## Australian household food waste

Electronic-diary findings of recorded food waste and disposal methods

This research was commissioned by the Project Steering Group for the Designing effective interventions to reduce household food waste project. It is part of a four-year research project delivered through the Fight Food Waste Cooperative Research Centre.

Project Steering Group members are:


Sustainability Victoria


Government of South Australia
Green Industries SA

Woolworths (6)


STOP FOOD WASTÊ AUSTRALIA

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Report background:
"Designing effective interventions to reduce household food waste" is a Fight Food Waste CRC research project. The project reports will provide evidence-based insights covering food waste behaviours and attitudes of Australian households, quantification of perceived and actual household food waste, advice regarding priority segments, identification of global best practise interventions, household food waste reduction interventions for priority segments, messages for selected intervention and cost-effective methodologies for evaluating the impact of selected interventions.

How to read the reports in this series:

This report is one of six reports published in the series "Australian household food waste". A summary of the implications and evidence to support these is provided in report titled "A summary of behaviours, attitudes, perceived and actual food waste" whilst the other five reports provide detailed results. These being: "Survey findings of behaviours and perceived food waste", "Electronic-diary findings of recorded food waste and disposal methods", "Kerbside bin audit findings of actual food waste", "Focus group findings of attitudes to food waste", and "Choice model findings of food waste reduction interventions".

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## 1. Background

This research sets the baseline for the quantity and value of food waste generated in Australian homes and how the amount of waste varies with the level of knowledge, attitudes, and behaviours around household food management. The research informs the Fight Food Waste Cooperative Research Centre (FFW CRC) and other interested parties of the composition of household food waste and where most food waste occurs.

The FFW CRC is tackling the problem of food waste by investing in research that reduces the amount of food wasted through the food value chain, transforms unavoidable waste into innovative high-value co-products, and engages with industry and consumers to deliver behavioural change. There are three programs under FFW CRC - REDUCE, TRANSFORM and ENGAGE. This research is an integral part of the ENGAGE program.

The key objective of FFWCRC ENGAGE program is to provide interventions designed to tackle consumers' food waste behaviour by:

1. benchmarking national food waste knowledge, awareness and behaviours in household food management and food waste to gain a deeper understanding of the causes
2. identifying key target audiences and unpacking the barriers and opportunities for them to adopt food waste avoidance behaviours
3. increasing knowledge and skills in household best practices related to food purchasing, storage, preparation and use of leftovers
4. providing support for institutional and inter-generational transfer of knowledge and skills in more efficient food planning, purchasing, preparation and consumption
5. providing a platform for increased knowledge and awareness of food wastage in business.

This report presents electronic-diary findings from phase two of the research Australian household food waste (See figure 1 and Figure 2).


Figure 1: Research Phases


Figure 2: The methodology for the whole project

## 2. Methodology

### 2.1 Research survey sample recruitment

Respondents were initially recruited to complete the benchmark survey and were asked to consent to being recontacted for an electronic-diary, and bin audit, if applicable. They were informed of the additional phases of the research before commencing the survey, then in greater detail after completing it to recontact them.

All respondents recruited gave informed consent to participate in the project and were entitled to discontinue the research project at any point, should they wish to.

This information included:

- First and last name
- Email address
- Postcode
- Suburb
- State
- Residential address (if applicable for the bin audit. SA, Tas and NT excluded.)


## Instinct and Reason:

Instinct and Reason send out invitations to participate in research via email. Interested respondents clicked through a link on the email to complete the survey on the lime platform.

Instinct and Reason is ISO 20252:2019 accredited. This certifies that Instinct and Reason meet the internationally recognised best practice in market, opinion and social research. Instinct and Reason adheres to strict privacy and confidentiality guidelines and is independently audited for continued commitment to these guidelines. The Instinct and Reason Privacy Policy can be found: https://www.instinctandreason.com/privacy-policy/

## Social Media:

Paid Facebook advertisements were posted with a generic royalty-free image of food to grab attention and a brief description of the project, targeting people by region. Interested Facebook users then clicked through the advertisement and were taken to the survey on the Lime platform.

## Family \& Friends Referral:

Through word of mouth, we invited friends and family to check their eligibility to participate in the research. Friends and family of Instinct and Reason staff were required to meet the same eligibility criteria as respondents recruited by other means and were not given any additional information or insights into the research that would bias their participation. If interested, they were sent a link to complete the survey on the Lime platform.

## Lucid Marketplace:

Respondents in the Lucid database were invited to participate in the study. The survey was hosted by Instinct and Reason on the Lime platform and monitored by Instinct and Reason staff.

The Lucid Marketplace is an independent, third-party company, operating under their Lucid Quality Program, with data-checking procedures. The Lucid Marketplace is used solely for market research purposes. No personally identifiable information is stored in the marketplace, and Lucid adheres to ESOMAR guidelines.

## TEG Insights:

Respondents in the TEG Insights database were invited to participate in the study. The survey was hosted by Instinct and Reason on the Lime platform and monitored by Instinct and Reason staff. TEG Insights provides access to over 1 million consumers for market research and is part of the wider TEG Propriety Limited group of companies. TEG Insights is ISO accredited under ISO 20252:2019.

## Department of Environment and Science, Queensland:

The survey link was shared by the DES to the Queensland mailing list to invite interested members of the community to participate, though this was not a successful strategy in recruiting participants for the study.

### 2.2 Screening questions

The screening questions, as shown in the appendix of "Survey findings of behaviours and perceived food waste" report, screened out those living in apartments in the bin audit states, and those away from home for more than 3 days in the previous week. Additionally, respondents were informed of the physical bin audit phase of the research. Due to having specific criteria to participate, the data could be skewed towards low food wasters willing to have their bins observed.

### 2.3Electronic-diary

- A sample of 3,568 participants (71\% from the benchmark survey) agreed to fill an electronicdairy over a 7-day period and a total of 1462 participants ( $81 \%$ of the agreed sample) fully completed the electronic-diary. Section 2.1 provides details of this sample. (Refer to "Survey findings of behaviours and perceived food waste" for the recruitment strategy and screening questions details.)
- The respondents were asked to complete the diary for 7 consecutive days, and were given additional time the day after the bin collection to fill in any missed final meals.
- The invitation was sent after completing the survey. They were given suggestions to:
- Complete the diary after each meal.
- Complete the diary at the end of the day or start of the next day.
- The day of the week respondents were invited to the diary varied based on timing for their bin audits, either based on their set council collection date (provided to us in their benchmark survey), or when we were sending out a bin auditor to their area. The invitations were usually sent within the week of finishing the survey.
- The link will work on a computer, tablet or smartphone, though we encouraged the respondents to fill it out on a computer for optimal viewing.
- A link to view visual, downloadable instructions was provided at the start of the diary alongside the written instructions. The PDF could be accessed again via a pop out window on the first meal of every day (see Appendix 3: Electronic-diary sample).
- The diary date was pre-set to the date it was filled in on to minimise errors and effort required by respondents.
- Some ACT respondents were invited to start on the same day due to bin strikes, and were asked to start a new bag for the 7-day period, keeping any food disposed of that would usually go in their general waste bin in this separate bag.


### 2.4 Electronic-diary interface

Please enter the date for day 1.

Day 1 Breakfast
Please describe the food and drink that you were disposed from breakfast in the table below.

You can click here to acces the food category table


Figure 3: Electronic-diary interface

- A dropdown list of food appeared when letters were typed into the 'description of food and drink item' field. The list narrowed down in alphabetical order to match the letters typed in as a 'smart form'. After 5 rows of foods were added, an additional 5 blank rows would appear, up to 15 rows. The categories were automatically set based on the food description chosen and are shown in Table 1.
- The unit of measurement was set to 'cups', except for slices of bread and bread rolls. The remaining fields had dropdown lists, including quantities of cups and where the foods were disposed of.
- The final 'Other - please describe' field allowed free text typing.
- A button appeared below the diary rows to submit the meal and move on to the next meal. The order of meals each day was as follows:
- Breakfast
- Lunch
- Dinner
- Between meals (including any foods disposed of at any other time, such as when clearing out the fridge)


### 2.5 Electronic-diary food categories

Table 1: Electronic-diary food categories

|  | Food Category | Some examples of this category | Unit of measurement 1 cup $=250 \mathrm{ml}$ or 250g |
| :---: | :---: | :---: | :---: |
| 2.0 | Fresh vegetables/herbs | Includes any fresh vegetables/ herbs not listed |  |
| 2.1 | Fresh vegetables | Unprocessed fresh vegetables considered perishable and not preserved by canning, freezing or drying. Includes some items that are seeded but considered as vegetables such as cucumber, capsicum and tomato | one cup |
| 2.2 <br> (category1 in <br> food waste <br> benchmark) | Fresh salad leaves | Unprocessed salads which include lettuce and leafy greens | one cup |
| 2.3 | Fresh herbs |  |  |
| 3.0 | Processed vegetables, legumes and pulses, meat alternatives. Includes frozen. | Includes any processed vegetables, legumes, pulses not listed |  |
| 3.1 | Processed vegetables/ salad. | Vegetables and vegetable-based salads which have been canned, frozen or dried. This includes canned corn, beetroot, vegetable mixes, tomatoes |  |
| 3.2 | Legumes, pulses, peas, beans, | Tofu, tempeh, dried and canned beans (eg soy, borlotti, red kidney beans, baked beans), chickpeas, lentils, | one cup |
| 4.0 | Fresh fruit | Includes any fresh fruit not listed |  |
| 4.1 | Fresh fruit | Unprocessed fresh fruit considered perishable and not preserved by canning, freezing, drying or other types of processing | one cup of chopped |
| 5.0 | Processed fruit | Includes any processed fruit not listed |  |
| 5 | Processed fruit | Processed fruits which have been preserved by canning, freezing, drying or other types of processing such as tinned fruit, toffee apples. | one cup |


