fed to animals or composted.

Percentage of money spent on food that is wasted per week	% of total sample
0%-2%	27% (26%)
3%-5%	29% (29%)
6%-10%	20% (26%) *
More than 10%	25% (19%) *
Median percentage of money spent on food that is wasted per week	5% (5%)

*Significant change

Proportion of money spent on food that is wasted per week by age

Base: All respondents (n=1,005)

Q8: What percentage of this food bought does your household throw away that could have been eaten per week? This also includes any food that was fed to animals or composted.

Age	n	Percentage who throw away food worth 6% or more of their weekly food spend
16 to 24 years	139	74% (70%)
25 to 39 years	236	63% (62%)
40 to 54 years	280	40% (45%)
55 years and over	350	24% (23%)
Total sample	1,005	44% (45%)

Proportion of money spent on food that is wasted per week by number of people in household

Base: All respondents (n=1,005)

Number of people in household	n	Percentage who throw away food worth 6% or more of their weekly food spend
1	171	31% (28%)
2	270	33% (32%)
3	250	48% (43%)
4	146	61% (62%)
5+	168	57% (66%)
Total sample	1,005	44% (45%)

Proportion of money spent on food that is wasted per week by household income

Base: All respondents (n=1,005)

Household income	n	Percentage who throw away food worth 6% or more of their weekly food spend
Less than \$40,000 per year	246	35% (33%)
\$40,000 to \$79,999 per year	266	43% (44%)
\$80,000 to \$99,999 per year	125	49% (44%)
\$100,000 or more per year	212	54% (55%)
Total sample	1,005	44% (45%)

Proportion of money spent on food that is wasted per week by household type

Base: All respondents (n=1,005)

Household type	n	Percentage who throw away food worth 6% or more of their weekly food spend
Family only adults (16+)	454	39% (39%)
Family with children	280	60% (60%)
Shared	106	51% (50%)
Single	165	29% (28%)
Total sample	1,005	44% (45%)

6.6 Dollar value of food wasted weekly

The dollar value of food wasted was calculated by combining the amount of money spent on food per week with the percentage of the dollar value of food thrown away per week. The median dollar value of food wasted by New Zealand households was \$7.50 a week, which equates to \$390 a year per household, and remains unchanged compared to 2014 even though there has been an increase in the number of people wasting more than \$16 per week. This translates to \$144 in food wasted per capita per year in New Zealand based on an average of 2.7 people per household. This extrapolates to over \$690 million of food wasted by New Zealand households each year.

Dollar value of food wasted per week

Base: All respondents (n=1,005)

Dollar value of food wasted per week	% of total sample
\$0 to \$3.00	29% (27%)
\$3.01 to \$7.00	19% (22%)
\$7.01 to \$16.00	22% (25%)
\$16.00 and over	30% (26%) *
Median dollar value of food wasted per week	\$7.50 (\$7.50)
Median dollar value of food wasted per year	\$390 (\$390)

*Significant change

The dollar value of food wasted weekly increased across all wastage groups, with a significant increase in dollar value for high food wasters (up \$6.20 per week on average).

Median dollar value of food wasted per week by wastage groups

Base: All respondents (n=1,005)

	Total n=1,005	Household food wastage groups		
		Low n=390	Medium n=369	High n=246
Median dollar value of food wasted per week	\$7.50 (\$7.50)	\$2.40 (\$2.20)	\$10.00 (\$8.00)	\$27.20 (\$21.00) *

*Significant change

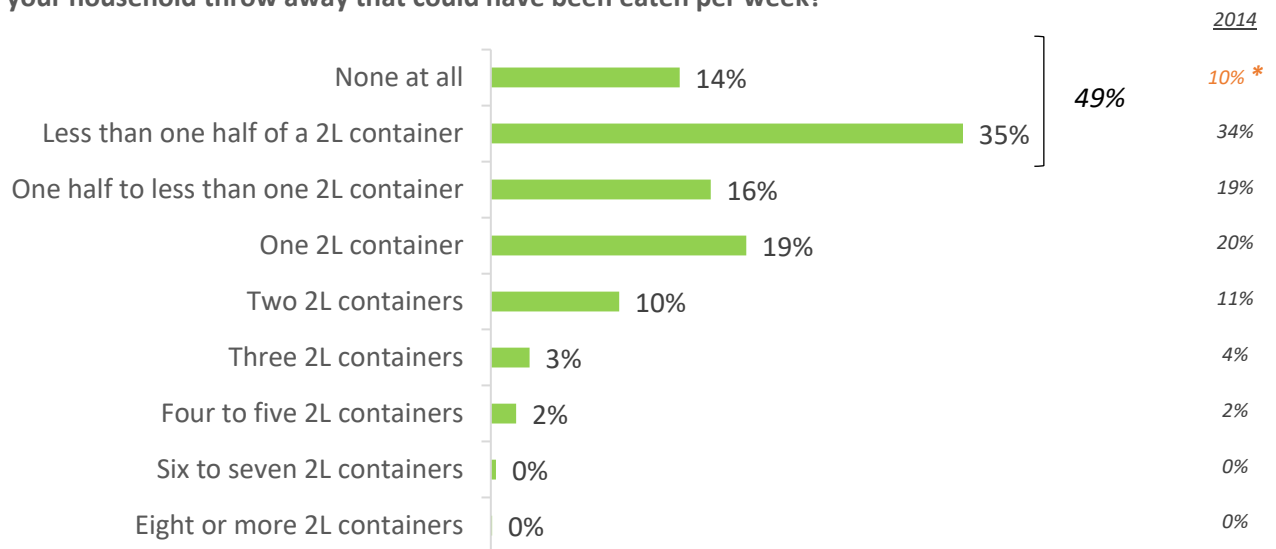
6.7 Volume of avoidable food waste per week

In terms of the volume of food wasted per week, nearly half of respondents (49%) threw away less than 1 litre of food per week. This includes 14% of respondents who wasted no food at all, being a significant improvement compared to 10% in 2014.

Volume of avoidable food waste per week

Base: All respondents (n=1,005)

Q9: Using a 2L ice-cream container as a guide, how much food does your household throw away that could have been eaten per week?



*Significant change

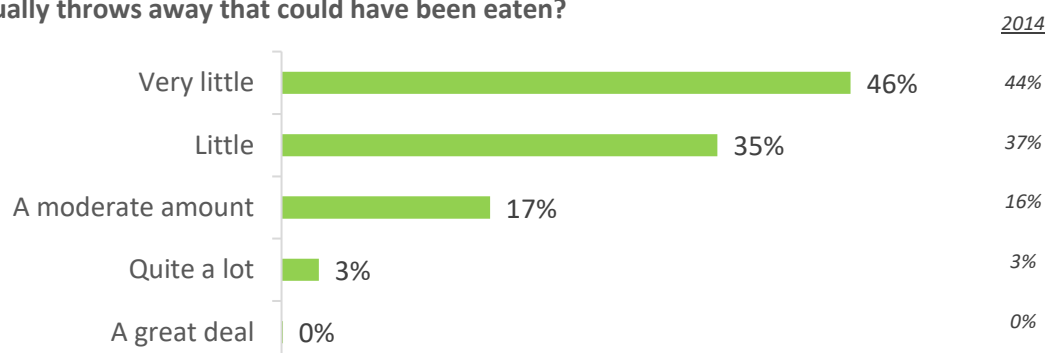
6.8 Perceptions held regarding volume of household food waste

In general respondents do not view their own food waste behaviour as being wasteful. Of respondents who waste food, over eight in ten respondents (81%) believed that their household wastes little or very little food that could have been eaten. This is unchanged compared to 2014.

Perceptions of household's food waste

Base: Respondents who wasted some volume of food (n=861)

Q10: In general, how much uneaten food would you say that your household usually throws away that could have been eaten?



High food wasters are more likely to claim to throw away a moderate amount of food (40%), with only 8% indicating that they throw away quite a lot. Low food wasters are more likely to claim to throw away very little food overall (84%).

Perception of household's food waste by wastage groups

Base: Respondents who wasted some volume of food (n=861)

Q10: In general, how much uneaten food would you say that your household usually throws away that could have been eaten?

	Total n=861	Household food wastage groups		
		Low n=261	Medium n=354	High n=246
Very little	46%	84%	46%	9%
Little	35%	15%	44%	43%
A moderate amount	17%	1%	12%	40%
Quite a lot	3%	0%	1%	8%
A great deal	0%	0%	0%	0%

Significant difference

There is a relationship between food waste behaviour and perceptions. The higher the percentage dollar value spent on food that is wasted, the more likely these respondents are to state their food waste as being a moderate amount or quite a lot when compared to those who waste less percentage of food in dollar terms. However, 54% of respondents who waste more than 10% of their food spend stated that they waste little or very little food compared to 53% in 2014.

There has been a significant swing of those who claim to waste less than 2% of the value they spend on food, with their perception of the amount of food they waste moving from 'Little' to 'Very Little'.

Household's actual food waste versus perceptions of household's food waste

Q8– Percentage of dollar value spent on food that is wasted	Q10 – Perception of food waste					
	n	A great deal	Quite a lot	A moderate amount	Little	Very little
2% or less	166	0% (0%)	0% (0%)	3% (2%)	14% (23%) *	83% (75%) *
3%-5%	265	0% (0%)	1% (1%)	5% (8%)	35% (34%)	59% (57%)
6%-10%	190	0% (0%)	3% (3%)	17% (22%)	47% (46%)	33% (29%)
More than 10%	240	0% (0%)	7% (11%)	39% (36%)	39% (40%)	15% (13%)

**Significant change*

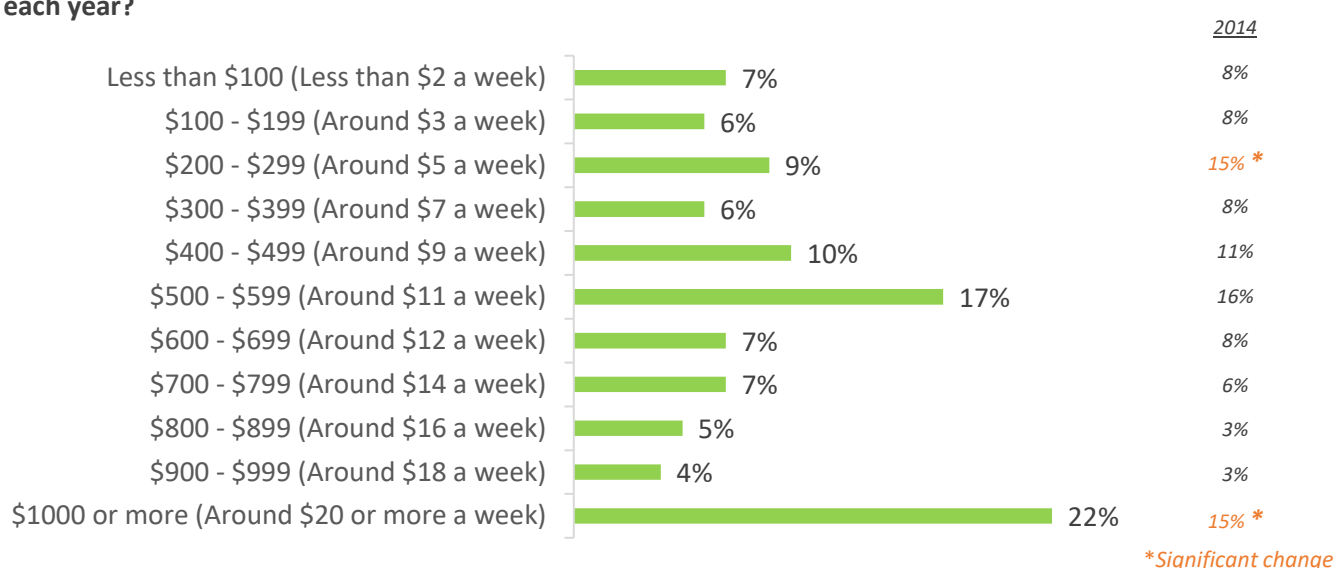
6.9 Perceived value of food wasted in New Zealand households

Respondents are generally unaware of the amount of food wasted in New Zealand each year. This research found that the average New Zealand household wastes almost \$400 per year, and other research suggests this figure could be as much as \$500 per year (Waste Not Consulting, 2009). In 2014 38% of those surveyed underestimated the dollar value of food wasted. This has dropped to 28% in 2018 suggesting that people have a better understanding of how much food is wasted.

Perceptions of food wasted by New Zealand households

Base: All respondents (n=1,005)

Q25: Approximately how much would you estimate that the average New Zealand household spends on food that is purchased but never eaten each year?



There is a relationship between food waste behaviour and perceptions of food waste in New Zealand. Those with higher food waste estimate a higher average food waste in New Zealand households than those with lower food waste. However, this trend has begun to reverse. The number of households with lower food waste and who also believe the average NZ household wastes less than \$300 per year has decreased from 40% to 26%, and those that estimate it to be more than \$600 has increased from 29% to 39%.

Household's actual food waste versus perceptions of New Zealand households' food waste

	Q8 – Percentage of dollar value spent on food that is wasted	n	Q25 – Estimate of average NZ household food waste per year		
			Less than \$300	\$300 to \$599	\$600 or more
Q8	0%-2%	273	26% (40%) *	35% (31%)	39% (29%) *
	3%-5%	287	26% (32%)	34% (41%)	40% (27%) *
	6%-10%	196	15% (22%) *	37% (38%)	48% (40%)
	More than 10%	249	20% (25%)	26% (26%)	54% (49%)

*Significant change

6.10 Reasons for food wastage in households

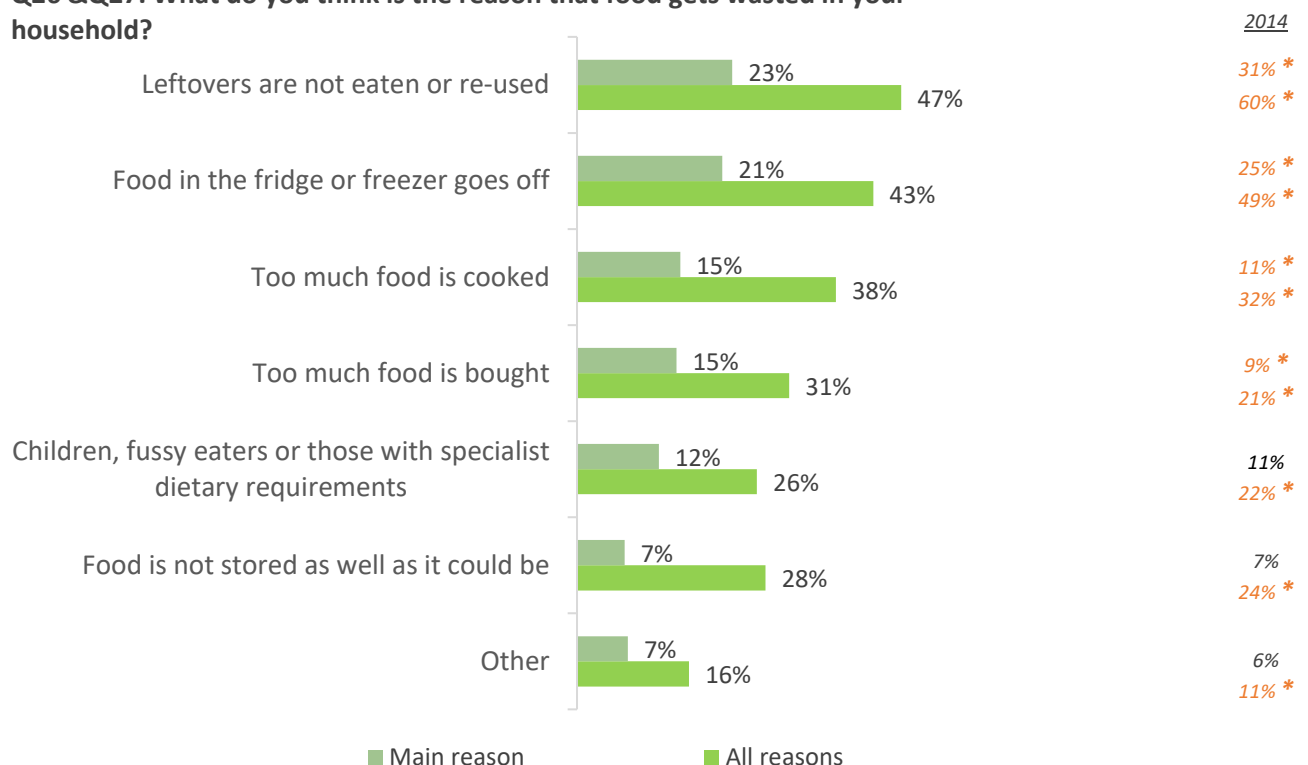
There are various reasons for food waste in New Zealand households. However, the two most commonly mentioned reasons are leftovers are not eaten or re-used (31% main reason and 60% all reasons) and food in the fridge or freezer goes off (25% main reason and 49% all reasons).

While the order of the top three reasons for food waste remains the same as in 2014, there have been significant changes as New Zealanders are becoming more aware that buying too much food or cooking too much food is contributing to food waste.

Reasons for food wastage in households

Base: Respondents who indicated that they have food waste at Q9 (n=861)

Q26 & Q27. What do you think is the reason that food gets wasted in your household?



*Significant change

7. Raising awareness of food waste

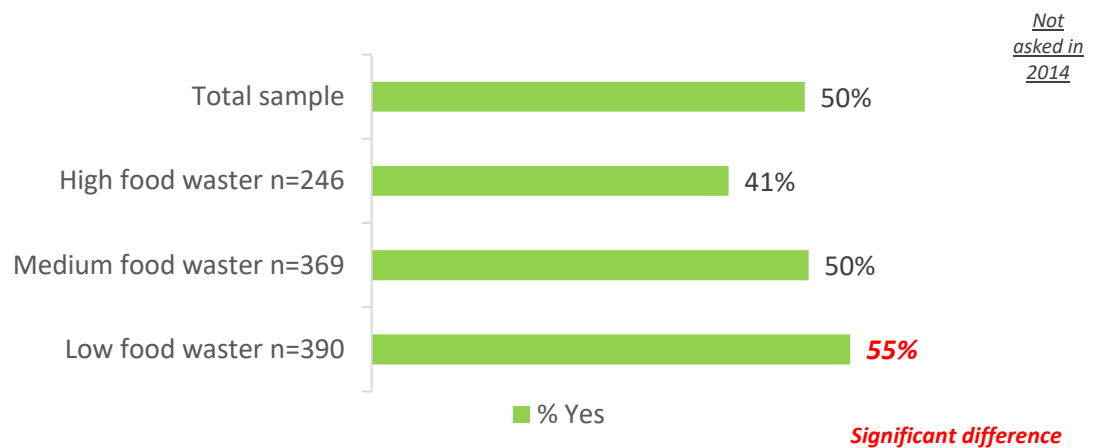
7.1 Heard information about food waste

Half of all respondents have heard some form of information about food waste in the last two years, with significantly more being from the low food wastage group compared to the high food wastage group.

Have heard information about food waste

Base: All respondents (n=1,005)

Q11: Have you seen or heard any information about food waste in the last 2 years?