| 6.0 | Meals - cooked food and ready to eat food \& drinks | Includes any meals not listed |  |
| :---: | :---: | :---: | :---: |
| 6.1 | MEALS- a combination of ingredients to make a meal or dish (home cooked or preprepared) | Home cooked meals or dishes (eg casseroles, stews, lasagne, baked dinner, stir fry, spaghetti bolognese) and pre-prepared meals or dishes eg from supermarket to be heated up at home either from fresh or frozen (caloriecontrolled meals, whole pizzas with topping) | one cup |
| 6.7 <br> (category7 in <br> food waste <br> benchmark) | Any meal or dish, snack or beverage bought as a takeaway intended to be consumed at home. Uneaten take-away and home deliveries eaten at home | Example: <br> -Thai, Chinese, Indian <br> -pizza, hamburgers, hot dogs, kebabs, takeaway chicken <br> -takeaway tea/coffee/drinks | one cup |
| 8.0 | MEAT -as a basic ingredient, not combined with other ingredients to make a meal | Includes any meat/fish/meat alternatives, not listed |  |
| 8.1 | Meat, poultry - <br> raw/uncooked | Raw or uncooked meat such as poultry (chicken/ turkey/ duck), beef, lamb, pork. Skin/fat trimmings included. <br> Doesn't include seafood. | one cup of chopped |
| 8.2 | Meat, poultry -cooked or processed (ie preserved, cured, salted, smoked, pickled, frozen) | Stand-alone cooked meat. Meat and poultry that isn't combined with other ingredients to make a dish. This includes poultry (chicken/ turkey/ duck), beef, lamb, pork. Skin/fat trimmings included. eg BBQ Pork chops (rather than part of a baked dish), steamed chicken breast (rather than strips as part of a stir fry) Incudes meat and poultry that has been preserved or cured. eg ham, bacon, devon, prosciutto, spam, frankfurt, cabanossi, salami, salted fish, beef jerky, chicken roll. | one cup of chopped |
| 9.0 | SEAFOOD -as a basic ingredient, not combined with other ingredients to make a meal |  |  |
| 9.2 | Seafood- raw, uncooked | Any type of seafood that hasn't been cooked or processed in any way but remains in its natural form. | one cup of chopped |


| 9.3 | Seafood - cooked or processed (ie preserved, cured, salted, smoked, pickled, frozen) | Any type of seafood that has been cooked (eg by frying steaming, baking) or has been preserved or cured in some way (through eg smoking, salting, freezing) eg salted fish, frozen fish fingers, tinned tuna | one cup of chopped |
| :---: | :---: | :---: | :---: |
| 12.0 | Condiments, dried herbs and spices, spreads, oils | Includes any condiments, dried herbs and spices, spreads, oils not listed |  |
| 12.1 | Condiments | Salt, pepper, stock- cubes, liquid, powdered. Other similar items not listed in the rest of section 12 | one tablespoon |
| 12.3 | Dried Herbs and powdered Spices | Includes any dried, ground or powdered herbs and spices | one tablespoon |
| 12.4 | Spreads | eg Vegemite, jam, peanut butter, honey, nut spreads eg Nutella | one tablespoon |
| 12.5 | Sauces, dips, gravy, <br> marinades, dressings, oils, vinegars | eg soy, taco, tomato, ketchup, $B B Q$, salsa, chutney, mayonnaise hummus, pesto, tzatziki. Any cooking oil and vinegar | one tablespoon |
| 11.0 | Dairy and dairy alternatives | Includes any dairy and dairy alternatives not listed | one cup |
| 11.1 | Dairy and dairy alternatives | Milk, cheese, dairy buttermilk, cream, yogurt, butter, dripping, eggs (excluding eggshells). | one cup |
| 11.2 | Dairy alternatives | Dairy alternatives eg margarine, almond or soy milk, non-dairy buttermilk, vegan cheese, coconut yogurt, non-dairy spreads eg Nutelex <br> Meat alternatives, soy meat alternatives (eg soy sausages, soy mince) |  |
| 10.0 | Bakery- bread, cakes, desserts | Includes any bakery items not listed | one cup |
| 10.1 | Bread | Bread and bread rolls, bread sticks | one slice of sandwich bread standard size, not thick sliced |
| 10.2 | Bakery | Muffins (English and high top), crumpets, scones, donuts, sweet buns | one cup |


| 10.3 | Cakes/ desserts | Any cake including (cheesecake, cupcakes, pavlova, friands) ice-cream, custard tarts, pudding (sweet eg Xmas pudding), other desserts | one cup |
| :---: | :---: | :---: | :---: |
| 10.4 | Biscuits (sweet) | eg Monte Carlos, Anzac, Tim Tams | one cup |
| 10.5 | Pastries and pies-anything with a pastry (sweet) | Apple pie, strudel, choux pastry snails, fruit pies | one cup |
| 10.6 | Pastries and pies -anything with a pastry (savoury) | Meat pie, cheese and spinach roll, sausage roll, pastry quiche | one cup |
| 13.0 | Staples - dried | Includes any dairy and dairy alternatives not listed | one cup |
| 13.1 | Staple foods | Includes pasta, couscous, breakfast cereal, noodles, pastry bases (eg shortcrust, filo, pizza base) | one cup |
| 13.2 | Grains and flour | Grains (eg wheat, oats, barley, cornmeal, polenta, rice) and flour (eg wheat, semolina, coconut, gluten free, almond meal) | one cup |
| 13.3 | Other baking ingredients | Cake mix, baking powder, dry yeast, breadcrumbs, gelatine, jelly, sugar and sugar substitutes, vanilla | one cup |
| 13.4 | Nuts and seeds | Nuts (eg almond, pistachio, hazelnut, peanut) and seeds (eg sesame, pepitas, chia), not herb seeds | one cup |
| 15.0 | Confectionery and snacks | Includes any confectionary and snacks not listed | one cup |
| 15.1 | Confectionary | Chocolates, lollies, liquorice, chewing gum | one cup |
| 15.2 | Sweet snacks | Fruit bars, muesli bars | one cup |
| 15.5 | Savoury snacks | Chips, popcorn, rice cakes, crackers (rice, wheat cracker, gluten free) | one cup |
| 17.0 | Inedibles | Includes any inedibles not listed | one cup/one cup chopped |
| 17.1 | Peelings/ stems/ outer leaves | Peelings from vegetables including potato and carrot peel, broccoli stems, cabbage leaves, spring onion/shallot tops and bean and sprout ends | one cup |
| 17.2 <br> (category 18 <br> in food waste <br> benchmark) | Skins (bananas etc.) | Skins mainly from fruit such as bananas, oranges, lemons, limes, pineapples, mangoes, melons and kiwi fruit | one cup of chopped |


| 17.3 <br> (category 19 <br> in food waste <br> benchmark) | Bones/ pips/ corn cobs/ <br> eggshells/ cores | Includes anything inedible such as chicken bones, T- <br> bones, ribs, fish bones, corn cobs, eggshells, fruit and <br> vegetable pips, seeds and cores, crab and prawn shells, <br> tea bags and coffee grounds, etc. | one cup of <br> chopped |
| :--- | :--- | :--- | :--- |
| 20.0 | Beverages- hot or cold | Includes any beverages hot or cold not listed and their <br> base ingredients | one cup |
| 20.1 | Beverage-solid form- <br> (needs to be mixed with a liquid <br> to drink it) and cast offs | All fresh or used tea/coffee bags, loose leaf tea, coffee <br> grounds and instant coffee, powdered drink additives eg <br> milo, cocoa, salvital, | one cup |
| 20.2 | Beverage- liquid form, <br> ready to drink | Includes coffee and tea, fruit juice, flavoured milk <br> beverages, soft drinks, cordial, water and alcoholic <br> beverages such as beer, lager, cider, spirits and wines | one cup |
| (category 21 <br> in food waste <br> benchmark) | ( |  |  |

### 2.6 Methodology comments

The methodology for the electronic-diary was more successful than the methodology used and results obtained in the survey (see "Survey findings of behaviour and perceived food waste" report) where participants had to think back on the last seven-day period to answer questions on their perceived quantities of food wasted.

Participants were more aware of actual quantities and categories of food they disposed. However, the food waste quantities they entered in the electronic-diary were based on estimates. This resulted in quantities of food wasted being under-reported.

We recommend future research replicating this study to request participants to weigh their food waste before recording. It would be preferable if research participants are provided with weighing scales before starting the food waste recording journey.

### 2.7 Sample

## Table 2: Location

| Location |  | $\mathbf{n =}$ | \% |
| :--- | :--- | :---: | :---: |
| Total sample |  | $\mathbf{1 4 6 2}$ | $\mathbf{1 0 0}$ |
|  | New South Wales | 382 | 26 |
|  | Victoria | 287 | 20 |
| Queensland | 280 | 19 |  |
|  | Western Australia | 177 | 12 |
| South Australia | 131 | 9 |  |
| Northern Territory | 19 | 1 |  |
|  | Australian Capital Territory | 134 | 9 |
|  | Tasmania | 52 | 4 |

Table 3: Gender

| Gender |  | $\mathbf{n}=$ | \% |
| :--- | :---: | :---: | :---: |
| Total sample |  | $\mathbf{1 4 6 2}$ | $\mathbf{1 0 0}$ |
|  | Female | 921 | 63 |
|  | Male | 540 | 37 |
|  | Other | 1 | 0 |

Table 4: Residence Type

| Residence type | $\mathbf{n =}$ | \% |
| :--- | :---: | :---: |
| Total sample | Separate house | 1158 |
| Femi-detached terrace house, townhouse etc. | 147 | $\mathbf{1 4 9}$ |
| Flat, unit, apartment | 143 | 10 |
| Other | 14 | 1 |

Table 5: People in each age group living at your household

| Age group |  | $\mathbf{n =}$ | $\boldsymbol{\%}$ |
| :--- | :---: | :---: | :---: |
| Total sample |  | $\mathbf{1 4 6 2}$ | $\mathbf{1 0 0}$ |
|  | $18-34$ | 237 | 16 |
|  | $35-54$ | 552 | 38 |
|  | $55-74$ | 594 | 1 |
|  | $75+$ | 79 | 5 |

*includes if they live there half the time or more.