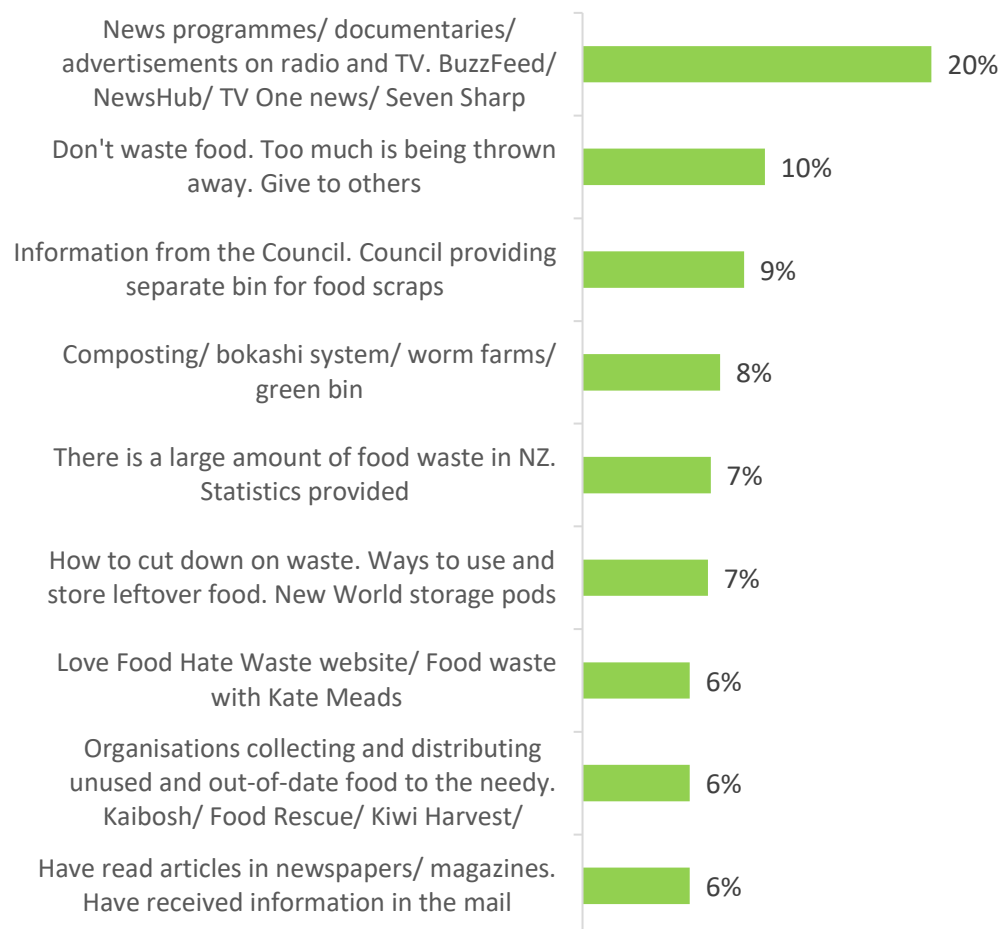
7.2 Type of food waste information or advertising seen or heard

Of those respondents that have heard information about food waste in the last 12 months, the unprompted type and source of the information varies, with one fifth (20%) recalling that they had seen or heard information or advertising on a radio or TV news programme, reality show or documentary. Seven respondents made specific reference to the New World Storage Pod campaign.

Type of food waste information or advertising seen or heard

Base: Respondents who have heard information about food waste in the last 12 months (n=502)

Q12: What information or advertising do you recall having seen or heard about food waste in the last two years? (coded verbatim comments)



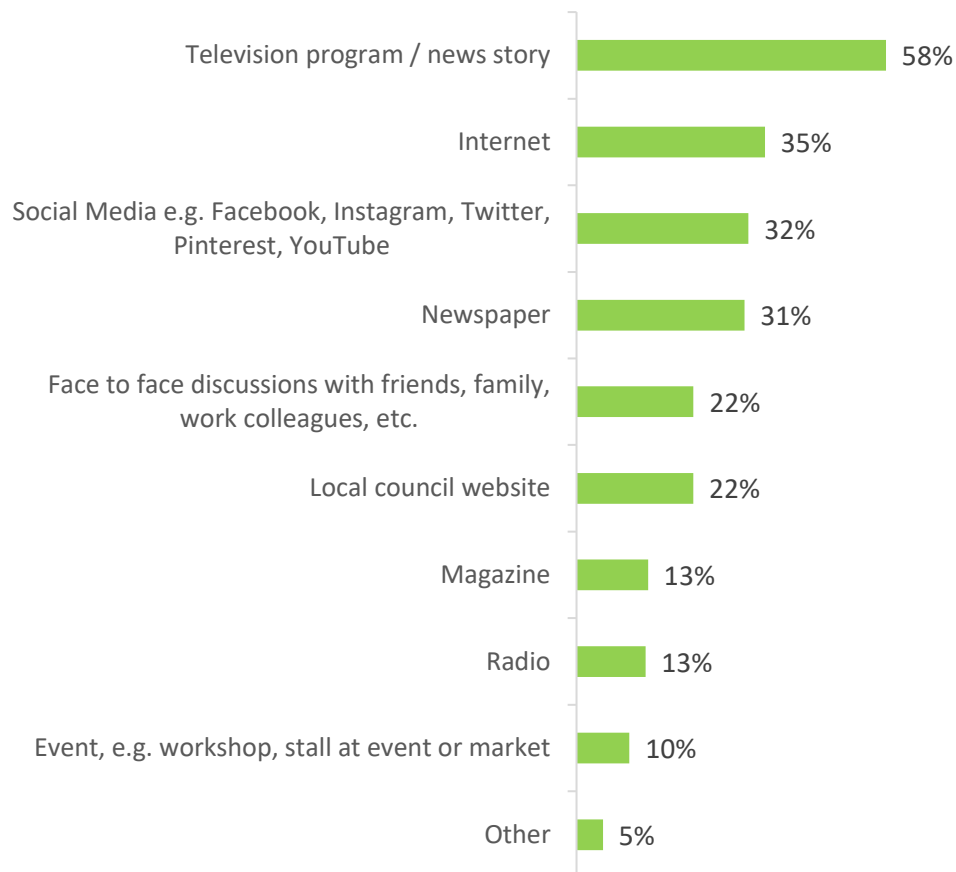
7.3 Source of food waste information seen or heard

When asked to indicate the source, more than half (58%) had seen or heard information about food waste on a television program or news story, around one third from the internet (35%), social media (32%) or newspapers (31%).

Sources of food waste information seen or heard

Base: Respondents who have heard information about food waste in the last 12 months (n=502)

Q13: Please indicate where you have seen or heard information about food waste in the last two years? Tick all that apply



High food wasters are far more likely to have seen or heard about food waste from the internet or social media and less likely from a TV show, news story or from a newspaper, compared to low food wasters.

Sources of food waste information seen or heard by wastage groups

Base: Respondents who have heard information about food waste in the last 12 months (n=502)

Q13: Please indicate where you have seen or heard information about food waste in the last two years? Tick all that apply

	Total n=502	Household food wastage groups		
		Low n=215	Medium n=186	High n=101
Television program / news story	58%	65%	53%	51%
Internet	35%	24%	43%	45%
Social Media e.g. Facebook, Instagram, Twitter, Pinterest, YouTube	32%	24%	33%	48%
Newspaper	31%	35%	31%	25%
Face to face discussions with friends, family, work colleagues, etc.	22%	18%	24%	26%
Local council website	22%	21%	20%	27%
Magazine	13%	11%	16%	13%
Radio	13%	13%	15%	9%
Event, e.g. workshop, stall at event or market	10%	10%	9%	11%
Other (please specify):	5%	5%	4%	6%

Significant difference

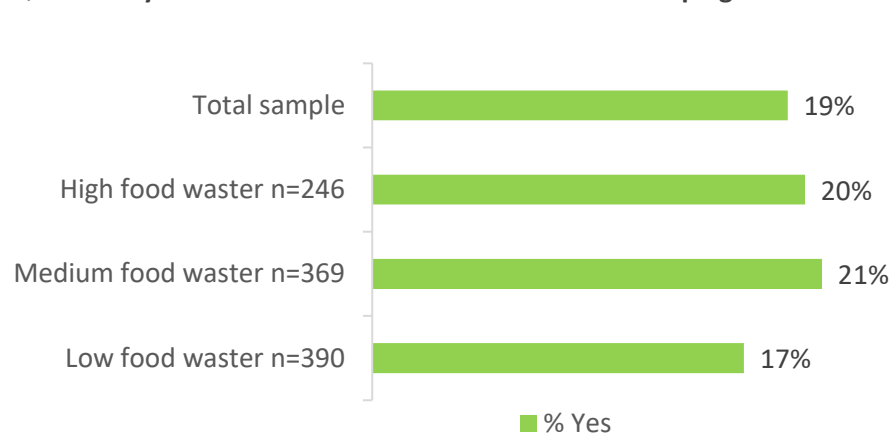
7.4 Awareness of the Love Food Hate Waste campaign

One in five (19%) respondents have heard of the Love Food Hate Waste campaign, with no significant differences between the various defined food wastage categories.

Have heard of the Love Food Hate Waste campaign

Base: All respondents (n=1,005)

Q14: Have you heard of the Love Food Hate Waste campaign?



Not
asked in
2014

7.5 Source of awareness

As illustrated below, when asked to indicate where the respondent had heard about the Love Food Hate Waste campaign, two in five (40%) had heard about it on social media such as; Facebook, Instagram, Twitter, Pinterest, and YouTube. One third had heard about it from the internet and a quarter from a television program or news story (27%).

Having previously seen that high food wasters are more likely to hear about food waste on social media or the internet, having the Love Food Hate Waste campaign being seen in these spaces is most beneficial. The “other” source category was predominantly made up of those who couldn’t remember where exactly they had heard of Love Food Hate Waste.

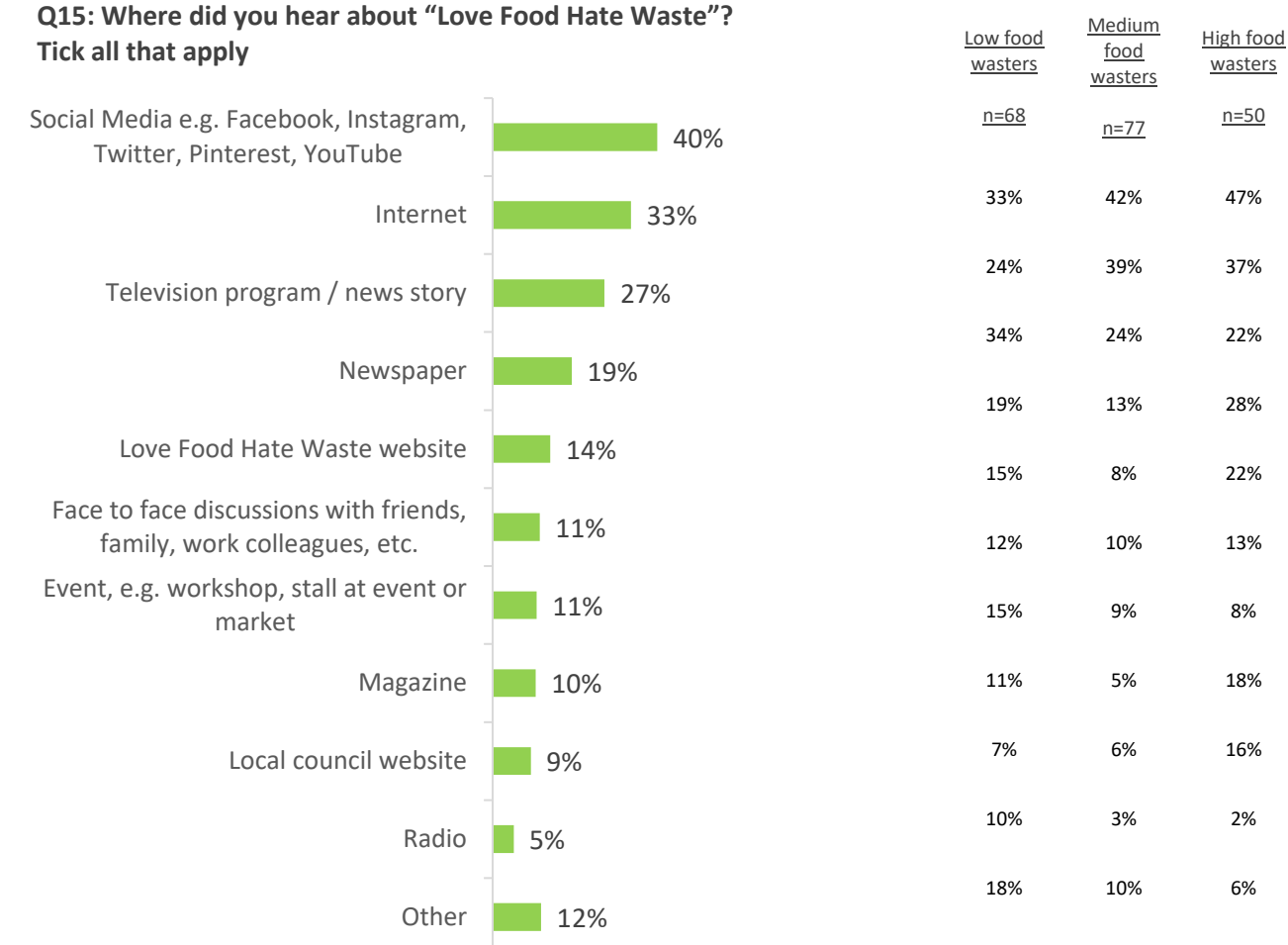
Just over half (51%) of the respondents had heard about the Love Food Hate Waste campaign from one source, while nearly one quarter (23%) had heard about it from two different sources. The remaining quarter (26%) heard about the campaign from three or more places.

Source of awareness about the Love Food Hate Waste campaign

Base: Respondents who have heard about the Love Food Hate Waste campaign (n=195)

Q15: Where did you hear about “Love Food Hate Waste”?

Tick all that apply



7.6 Impact of the Love Food Hate Waste campaign on volume of food waste

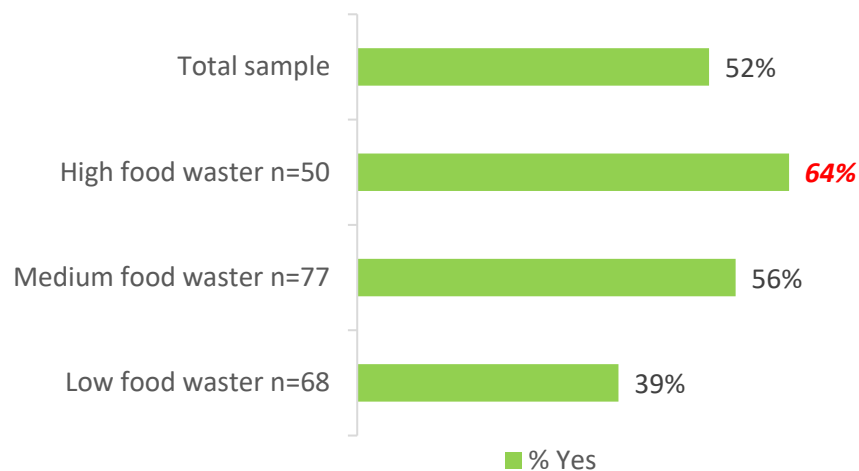
Overall just over half (52%) of those that have heard about 'Love Food Hate Waste' believe that what they have seen or heard about food waste from the campaign has had an impact on how much food they waste. This is highest amongst high food wasters (64%) and lowest amongst low food wasters (39%).

Impact of the Love Food Hate Waste campaign on volume of food wastage

Base: Respondents who have heard about 'Love Food Hate Waste' (n=195)

Q16: Has what you've seen or heard about food waste from "Love Food Hate Waste" had an impact on how much food you waste?

Not
asked in
2014



Significant difference

7.7 Reasons for lack of campaign impact

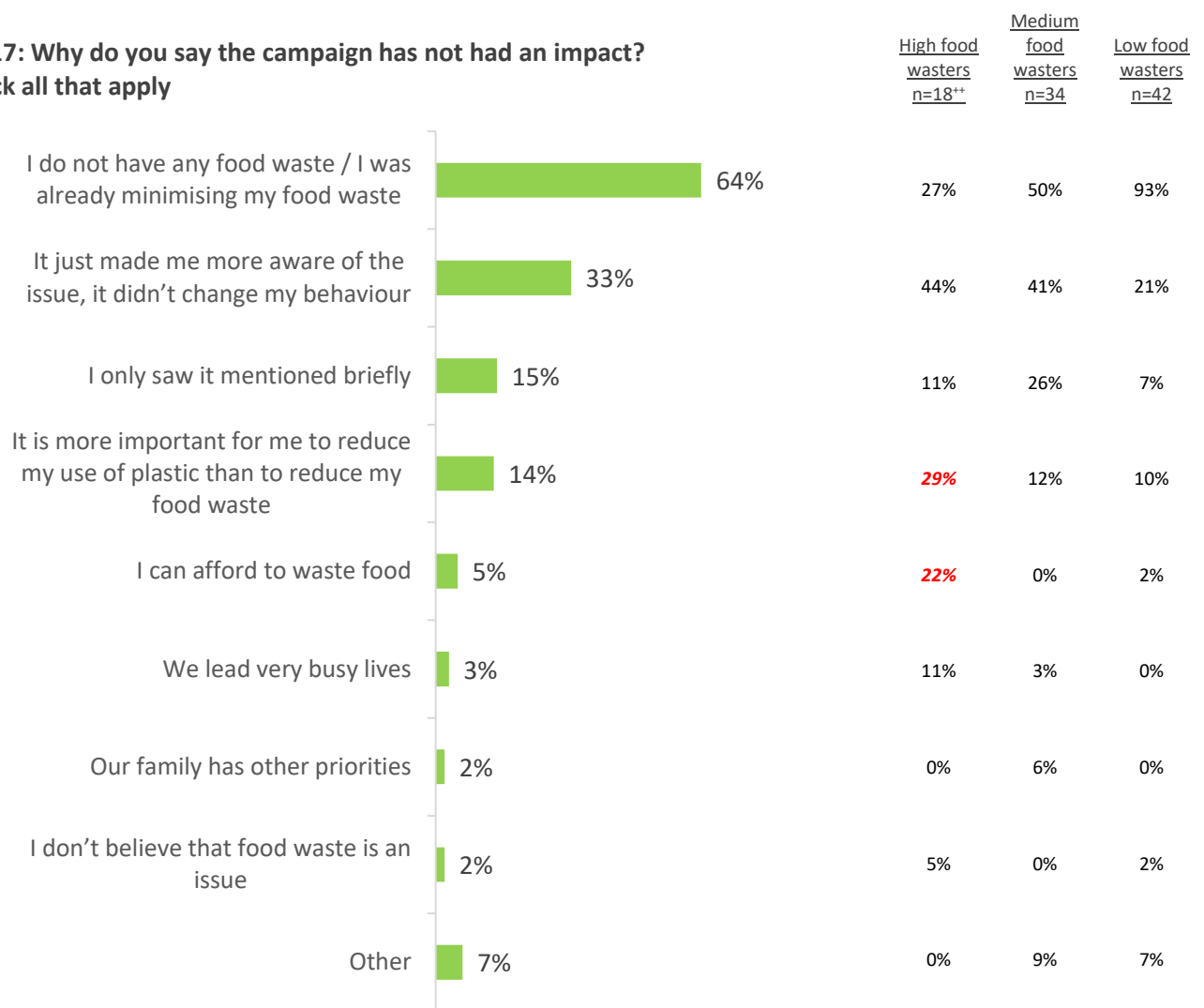
A fifth (22%) of high food wasters stated that they could afford to waste food as a reason for the Love Food Hate Waste campaign not having had an impact on them. Another reason given by 29% of high food wasters was that it is more important for them to reduce their use of plastic than to reduce their food waste, which is more than twice as many as medium and low food wasters.

Reasons the campaign has not had an impact

Base: Respondents where the campaign did not have an impact (n=94)

Q17: Why do you say the campaign has not had an impact?

Tick all that apply



Significant difference

⁺⁺Small sample size

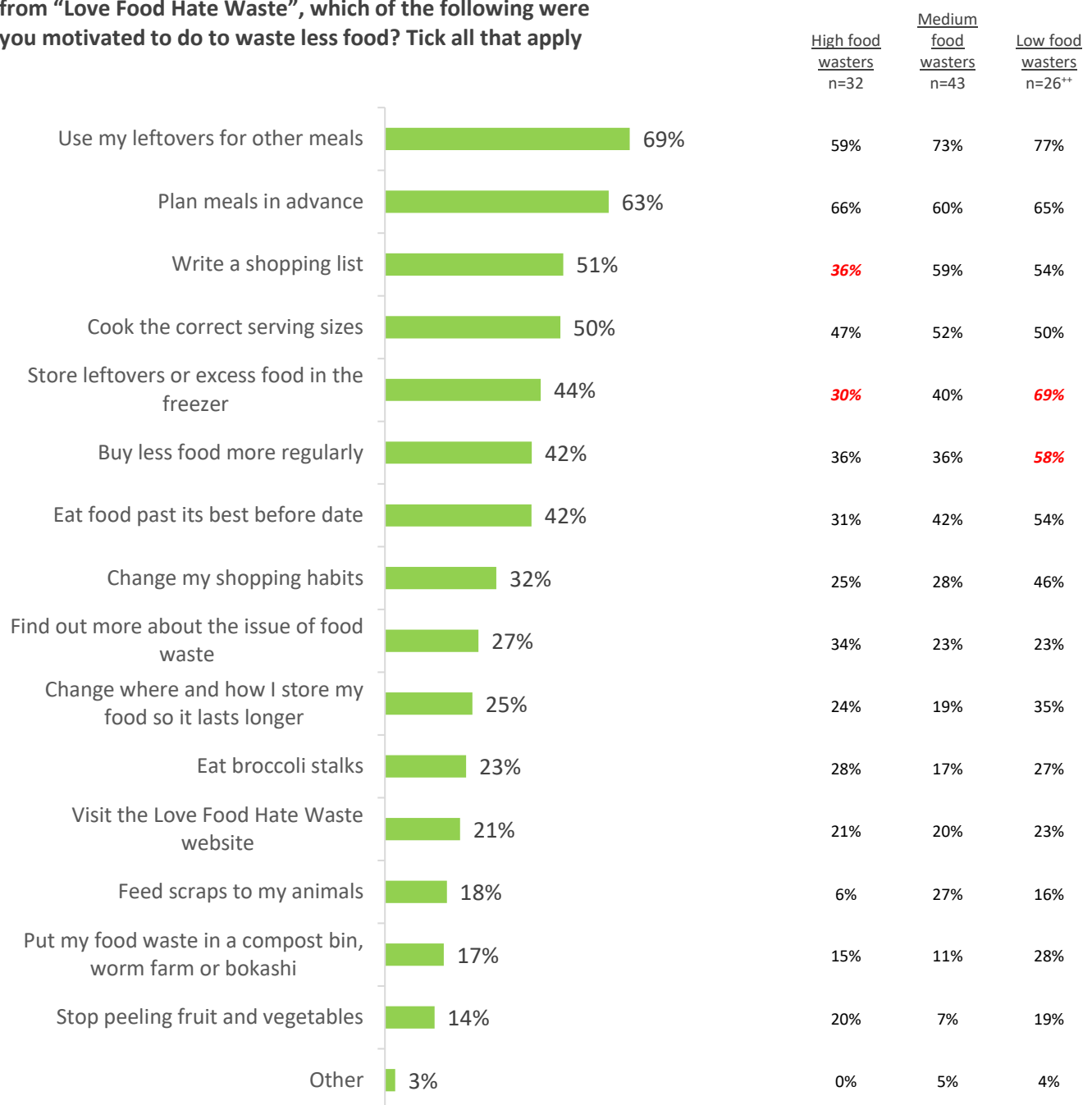
7.8 Campaign call-to-action

After seeing or hearing information about food waste from the Love Food Hate Waste campaign, just over two thirds of people (69%) were motivated to use their leftovers for other meals in order to waste less food. High food wasters were less inclined to write a shopping list and store leftovers or excess food in the freezer, while low food wasters were more likely to store leftovers or excess food in the freezer and to buy less food more regularly when compared to the other food wastage groups.

Campaign motivating actions

Base: Respondents where the campaign had an impact on their food waste (n=101)

Q18: After seeing or hearing information about food waste from “Love Food Hate Waste”, which of the following were you motivated to do to waste less food? Tick all that apply



Significant difference

⁺⁺Small sample size

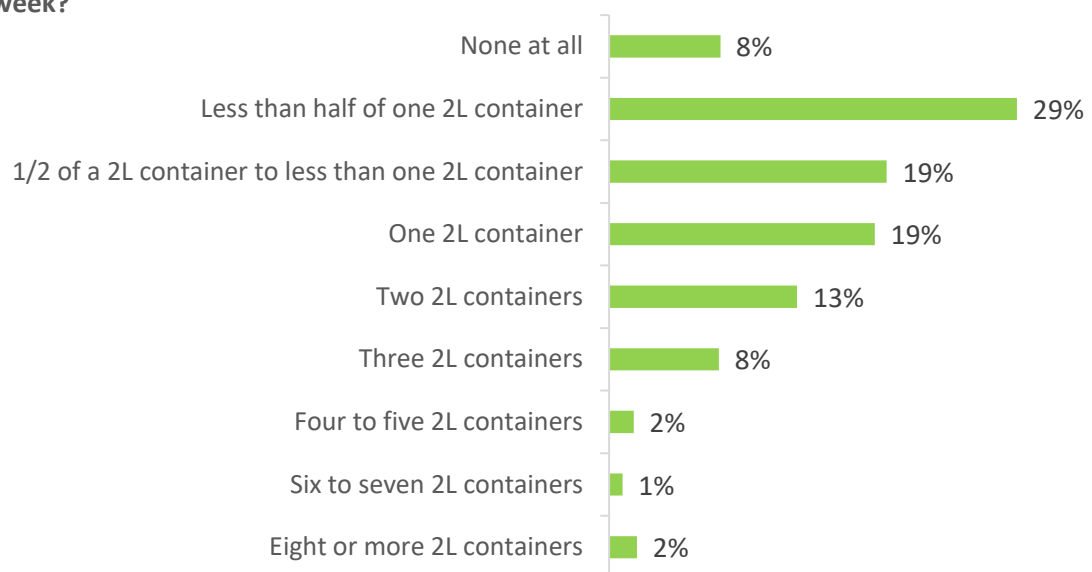
7.9 Volume of food saved or avoided food waste among those aware of campaign

In terms of the volume of food saved or avoided being thrown away per week, three in ten respondents (29%) reduced the amount thrown away by up to one litre of food per week. Another four in ten (38%) reduced the amount thrown away by between one and two litres of food per week.

Volume of avoidable food wasted per week

Base: Respondents where the campaign had an impact on their food waste (n=101)

Q19: Thinking about the actions you have taken as a result of being motivated by “Love Food Hate Waste” and using a 2L ice-cream container as a guide, how much food do you think your household has saved or avoided throwing away in an average week?



7.10 Food saving action and food waste avoidance among those unaware of campaign or not impacted by the campaign

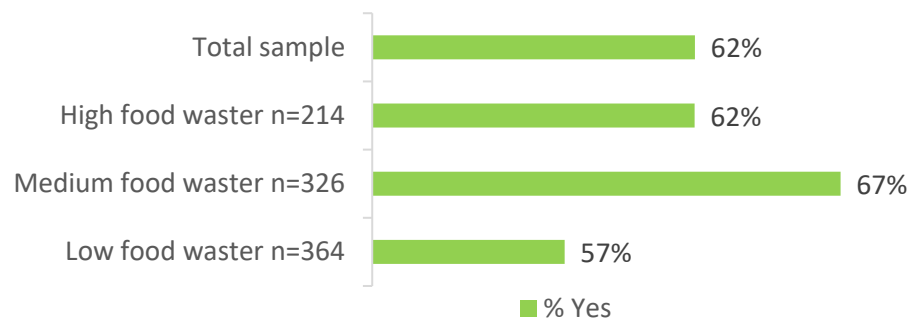
From those respondents that have either not heard of 'Love Food Hate Waste' or have heard about the campaign with it having no impact on how much food they waste, overall just over three in five (62%) have still done something over the last two years to reduce how much food they waste.

Just over half (54%) of those who had heard of the Love Food Hate Waste campaign without it having had an impact, still said they had done something to reduce how much food they waste.

Have reduced food waste over past 2 years

Base: Respondents who have not heard about 'Love Food Hate Waste' or have heard without it impacting on how much food they waste (n=904)

Q20: Have you done anything to reduce how much food you waste over the last two years?



*Not
asked in
2014*

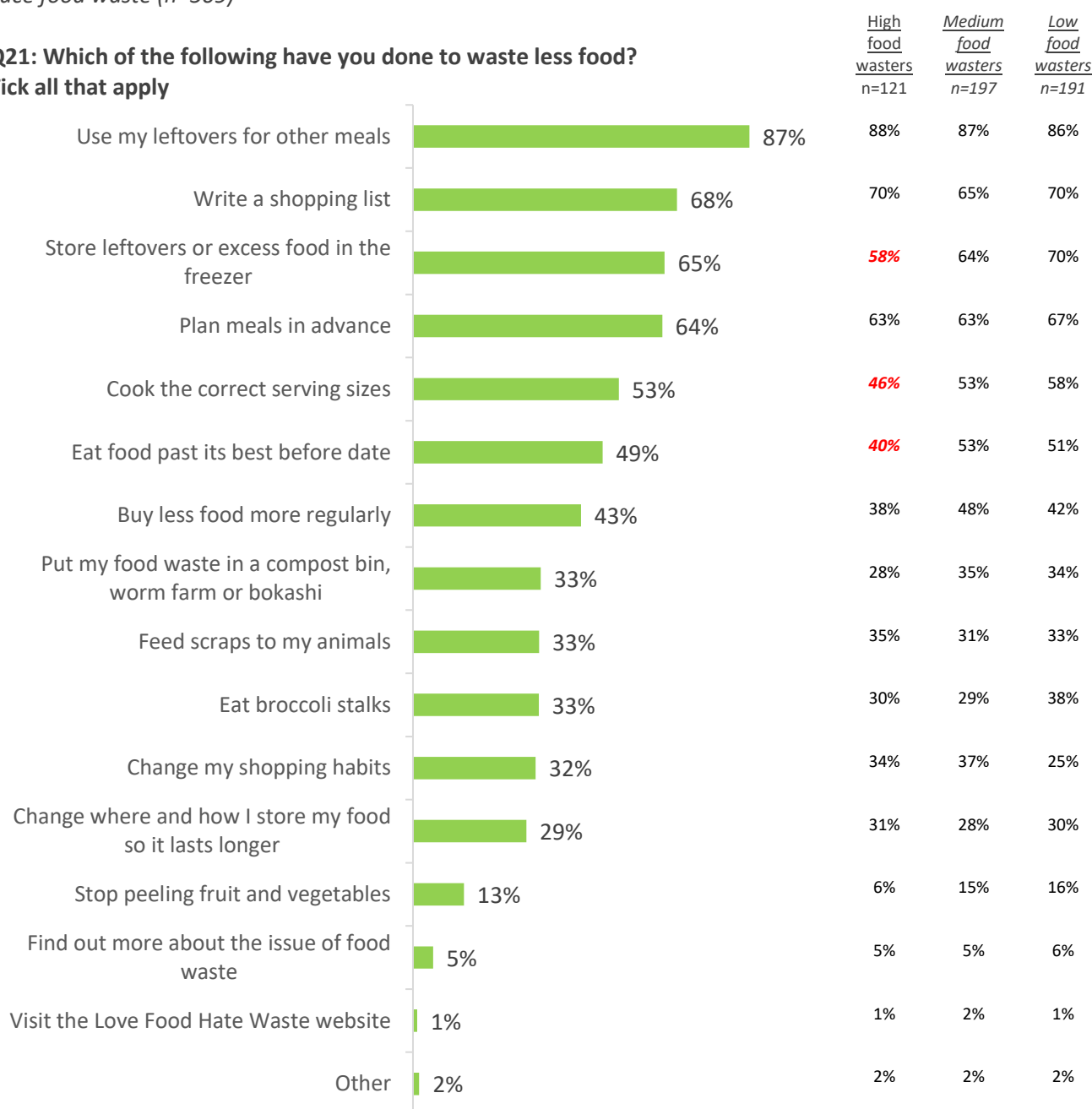
Respondents who have done something to reduce food waste despite not having heard about the Love Food Hate Waste campaign are most likely to have used their leftovers for other meals to waste less food. On average six actions are taken to reduce food waste, being the same number of actions as taken by people who have heard of the Love Food Hate Waste campaign. High food wasters were less inclined to store leftovers or excess food in the freezer, cook the correct serving sizes, or eat food past its best before date.

Actions taken to waste less food

Base: Respondents who have not heard about 'Love Food Hate Waste' and have done something to reduce food waste (n=509)

Q21: Which of the following have you done to waste less food?

Tick all that apply



Significant difference

The average number of behaviours that high food wasters were doing to reduce their food waste was four compared to six for low food wasters among respondents who heard of the campaign but claim it had no impact on their behaviour. For those that said that the campaign had not impacted them, there was no change in the number of behaviours among high food wasters, however low food wasters were claiming to be doing on average one more behaviour.

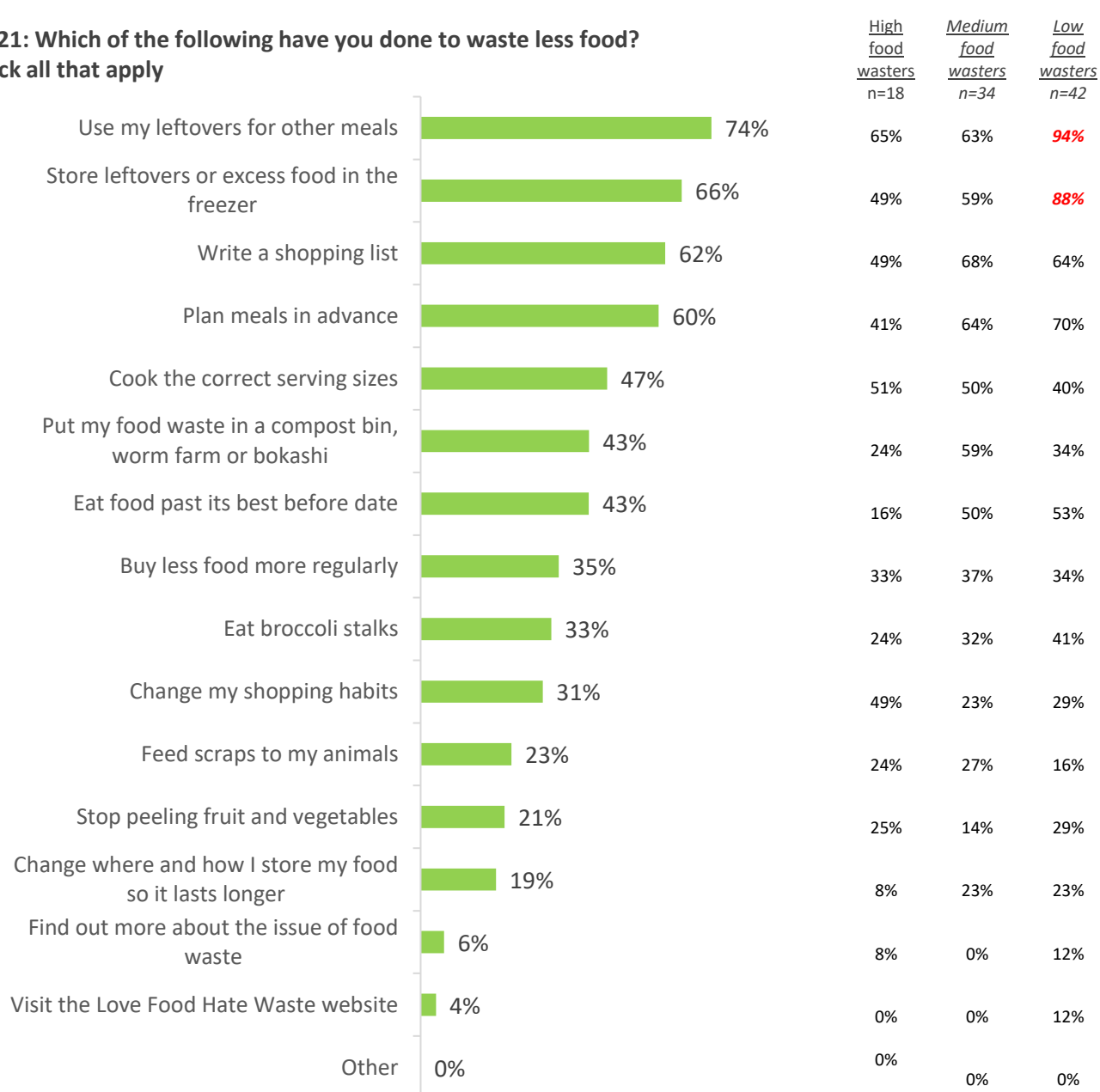
Almost all low food wasters are already using their leftovers for other meals (94%) and a large number storing leftovers or excess food in the freezer (88%). This indicates that the reason they believe the campaign had no effect was due to them already exhibiting good behaviour towards food waste.

Actions taken to waste less food

Base: Respondents who have heard about the campaign without it impacting on how much food they waste (n=94)

Q21: Which of the following have you done to waste less food?