Table 6: Age of household residents

| Age of household residents | $\mathrm{n}=$ | \% |
| :---: | :---: | :---: |
| Total sample | 1455 | 100 |
| 1 | 276 | 19 |
| 2 | 548 | 38 |
| 3 | 283 | 19 |
| 4 | 226 | 16 |
| 5 | 122 | 8 |
| 0-4 year-olds |  |  |
| None | 1284 | 88 |
| 1 | 127 | 9 |
| 2 | 42 | 3 |
| 3 | 2 | 0 |
| 4 | 0 | 0 |
| $5+$ | 0 | 0 |
| 5.9 year-olds |  |  |
| None | 1185 | 81 |
| 1 | 231 | 16 |
| 2 | 36 | 2 |
| 3 | 3 | 0 |
| 4 | 0 | 0 |
| $5+$ | 0 | 0 |


| Age of household residents | n= | \% |
| :---: | :---: | :---: |
| 10-14 year-olds |  |  |
| None | 1242 | 85 |
| 1 | 155 | 11 |
| 2 | 56 | 4 |
| 3 | 2 | 0 |
| 4 | 0 | 0 |
| $5+$ | 0 | 0 |
| $15-19$ year-olds |  |  |
| None | 1319 | 91 |
| 1 | 109 | 7 |
| 2 | 25 | 2 |
| 3 | 2 | 0 |
| 4 | 0 | 0 |
| $5+$ | 0 | 0 |
| 20-24 year-olds |  |  |
| None | 1352 | 93 |
| 1 | 83 | 6 |
| 2 | 19 | 1 |
| 3 | 1 | 0 |
| 4 | 0 | 0 |
| 5+ | 0 | 0 |


| Age of household residents |  | $\mathbf{n =}$ | \% |
| :--- | ---: | :---: | :---: |
| Total sample |  | $\mathbf{1 4 5 5}$ | $\mathbf{1 0 0}$ |
| $\mathbf{2 5 - 3 4}$ year-olds |  |  |  |
|  | None | 1165 | 80 |
|  | 1 | 146 | 10 |
| $\mathbf{2 5 - 4 4}$ year-olds | 3 | 129 | 9 |
|  | 4 | 12 | 1 |
|  | $5+$ | 0 | 0 |
| $\mathbf{4 5 - 5 4}$ year-olds | None | 1071 | 0 |
| 1 | 183 | 74 |  |
| 2 | 196 | 13 |  |
|  | 3 | 4 | 13 |
|  | 4 | 0 | 0 |
|  | $5+$ | 1 | 0 |
|  |  |  | 0 |


| Age of household residents | $\mathrm{n}=$ | \% |
| :---: | :---: | :---: |
| 55-64 year-olds |  |  |
| None | 1024 | 70 |
| 1 | 250 | 17 |
| 2 | 179 | 12 |
| 3 | 2 | 0 |
| 4 | 0 | 0 |
| 5+ | 0 | 0 |
| 65-74 year-olds |  |  |
| None | 1116 | 77 |
| 1 | 217 | 15 |
| 2 | 121 | 8 |
| 3 | 1 | 0 |
| 4 | 0 | 0 |
| 5+ | 0 | 0 |
| $75+\text { year-olds }$ |  |  |
| None | 1316 | 90 |
| 1 | 101 | 7 |
| 2 | 38 | 3 |
| 3 | 0 | 0 |
| 4 | 0 | 0 |
| 5+ | 0 | 0 |

## Table 7: Household description

$\left.\begin{array}{|l|c|c|}\hline \text { Household structure } & \mathbf{n =} & \text { \% } \\ \hline \text { Total sample } & \mathbf{1 4 6 2} & \mathbf{1 0 0} \\ \hline \text { Household of unrelated people } & 31 & 2 \\ \hline \text { Couple living together with no children } & 180 & 12 \\ \hline \begin{array}{r}\text { Couple with children (<17 years old) } \\ \text { Couple with adult children ( }>18 \text { years } \\ \text { old) }\end{array} & 431 & 29 \\ \hline \begin{array}{r}\text { Single parent with children (<17 years } \\ \text { old) }\end{array} & 52 & 8 \\ \hline \text { Single parent with adult children (>18 } \\ \text { years old) }\end{array}\right)$

Table 8: Household income earners

| Number of income earner in household | $\mathbf{n =}$ | \% |
| :--- | :---: | :---: |
| Total sample | $\mathbf{1 4 6 2}$ | $\mathbf{1 0 0}$ |
| 1 | 527 | 36 |
| 2 | 656 | 45 |
| 3 or more | 94 | 6 |
| There are no income earners in my household | 185 | 13 |

## Table 9: Household income (before tax per week)

| Household income | n= | \% | Household income | n= | \% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total sample | 1462 | 100 | \$2,000-\$2,199(\$104,000-\$114,399 per year) | 47 | 3 |
| Negative income | 2 | 0 | \$2,200-\$2,399(\$114,400-\$124,799 per year) | 47 | 3 |
| No income | 8 | 1 | \$2,400-\$2,599(\$124,800-\$135,199 per year) | 41 | 3 |
| \$1-\$149 per week (\$1-\$7,799 per year) | 8 | 1 | \$2,600-\$2,799(\$135,200-\$145,599 per year) | 43 | 3 |
| \$150-\$299 per week (\$7,800-\$15,599 per year) | 18 | 1 | \$2,800-2,999 (\$145,600-\$155,999 per year) | 41 | 3 |
| \$300-\$399 per week (\$15,600-\$20,799 per year) | 25 | 2 | \$3,000-3,499 (\$156,000-\$181,999 per year) | 106 | 7 |
| \$400-\$499 per week ( $\$ 20,800-\$ 25,999$ per year) | 67 | 5 | \$3,500-3,999 (\$182,000-\$207,999 per year) | 90 | 6 |
| \$500-\$649 per week (\$26,000-\$33,799 per year) | 68 | 5 | \$4,000-4,499 (\$208,000-\$233,999 per year) | 29 | 2 |
| \$650-\$799 per week (\$33,800-\$41,599 per year) | 95 | 6 | \$4,500-4,999 (\$234,000-\$259,999 per year) | 21 | 1 |
| \$800-\$999 per week ( $\$ 41,600-\$ 51,999$ per year) | 106 | 7 | \$5,000-5,999 (\$260,000-\$311,999 per year) | 15 | 1 |
| \$1,000-\$1,199(\$52,000-62,399 per year) | 81 | 6 | \$6,000 or more (\$312,000+per year) | 18 | 1 |
| \$1,200-\$1,399 (\$62,400-\$72,799 per year) | 95 | 6 | Prefer not to say | 120 | 8 |
| \$1,400-\$1,549 (\$72,800-80,599 per year) | 74 | 5 |  |  |  |
| \$1,550-\$1,699 (\$80,600-\$88,399 per year) | 53 | 4 |  |  |  |
| \$1,700- $\mathbf{1}, 799$ ( $\$ 88,400-\$ 93,599$ per year) | 44 | 3 |  |  |  |
| \$1,800-\$1,899 (\$93,600-\$98,799 per year) | 28 | 2 |  |  |  |
| \$1,900-\$1,999 (\$98,800-\$103,999 per year) | 72 | 5 |  |  |  |

## 3. Findings

The electronic-diary records revealed that Australian households wasted 2.89 Kg of food per household, per week. This is 1.36 kg per person, per week. However, this is considerably lower than actual food waste identified through the kerbside bin audits (for more details, refer the report "Kerbside bin audit findings of actual food waste" in this report series)

### 3.1 Categories of food wasted by volume and value (includes all food

 disposed of)
### 3.1.1 Top recorded food products wasted (includes all food disposed of in-house) - by \$ value

Table 10: Top recorded food products wasted (includes all food disposed of in-house) - by \$ value

| e-diary food waste recorded by product |  |  | volume and \$ value of recorded food waste |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Food description | Food category | perhousehold | perhousehold | $\begin{gathered} \mathrm{Kg} \\ \text { perperson } \end{gathered}$ | $\begin{gathered} \mathbf{S} \\ \text { perperson } \end{gathered}$ |
| 1. Beef steak - red meat(cooked) | Meat and seafood | 0.02 | 0.60 | 0.01 | 0.30 |
| 2. Noodle meal home made/ preprepared - ready to eat | Meals | 0.02 | 0.48 | 0.01 | 0.19 |
| 3. Bread roll | Bread and bakery (confectionary and snacks) | 0.02 | 0.48 | 0.01 | 0.21 |
| 4. Salad - raw, fresh | Fresh vegetables/ herbs | 0.02 | 0.37 | 0.01 | 0.18 |
| 5. Cheese - dairy and non-dairy | Dairy and dairy alternatives | 0.02 | 0.33 | 0.01 | 0.17 |
| 6. Other home made meal (with meat) | Meals - cooked food and ready-to-eat food \& drinks | 0.04 | 0.22 | 0.02 | 0.12 |

*Foods recorded as wasted $<0.02 \mathrm{~kg} /$ household not shown. Unavoidable food waste (ie. Inedible) is priced at zero value.

Table 11: Categories of Food waste by volume and value (includes all food disposed of)


### 3.2 Top recorded food products wasted (edible \& inedible)

### 3.2.1 Top recorded food products wasted (includes all food disposed of in-house) - by volume

Table 12: Top recorded food products wasted (includes all food disposed of) - by volume

| e-diary food waste recorded by product |  | volume and \$ value of recorded food waste |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Food description | Food category | $\stackrel{\mathrm{Kg}}{\text { perhousehold }}$ | $\stackrel{\mathbf{\$}}{\text { perhousehold }}$ | $\begin{gathered} \mathrm{Kg} \\ \text { per person } \end{gathered}$ | $\begin{gathered} \mathbf{\$} \\ \text { perperson } \end{gathered}$ |
| 1. Banana peel/skin | Possibly avoidable inedible parts of food | 0.15 | 0.51 | 0.07 | 0.26 |
| 2. Eggshells | Unavoidable inedible parts of food | 0.11 | - | 0.05 | - |
| 3. Sliced bread - standard size | Bread and bakery (confectionary and snacks) | 0.08 | 0.19 | 0.03 | 0.08 |
| 4. Chicken bones | Unavoidable inedible parts of food | 0.07 | - | 0.03 | - |
| 5. Milk - dairy | Dairy and dairy alternatives | 0.06 | 0.07 | 0.03 | 0.03 |
| 7. Potato peel | Possibly avoidable inedible parts of food | 0.05 | 0.17 | 0.02 | 0.08 |

3.2.2 Top recorded inedible food products wasted (includes all foods disposed of) - by volume

Table 13: Top recorded inedible food products wasted (includes all food disposed of) - by volume

| e-diary food waste recorded by product |  | volume and \$ value of recorded food waste |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Food description | Food category | $\underset{\text { Perhousehold }}{\mathrm{Kg}}$ | perhousehold | $\underset{\substack{\mathrm{Kg} \\ \text { perperson }}}{\text { ( }}$ | $\stackrel{\$}{\text { perperson }}$ |
| 1. Banana peel/skin | Possibly avoidable inedible parts of food | 0.15 | 0.51 | 0.07 | 0.26 |
| 2. Eggshells | Unavoidable inedible parts of food | 0.11 | - | 0.05 | - |
| 3. Chicken bones | Unavoidable inedible parts of food | 0.07 | - | 0.03 | - |
| 4. Potato peel | Possibly avoidable inedible parts of food | 0.05 | 0.17 | 0.02 | 0.08 |
| 5. Orange peel/rind/seeds | Unavoidable inedible parts of food | 0.04 | - | 0.02 | - |
| 6. Apple core/skins | Unavoidable inedible parts of food | 0.04 | - | 0.02 | - |
| 7. Onion peel | Unavoidable inedible parts of food | 0.03 | - | 0.02 | - |
| 8. Mango skin | Unavoidable inedible parts of food | 0.03 | . | 0.01 | - |
| 9. Other vegetable peel/skin (inedible) | Unavoidable inedible parts of food | 0.02 | - | 0.01 | - |
| 10. Carrot peel | Possibly avoidable inedible parts of food | 0.02 | 0.05 | 0.01 | 0.02 |
| 11. Coffee-grounds | Possibly avoidable inedible parts of food | 0.02 | 0.26 | 0.01 | 0.13 |
| 12. Corn cob | Unavoidable inedible parts of food | 0.02 | - | 0.01 | - |