Tick all that apply



Significant difference

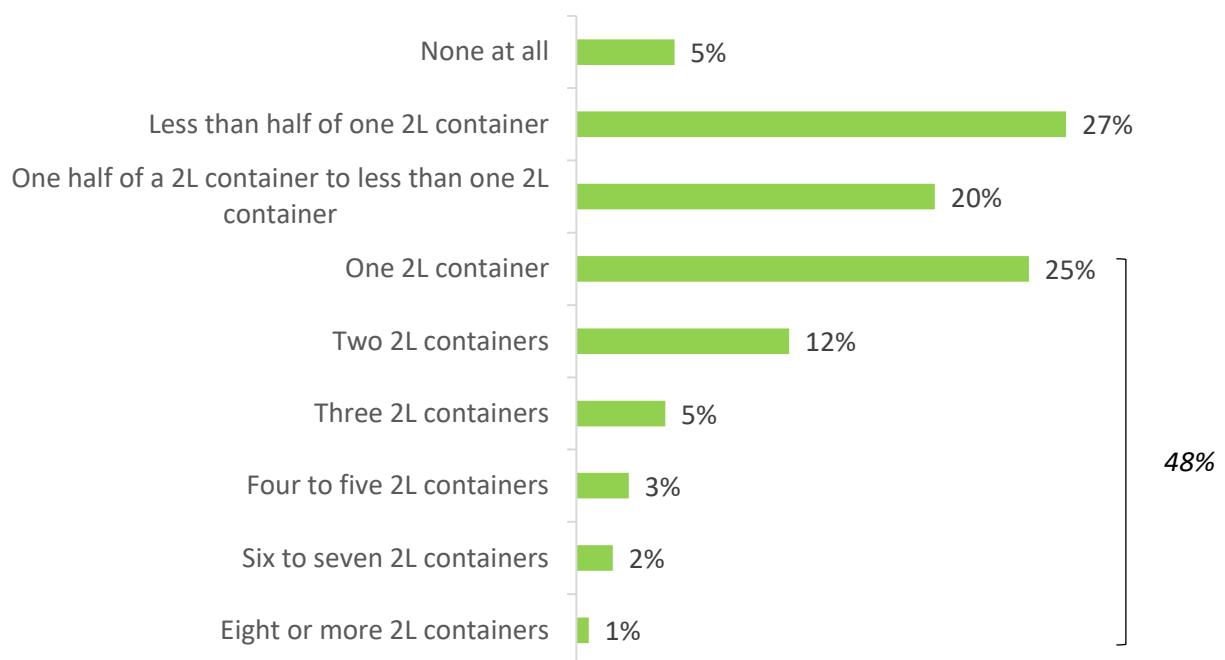
7.11 Volume of food saved, or food waste avoided

Just over one quarter (27%) of respondents who have either not heard of 'Love Food Hate Waste', or have heard about the campaign with it having no impact on how much food they waste, saved or avoided wasting up to one litre of food per week. A fifth (20%) saved or avoided wasting between one to two litres per week, and 48% saved or avoided wasting more than two litres of food per week.

Volume of food saved or avoided throwing out per week

Base: Respondents who have not heard about 'Love Food Hate Waste' or have heard without it impacting on how much food they waste (n=560)

Q22: Thinking about the actions you have taken to waste less food and using a 2L ice-cream container as a guide, how much food do you think your household has saved or avoided throwing away in an average week?



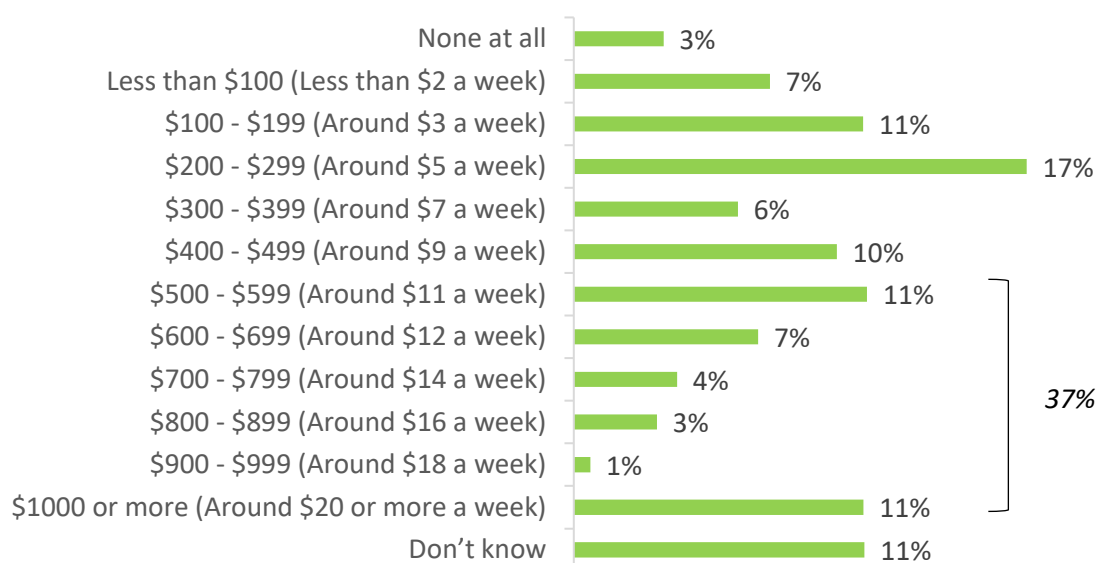
7.12 Perceived value of food saved or avoided waste

Almost two in five respondents (37%) believe they have saved over \$500 per year from food saved or avoided being thrown out.

Value perceptions of food saved or avoided throwing out per week

Base: Respondents who have heard about 'Love Food Hate Waste' with it impacting on how much food they waste, and respondents regardless of knowing about the campaign have done something to reduce waste over the last 2 years (n=661)

Q23: And how much do you think this would equate to in dollar value?



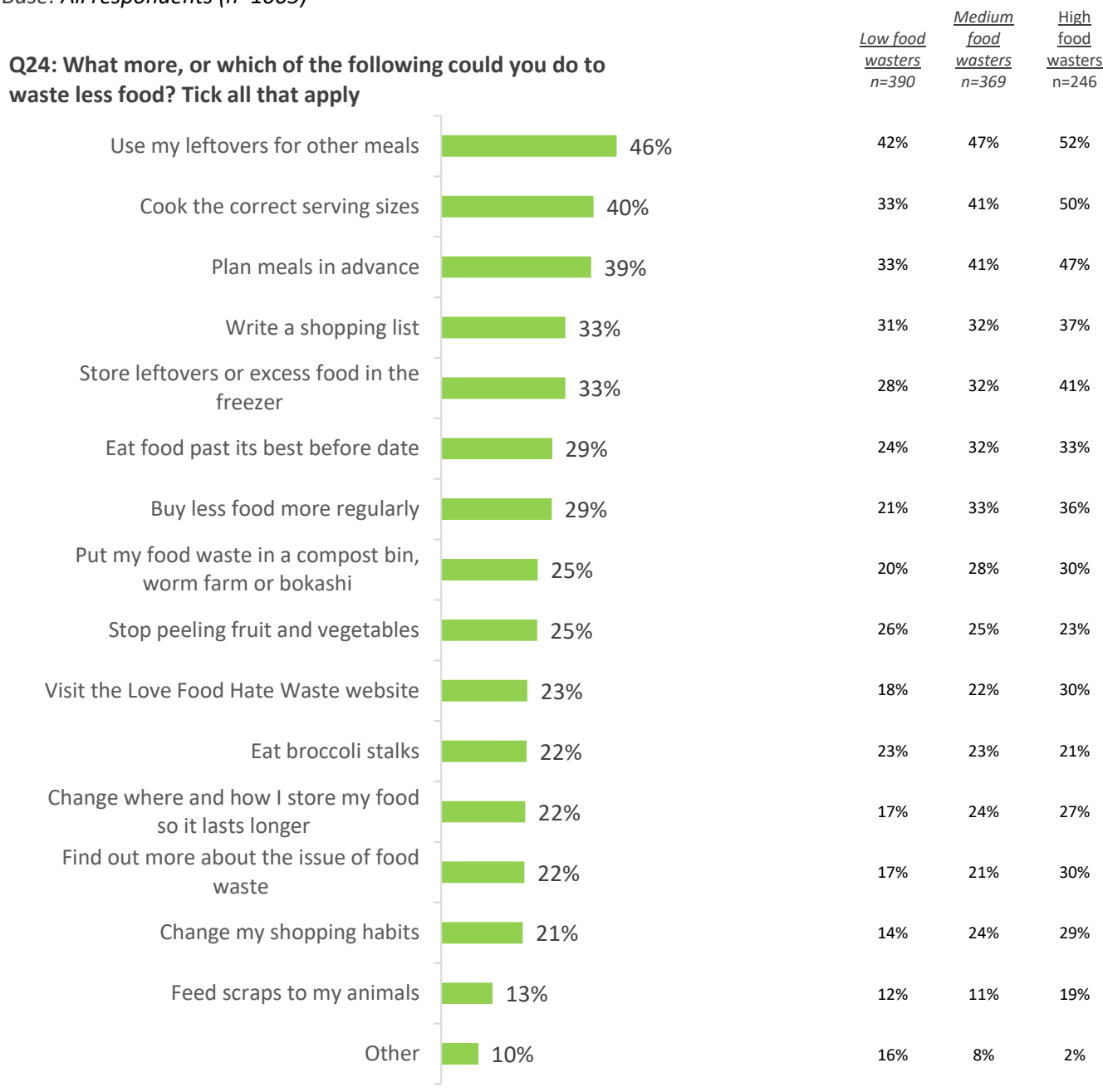
7.13 Additional actions that could be taken to waste less food

Irrespective of current food wastage behaviour and awareness of the Love Food Hate Waste campaign, respondents indicated actions they could undertake to reduce food waste.

Using leftovers for other meals in order to waste less food is the most mentioned method that respondents would consider to waste less food. The next two top methods considered would be cooking the correct serving sizes and planning meals in advance.

Additional actions that could be taken to waste less food

Base: All respondents (n=1005)



Respondents who claim to waste no food per week identify the same range of actions to take in order to waste less food but are less likely to visit the Love Food Hate Waste website (11%) and change where and how they store their food (15%). Encouragingly respondents who waste more than one 2-litre container of food per week are more likely to identify that they could plan meals in advance (47%), store leftovers or excess food in the freezer (40%), find out more about the issue of food waste (27%) and feed scraps to their animals (20%).

Additional actions that could be taken to waste less food by volume of food waste per week

Base: All respondents (n=1005)

Q24: What more, or which of the following could you do to waste less food? Tick all that apply

	Total n=1,005	Q.9 Volume of food waste		
		None n=144	Less than one 2-litre container n=525	More than one 2-litre container n=336
Use my leftovers for other meals	46%	48%	43%	40%
Cook the correct service sizes	40%	36%	36%	48%
Plan meals in advance	39%	34%	36%	47%
Write a shopping list	33%	34%	30%	35%
Store leftovers or excess food in the freezer	33%	26%	30%	40%
Eat food past its best before date	29%	24%	28%	33%
Buy less food more regularly	29%	21%	28%	34%
Put my food waste in a compost bin, worm farm or bokashi	25%	18%	25%	29%
Stop peeling fruit and vegetables	25%	24%	27%	23%
Visit the Love Food Hate Waste website	23%	11%	22%	28%
Eat broccoli stalks	22%	23%	22%	23%
Change where and how I store my food so it lasts longer	22%	15%	21%	26%
Find out more about the issue of food waste	22%	15%	20%	27%
Change my shopping habits	21%	11%	21%	27%
Feed scraps to my animals	13%	9%	11%	20%
Other	10%	23%	10%	4%

Significant difference

8. Food shopping and safety habits and behaviours

8.1 Main supermarket for food shopping

Countdown and Pak'nSave are the most commonly used supermarkets for food shopping, with a noticeable increase in those who shop at New World compared to 2014.

Supermarkets

Base: All respondents (n=1,005)

Q28: Which supermarket does your household mainly buy food from?

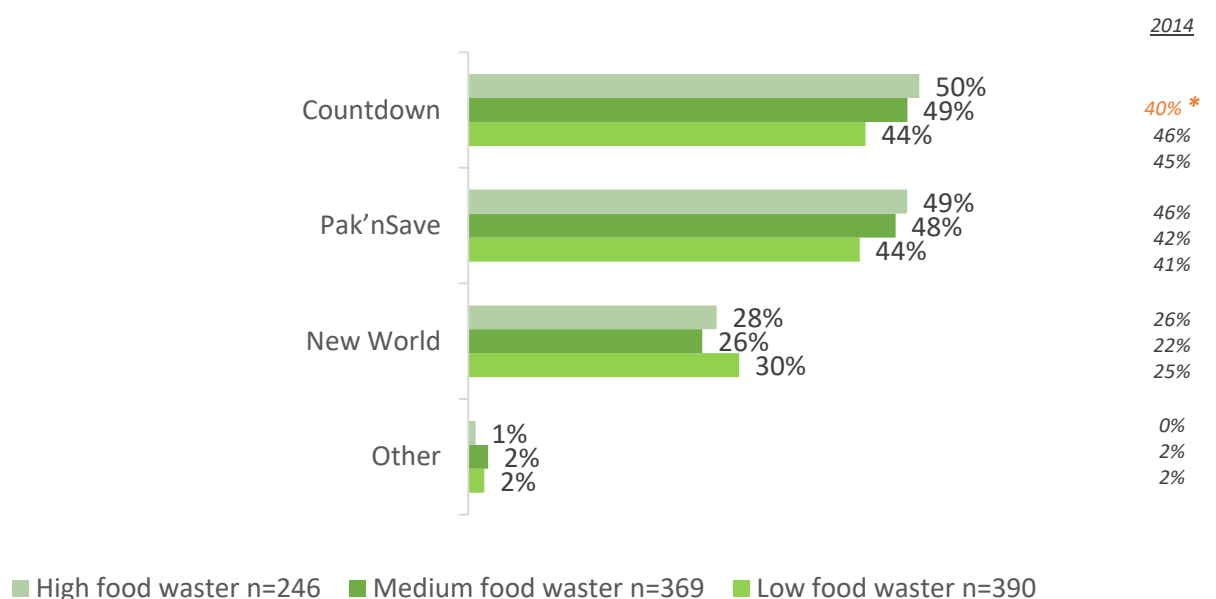


High food wasters are almost equally likely to shop at either Pak'nSave (49%) or Countdown (50%), with the number of high food wasters who shop at Countdown having increased from 40% previously.

Supermarkets by household food wastage groups

Base: All respondents (n=1,005)

Q28: Which supermarket does your household mainly buy food for your household from?



8.2 Awareness of food waste by supermarket used

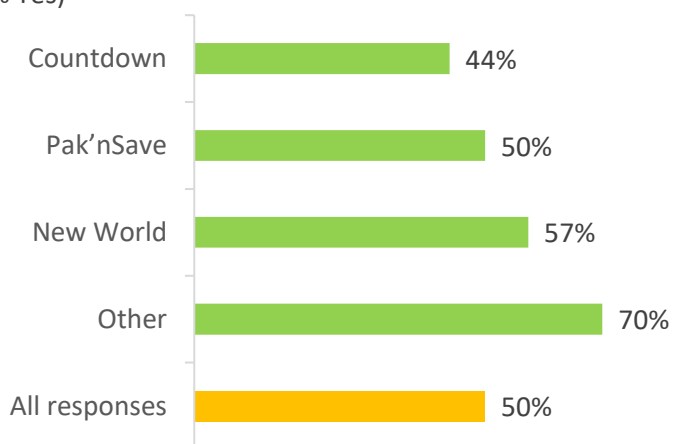
New World shoppers and those using other stores such as Four Square and speciality shops for food are more likely to have seen or heard information in general about food waste in the last two years compared to those that mainly use Countdown. This is also true for those that have heard of the Love Food Hate Waste campaign.

Awareness of food waste by supermarket used

Base: All respondents (n=1,005); Q28 Which supermarket does your household mainly buy food for your household from?

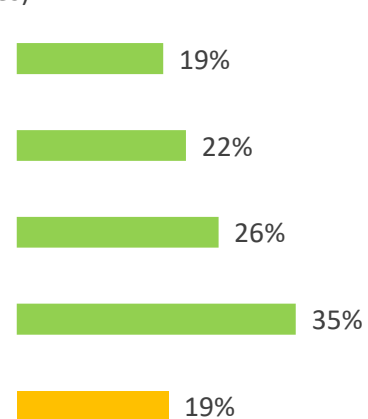
Q11: Have you seen or heard any information about food waste in the last two years?

(% Yes)



Q14: Have you heard of the Love Food Hate Waste campaign?

(% Yes)



8.3 Food shopping habits and behaviours

The most common behaviours when planning or while food shopping are:

- Check what is in the cupboards, fridge or freezer before doing a food shop (79% most times or always).
- Using a shopping list (74% most times or always).

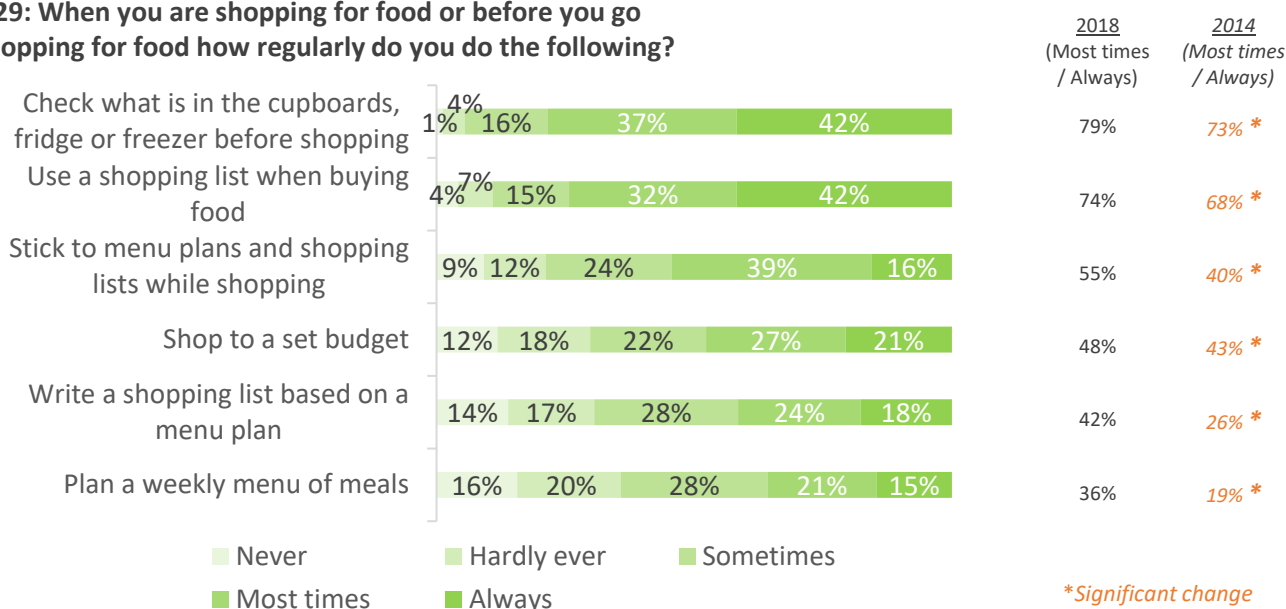
The least common behaviour is to plan a weekly menu of meals (36% most times or always).

There have been significant increases across all actions being done most times or always, compared to 2014. The most significant increases have been in meal planning (17% up), writing a shopping list based on a menu plan (16% up), and sticking to menu plans and shopping lists while shopping (15% up). However, 19% of people who do make a shopping list or menu plan still don't follow it.

Food shopping habits and behaviours

Base: Respondents who are responsible for food purchasing for the household (n=943)

Q29: When you are shopping for food or before you go shopping for food how regularly do you do the following?



High food wasters continue to be significantly less likely to do the following while shopping when compared to low food wasters:

- Check the cupboards, fridge or freezer before a food shop.
- Use a shopping list.
- Stick to a menu plan and shopping lists.

Food shopping habits and behaviours by household food wastage groups

Base: Respondents who are responsible for the food purchasing for the household (n=943)

Q29: When you are shopping for food or before you go shopping for food how regularly do you do the following? On a scale of 1 to 5, where 1 is Never, and 5 is Always.

	Total n=943	Household food wastage groups		
		Low n=375	Medium n=347	High n=221
Check what is in the cupboards, fridge or freezer before doing a food shop	4.13 (3.94)	4.26 (4.03)	4.17 (3.92)	3.87 (3.84)
Use a shopping list when buying food	4.01 (3.84)	4.21 (3.94)	4.03 (3.86)	3.65 (3.67)
Stick to menu plans and shopping lists while shopping	3.39 (2.99)	3.54 (3.10)	3.39 (2.98)	3.16 (2.86)
Shop to a set budget	3.27 (3.14)	3.29 (3.26)	3.29 (3.04)	3.19 (3.12)
Write a shopping list based on a menu plan	3.15 (2.73)	3.12 (2.72)	3.22 (2.75)	3.07 (2.73)
Plan a weekly menu of meals	2.99 (2.44)	3.09 (2.38)	2.94 (2.51)	2.91 (2.43)

Significant difference

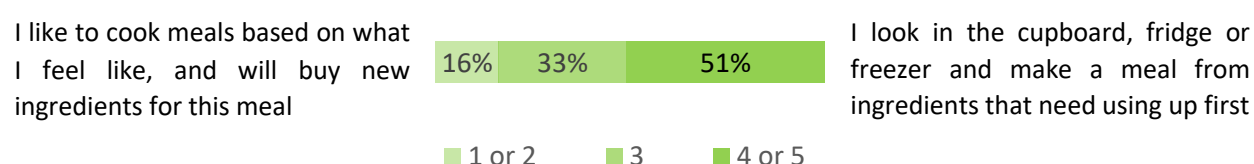
8.4 Habits and behaviours in cooking and preparing food

Encouragingly, 51% of respondents who are responsible for the cooking and preparing of food for their household base their meal preparation and cooking on ingredients that need to be used up first in their cupboards, fridge or freezer.

Cooking and preparing food habits and behaviours

Base: Respondents who are responsible for the cooking and preparing of food for the household (n=908)

Q30: Thinking about cooking and preparing food, please indicate where you feel that you fit between the two statements. Using the slider tool on a scale of 1 to 5, where a lower score means you associate yourself more with the statement on the left, and a higher score means you associate yourself more with the statement on the right.



This behaviour has a significant relationship with the amount of food waste generated as illustrated below. High food wasters are more likely to cook meals based on what they feel like and buy new ingredients for this meal, whereas low food wasters are more likely to cook meals based on ingredients they have at home that need using up first. There has been little change in the number of people looking in the cupboard compared to 2014.

Cooking and preparing food habits and behaviours by household food wastage groups

Base: Respondents who are responsible for the cooking and preparing of food for the household (n=908)

Q30: Thinking about cooking and preparing food, please indicate where you feel that you fit between the two statements presented. Using the slider tool on a scale of 1 to 5, where a lower score means you associate yourself more with the statement on the left, and a higher score means you associate yourself more with the statement on the right.

Score of 1	Total n=908	Household food wastage groups			Score of 5
		Low n=351	Medium n=335	High n=222	
	Mean score (on a scale of 1 to 5)				
I like to cook meals based on what I feel like, and will buy new ingredients for this meal	3.51 (3.53)	3.83 (3.85)	3.36 (3.43)	3.25 (3.24)	I look in the cupboard, fridge or freezer and make a meal from ingredients that need using up first

Significant difference

8.5 Habits and behaviours around preparing and cooking the main meal

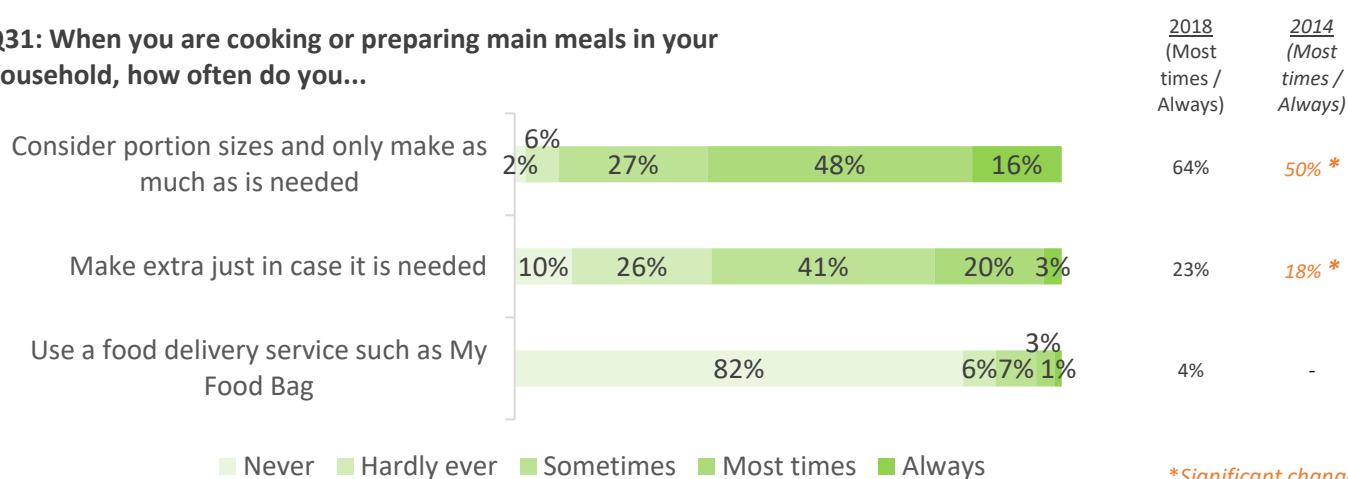
Close to two thirds (64%) of respondents consider portion sizes and only make as much as needed most of the time or always. This is a significant increase compared to 2014 when only half of respondents considered portion sizes when preparing and cooking the main meal.

However, one in four still make extra just in case it is needed, an increase from one in five in 2014.

Cooking and preparing habits and behaviours

Base: Respondents who are responsible for the cooking and preparing of food for the household (n=908)

Q31: When you are cooking or preparing main meals in your household, how often do you...



High food wasters are more likely to make extra just in case it is needed and are less likely to consider portion sizes and only make as much as needed, than the total sample.

Cooking and preparing food habits and behaviours by household food wastage groups

Base: Respondents who are responsible for the cooking and preparing of food for the household (n=908)

Q31: When you are cooking or preparing main meals in the household, how often do you... On a scale of 1 to 5, where 1 is Never, and 5 is Always.

	Total n=908	Household food wastage groups		
		Low n=351	Medium n=335	High n=222
Consider portion sizes and only make as much as is needed	3.71 (3.39)	3.97 (3.57)	3.66 (3.34)	3.39 (3.24)
Make extra just in case it is needed	2.80 (2.69)	2.53 (2.52)	2.89 (2.75)	3.09 (2.84)
Use a food delivery service such as My Food Bag	1.36 (-)	1.15 (-)	1.43 (-)	1.60 (-)

Significant difference

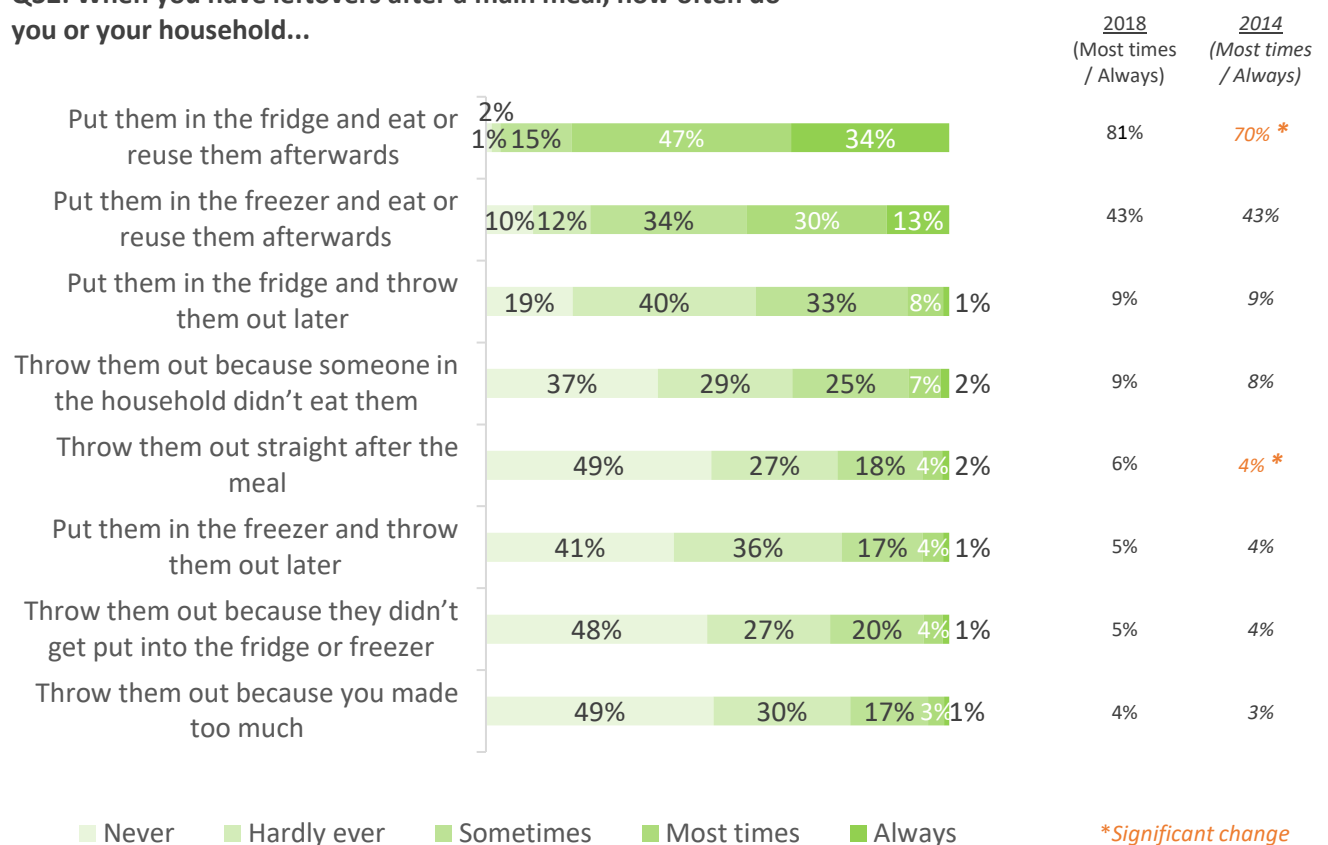
8.6 Behaviours around leftovers

When there are leftovers after a main meal, these are most commonly put in the fridge and reused at a later date. The number of respondents undertaking this practice most times or always has increased from 70% in 2014 to 81% currently. Respondents are less likely to be throwing leftovers out because they made too much (79% never or hardly ever).

Behaviours around leftovers

Base: Respondents who are responsible for the cooking and preparing of food for the household (n=908)

Q32: When you have leftovers after a main meal, how often do you or your household...



The behaviours that are more likely to be demonstrated by high food wasters include:

- Putting leftovers in the fridge and throwing them out later.
- Throwing them out due to someone in the household not eating them.
- Throwing them out straight after the meal.
- Throwing them out from making more than planned.

Throwing out leftovers from making more than planned could be prevented by correcting portion sizes when cooking and preparing food.

Behaviours around leftovers by household food wastage groups

Base: Respondents who are responsible for the cooking and preparing of food for the household (n=908)

Q32: When you have leftovers after a main meal, how often do you or your household... On a scale of 1 to 5, where 1 is Never, and 5 is Always.

	Total n=908	Household food wastage groups		
		Low n=351	Medium n=335	High n=222
Put them in the fridge and eat or reuse them afterwards	4.11 (3.82)	4.30 (4.00)	4.06 (3.84)	3.91 (3.57)
Put them in the freezer and eat or reuse them afterwards	3.24 (3.24)	3.37 (3.52)	3.24 (3.25)	3.06 (2.87)
Put them in the fridge and throw them out later	2.33 (2.41)	1.88 (1.98)	2.43 (2.49)	2.90 (2.86)
Throw them out because someone in the household didn't eat them	2.07 (2.23)	1.61 (1.77)	2.14 (2.33)	2.69 (2.70)
Put them in the freezer and throw them out later	1.90 (1.87)	1.51 (1.58)	2.01 (1.96)	2.31 (2.10)
Throw them out because they didn't get put into the fridge or freezer	1.85 (1.93)	1.48 (1.63)	1.94 (1.97)	2.28 (2.28)
Throw them out straight after the meal	1.83 (1.68)	1.45 (1.41)	1.89 (1.67)	2.32 (2.05)
Throw them out because you made too much	1.78 (1.79)	1.40 (1.77)	1.84 (1.84)	2.28 (2.18)

Significant difference

8.7 Storing food

Freezing bread to stop it going mouldy or stale is the most common food storage behaviour found amongst respondents (69% do this most times or always). Respondents are less likely to freeze fruit and vegetables that are getting old for use later on (50% never or hardly ever), however the number of people who do this has increased since 2014.

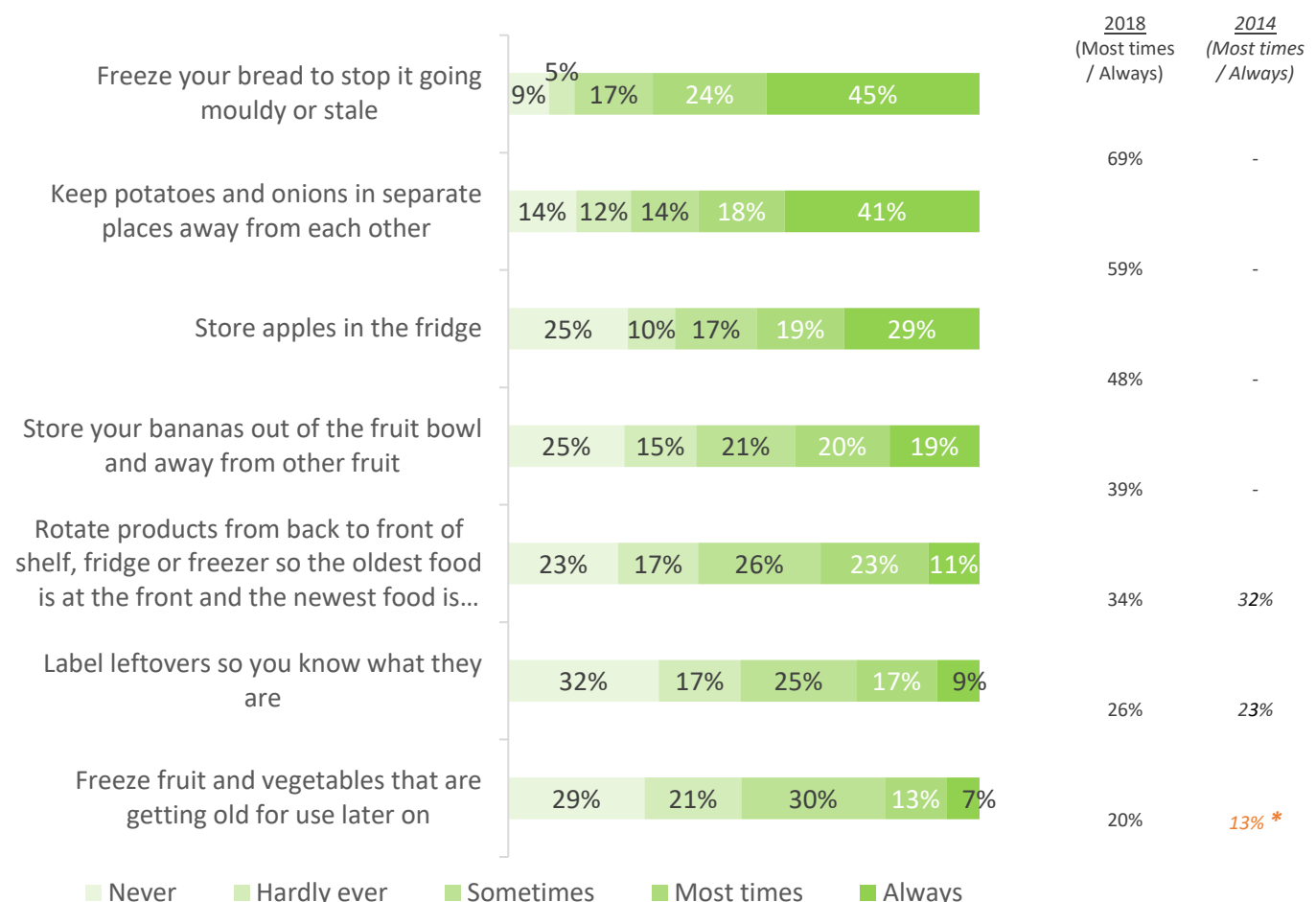
More respondents never or hardly ever:

- Label leftovers so you know what they are.
- Rotate foods from the back to front of the shelf, fridge or freezer.
- Store bananas away from other fruit.

Storing food

Base: Respondents who are responsible for the storing of food in the household (n=900)

Q33: When you are storing food, how often do you...



*Significant change

High food wasters are less likely than the total sample to demonstrate good food waste prevention storage behaviours except when it comes to storing apples in the fridge. The food storage behaviours which they are less likely to do than the medium or low food wasters are:

- Keeping potatoes and onions in separate places away from each other.
- Rotating products from back to front of shelf, fridge or freezer so the oldest food is at the front and the newest food is at the back.
- Labelling leftovers so you know what they are.

Storing food by household food wastage groups

Base: Respondents who are responsible for the storing of food in the household (n=900)

Q33: When you are storing food, how often do you... On a scale of 1 to 5, where 1 is Never, and 5 is Always.