### 3.2.3 Top recorded inedible food products wasted (includes all foods disposed of) - by \$ value

Table 14: Top recorded inedible food products wasted (includes all food disposed of) - by \$ value

| e-diary food waste recorded by product |  | volume and \$ value of recorded food waste |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Food description | Food category | $\stackrel{\mathrm{Kg}}{\text { per household }}$ | perhousehold | $\underset{\text { Kerperson }}{\mathrm{Kg}}$ | $\stackrel{\text { perperson }}{\mathbf{\$}}$ |
| 1. Banana peel/skin | Possibly avoidable inedible parts of food | 0.15 | 0.51 | 0.07 | 0.26 |
| 2. Tea bag | Possibly avoidable inedible parts of food | 0.01 | 0.20 | $<0.01$ | 0.103 |
| 3. Cucumber end | Possibly avoidable inedible parts of food | 0.01 | 0.13 | $<0.01$ | 0.07 |
| 4. Cauliflower stem/leaves | Possibly avoidable inedible parts of food | 0.01 | 0.11 | 0.01 | 0.06 |
| 5. Celery end | Possibly avoidable inedible parts of food | 0.02 | 0.10 | 0.01 | 0.05 |
| 6. Pumpkin peel | Possibly avoidable inedible parts of food | 0.01 | 0.10 | 0.01 | 0.05 |
| 7. Carrot peel | Possibly avoidable inedible parts of food | 0.02 | 0.05 | 0.01 | 0.02 |
| 8. Lettuce end/stem | Possibly avoidable inedible parts of food | 0.01 | 0.05 | $<0.01$ | 0.03 |
| 9. Chicken - raw/uncooked meat or fat trimmings | Possibly avoidable inedible parts of food | 0.01 | 0.05 | 0.01 | 0.02 |
| 10. Cabbage stem/outer leaves | Possibly avoidable inedible parts of food | 0.01 | 0.03 | $<0.01$ | 0.01 |
| 11. Broccoli stem/leaves | Possibly avoidable inedible parts of food | 0.01 | 0.03 | <0.01 | 0.01 |
| 12. Carrot top/stems | Possibly avoidable inedible parts of food | 0.01 | 0.02 | $<0.01$ | 0.01 |

*Foods recorded as wasted $<0.01 \mathrm{~kg} /$ household not shown. Unavoidable inedible foods priced at zero value and now shown.

### 3.3 Categories of food waste (only food disposed of in red bin)

### 3.3.1 Food waste and value (only food disposed of in red bin)

Table 15: Food waste volume and value (only food disposed of in red bin)

| Amount of recorded food waste |  |  | \$ value of recorded food waste |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - $\mathbf{1 . 2 9} \mathbf{~ k g}$ per household <br> - $0.62 \mathbf{k g}$ perperson |  |  | - \$9.64 perhousehold <br> - \$4.74 perperson |  |  |
| Amount of recorded food waste by type |  |  | \$ value of recorded food waste by type |  |  |
|  | $\underset{\text { perhousehold }}{\mathrm{Kg}}$ | $\begin{gathered} \mathrm{Kg} \\ \text { perperson } \end{gathered}$ |  | perhousehold | \$ perperson |
| Meals | 0.15 | 0.07 | Meals | 1.26 | 0.66 |
| Fresh vegetables/fresh herbs | 0.02 | 0.01 | Fresh vegetables/fresh herbs | 1.31 | 0.66 |
| Frozen/canned/dried vegetables | 0.10 | 0.05 | Frozen/canned/dried vegetables | 0.15 | 0.07 |
| Fresh fruit | 0.05 | 0.03 | Fresh fruit | 0.65 | 0.31 |
| Frozen/canned/dried fruit | 0.07 | 0.04 | Frozen/canned/dried fruit | 0.13 | 0.06 |
| Dairy | 0.13 | 0.06 | Dairy | 0.55 | 0.28 |
| Meat and seafood | 0.01 | 0.01 | Meat and seafood | 2.29 | 1.10 |
| Bread and bakery (confectionary and snacks) | 0.02 | 0.01 | Bread and bakery (confectionary and snacks) | 1.34 | 0.62 |
| Drinks | 0.14 | 0.07 | Drinks | 0.41 | 0.21 |
| Other (condiments, dried herbs, spices, spreads, oils, etc) | 0.32 | 0.15 | Other (condiments, dried herbs, spices, spreads, oils, etc) | 0.44 | 0.20 |
| Staples-dried | 0.11 | 0.05 | Staples-dried | 0.25 | 0.13 |
| Inedible food waste - possibly avoidable | 0.12 | 0.05 | Inedible food waste - possibly avoidable | 0.86 | 0.44 |
| Inedible food wasteunavoidable | 0.04 | 0.02 | Inedible food wasteunavoidable | - | - |

### 3.3.2 Top recorded food products wasted (only food disposed of in red bin) - by volume

Table 16: Top recorded food products wasted (only food disposed of in red bin) - by volume

| e-diary food waste recorded by product |  |  | volume and \$ value of recorded food waste |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Food description | Food category | $\underset{\text { perhousehold }}{\mathrm{Kg}}$ | perhousehold | $\stackrel{\mathrm{Kg}}{\text { per person }}$ | $\begin{gathered} \mathbf{\$} \\ \text { perperson } \end{gathered}$ |
| 1. Eggshells | Possibly avoidable inedible parts of food | 0.06 | - | 0.03 | - |
| 2. Banana peel/skin | Unavoidable inedible parts of food | 0.05 | - | 0.03 | - |
| 3. Sliced bread - standard size | Bread and bakery (confectionary and snacks) | 0.05 | 0.13 | 0.02 | 0.05 |
| 4. Chicken bones | Unavoidable inedible parts of food | 0.04 | - | 0.02 | - |
| 5. Milk - dairy | Dairy and dairy alternatives | 0.02 | 0.05 | 0.02 | 0.03 |
| 5. Orange peel/rind/seeds | Unavoidable inedible parts of food | 0.02 | - | 0.01 | - |
| 6. Other home made meal (with meat) | Meals | 0.02 | 0.14 | 0.01 | 0.08 |

### 3.3.3 Top recorded food products wasted (only food disposed of in red bin) - by \$ value

Table 17: Top recorded food products wasted (only food disposed of in red bin) - by \$ value

| e-diary food waste recorded by product |  |  | volume and \$ value of recorded food waste |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Food description | Food category | $\stackrel{\mathrm{Kg}}{\text { per household }}$ | perhousehold | $\underset{\text { Kg }}{\text { person** }}$ | $\begin{gathered} \text { \$ } \\ \text { perperson } \end{gathered}$ |
| 1. Beef steak - red meat(cooked) | Meat and seafood | 0.01 | 0.35 | 0.01 | 0.17 |
| 2. Bread roll | Bread and bakery (confectionary and snacks) | 0.01 | 0.29 | <0.01 | 0.14 |
| 3. Cheese - dairy and non-dairy | Dairy and dairy alternatives | 0.01 | 0.25 | 0.01 | 0.13 |
| 4. Curry (meal with meat/fish/chicken/veg) | Meals | 0.01 | 0.23 | <0.01 | 0.10 |
| 5. Salad - raw/fresh | Fresh vegetables/ fresh herbs | 0.01 | 0.22 | 0.01 | 0.09 |
| 6. Banana - raw/fresh | Fresh fruit | 0.05 | 0.21 | 0.01 | 0.03 |

*Foods recorded as wasted $<0.01 \mathrm{~kg} /$ household not shown. Unavoidable inedible foods priced at zero value.
**Kg per person shown to 3 decimal points.

### 3.4 Recorded food waste

### 3.4.1 Recorded food waste (includes all food disposed of) - by state

Table 18: Recorded food waste (includes all food disposed of) - by state

| By state (kg) | $\begin{gathered} \text { TOTAL } \\ (n=1462) \end{gathered}$ | $\begin{gathered} \text { NSW } \\ (\mathrm{n}=382) \end{gathered}$ | $\underset{(n=280)}{\text { OLD }}$ | $\begin{gathered} \text { VC } \\ (n=287) \end{gathered}$ | $\begin{gathered} \text { ACT } \\ (n=134) \end{gathered}$ | $\underset{(n=177)}{\text { WA }}$ | $\underset{\substack{\text { (n=131) }}}{\text { SA }}$ | $\begin{gathered} \text { NT } \\ (n=19) \end{gathered}$ | $\begin{gathered} \text { TAS } \\ (n=52) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total food waste | 2.89 | 2.97 | 2.92 | 2.73 | 2.97 | 2.83 | 3.05 | 1.57 | 2.97 |
| Meals | 0.20 | 0.21 | 0.21 | 0.18 | 0.17 | 0.22 | 0.21 | 0.12 | 0.25 |
| Fresh vegetables/ fresh herbs | 0.32 | 0.33 | 0.32 | 0.30 | 0.33 | 0.30 | 0.34 | 0.26 | 0.31 |
| Frozen/canned/dried vegetables | 0.09 | 0.11 | 0.11 | 0.07 | 0.05 | 0.08 | 0.09 | 0.03 | 0.18 |
| Fresh fruit | 0.18 | 0.20 | 0.18 | 0.17 | 0.21 | 0.14 | 0.19 | 0.06 | 0.17 |
| Frozen/canned/dried fruit | 0.10 | 0.12 | 0.11 | 0.07 | 0.02 | 0.10 | 0.16 | 0.00 | 0.24 |
| Dairy | 0.16 | 0.15 | 0.15 | 0.15 | 0.20 | 0.15 | 0.18 | 0.11 | 0.12 |
| Meat and seafood | 0.26 | 0.26 | 0.29 | 0.21 | 0.18 | 0.24 | 0.35 | 0.10 | 0.36 |
| Bread and Bakery (Confectionary and snacks) | 0.25 | 0.26 | 0.25 | 0.25 | 0.22 | 0.27 | 0.31 | 0.16 | 0.19 |
| Drinks | 0.18 | 0.18 | 0.21 | 0.16 | 0.14 | 0.21 | 0.16 | 0.09 | 0.21 |
| Condiments, dried herbs, spices, spreads, oils | 0.08 | 0.10 | 0.09 | 0.05 | 0.05 | 0.07 | 0.09 | 0.03 | 0.08 |
| Staples-dried | 0.08 | 0.10 | 0.10 | 0.09 | 0.05 | 0.08 | 0.06 | 0.07 | 0.08 |
| Inedible food waste possibly avoidable | 0.38 | 0.34 | 0.36 | 0.42 | 0.45 | 0.40 | 0.36 | 0.27 | 0.37 |
| Inedible food wasteunavoidable | 0.60 | 0.61 | 0.53 | 0.61 | 0.90 | 0.57 | 0.56 | 0.26 | 0.40 |