	Total n=900	Household food wastage groups		
		Low n=353	Medium n=327	High n=220
Freeze your bread to stop it going mouldy or stale	3.92 (-)	4.12 (-)	3.87 (-)	3.67 (-)
Keep potatoes and onions in separate places away from each other	3.60 (-)	3.89 (-)	3.60 (-)	3.16 (-)
Store apples in the fridge	3.15 (-)	3.15 (-)	3.01 (-)	3.36 (-)
Store your bananas out of the fruit bowl and away from other fruit	2.94 (-)	2.96 (-)	2.99 (-)	2.82 (-)
Rotate products from back to front of shelf, fridge or freezer so the oldest food is at the front and the newest food is at the back	2.81 (2.77)	3.04 (3.16)	2.82 (2.70)	2.42 (2.38)
Label leftovers so you know what they are	2.54 (2.46)	2.78 (2.68)	2.49 (2.38)	2.23 (2.28)
Freeze fruit and vegetables that are getting old for use later on	2.49 (2.32)	2.57 (2.54)	2.51 (2.32)	2.31 (2.02)

Significant difference

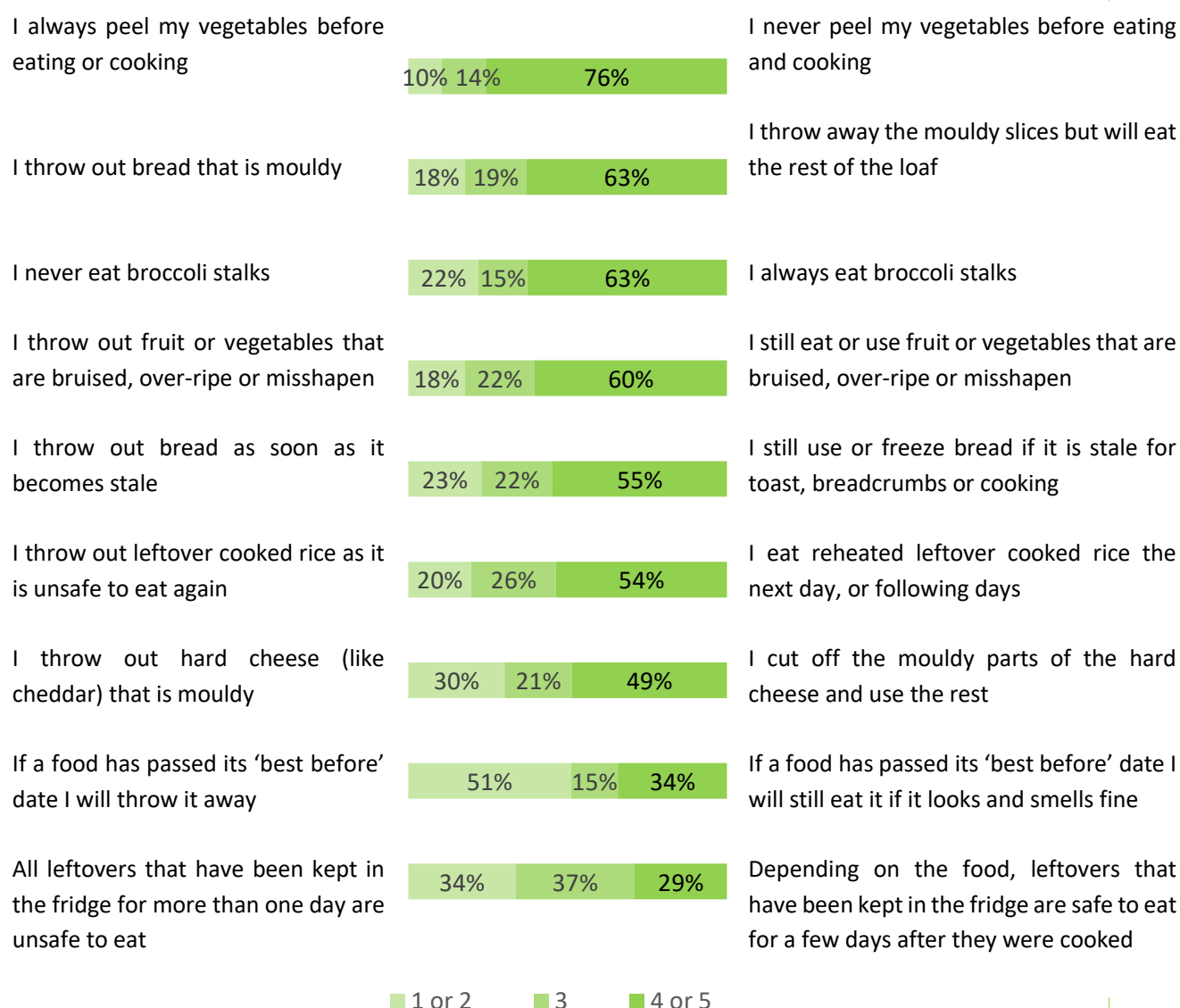
8.8 Expired or perished foods

Since 2014 there has been an increase in people throwing out mouldy bread, which they should be doing, and an increase in people still using bread even if it has gone stale. However, more people are throwing out mouldy cheese which can be eaten safely provided a margin is cut away and there has been no increase in people's belief that leftover rice is still safe to eat the next day so more messaging is needed on these topics.

Expired or perished foods

Base: All respondents (n=1,005)

Q34: Thinking about your behaviour with food in your household, please indicate where you feel that you fit between the two presented statements. Using the slider tool on a scale of 1 to 5, where a lower score means you associate yourself more with the statement on the left, and a higher score means you associate yourself more with the statement on the right.



Higher food wasters are more likely than the total sample to throw out stale, perished, older, or mouldy foods that are otherwise still edible. The behaviours which high food wasters are less likely to do than medium or low food wasters include:

- Throwing out bread as soon as it becomes stale.
- Throwing out hard cheese (like cheddar) that is mouldy.
- Throwing out fruit or vegetables that are bruised, over-ripe or misshapen.
- Throwing out food that has passed its 'best before' date.

Expired or perished foods by household food wastage groups

Base: All respondents (n=1,005)

Q34: Thinking about your behaviour with food in your household, please indicate where you feel that you fit between the two presented statements. Using the slider tool on a scale of 1 to 5, where a lower score means you associate yourself more with the statement on the left, and a higher score means you associate yourself more with the statement on the right.

	Total n=1,005	Household food wastage groups			
		Low n=390	Medium n=369	High n=246	
	Mean score (on a scale of 1 to 5)				
All leftovers that have been kept in the fridge for more than one day are unsafe to eat	4.15 (4.10)	4.43 (4.35)	4.08 (4.09)	3.81 (3.79)	Depending on the food, leftovers that have been kept in the fridge are safe to eat for a few days after they were cooked
If a food has passed its 'best before' date I will throw it away	3.77 (-)	4.09 (-)	3.70 (-)	3.36 (-)	If a food has passed its 'best before' date I will still eat it if it looks and smells fine
I throw out leftover cooked rice as it is unsafe to eat again	3.75 (3.75)	4.01 (4.06)	3.63 (3.72)	3.51 (3.40)	I eat reheated leftover cooked rice the next day, or following days
I throw out hard cheese (like cheddar) that is mouldy	3.69 (3.80)	4.00 (4.14)	3.69 (3.73)	3.20 (3.46)	I cut off the mouldy parts of the hard cheese and use the rest
I throw out bread as soon as it becomes stale	3.58 (3.46)	3.96 (3.91)	3.53 (3.32)	3.04 (3.08)	I still use or freeze bread if it is stale for toast, breadcrumbs or cooking
I throw out fruit or vegetables that are bruised, over-ripe or misshapen	3.53 (3.36)	3.85 (3.70)	3.50 (3.31)	3.07 (2.99)	I still eat or use fruit or vegetables that are bruised, over-ripe or misshapen
I never eat broccoli stalks	3.30 (-)	3.51 (-)	3.18 (-)	3.14 (-)	I always eat broccoli stalks
I always peel my vegetables before eating or cooking	2.84 (-)	3.06 (-)	2.69 (-)	2.71 (-)	I never peel my vegetables before eating and cooking
I throw out bread that is mouldy	2.65 (2.17)	2.89 (2.48)	2.63 (2.03)	2.29 (1.96)	I throw away the mouldy slices but will eat the rest of the loaf

Significant difference

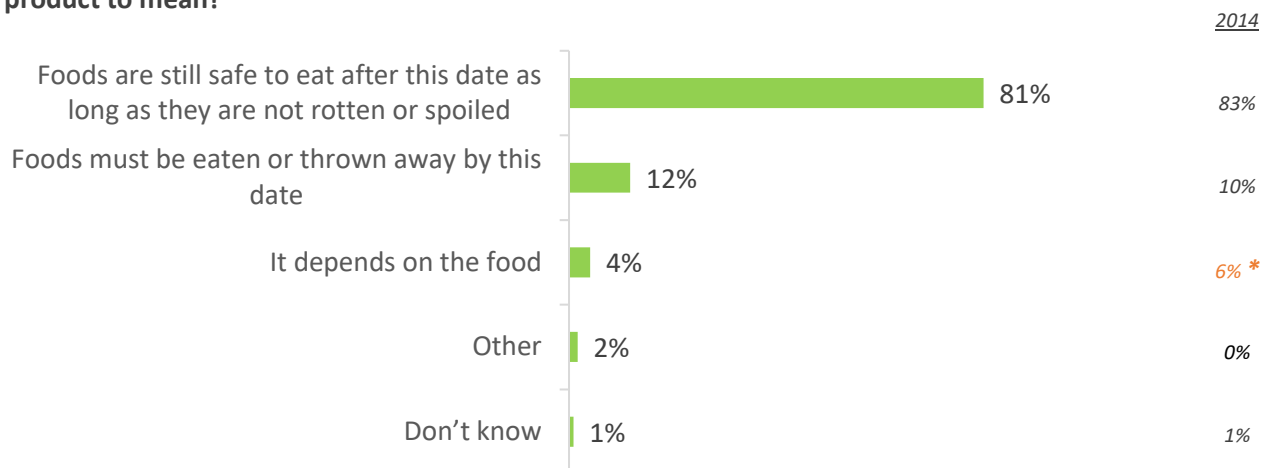
8.9 Understanding of best before dates

Most respondents had the correct understanding of what the best before dates means (81%), namely that foods are still safe to eat after this date as long as they are not rotten or spoiled.

Understanding of best before dates

Base: All respondents (n=1,005)

Q35: What do you understand the term 'best before date' on a food product to mean?



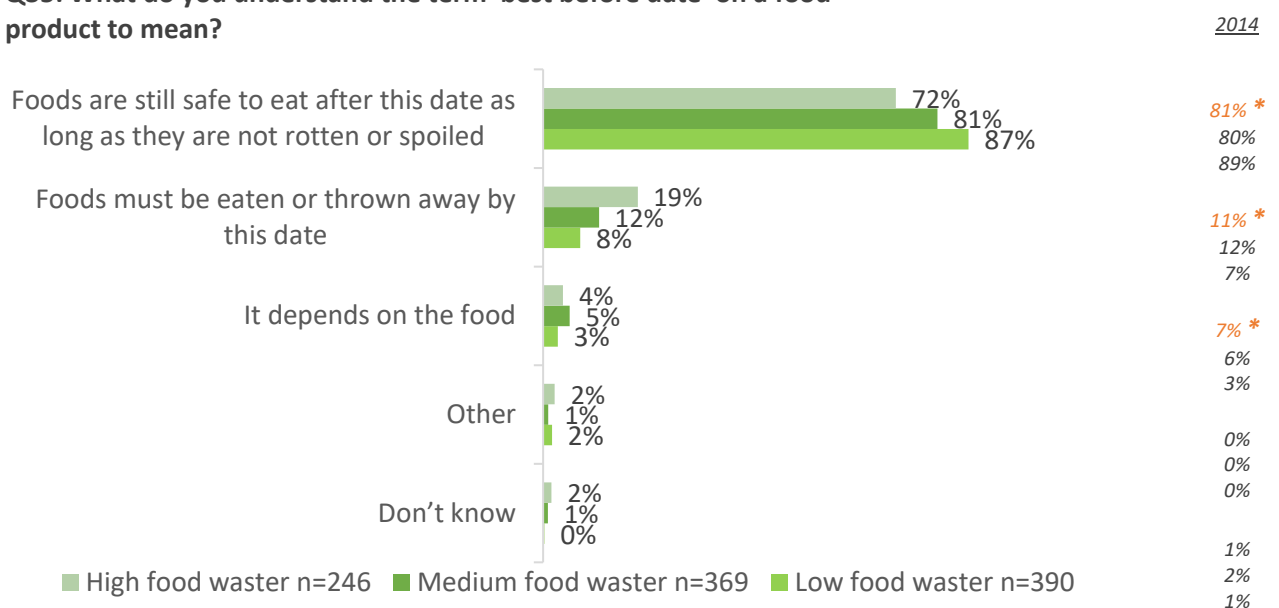
*Significant change

Low food wasters are more likely to understand the meaning of a best before date (87%) than medium (80%) and high food wasters (72%, decreasing from 81% in 2014). There is a significant decline in understanding the meaning of best before dates among high food wasters since 2014 (9% decrease to 72%)

Understanding of best before dates by household food wastage groups

Base: All respondents (n=1,005)

Q35: What do you understand the term 'best before date' on a food product to mean?



*Significant change

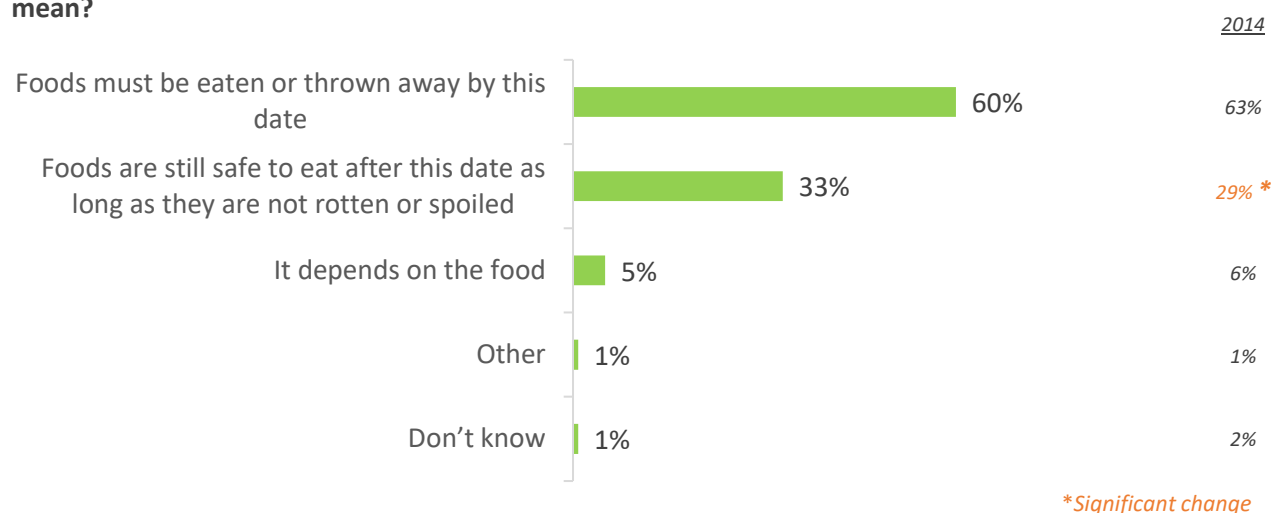
8.10 Understanding of use by dates

Three in five respondents (60%) understand the use by dates on food packaging to mean that foods must be eaten or thrown away by this date and one third of respondents (33%) believe that foods are still safe to eat after this date as long as they are not rotten or spoiled, increasing from 29% in 2014.

Understanding of use by dates

Base: All respondents (n=1,005)

Q36: What do you understand the term 'use by date' on a food product to mean?

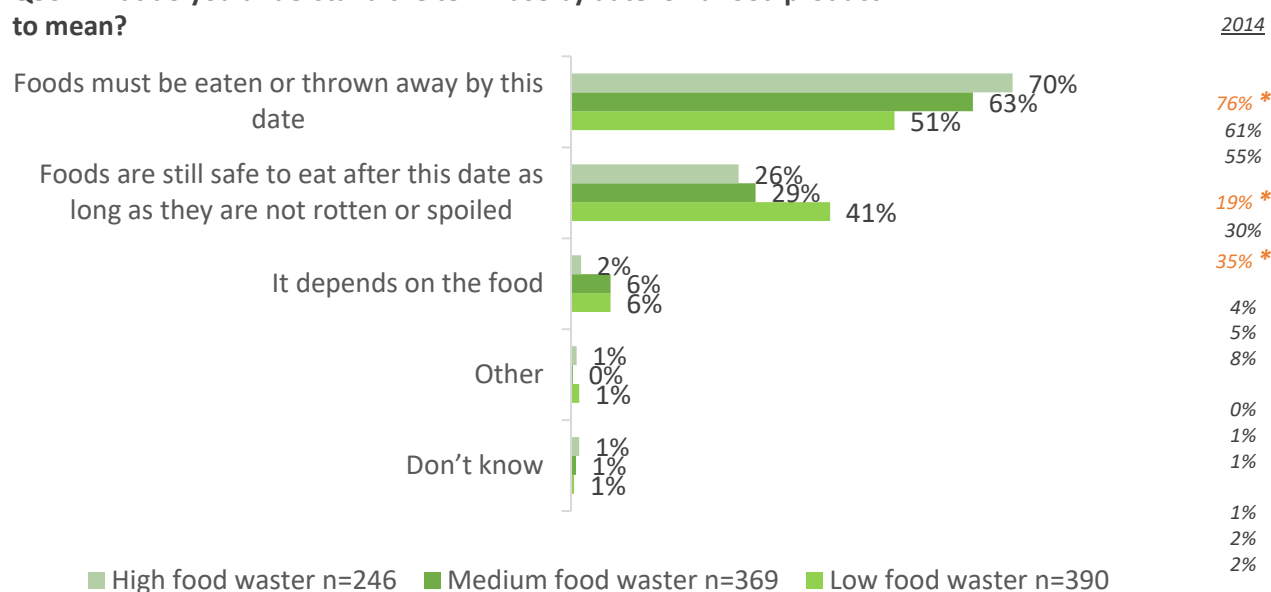


High food wasters are more likely to strictly follow the use by date of throwing away foods once they are past this date (70%, down from 76% in 2014) when compared with low food wasters (51%).

Understanding of use by dates by household food wastage groups

Base: All respondents (n=1,005)

Q36: What do you understand the term 'use by date' on a food product to mean?



*Significant change

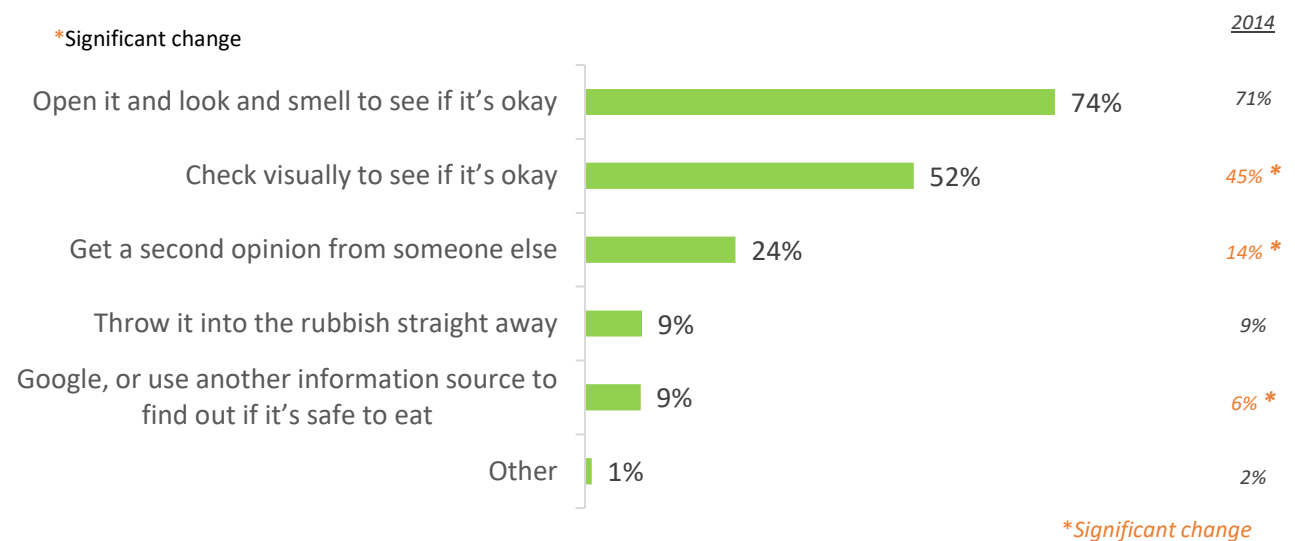
8.11 Dealing with expired foods

Respondents generally trust their sensory perceptions when judging whether or not to throw away a food product that has passed its best before date (74%). Compared to 2014 more people are checking visually (7% increase to 52%) and/or getting a second opinion (10% increase to 24%) when deciding what to do with food that has passed its best before date.

Dealing with expired foods

Base: All respondents (n=1,005)

Q37: If a food product has passed its best before date what do you do?



The proportion of high food wasters who open and look and smell to see if it's okay decreased since 2014 (down 10% to 61%), while the proportion of high food wasters who get a second opinion from someone else increased (up 13% to 30%). High food wasters are less likely than low food wasters to open a food product and look and smell to see if it's okay (61% compared to 81%). They are more likely to get a second opinion from someone else or throw it into the rubbish straight away.

Dealing with expired foods by household food wastage groups

Base: All respondents (n=1,005)

Q37: If a food product has passed its best before date what do you do?