[^0][^1]
### 3.4.2 Recorded food waste (includes all food disposed of) - by age

Table 19: Recorded food waste (includes all food disposed of) - by age

| By age <br> (kg) | $\begin{gathered} \text { TOTAL } \\ (\mathrm{n}=1462) \end{gathered}$ | $\begin{gathered} 18.34 \\ (\mathrm{n}-237) \end{gathered}$ | $\begin{gathered} 35.54 \\ (\mathrm{n}-552) \end{gathered}$ | $\begin{gathered} 55-74 \\ (n-594) \end{gathered}$ | $\begin{gathered} 75+ \\ (\mathrm{n}=79) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total food waste | 2.89 | 3.59 | 3.14 | 2.38 | 2.95 |
| Meals | 0.20 | 0.25 | 0.25 | 0.15 | 0.16 |
| Fresh vegetables/fresh herbs | 0.32 | 0.41 | 0.35 | 0.27 | 0.17 |
| Frozen/canned/dried vegetables | 0.09 | 0.20 | 0.13 | $0.02$ | 0.02 |
| Fresh fruit | 0.18 | 0.25 | 0.21 | 0.14 | 0.14 |
| Frozen/canned/dried fruit | 0.10 | 0.27 | 0.15 | $0 .$ | 0.02 |
| Dairy | 0.16 | 0.23 | 0.16 | 0.12 | 0.17 |
| Meat and seafood | 0.26 | 0.40 | 0.32 | 0.16 | 0.16 |
| Bread and Bakery (Confectionary and snacks) | 0.25 | 0.25 | 0.30 | 0.19 | 0.39 |
| Drinks | 0.18 | 0.23 | 0.18 | 0.17 | 0.15 |
| Condiments, dried herbs, spices, spreads, oils | 0.08 | 0.17 | 0.10 | 0.02 | 0.03 |
| Staples-dried | 0.08 | 0.14 | 0.11 | 0.05 | 0.06 |
| Inedible food wastepossibly avoidable | 0.38 | 0.29 | 0.33 | 0.43 | 0.57 |
| Inedible food wasteunavoidable | 0.60 | 0.49 | 0.56 | 0.64 | 0.91 |

Significance two tailed test of difference at
a 99 per cent level of confidence $[O / \square$
significantly less/more than the total sample]
Base: Total $n=1,462$ (18-34 $n=237,35-54 n=552,55-74 n=594,75+n=79)$
Note: All food disposal methods were included in this food waste calculation

### 3.4.3 Recorded food waste (includes all food disposed of) - by gender

Table 20: Recorded food waste (includes all food disposed of) - by gender

| By gender (kg) | $\begin{gathered} \text { TOTAL } \\ (n=1462) \end{gathered}$ | $\begin{aligned} & \text { Female } \\ & (n=921) \end{aligned}$ | $\begin{gathered} \text { Male } \\ (n-540) \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Total food waste | 2.89 | 2.80 | 3.04 |
| Meals | 0.20 | 0.19 | 0.22 |
| Fresh vegetables/fresh herbs | 0.32 | 0.31 | 0.33 |
| Frozen/canned/dried vegetables | 0.09 | $0.07$ | 0.12 |
| Fresh fruit | 0.18 | 0.18 | 0.18 |
| Frozen/canned/dried fruit | 0.10 | 0.08 | 0.14 |
| Dairy | 0.16 | 0.16 | 0.15 |
| Meat and seafood | 0.26 | 0.22 | 0.32 |
| Bread and Bakery (Confectionary and snacks) | 0.25 | 0.25 | 0.26 |
| Drinks | 0.18 | 0.18 | 0.17 |
| Condiments, dried herbs, spices, spreads, oils | 0.08 | 0.06 | 0.11 |
| Staples-dried | 0.08 | 0.08 | 0.10 |
| Ine dible food wastepossibly avoidable | 0.38 | 0.39 | 0.35 |
| Inedible food wasteunavoidable | 0.60 | 0.61 | 0.58 |

*other gender $<1 \%$ not shown
Significance two tailed test of difference at
a 99 per cent level of confidence [O/
significantly less/more than the total sample]

[^2]
### 3.4.4 Recorded food waste (includes all food disposed of) - by household structure

Table 21: Recorded food waste (includes all food disposed of) - by household structure

| By household structure (kg) | $\begin{gathered} \text { TOTAL } \\ (\mathrm{O}=1462) \end{gathered}$ | Unrelated people $(n=31)$ |  c) $\operatorname{dron}$ (ancise | Couple with children $<17$ thenatl | cousle whathint chidren $>18$ (n-tig) | Single parent with children $<17$ thest | Sin-lo parcit with pah travidien 318 (n)e42) | $\begin{aligned} & \text { Empty nester: } \\ & (\mathrm{n}=270) \end{aligned}$ | tiving alone ( $\mathrm{n}=252$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total food waste | 2.89 | 2.02 | 2.18 | 4.37 | 2.79 | 3.11 | 2.66 | 2.36 | 1.69 |
| Meals | 0.20 | 0.16 | 0.12 | 0.33 | 0.23 | 0.22 | 0.36 | 0.14 | 0.10 |
| Fresh vegetables/fresh herbs | 0.32 | 0.14 | 0.26 | 0.48 | 0.29 | 0.34 | 0.31 | 0.26 | 0.17 |
| Frozen/canned/dried vegetables | 0.09 | 0.02 | 0.03 | 0.25 | 0.04 | 0.09 | 0.04 | 0.03 | 0.02 |
| Fresh fruit | 0.18 | 0.15 | 0.15 | 0.28 | 0.15 | 0.24 | 0.18 | 0.12 | 0.12 |
| Frozen/canned/dried fruit | 0.10 | 0.02 | 0.02 | 0.33 | 0.02 | 0.06 | 0.00 | 0.01 | 0.01 |
| Dairy | 0.16 | 0.15 | 0.15 | 0.23 | 0.15 | 0.24 | 0.15 | 0.08 | 0.12 |
| Meat and seafood | 0.26 | 0.14 | 0.09 | 0.52 | 0.21 | 0.30 | 0.17 | 0.15 | 0.11 |
| Bread and Bakery (Confectionary and snacks) | 0.25 | 0.22 | 0.11 | 0.41 | 0.34 | 0.31 | 0.31 | 0.19 | 0.13 |
| Drinks | 0.18 | 0.18 | 0.13 | 0.25 | 0.16 | 0.15 | 0.24 | 0.14 | 0.14 |
| Condiments, dried herbs, spices, spreads, oils | 0.08 | 0.05 | 0.04 | 0.20 | 0.02 | 0.07 | 0.05 | 0.03 | 0.02 |
| Staples-dried | 0.08 | 0.06 | 0.04 | 0.17 | 0.08 | 0.13 | 0.12 | 0.03 | 0.04 |
| Inedible food waste possibly avoidable | 0.38 | 0.27 | 0.39 | 0.34 | 0.45 | 0.43 | 0.24 | 0.49 | 0.27 |
| Inedible food wasteunavoidable | 0.60 | 0.46 | 0.64 | 0.58 | 0.67 | 0.52 | 0.48 | 0.69 | 0.43 |

*other household types <1\% not shown
Significance two tailed test of difference at
a 99 per cent level of confidence $[\bigcirc / \square$
*prefer not to say household type <1\% not shown
significantly less/more than the total sample]

Base: Total $n=1,462$ (Unrelated people $n=31$, Couple with no children $n=180$, Couple with children $<17 n=431$, Single parent with adult children (>18) $n=42$, Empty nesters $n=270$, Living alone $n=252$, Other $n=78$, Prefer not to say $n=7$ ) Note: All food disposal methods were included in this food waste calculation

### 3.4.5 Recorded food waste (includes all food disposed of) - by weekly household income

Table 22: Recorded food waste (includes all food disposed of) - by weekly household income

| By household income (kg) | $\begin{gathered} \text { TOTAL } \\ (n=1462) \end{gathered}$ | No income / negative income ( $\mathrm{n}=10$ ) | $\begin{aligned} & \$ 1 . \$ 999 \\ & (\mathrm{n}=387) \end{aligned}$ | $\begin{gathered} \$ 1000-\$ 1999 \\ (n=447) \end{gathered}$ | $\begin{gathered} \$ 2000-\$ 2999 \\ (\mathrm{n}=219) \end{gathered}$ | $\begin{aligned} & \$ 3000+ \\ & (n=279) \end{aligned}$ | $\begin{aligned} & \text { Prefer not to soy } \\ & (n=120) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total food waste | 2.89 | 1.85 | 2.33 | 2.49 | 2.73 | 4.65 | 2.69 |
| Meals | 0.20 | 0.00 | 0.17 | 0.20 | 0.20 | 0.29 | 0.18 |
| Fresh vegetables/fresh herbs | 0.32 | 0.18 | 0.25 | 0.27 | 0.28 | 0.57 | 0.26 |
| Frozen/canned/dried vegetables | 0.09 | 0.00 | 0.03 | 0.04 | 0.06 | 0.33 | 0.03 |
| Fresh fruit | 0.18 | 0.01 | 0.14 | 0.18 | 0.16 | 0.29 | 0.15 |
| Frozen/canned/dried fruit | 0.10 | 0.03 | 0.01 | 0.03 | 0.08 | 0.44 | 0.01 |
| Dairy | 0.16 | 0.10 | 0.12 | 0.16 | 0.15 | 0.22 | 0.13 |
| Meat and seafood | 0.26 | 0.14 | 0.16 | 0.18 | 0.27 | 0.59 | 0.17 |
| Bread and Bakery (Confectionary and snacks) | 0.25 | 0.08 | 0.23 | 0.23 | 0.26 | 0.33 | 0.25 |
| Drinks | 0.18 | 0.00 | 0.18 | 0.17 | 0.15 | 0.23 | 0.21 |
| Condiments, dried herbs, spices, spreads, oils | 0.08 | 0.00 | 0.03 | 0.04 | 0.04 | 0.26 | 0.03 |
| Staples-dried | 0.08 | 0.00 | 0.05 | 0.07 | 0.07 | 0.18 | 0.05 |
| Inedible food waste possibly avoidable | 0.38 | 0.54 | 0.39 | 0.36 | 0.40 | 0.34 | 0.47 |
| Inedible food wasteunavoidable | 0.60 | 0.78 | 0.56 | 0.57 | 0.64 | 0.59 | 0.75 |

Significance two tailed test of difference at
a 99 per cent level of confidence $[\bigcirc / \square$ significantly less/more than the total sample]

[^3]
### 3.4.6 Recorded food waste (only food disposed of in red bin)- by state

Table 23: Recorded food waste (only food disposed of in red bin) - by state

| By state (kg) | $\begin{gathered} \text { TOTAL } \\ (\mathrm{n}=1462) \end{gathered}$ | $\begin{gathered} \text { NsW } \\ (n=382) \end{gathered}$ | $\underset{(n=280)}{\text { OLD }}$ | $\underset{(\mathrm{n}=287)}{\text { VIC }}$ | $\begin{gathered} \text { ACT } \\ (n=134) \end{gathered}$ | $\underset{(\mathrm{n}=177)}{\text { WA }}$ | $\begin{gathered} 5 A \\ (n=131) \end{gathered}$ | $\underset{(n=19)}{\text { NT }}$ | $\underset{(n=52)}{\text { TAS }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total food waste | 1.29 | 1.38 | 1.52 | $\mathbf{1 . 1 2}$ | 1.56 | 1.46 | 0.71 | 1.02 | 0.61 |
| Meals | 0.15 | 0.13 | 0.18 | 0.15 | 0.15 | 0.19 | 0.13 | 0.11 | 0.12 |
| Fresh vegetables/ fresh herbs | 0.02 | 0.03 | 0.02 | 0.02 | 0.03 | 0.01 | 0.01 | 0.02 | 0.00 |
| Frozen/canned/dried vegetables | 0.10 | 0.10 | 0.09 | 0.11 | 0.16 | 0.11 | 0.06 | 0.11 | 0.04 |
| Fresh fruit | 0.05 | 0.06 | 0.06 | 0.03 | 0.02 | 0.06 | 0.04 | 0.06 | 0.02 |
| Frozen/canned/dried fruit | 0.07 | 0.09 | 0.09 | 0.05 | 0.10 | 0.08 | 0.03 | 0.05 | 0.04 |
| Dairy | 0.13 | 0.14 | 0.15 | 0.11 | 0.15 | 0.17 | 0.07 | 0.18 | 0.07 |
| Meat and seafood | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 |
| Bread and Bakery (Confectionary and snacks) | 0.02 | 0.03 | 0.02 | 0.02 | 0.03 | 0.02 | 0.01 | 0.03 | 0.01 |
| Drinks | 0.14 | 0.14 | 0.22 | 0.14 | 0.15 | 0.15 | 0.05 | 0.09 | 0.05 |
| Condiments, dried herbs, spices, spreads, oils | 0.32 | 0.34 | 0.36 | 0.29 | 0.49 | 0.35 | 0.14 | 0.19 | 0.10 |
| Staples-dried | 0.11 | 0.11 | 0.13 | 0.08 | 0.12 | 0.14 | 0.05 | 0.07 | 0.08 |
| Inedible food waste possibly avoidable | 0.12 | 0.13 | 0.13 | 0.09 | 0.12 | 0.14 | 0.09 | 0.06 | 0.06 |
| Inedible food wasteunavoidable | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 | 0.02 | 0.06 | 0.02 |

Base: Base: Total $n=1,462$ (NSW $n=382$, QLD $n=280$, VIC $n=287$, ACT $n=134$, WA $n=177$, SA $n=131$, NT $n=19$, TAS $n=52$ ) Note: Food given to animals, tipped down the drain or put into compost/ worm bin were not included in this food waste calculation

### 3.4.7 Recorded food waste (only food disposed of in red bin) - by age

Table 24: Recorded food waste (only food disposed of in red bin) - by age

| By age (kg) | $\begin{gathered} \text { TOTAL } \\ (n=1462) \end{gathered}$ | $\begin{gathered} 18-34 \\ (n=237) \end{gathered}$ | $\begin{gathered} 35-54 \\ (n-552) \end{gathered}$ | $\begin{gathered} 55-74 \\ (n-594) \end{gathered}$ | $\begin{gathered} 75+ \\ (n-79) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total food waste | 1.29 | 1.32 | 1.47 | (1.10 | 1.44 |
| Meals | 0.15 | 0.11 | 0.19 | 0.12 | 0.28 |
| Fresh vegetables/fresh herbs | 0.02 | 0.03 | 0.02 | 0.02 | 0.02 |
| Frozen/canned/dried vegetables | 0.10 | 0.13 | 0.10 | 0.09 | 0.14 |
| Fresh fruit | 0.05 | 0.06 | 0.05 | 0.04 | 0.08 |
| Frozen/canned/dried fruit | 0.07 | 0.09 | 0.10 | 0.05 | 0.08 |
| Dairy | 0.13 | 0.14 | 0.16 | 0.12 | 0.06 |
| Meat and seafood | 0.01 | 0.02 | 0.02 | 0.00 | 0.02 |
| Bread and Bakery (Confectionary and snacks) | 0.02 | 0.03 | 0.03 | 0.01 | 0.01 |
| Drinks | 0.14 | 0.13 | 0.16 | 0.13 | 0.18 |
| Condiments, dried herbs, spices, spreads, oils | 0.32 | 0.29 | 0.34 | 0.31 | 0.34 |
| Staples-dried | 0.11 | 0.13 | 0.12 | 0.08 | 0.10 |
| Inedible food wastepossibly avoidable | 0.12 | 0.12 | 0.14 | 0.10 | 0.08 |
| Inedible food wasteunavoidable | 0.04 | 0.04 | 0.04 | 0.02 | 0.05 |

Significance two tailed test of difference at
a 99 per cent level of confidence $[\bigcirc / \square$
significantly less/more than the total sample]

Base: Total $n=1,462$ (18-34 $n=237,35-54 n=552,55-74 n=594,75+n=79)$;Note: Food given to animals, tipped down the drain or put into compost/ worm bin were not included in this food waste calculation

### 3.4.8 Recorded food waste (only food disposed of in red bin) - by gender

Table 25: Recorded food waste (only food disposed of in red bin) - by gender

| By gender (kg) | *other gender < 1\% not shown |  |  |
| :---: | :---: | :---: | :---: |
|  | $\underset{(n=1462)}{\text { TOTAL }}$ | $\begin{aligned} & \text { Female } \\ & (n-921) \end{aligned}$ | $\begin{gathered} \text { Mole } \\ (n-540) \end{gathered}$ |
| Total food waste | 1.29 | 1.32 | 1.25 |
| Meals | 0.15 | 0.16 | 0.13 |
| Fresh vegetables/fresh herbs | 0.02 | 0.02 | 0.02 |
| Frozen/canned/dried vegetables | 0.10 | 0.11 | 0.08 |
| Fresh fruit | 0.05 | 0.05 | 0.05 |
| Frozen/canned/dried fruit | 0.07 | 0.08 | 0.06 |
| Dairy | 0.13 | 0.14 | 0.12 |
| Meat and seafood | 0.01 | 0.01 | 0.01 |
| Bread and Bakery (Confectionary and snacks) | 0.02 | 0.02 | 0.03 |
| Drinks | 0.14 | 0.15 | 0.13 |
| Condiments, dried herbs, spices, spreads, oils | 0.32 | 0.32 | 0.33 |
| Staples-dried | 0.11 | 0.10 | 0.12 |
| Inedible food wastepossibly avoidable | 0.12 | 0.11 | 0.13 |
| Inedible food wasteunavoidable | 0.04 | 0.03 | 0.04 |

Significance two tailed test of difference at
a 99 per cent level of confidence $[\mathrm{O} / \square$
significantly less/more than the total sample]

Base: Total $n=1,462$ (Female $n=921$, Male $n=540$, Other $n=1$ ) Note: Food given to animals, tipped down the drain or put into compost/ worm bin were not included in this food waste calculation

### 3.4.9 Recorded food waste (only food disposed of in red bin) - by household structure

Table 26: Recorded food waste (only food disposed of in red bin) - household structure

| By household structure (kg) | total ( $n=1462$ ) | Unrelated people (n-31) | Couple with no children ( $\mathrm{n}=180$ ) | Couple wah children $<17$ $(n=431)$ | $\begin{array}{\|c\|} \hline \text { Couple with advit } \\ \text { childran }>18 \\ (0=119) \end{array}$ | $\begin{gathered} \text { Single parent with } \\ \text { children }-17 \\ (0=52) \end{gathered}$ | $\begin{aligned} & \text { Single parent with } \\ & \text { adule children }>18 \\ & (n=42) \end{aligned}$ | Emipty netien $(n=270)$ | Eving alone ( $n=252$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total food waste | 1.29 | 1.17 | 1.12 | 1.60 | 1.53 | 1.96 | 1.04 | 1.06 | 0.90 |
| Meals | 0.15 | 0.18 | 0.08 | 0.22 | 0.25 | 0.21 | 0.21 | 0.11 | 0.09 |
| Fresh vegetables/fresh herbs | 0.02 | 0.04 | 0.02 | 0.03 | 0.01 | 0.03 | 0.03 | 0.02 | 0.01 |
| Frozen/canned/dried vegetables | 0.10 | 0.14 | 0.11 | 0.11 | 0.11 | 0.22 | 0.11 | 0.05 | 0.11 |
| Fresh fruit | 0.05 | 0.08 | 0.04 | 0.05 | 0.05 | 0.05 | 0.08 | 0.05 | 0.04 |
| Frozen/canned/dried fruit | 0.07 | 0.11 | 0.06 | 0.10 | 0.06 | 0.16 | 0.02 | 0.05 | 0.06 |
| Dairy | 0.13 | 0.09 | 0.13 | 0.17 | 0.15 | 0.22 | 0.07 | 0.10 | 0.08 |
| Meat and seafood | 0.01 | 0.02 | 0.01 | 0.03 | 0.01 | 0.02 | 0.00 | 0.00 | 0.01 |
| Bread and Bakery (Confectionary and snacks) | 0.02 | 0.01 | 0.02 | 0.03 | 0.02 | 0.04 | 0.02 | 0.01 | 0.02 |
| Drinks | 0.14 | 0.11 | 0.15 | 0.15 | 0.18 | 0.27 | 0.07 | 0.12 | 0.10 |
| Condiments, dried herbs, spices, spreads, oils | 0.32 | 0.21 | 0.35 | 0.36 | 0.35 | 0.31 | 0.17 | 0.35 | 0.21 |
| Staples-dried | 0.11 | 0.08 | 0.08 | 0.15 | 0.11 | 0.16 | 0.15 | 0.09 | 0.07 |
| Inedible food wastepossibly avoidable | 0.12 | 0.09 | 0.06 | 0.16 | 0.16 | 0.19 | 0.07 | 0.10 | 0.07 |
| Inedible food wasteunavoidable | 0.04 | 0.03 | 0.02 | 0.04 | 0.06 | 0.09 | 0.03 | 0.02 | 0.03 |