	Total n=1,005	Household food wastage groups		
		Low n=390	Medium n=369	High n=246
Open it and look and smell to see if it's okay	74% (71%)	81% (74%) *	74% (69%)	61% (71%) *
Check visually to see if it's okay	52% (45%) *	50% (45%)	55% (45%) *	50% (44%)
Get a second opinion from someone else	24% (14%) *	20% (11%) *	23% (15%) *	30% (17%) *
Throw it into the rubbish straight away	9% (9%)	6% (6%)	9% (10%)	14% (11%)
Google, or use another information source to find out if it's safe to eat	9% (6%) *	10% (6%) *	9% (7%)	7% (5%)
Other	1% (2%) *	1% (2%)	1% (1%)	2% (2%)

*Significant change

Significant difference

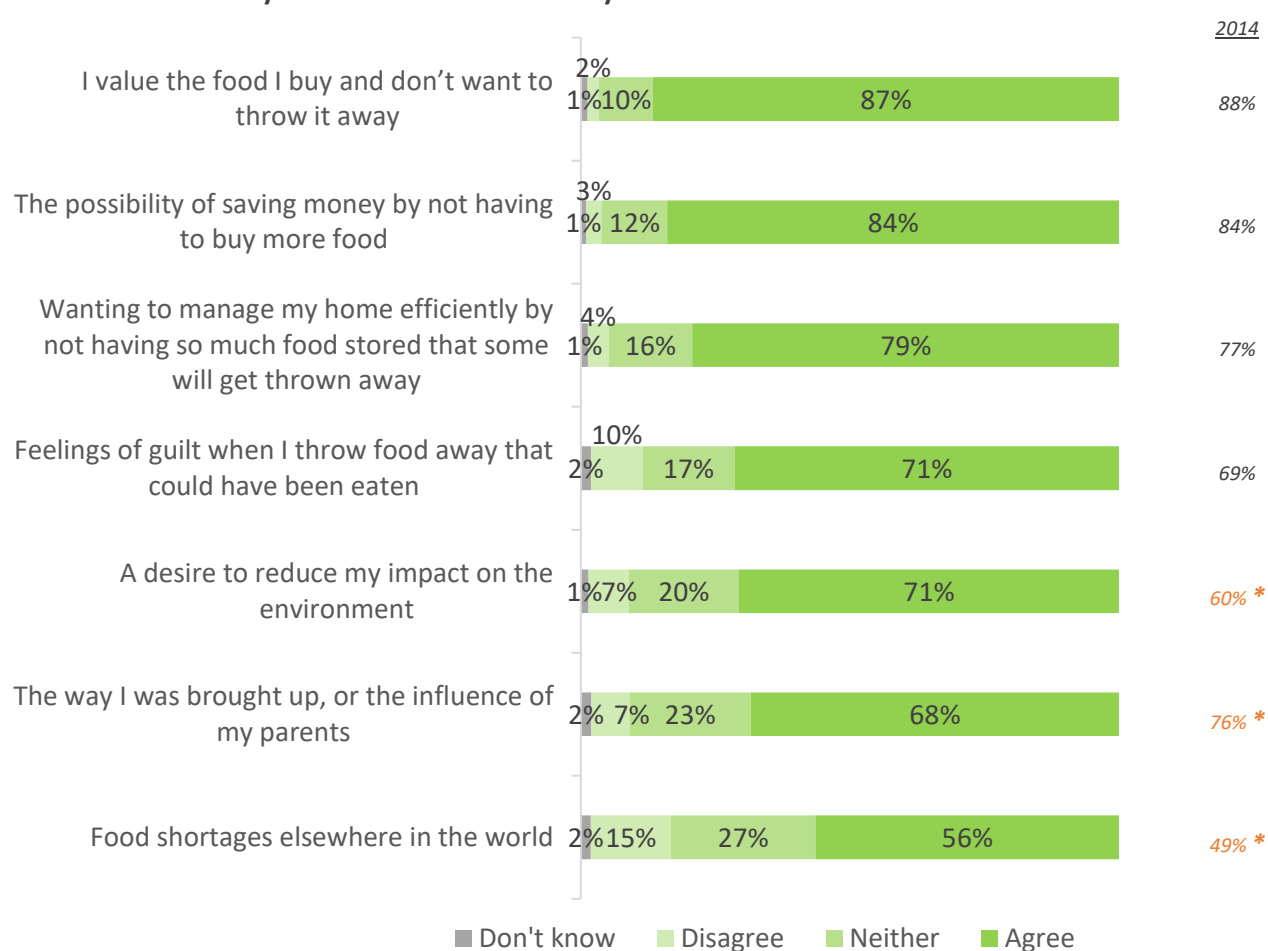
8.12 Motivations to minimise household food waste

The most common motivators to minimise the amount of food wasted includes the value placed upon food (87%), the possibility of saving money (84%), and wanting to manage the home efficiently so food waste does not occur (79%). Significantly more people are motivated to waste less food by a desire to reduce their impact on the environment (11% increase to 71%) and awareness of food shortages elsewhere in the world (7% increase to 56%) than in 2014. A considerably smaller proportion are motivated by their upbringing or influenced by their parents (8% decrease to 68%).

Motivations to minimise household food waste

Base: All respondents (n=1,005)

Q38: To what extent do the following motivate you to try to minimise the amount of food that your household throws away?



*Significant change

High food wasters are less likely to be motivated by the prompted factors to minimise their food waste when compared with medium and low food wasters. The motivator with the most significant relationship to the food waste generated is the value placed upon food, i.e., higher food wasters are less likely to state that they value their food and therefore don't want to throw it away when compared with medium and low food wasters, although this is still a key motivator for these households.

Motivations to minimise household food waste by household food wastage groups

Base: All respondents (n=1,005)

Q38: To what extent do the following motivate you to try to minimise the amount of food that your household throws away? This could be into the rubbish bin, waste disposal units, or compost.

	Total n=1,005	Household food wastage groups		
		Low n=390	Medium n=369	High n=246
I value the food I buy and don't want to throw it away	4.35 (4.29)	4.57 (4.50)	4.32 (4.29)	4.05 (4.03)
The possibility of saving money by not having to buy more food	4.30 (4.25)	4.41 (4.35)	4.28 (4.22)	4.15 (4.17)
Wanting to manage my home efficiently by not having so much food stored that some will get thrown away	4.16 (4.03)	4.29 (4.24)	4.15 (3.98)	3.96 (3.84)
The way I was brought up, or the influence of my parents	4.00 (4.07)	4.20 (4.21)	3.95 (4.11)	3.77 (3.83)
Feelings of guilt when I throw food away that could have been eaten	3.98 (3.85)	3.97 (3.91)	4.00 (3.79)	3.97 (3.85)
A desire to reduce my impact on the environment	3.95 (3.70)	3.97 (3.73)	3.98 (3.75)	3.87 (3.62)
Food shortages elsewhere in the world	3.62 (3.44)	3.50 (3.47)	3.66 (3.46)	3.75 (3.36)

Significant difference

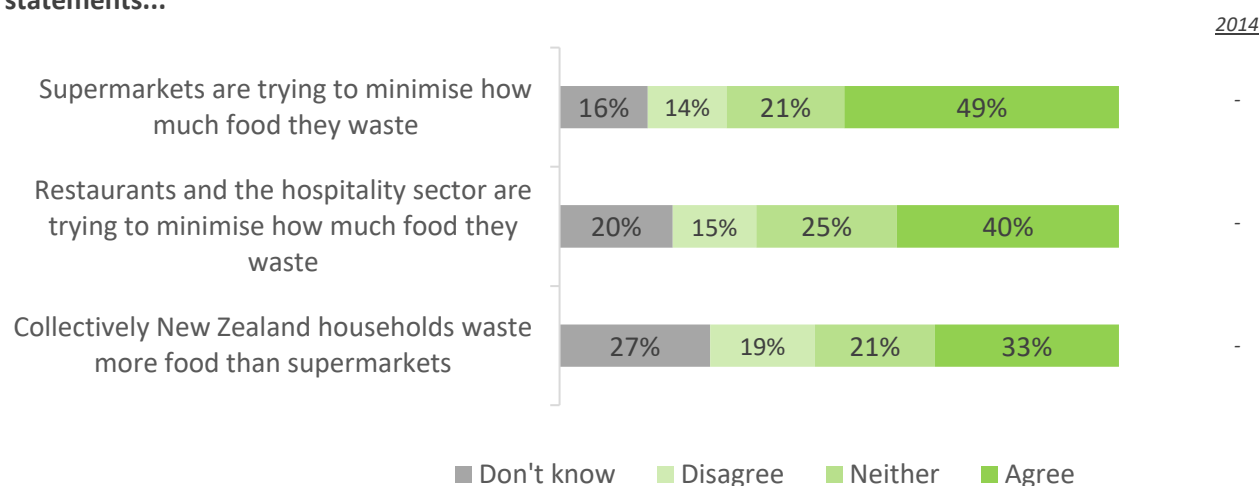
8.13 Supermarkets and restaurants minimising food waste

Around half of respondents (49%) agree that supermarkets are trying to minimise how much food they waste, however, there are a number of people (27%) who don't know whether collectively New Zealand households waste more food than supermarkets.

Supermarkets and restaurants minimising food waste

Base: All respondents (n=1,005)

Q39: Please state whether you agree or disagree with the following statements...



There is very little difference between the different household food wastage groups in terms of their understanding of how supermarkets and restaurants are going about minimising food waste.

Supermarkets and restaurants minimising food waste

Base: All respondents (n=1,005)

Q39: Please state whether you agree or disagree with the following statements...

	Total n=1,005	Household food wastage groups		
		Low n=390	Medium n=369	High n=246
	Mean score (on a scale of 1 to 5)			
Supermarkets are trying to minimise how much food they waste	3.49 (-)	3.49 (-)	3.53 (-)	3.43 (-)
Restaurants and the hospitality sector are trying to minimise how much food they waste	3.36 (-)	3.38 (-)	3.35 (-)	3.33 (-)
Collectively New Zealand households waste more food than supermarkets	3.29 (-)	3.29 (-)	3.31 (-)	3.27 (-)

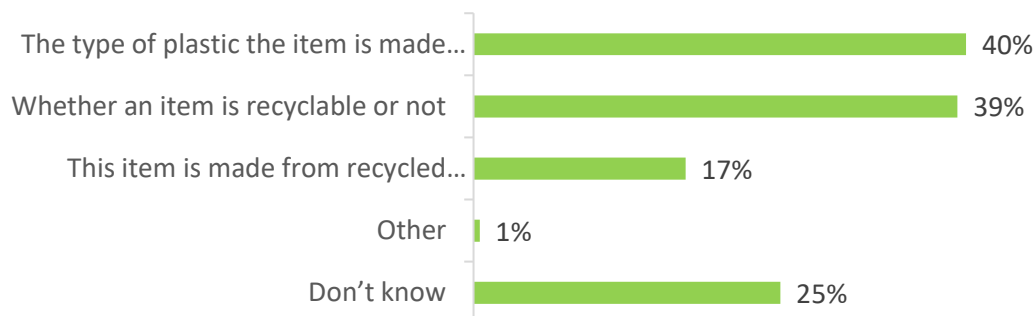
8.14 Interpreting symbols on packaging

Two in five respondents correctly interpret the plastic identification symbol representing the type of plastic the item is made from, however, a similar number of respondents incorrectly believe that the symbol indicates whether an item is recyclable or not. One quarter of respondents do not know what the symbol means.

Symbol indicating type of recyclable plastic

Base: All respondents (n=1,005)

Q3: What does the following symbol indicate when you see this on packaging?
Tick all that apply

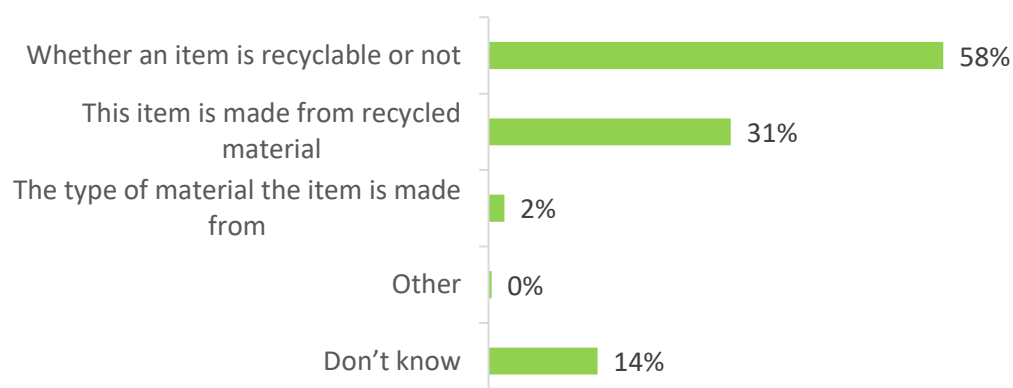


Close to six in ten (58%) respondents correctly identified that the recycling symbol indicates whether an item is recyclable or not. However, three in ten (31%) incorrectly believe that it indicates whether an item is made out of recycled material. High wastage households are more likely to indicate that the symbol shows whether an item is recyclable or not (64%).

Symbol indicating item is recyclable

Base: All respondents (n=1,005)

Q4: What does the following symbol indicate when you see this on packaging?
Tick all that apply



9. Appendix: Questionnaire

A. Do you or any members of your immediate family work in the following areas?

1	Public Relations or Promotions	SCREEN OUT
2	Mass Media (Newspapers, TV, Radio etc)	SCREEN OUT
3	Marketing including Market Research	SCREEN OUT
4	Collection or processing of waste materials	SCREEN OUT
5	Management role in Food Retail Trade e.g. supermarket	SCREEN OUT
6	Local government (including council staff and elected representatives)	SCREEN OUT
7	Management role in Food Service Trade e.g. Chef	SCREEN OUT
8	None of these	CONTINUE

B. Please select your gender:

1	Male
2	Female
3	Other

C. Which of the following age groups are you in?

1	15 years or younger	SCREEN OUT
2	16 – 19 years	
3	20 – 24 years	
4	25 – 29 years	
5	30 – 34 years	
6	35 – 39 years	
7	40 – 44 years	
8	45 – 49 years	
9	50 – 54 years	
10	55 – 59 years	
11	60 – 64 years	
12	65 – 69 years	
13	70 years or older	

D. Which region do you mainly live in?

1	Northland
2	Auckland
3	Waikato
4	Bay of Plenty
5	Gisborne
6	Hawke's Bay
7	Taranaki
8	Manawatu / Whanganui
9	Wellington / Wairarapa
10	Nelson / Marlborough / Tasman
11	West Coast
12	Canterbury
13	Otago
14	Southland

- E. Which part of the region do you mainly live in?
 DISPLAY ONLY THOSE OF THE REGION AT QD

CITY COUNCILS

Hamilton City Council	Upper Hutt City Council
Hutt City Council	Wellington City Council
Napier City Council	Christchurch City Council
Palmerston North City Council	Dunedin City Council
Porirua City Council	Invercargill City Council
Tauranga City Council	Nelson City Council

DISTRICT COUNCILS

Ashburton District Council	Queenstown-Lakes District Council
Buller District Council	Rangitikei District Council
Carterton District Council	Rotorua District Council
Central Hawke's Bay District Council	Ruapehu District Council
Central Otago District Council	Selwyn District Council
Chatham Islands Council	South Taranaki District Council
Clutha District Council	South Waikato District Council
Far North District Council	South Wairarapa District Council
Gisborne District Council	Southland District Council
Gore District Council	Stratford District Council
Grey District Council	Tararua District Council
Hastings District Council	Tasman District Council
Hauraki District Council	Taupo District Council
Horowhenua District Council	Thames-Coromandel District Council
Hurunui District Council	Timaru District Council
Kaikoura District Council	Waikato District Council
Kaipara District Council	Waimakariri District Council
Kapiti Coast District Council	Waimate District Council
Kawerau District Council	Waipa District Council
Mackenzie District Council	Wairoa District Council
Manawatu District Council	Waitaki District Council
Marlborough District Council	Waitomo District Council
Masterton District Council	Wanganui District Council
Matamata-Piako District Council	Western Bay of Plenty District Council
New Plymouth District Council	Westland District Council
Opotiki District Council	Whakatane District Council
Otorohanga District Council	Whangarei District Council

F. Is the place where you mainly live best described as a...

1	City
2	Town
3	Small urban settlement
4	Rural area
96	Other (please specify):

G. Which of the following are you mainly responsible, or jointly responsible for in your household?
[ROTATE. MULTIPLE RESPONSE]

1	Food purchasing for the household	CONTINUE
2	Cooking/food preparation	CONTINUE
3	Food storage (i.e. of grocery items and leftovers)	CONTINUE
4	Cleaning out or organising the fridge	CONTINUE
5	Paying the power, or electricity account	SCREEN OUT
6	Power tool equipment purchases	SCREEN OUT
7	Fixing electrical faults in the house	SCREEN OUT
8	Fixing plumbing problems in the house	SCREEN OUT
9	Cleaning the kitchen, and bathrooms	SCREEN OUT
10	Taking out the rubbish, or recycling	SCREEN OUT

PREVIOUS QUESTIONS

1. Please indicate the extent to which you agree or disagree with the following statements...

		Strongly disagree 1	Disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5	Don't know 98
1	I am concerned about environmental problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	Food waste is harmful to the environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	I make a conscious effort to reduce my waste as much as possible in my everyday life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	Our household is on a very tight budget	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	Avoiding plastic that is only used once is an important issue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	New Zealand households don't waste much food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	Busy lifestyles make it hard to avoid wasting food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	I know what can and can't be recycled in my area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	Wasting food feels wrong to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	I recycle even if it takes extra effort	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	Food waste reduction is an important issue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	If I'm not sure if something can be recycled I put it in the rubbish bin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13	It is more important for me to reduce my packaging waste than my food waste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Which of the following behaviours or activities do you do?

		Never 1	Hardly ever 2	Sometimes 3	Most times 4	Always 5
1	I recycle everything I can in my area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	I take my soft plastics to a drop-off point for recycling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	I try to avoid using plastic straws	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	I avoid buying bottled water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	I try not to waste food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	I take my own shopping bags for buying groceries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	I take my own shopping bags for buying items from stores that are not grocery stores (e.g. clothing, stationary, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	I use composting, worm farms or bokashi for disposing of food scraps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	I feed food scraps to dogs, chickens, pigs or other animals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	I take a reusable cup when buying takeaway drinks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	I choose grocery items with little or no packaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	If an item was available in different volumes, I'd purchase the larger volume to reduce packaging waste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13	I take reusable containers to buy takeaways, meat, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14	I ask to take home my leftover food when eating at restaurants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15	I participate in food swap or food sharing groups, or use a community fridge or community pantry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16	I donate unwanted clothing to charity bins or second-hand shops	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17	I preserve food, e.g. make jams or pickles, freeze surplus produce	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18	I buy second-hand clothes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. What does the following symbol indicate when you see this on packaging?
[MULTIPLE RESPONSE]



1	Whether an item is recyclable or not
2	The type of plastic the item is made from
3	This item is made from recycled material
96	Other (please specify):
98	Don't know

4. What does the following symbol indicate when you see this on packaging?
[MULTIPLE RESPONSE]



1	Whether an item is recyclable or not
2	The type of material the item is made from
3	This item is made from recycled material
96	Other (please specify):
98	Don't know

Please answer the following questions about the household where you have mainly lived over the past 6 months

5. How do you usually get rid of food waste in your household? Please select as many as apply.
By food waste we mean all edible and inedible food that is thrown out in your household, such as leftovers, fruit and vegetable scraps, meat bones, partially used foods, foods that have passed their use by or best before date, or food thrown away for other reasons.