*other household types <1\% not shown
Significance two tailed test of difference at
a 99 per cent level of confidence $[\mathrm{O} / \square$
*prefer not to say household type $<1 \%$ not shown
significantly less/more than the total sample]

[^4]
### 3.4.10 Recorded food waste (only food disposed of in red bin) - by weekly household income

Table 27: Recorded food waste (only food disposed of in red bin) - by weekly household income

| By household income (kg) | $\begin{gathered} \text { TOTAL } \\ (\mathrm{n}=1462) \end{gathered}$ | $\begin{aligned} & \text { No income / } \\ & \text { negative income } \\ & (n=10) \end{aligned}$ | $\begin{aligned} & \$ 1.5999 \\ & (n=387) \\ & \hline \end{aligned}$ | $\begin{gathered} \$ 1000-\$ 1999 \\ (n=447) \end{gathered}$ | $\begin{gathered} \$ 2000-\$ 2999 \\ (n=219) \end{gathered}$ | $\begin{aligned} & \$ 3000+ \\ & (\mathrm{n}=279) \end{aligned}$ | $\begin{aligned} & \text { Prefer not to say } \\ & (\mathrm{n}=120) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total food waste | 1.29 | $\mathbf{0 . 8 4}$ | 1.14 | 1.43 | 1.37 | 1.22 | 1.34 |
| Meals | 0.15 | 0.06 | 0.13 | 0.17 | 0.17 | 0.14 | 0.16 |
| Fresh vegetables/fresh herbs | 0.02 | 0.00 | 0.02 | 0.03 | 0.01 | 0.03 | 0.01 |
| Frozen/canned/dried vegetables | 0.10 | 0.10 | 0.09 | 0.13 | 0.10 | 0.09 | 0.10 |
| Fresh fruit | 0.05 | 0.00 | 0.05 | 0.06 | 0.05 | 0.03 | 0.05 |
| Frozen/canned/dried fruit | 0.07 | 0.01 | 0.07 | 0.10 | 0.07 | 0.06 | 0.07 |
| Dairy | 0.13 | 0.06 | 0.11 | 0.14 | 0.15 | 0.15 | 0.14 |
| Meat and seafood | 0.01 | 0.03 | 0.01 | 0.02 | 0.00 | 0.02 | 0.01 |
| Bread and Bakery (Confectionary and snacks) | 0.02 | 0.00 | 0.02 | 0.03 | 0.02 | 0.03 | 0.01 |
| Drinks | 0.14 | 0.18 | 0.16 | 0.14 | 0.14 | 0.10 | 0.20 |
| Condiments, dried herbs, spices, spreads, oils | 0.32 | 0.38 | 0.30 | 0.30 | 0.36 | 0.33 | 0.36 |
| Staples-dried | 0.11 | 0.00 | 0.08 | 0.14 | 0.11 | 0.08 | 0.10 |
| Inedible food wastepossibly avoidable | 0.12 | 0.01 | 0.09 | 0.13 | 0.16 | 0.12 | 0.11 |
| Inedible food wasteunavoidable | 0.04 | 0.00 | 0.03 | 0.05 | 0.03 | 0.03 | 0.03 |

Significance two tailed test of difference at
a 99 per cent level of confidence $/ \bigcirc / \square$
significantly less/more than the total sample]

> Base: Total $n=1,462$ (No income and negative income $n=10, \$ 1-\$ 999$ per week $n=387, \$ 1,000-\$ 1,999$ per week $n=447$, $\$ 2,000-\$ 2,999$ per week $n=219, \$ 3,000+$ per week $n=279$, Prefer not to say $n=120$ )
> Note: Food given to animals, tipped down the drain or put into compost/ worm bin were not included in this food waste calculation

### 3.5 Food waste disposal methods recorded

3.5.1 Food waste disposal methods recorded - by total (\%)


- General waste bin = Compost bin/ worm farm - Fed to animals mipped down the sink $\quad$ Green waste/ organics bin $\quad$ Foodwaste bin $\quad$ Other

[^5]Figure 4: Food waste disposal methods recorded - by total (\%)
3.5.2 Top meals disposed of by each disposal method (\%)


[^6]Figure 5: Top meals disposed of by each disposal method (\%)
3.5.3 Top recorded fresh fruit disposed of by each disposal method (\%)


[^7]Figure 6: Top recorded fresh fruit disposed of by each disposal method (\%)

### 3.5.4 Top recorded fresh vegetables and herbs disposed of by each disposal method (\%)



Base: Total $n=1,462$
Note: All food disposal methods were included in this food waste calculation *No significance testing was undertaken on this slide.

Figure 7: Top recorded fresh vegetables and herbs disposed of by each disposal method (\%)
3.5.5 Top recorded frozen/canned/dried/preserved fruit and vegetables disposed of by each disposal method


Base: Total $n=1,462$
Note: All food disposal methods were included in this food waste calculation
*No significance testing was undertaken on this slide.

Figure 8: Top recorded frozen/canned/dried/preserved fruit and vegetables disposed of by each disposal method
3.5.6 Top recorded dairy/ dairy alternatives disposed of by each disposal method (\%)


Base: Total $n=1,462$
Note: All food disposal methods were included in this food waste calculation *No significance testing was undertaken on this slide.

Figure 9: Top recorded dairy/ dairy alternatives disposed of by each disposal method (\%)
3.5.7 Top recorded meat and seafood products disposed of by each disposal method (\%)


[^8]Figure 10: Top recorded meat and seafood products disposed of by each disposal method (\%)
3.5.8 Top recorded breads, baking, confectionary and snack food products disposed of by each disposal method (\%)


Base: Total $\mathrm{n}=1,462$
Note: All food disposal methods were included in this food waste calculation
*No significance testing was undertaken on this slide.

Figure 11: Top recorded breads, baking, confectionary and snack food products disposed of by each disposal method (\%)
3.5.9 Top recorded drinks disposed of by each disposal method (\%)


[^9]Figure 12: Top recorded drinks disposed of by each disposal method (\%)
3.5.10 Top recorded other food products disposed of by each disposal method (\%)


Base: Total $n=1,462$
Note: All food disposal methods were included in this food waste calculation
*No
significance testing was undertaken on this slide.

Figure 13: Top recorded other food products disposed of by each disposal method (\%)
3.5.11 Top recorded dry staples disposed of by each disposal method (\%)


Base: Total $n=1,462$
Note: All food disposal methods were included in this food waste calculation
*No significance testing was undertaken on this slide.

Figure 14: Top recorded dry staples disposed of by each disposal method (\%)
3.5.12 Top recorded inedible (potentially avoidable and unavoidable food products) disposed of by each disposal method (\%)


Base: Total $n=1,462$
Note: All food disposal methods were included in this food waste calculation
*No significance testing was undertaken on this slide.

Figure 15: Top recorded inedible (potentially avoidable and unavoidable) food products disposed by each disposal method (\%)


Base: Total respondents who completed the electronic diary $\mathrm{n}=1,462$

Figure 16:recorded food waste volume from the electronic diary

## 4. Future research considerations

There are several critical considerations for future research. These include in order of importance:

- Providing electronic kitchen scales in conjunction with the electronic-diary will markedly improve the accuracy of food waste records (estimating weight by using eight by cups is particularly problematic for food with awkward shapes). Standard Cup Measures (SCMs) were not available for most inedibles (stems, stalks, bones, fat trimming etc). Raw or fresh SCMs were used as proxies for inedibles of the same item.
- Valuing inedibles needs to be handled in a more systematic way. In this report, "possiblyavoidable" inedibles have been costed at the same cost as the fresh food and "unavoidables" have been costed at zero. A logic for this needs to be developed and applied to future electronic-diary studies as it was out of scope for this study. There are a few exceptions where inedibles are marketed as their own food item with their own price tag e.g. beef bones, duck fat.
- The electronic-diary could be enhanced with further listings. Especially of complete meals (e.g. Spaghetti Bolognese, Moussaka). It needs a list of 100-200 commonly prepared meals. Close substitute products were accepted where information about specific items could not be found. There is scope to increase the number of items in the electronic-diary even more to make the electronic-diary costing more accurate.

It would be better to get an annual average price to better reflect the value of food waste. A better method for pricing that gathers prices over the year and is able to control for seasonal variations and specials would be beneficial. (Prices were sourced where possible from the Woolworths price list or Woolworths online.)

Online prices were quoted for the Sydney suburb of Pagewood 2035 during November and December 2020. Coles online and other price sources were referenced when information was not available on Woolworths online. Woolworths brands were used to indicate price and weight in preference to non-Woolworths brands where possible. An analysis of average prices for item categories was beyond the scope of this study.

## Appendix 1: Food waste notes

- Prices were sourced where possible from the client supplied Woolworths's price list or Woolworths online. Online prices were quoted for the Sydney suburb of Pagewood 2035 during November and December 2020. Coles online and other price sources were referenced when information was not available on Woolworths online.
- Any of Woolworths brands (e.g. Woolworths, Essentials) have been stated as 'Woolworths'.
- Any of the Woolworths brands were used to indicate price and weight in preference to nonWoolworths brands where possible. Bear in mind that Woolworths's products tend to be at the lower price point and do not necessarily represent the average price for the item category. An analysis of average prices for item categories is beyond the scope of this study.
- Items were quoted at full price rather than sale price. A 'price drop' on an item was accepted as the new full price.
- Close substitute products were accepted where information about specific items could not be found.
- SCM (Standard Cup Measure) weights were sourced whenever possible from the online food calculator "Aqua-calc". Website: "https://www.aqua-calc.com/calculate/food-volume-toweight". The website includes a comprehensive list of conversions, calculations and reference tools from a wide range of categories. The Aqua-Calc food conversion calculators use data downloaded from the United States Department of Agriculture (USDA) web site:
https://www.usda.gov/. A metric cup was the basic measure, calculated at 0 precision level (ie. rounded to the nearest integer).
- Where an item's price represented volume rather than weight a standard calculation was used as a proxy for weight, for consistent reporting. The basic premise is 1 metric cup of water $=$ $250 \mathrm{grams}=250 \mathrm{mls}$. SCMgms of an item /250gms metric cup of water=conversion factor. Multiply this by the volume ( ml ) attached to the price of an item price for a proxy of weight.
- In the absence of a SCM (Standard Cup Measure) for an item, assumptions were made based on published SCM's of the same item in another form. E.g. if the SCM of raw, fresh cabbage is known and the SCM of cooked cabbage is unknown, we can estimate how much cabbage shrinks in the cooking process from available information and estimate the weight (SCM) of a cup of cooked cabbage. Published prices of items were not adjusted. Hence the degree of food waste of an item was tethered to price through a variable SCM (e.g. cooked vs raw cup weight). A key assumption was that an item shrank in weight and in volume by the same percentage. A key aim was to match a standard cup measure (SCM) for an item with the price that best represented
the SCM description of that item. E.g. if a SCM was published for canned peaches but not dried peaches then the price to best match the SCM description was for canned peaches not dried, although a price was also available for dried peaches.
- Standard Cup Measures were not available for most inedibles (stems, stalks, bones, fat trimming etc). Raw or fresh SCMs were used as proxies for inedibles of the same item e.g. prawn shells were assigned the same SCM as fresh prawns (shell and flesh), egg shells were assigned the same SCM as whole fresh eggs.
- Unavoidable food waste was given a zero value. This zero value was used when calculating the value of food wasted for this category.
- If the household hadn't disposed of any food or drink after a meal, they were able to tick a box in the labelled "nothing disposed of" for that meal. This zero value was included for the food waste calculation.