[MULTI RESPONSE. ROTATE]

1	Put in the rubbish for collection
2	Put in a council provided green food scraps / organics bin (if applicable)
3	Compost
4	Bokashi (Composting system)
5	Bury in the garden
6	Kitchen waste disposal unit or insinkerator
7	Worm farm
8	Give to chickens, pigs or other animals including dogs and cats
96	Other (please specify):
98	Don't know

ASK IF MORE THAN ONE SELECTED AT Q5 ABOVE. PIPE ANSWERS @Q5.

6. And which of these do you use to get rid of **most** of your food waste?

[SINGLE RESPONSE. ROTATE]

1	Put in the rubbish for collection
2	Put in a council provided green food scraps / organics bin (if applicable)
3	Compost
4	Bokashi (Composting system)
5	Bury in the garden
6	Kitchen waste disposal unit or insinkerator
7	Worm farm
8	Give to chickens, pigs or other animals including dogs and cats
96	Other (please specify):
98	Don't know

Please give your best estimate to the following questions.

Based on a **normal week** within your household...

7. On average, how much money do you or your household spend on food to be eaten at home per week? If you don't shop weekly, please estimate what the amount of money from your food shop (if this is fortnightly, monthly, etc.) would be for one week.

SLIDER TOOL

8. What percentage of this money spent on food does your household throw away that could have been eaten per week? This also includes any food that was fed to animals or composted.

For example, food and drink that was edible at some point before being thrown away

SLIDER TOOL

9. Using a 2L ice-cream container as a guide, how much food does your household throw away that could have been eaten per week? This also includes any food that was fed to animals or composted. **INCLUDE IMAGE OF 2L ICECREAM CONTAINER**

1	None at all	SKIP Q10, Q26, Q27
2	Less than half of one 2L container	
3	One half of a 2L container to less than one 2L container	
4	One 2L container	
5	Two 2L containers	
6	Three 2L containers	
7	Four to five 2L containers	
8	Six to seven 2L containers	
9	Eight or more 2L containers	

ASK ONLY OF THOSE WHO WASTE FOOD @Q9

10. In general, how much uneaten food would you say your household usually throws away that could have been eaten? This also includes any food that was fed to animals or composted.

For example, food and drink that was edible at some point before being thrown away

1	A great deal
2	Quite a lot
3	A moderate amount
4	Little
5	Very little

NEW QUESTIONS

11. Have you seen or heard any information about food waste in the last 2 years?

1	Yes	CONTINUE WITH Q12
2	No	SKIP TO Q14

12. What information or advertising do you recall having seen or heard about food waste in the last two years? For example, main message, image, name.

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13. Please indicate where you have seen or heard information about food waste in the last two years?

[MULTIPLE RESPONSE]

1	Internet
2	Social Media e.g. Facebook, Instagram, Twitter, Pinterest, YouTube
3	Local council website
4	Magazine
5	Newspaper
6	Television program / news story
7	Event, e.g. workshop, stall at event or market
8	Face to face discussions with friends, family, work colleagues, etc.
9	Radio
96	Other (please specify):

14. Have you heard of the Love Food Hate Waste campaign?

1	Yes	CONTINUE
2	No	SKIP TO Q20

15. Where did you hear about Love Food Hate Waste? Tick all that apply
[MULTIPLE RESPONSE]

1	Internet
2	Love Food Hate Waste website
3	Social Media e.g. Facebook, Instagram, Twitter, Pinterest, YouTube
4	Local council website
5	Magazine
6	Newspaper
7	Television program / news story
8	Event, e.g. workshop, stall at event or market
9	Face to face discussions with friends, family, work colleagues, etc.
10	Radio
96	Other (please specify):

16. Has what you've seen or heard about food waste from Love Food Hate Waste had an impact on how much food you waste?

1	Yes	SKIP TO Q18
2	No	ASK 17, THEN SKIP TO Q20

17. Why do you say the campaign has not had an impact? Tick all that apply
[MULTIPLE RESPONSE]

1	I do not have any food waste / I was already minimising my food waste
2	It just made me more aware of the issue, it didn't change my behaviour
3	I don't believe that food waste is an issue
4	It is more important for me to reduce my use of plastic than to reduce my food waste
5	I can afford to waste food
6	I only saw it mentioned briefly
7	Our family has other priorities
8	We lead very busy lives
96	Other (please specify):

IF Q16 = YES(1) THEN ASK Q18, ELSE SKIP TO Q20

18. After seeing or hearing information about food waste from Love Food Hate Waste, which of the following were you motivated to do to waste less food? Tick all that apply
[MULTIPLE RESPONSE]

1	Use my leftovers for other meals
2	Write a shopping list
3	Plan meals in advance
4	Buy less food more regularly
5	Cook the correct serving sizes
6	Eat food past its best before date
7	Find out more about the issue of food waste
8	Visit the Love Food Hate Waste website
9	Change my shopping habits
10	Stop peeling fruit and vegetables
11	Eat broccoli stalks
12	Change where and how I store my food so it lasts longer
13	Store leftovers or excess food in the freezer
14	Put my food waste in a compost bin, worm farm or bokashi
15	Feed scraps to my animals
96	Other (please specify):

19. Thinking about the actions you have taken as a result of being motivated by Love Food Hate Waste and using a 2L ice-cream container as a guide, how much food do you think your household has saved or avoided throwing away in an average week?

INCLUDE IMAGE OF 2L ICE-CREAM CONTAINER

1	None at all
2	Less than half of one 2L container
3	One half of a 2L container to less than one 2L container
4	One 2L container
5	Two 2L containers
6	Three 2L containers
7	Four to five 2L containers
8	Six to seven 2L containers
9	Eight or more 2L containers

IF Q14 = NO(2) THEN ASK Q20, ELSE SKIP TO Q23

20. Have you done anything to reduce how much food you waste over the last two years?

1	Yes	CONTINUE
2	No	SKIP TO Q24

21. Which of the following have you done to waste less food? Tick all that apply
[MULTIPLE RESPONSE]

1	Use my leftovers for other meals
2	Write a shopping list
3	Plan meals in advance
4	Buy less food more regularly
5	Cook the correct serving sizes
6	Eat food past its best before date
7	Find out more about the issue of food waste
8	Visit the Love Food Hate Waste website
9	Change my shopping habits
10	Stop peeling fruit and vegetables
11	Eat broccoli stalks
12	Change where and how I store my food so it lasts longer
13	Store leftovers or excess food in the freezer
14	Put my food waste in a compost bin, worm farm or bokashi
15	Feed scraps to my animals
96	Other (please specify):

22. Thinking about the actions you have taken to waste less food and using a 2L ice-cream container as a guide, how much food do you think your household has saved or avoided throwing away in an average week?

INCLUDE IMAGE OF 2L ICE-CREAM CONTAINER

1	None at all
2	Less than half of one 2L container
3	One half of a 2L container to less than one 2L container
4	One 2L container
5	Two 2L containers
6	Three 2L containers
7	Four to five 2L containers
8	Six to seven 2L containers
9	Eight or more 2L containers

23. And how much do you think this would equate to in dollar value?

1	None at all
2	Less than \$2 a week
3	Around \$3 a week
4	Around \$5 a week
5	Around \$7 a week
6	Around \$9 a week
7	Around \$11 a week
8	Around \$12 a week
9	Around \$14 a week
10	Around \$16 a week
11	Around \$18 a week
12	Around \$20 or more a week
98	Don't know

24. What (more) could you do to waste less food? Tick all that apply

[IF Q20=2 (NO) THEN EXCLUDE WORD 'more' FROM QUESTION]

[MULTIPLE RESPONSE]

1	Use my leftovers for other meals
2	Write a shopping list
3	Plan meals in advance
4	Buy less food more regularly
5	Cook the correct serving sizes
6	Eat food past its best before date
7	Find out more about the issue of food waste
8	Visit the Love Food Hate Waste website
9	Change my shopping habits
10	Stop peeling fruit and vegetables
11	Eat broccoli stalks
12	Change where and how I store my food so it lasts longer
13	Store leftovers or excess food in the freezer
14	Put my food waste in a compost bin, worm farm or bokashi
15	Feed scraps to my animals
96	Other (please specify):

END OF NEW QUESTIONS

25. Approximately how much would you estimate that the average New Zealand household spends on food that is purchased but never eaten each year?

1	Less than \$100 (Less than \$2 a week)
2	\$100 - \$199 (Around \$3 a week)
3	\$200 - \$299 (Around \$5 a week)
4	\$300 - \$399 (Around \$7 a week)
5	\$400 - \$499 (Around \$9 a week)
6	\$500 - \$599 (Around \$11 a week)
7	\$600 - \$699 (Around \$12 a week)
8	\$700 - \$799 (Around \$14 a week)
9	\$800 - \$899 (Around \$16 a week)
10	\$900 - \$999 (Around \$18 a week)
11	\$1,000 or more (Around \$20 or more a week)

ASK Q26 ONLY OF THOSE WHO WASTE FOOD; Q9 ≠ 1

Please think about why food gets wasted in your household...

26. What do you think is the **main** reason that food gets wasted in your household?

'Leftovers' includes any uneaten food portions, or ingredients remaining from a previous meal that can be eaten at a later date such as home cooked meals, individual cooked ingredients like pasta, or takeaway meals.

[ROTATE. SINGLE RESPONSE]

1	Too much food is bought
2	Food is not stored as well as it could be
3	Too much food is cooked
4	Food in the fridge or freezer goes off
5	Leftovers are not eaten or re-used
6	Children, fussy eaters or those with specialist dietary requirements within the household cause food waste
96	Other (please specify):

ASK Q27 ONLY OF THOSE WHO WASTE FOOD; Q9 ≠ 1

27. Are there any **other** reasons that food gets wasted in your household?

'Leftovers' includes any uneaten food portions, or ingredients remaining from a previous meal that can be eaten at a later date such as home cooked meals, individual cooked ingredients like pasta, or takeaway meals.

[ROTATE. MULTIPLE RESPONSE]

1	Too much food is bought
2	Food is not stored as well as it could be
3	Too much food is cooked
4	Food in the fridge or freezer goes off
5	Leftovers are not eaten or re-used
6	Children, fussy eaters or those with specialist dietary requirements within the household cause food waste
96	Other (please specify):
97	No other reasons

28. Which supermarket does your household mainly buy food for your household from?

[MULTIPLE RESPONSE]

1	New World
2	Countdown
3	Pak'nSave
96	Other (please specify):
97	None
98	Don't know

ASK ONLY IF RESPONSIBLE FOR FOOD PURCHASING; QG = 1

29. When you are shopping for food or before you go shopping for food, how regularly do you do the following? [ROTATE]

		Never	Hardly ever	Sometimes	Most times	Always
1	Check what is in the cupboards, fridge or freezer before doing a food shop	1	2	3	4	5
2	Plan a weekly menu of meals	1	2	3	4	5
3	Use a shopping list when buying food	1	2	3	4	5
4	Write a shopping list based on a menu plan	1	2	3	4	5
5	Stick to menu plans and shopping lists while shopping	1	2	3	4	5
6	Shop to a set budget	1	2	3	4	5

ASK ONLY IF RESPONSIBLE FOR COOKING AND PREPARING; QG = 2

30. Thinking about cooking and preparing food, please indicate where you feel that you fit between the two statements presented.

I like to cook meals based on what I feel like, and will buy new ingredients for this meal	1	2	3	4	5	I look in the cupboard, fridge or freezer and make a meal from ingredients that need using up first
--	---	---	---	---	---	---

ASK ONLY IF RESPONSIBLE FOR COOKING AND PREPARING; QG = 2

31. When you are cooking or preparing main meals in your household, how often do you...

		Never	Hardly ever	Sometimes	Most of the time	All of the time
1	Consider portion sizes and only make as much as is needed	1	2	3	4	5
2	Make extra just in case it is needed	1	2	3	4	5
3	Use a food delivery service such as My Food Bag	1	2	3	4	5

ASK ONLY IF RESPONSIBLE FOR COOKING AND PREPARING; QG = 2

32. When you have leftovers after a main meal, how often do you or your household...

		Never	Hardly ever	Sometimes	Most of the time	All of the time
1	Put them in the fridge and eat or reuse them afterwards	1	2	3	4	5
2	Put them in the fridge and throw them out later	1	2	3	4	5
3	Put them in the freezer and eat or reuse them afterwards	1	2	3	4	5
4	Put them in the freezer and throw them out later	1	2	3	4	5
5	Throw them out straight after the meal	1	2	3	4	5
6	Throw them out because they didn't get put into the fridge or freezer	1	2	3	4	5
7	Throw them out because someone in the household didn't eat them	1	2	3	4	5
8	Throw them out because you made too much	1	2	3	4	5

ASK ONLY IF RESPONSIBLE FOR STORING FOOD; QG=3

33. When you are storing food, how often do you...

		Never	Hardly ever	Sometimes	Most of the time	All of the time
1	Label leftovers so you know what they are	1	2	3	4	5
2	Rotate products from back to front of shelf, fridge or freezer so the oldest food is at the front and the newest food is at the back	1	2	3	4	5
3	Freeze your bread to stop it going mouldy or stale	1	2	3	4	5
4	Freeze fruit and vegetables that are getting old for use later on	1	2	3	4	5
5	Store your bananas out of the fruit bowl and away from other fruit	1	2	3	4	5
6	Keep potatoes and onions in separate places away from each other	1	2	3	4	5
7	Store apples in the fridge	1	2	3	4	5

ASK ALL

34. Thinking about your behaviour with food in your household, please indicate where you feel that you fit between the two statements presented.

1	If a food has passed its 'best before' date I will throw it away	1	2	3	4	5	If a food has passed its 'best before' date I will still eat it if it looks and smells fine
2	I throw out fruit or vegetables that are bruised, over-ripe or misshapen	1	2	3	4	5	I still eat or use fruit or vegetables that are bruised, over-ripe or misshapen
3	I throw out hard cheese (like cheddar) that is mouldy	1	2	3	4	5	I cut off the mouldy parts of the hard cheese and use the rest
4	I throw out bread that is mouldy	1	2	3	4	5	I throw away the mouldy slices but will eat the rest of the loaf
5	I throw out bread as soon as it becomes stale	1	2	3	4	5	I still use or freeze bread if it is stale for toast, breadcrumbs or cooking
6	All leftovers that have been kept in the fridge for more than one day are unsafe to eat	1	2	3	4	5	Depending on the food, leftovers that have been kept in the fridge are safe to eat for a few days after they were cooked
7	I throw out leftover cooked rice as it is unsafe to eat again	1	2	3	4	5	I eat reheated leftover cooked rice the next day, or following days
8	I always peel my vegetables before eating or cooking	1	2	3	4	5	I never peel my vegetables before eating and cooking
9	I never eat broccoli stalks	1	2	3	4	5	I always eat broccoli stalks

35. What do you understand the term 'BEST BEFORE DATE' on a food product to mean?

[DISPLAY IMAGE. SINGLE RESPONSE]

1	Foods are still safe to eat after this date as long as they are not rotten or spoiled
2	Foods must be eaten or thrown away by this date
3	It depends on the food (please explain):
96	Other (please specify):
98	Don't know

36. What do you understand the term 'USE BY DATE' on a food product to mean?

[DISPLAY IMAGE. SINGLE RESPONSE]

1	Foods are still safe to eat after this date as long as they are not rotten or spoiled
2	Foods must be eaten or thrown away by this date
3	It depends on the food (please explain):
96	Other (please specify):
98	Don't know

37. If a food product has passed its best before date what do you do? [MULTIPLE RESPONSE]

1	Throw it into the rubbish straight away [EXCLUSIVE RESPONSE]
2	Check visually to see if it's okay
3	Open it and look and smell to see if it's okay
4	Get a second opinion from someone else
5	Google, or use another information source to find out if it's safe to eat
96	Other (please specify):

38. To what extent do the following motivate you to try to minimise the amount of food that your household throws away?

This could be into the rubbish bin, waste disposal units, or compost

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Don't know
1	A desire to reduce my impact on the environment	1	2	3	4	5	98
2	Food shortages elsewhere in the world	1	2	3	4	5	98
3	The possibility of saving money by not having to buy more food	1	2	3	4	5	98
4	Wanting to manage my home efficiently by not having so much food stored that some will get thrown away	1	2	3	4	5	98
5	Feelings of guilt when I throw food away that could have been eaten	1	2	3	4	5	98
6	The way I was brought up, or the influence of my parents	1	2	3	4	5	98
7	I value the food I buy and don't want to throw it away	1	2	3	4	5	98

39. Please state whether you agree or disagree with the following statements...

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Don't know
1	Collectively New Zealand households waste more food than supermarkets	1	2	3	4	5	98
2	Supermarkets are trying to minimise how much food they waste	1	2	3	4	5	98
3	Restaurants and the hospitality sector are trying to minimise how much food they waste	1	2	3	4	5	98

DEMOGRAPHICS

i. Which of the following best describes the house where you live?

1	House on a farm, orchard or lifestyle block
2	House – standalone / detached with a large section
3	House – standalone / detached with a small section
4	Flat/s or unit/s
5	Apartment complex, three or more storeys
96	Other (please specify):

ii. Which ethnicity/ies do you and your household mainly identify with?

1	NZ European / Pakeha
2	Māori
3	Chinese
4	Indian
5	Filipino
6	Korean
7	Other Asian ethnicity (please specify):
8	European
9	Samoan
10	Cook Islander
11	Tongan
12	Other Pacific Island ethnicity (please specify):
13	Middle Eastern
14	Latin American
15	African
96	Other (please specify):

iii. Which one of the following best describes you?

1	In paid work (full time or part time – includes being self-employed)
2	Unemployed
3	Sickness or domestic purposes benefit
4	Student
5	Home duties
6	Retired
96	Other (please specify):

- iv. Which of the following best describes your household?

1	One-person household
2	Couple only
3	Couple with children aged under 16 years
4	Couple only plus other adults
5	Couple with children under 16 years plus other adults
6	One-parent with children under 16 years plus other adults
7	One-parent with children aged under 16 years
8	Multiple families with children under 16 years
9	Multi-person adult household / Flatting
96	Other (please specify):

- v. ASK IF CODES 2 TO 9 AT Qiv. Excluding yourself, do you have any people in your household in the following age bands? If yes, please specify how many people.

1	0 to 6 years
2	7 to 12 years
3	13 to 15 years
4	16 to 19 years
5	20 to 24 years
6	25 to 34 years
7	35 to 44 years
8	45 to 54 years
9	55 to 64 years
10	65 years plus

- vi. What is the highest level of education that you have completed?

1	No formal schooling
2	Primary school
3	Some secondary school
4	Completed secondary school (NCEA, University Entrance)
5	Tertiary education, trade or technical certificate
6	University or other tertiary education diploma
7	University or other tertiary education degree (e.g. Bachelor's degree)
8	University or other tertiary education post graduate degree (e.g. Honours, Masters, PhD or other doctorate degree)
96	Other (please specify):

vii. Which of the following best describes your household's annual income before tax?

1	Less than \$20,000 per year
2	\$20,000 to \$39,999 per year
3	\$40,000 to \$59,999 per year
4	\$60,000 to \$79,999 per year
5	\$80,000 to \$99,999 per year
6	\$100,000 to \$149,999 per year
7	\$150,000 to \$199,999 per year
8	\$200,000 - \$399,999 per year
9	\$400,000 or more per year
99	Prefer not to say