## Appendix 2: Electronic-diary instructions

### 6.1 How to use the diary

You can save these instructions and refer back to them as needed throughout the week. Please read them carefully.



- If you didn't eat breakfast (for example, if you skipped the meal), then tick this box
- If you ate brunch, record any foods disposed of eitherbreakfast or lunch, and tick this box for the other meal, so the foods disposed of are only recorded once

```
Day, 2enomecaens
```



```
me noble bem.
After recording foods disposed of for Breakfast, Lunch and Dinner, an entry will show up for Between meals
- Use Between meals if you clear out the fridgeand dispose of any food / leftovers
- Use Between meals for anything disposed of durinmeal preparation (e.g. making lunches or leftovers for the week in advance)
- Use Between meals for any other food disposed of thadoesn't fit a meal time
```


## Please record:

- Every bit of fooddisposed of
- Foods that youand all other membersof your householddispose of


## Don't forget:

- Do record any milk / yoghurt / tea / juicetipped down the sink
- Do record any scraps fed to pets / put in the compost bin



### 6.2 Examples for estimating the number of cups disposed of

1 cup $=250 \mathrm{ml} / 250 \mathrm{~g}$


Small pieces can be difficult to estimate. If you cannot measure them, just make your best guess.


If you dispose of these spring onion ends, or the stem/ends of zucchinis, you might record these as " $\mathbf{2}$ tablespoons"

### 6.3 Consent for additional research

Respondents that qualified for the benchmark survey after meeting the screening criteria were asked to provide their consent to be part of the electronic-diary and bin audit phase. N.b. some participants were not invited to participate in the bin audit and received a modified question. Additionally, the incentive offered varied throughout the recruitment phase due to the challenging nature of informed consent around bin audits.

```
Great, you have qualified for our research.
Before we start the survey, we would like to invite you to participle in the two other very important parts of this research. The first part will involve filling out an electronic diary for week to record food that is disposed of in your
household. Upon completion of this, you will receive a S10 gift card for your time, and also go in the draw to win 1 of 5 movie vouchers.
The second part will involve the food waste in some people's general waste bins being counted. During the regular weekly Council bin collection, our partner Waste Audit & Consultancy Services will audit the bin contents of a proportion
of this survey's participants. This bin audit will help us to more accurately define what food is wasted and no action is required by you in this process.
The data will be aggregated and if your bin is included. you will not be identified in any way. Only food contents will be recorded. and this will be strictly confidential and only for the purposes of this research.
This research is commissioned by CQUniversity, and has been reviewed and approved by The CQUniversity Human Research Ethics Committee. All research data will be stored securely by CQUniversity for a minimum of 15 years, in
accordance with cQuniversity policy. If you have any complaints or concerns about the research project, please email ethics@cqu.edu.au or phone (07) 4923 2603 quoting the following number 0000022444 within 24 hours as practicable.
S8. Do you agree to participate in this part of the research?
- Choose one of the following answers
    Yes. I would llike to complete an electronic diary for 7 days. recording all food disposed of in my household.
    I agree to the food waste in my bin being counted and compared with my electronic diary. I understand that I will not be identifiable in any way and that the bin audit is strictly for research purposes
No, I do not wish to participate in this research
```

Previous

### 6.4 Emails to participants

Regular communication via email was made between Instinct and Reason and the participants in the electronic-diary and bin audit stages. The participants were initially emailed their unique links to access their diaries through the Instinct and Reason web-based database. Thereafter, regular contact was made via email to assist with any technical queries, provide access links and remind people to participate.
Further details of the bin audits were provided by email, explaining when and how to put their food waste out.

1. Invitation to diary

Hi «first_name»
Thank you for participating in our research; we appreciate your help in understanding how your household handles food.

Starting on Monday $1^{\text {st }}$ January 2000 for a period of 7 days, we would like to you please record any food that is disposed of in your household. For completing the diary for the full week, you will receive $\mathbf{\$ 1 0}$ as a thank you and also go in the draw to win 1 of 5 movie vouchers. The link below will take you to an electronicdiary for you to fill out.

## How to fill it out:

- We recommend that you use a computer to fill out the diary, at least until you get familiar with it
- You will be able to click through this link again later to get back to the diary
- Please read through the instructions before starting. You can refer to them at any point
\(\left.$$
\begin{array}{|l|l|}\hline & \begin{array}{l}\text { Fill it out whenever is easiest for you: } \\
\text { - You can choose to fill out the foods you dispose of after each meal separately, } \\
\text { or you can do the whole day's worth at the end of the day, or at the start of } \\
\text { the next day, if that is easier }\end{array}
$$ <br>
- Please be sure to complete the diary for the whole week <br>
Your diary link: <br>
https://survey.instinctandreason.com/surveyID=12345\&token=«token» <br>
Thank you, and if you have any questions, please contact <br>

joebloggs@insinctandreason.com\end{array}\right]\)| Diaryreminder - <br> day 6 «first_name» <br> Thank you for your participation in our important study. This is just a reminder to <br> continue recording any household food you dispose of in your electronic-diary. If <br> you are almost finished your diary, keep up the good work! If you aren't quite up <br> to date, you can still fill in past days easily. <br> In the initial survey, we mentioned that a portion of the participants will have the <br> food in their general waste bins collected for research purposes, and that only the <br> food portion will be audited. As thanks for your participation and for completing <br> the diary, the initial incentive was \$10 (and going in the running to win 1 of 5 <br> movie vouchers). <br> We have been able to increase this amount to \$40 for each participant that <br> finishes their diary on time, and also puts their general waste bin out tomorrow <br> night for the audit. <br> To ensure you receive \$40 for participating in this research, please finish your <br> diary tomorrow evening (day 7). You should be on day 6 now, so if you are a bit <br> behind, you can still catch up today. Here are your diary links again: |
| :--- |
| Days 1-4: |
| https://survey2.instinctandreason.com/index.php?r=survey/index\&sid=772318\&t |
| oken=«token» |


| Bin reminder $\text { - day } 7$ | Hi «first_name» <br> Thank you for your hard work with the food diary over the past week. If you aren't all caught up, you can still fill in any missed days. <br> Just a reminder that a portion of the participant's bins in this study will be audited, as mentioned in the survey. Only the food contents will be recorded, and it is strictly for research purposes. <br> To qualify for the $\$ 10$ incentive, this evening please put out your general waste bin (your regular rubbish bin, likely to have a red lid) out on the street before 9pm for your usual council bin collection day <br> - Make sure your bin is clearly labelled with your street number. If the number on the bin has worn away, please stick a label/ note on it with your street number (and unit number, if applicable). The person auditing the food in the bin will not have your contact details so don't put your name on the bin. <br> - If your bin cannot be accessed by the street (for example a gated community, please let us know as soon as possible) <br> - Please put it out regardless of whether you have a lot of food in the general waste bin, or no food in it at all <br> If you're not quite up to date on the diary, please continue it here for the last few meals: <br> https://survey2.instinctandreason.com/index.php?r=survey/index\&sid=689567\&t oken=«token» <br> Thank you again for participating! |
| :---: | :---: |
| ACT reminders audits done on same night regardless of usual council collection pick up | Hi «first_name» <br> Thank you for your hard work with the food diary over the past week. <br> As mentioned in the survey and in earlier emails, we will be auditing the food bags collected this week by participants in the study. Only the food contents will be audited, everything else will be disregarded. It is strictly for research purposes, and all data will be aggregated, so you will not be identifiable in any way. <br> Please note that to be eligible for the $\$ 50$ gift voucher, you must put out your general waste bin tonight, even if it is not your usual council bin collection tomorrow morning. <br> Even if you haven't disposed of anything, you must put out an empty bag to show this. We are not here to judge how much you throw out, just to get a better idea of the types of foods and scraps Australian households dispose of. <br> Please make sure: <br> - The bin must be out on the street by 9pm <br> - You must put the bag(s) of food scraps you have been collecting in the bin. It must be placed inside the bin, not on top. Putting it on the top of the pile is best so the auditors don't need to look through the rest of the bin to find it |

$\left.\begin{array}{|l|l|}\hline & \begin{array}{r}\text { - Please make sure it is clear which bin bags are for this study - this could } \\ \text { be with a sticky note sticky taped to the bag for example. We don't want } \\ \text { too many or too few bags to be picked up } \\ \text { Make sure the bin is accessible and clearly identifiable. If you have a } \\ \text { ribbon to tie on the bin lid, that would be helpful so they can easily spot } \\ \text { which one is yours } \\ \text { Make sure it is clearly labelled with your street number (and unit } \\ \text { number, if applicable). If the auditor cannot tell it is your bin and cannot } \\ \text { audit it, you will not be eligible for the incentive }\end{array} \\ \text { - Please make sure it is unobstructed, for example, out on the street, not } \\ \text { inside the property behind any fence or hidden by shrubs }\end{array}\right\}$

Note: All emails were signed off by Instinct and Reason, with the following inclusion:

This research is commissioned by Central Queensland University, and has been reviewed and approved by its Human Research Ethics Committee. All research data will be stored securely by Central Queensland University for a minimum of 15 years, in accordance with Central Queensland University
policy. If you have any complaints or concerns about the research project, please email ethics@cqu.edu.au or phone (07) 49232603 quoting the following number 0000022444 within 24 hours if at all possible.

## Appendix 3: Electronic Diary Sample

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2951 FFW CRC Food Waste National Measure
Food Waste Diary
FINAL
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## Screening Question

We are contacting you because we're doing some research about how your household handles food leftovers and disposal of what is uneaten.

Would you be interested in participating in an online food waste diary task?

You will need to log into the diary for around 5 minutes each day and record the food that you are disposing of for a period of seven days.

|  | S/R |  |
| ---: | :---: | :--- |
| No | 1 | TERMINATE |
| Yes | 2 | CONTINUE |

## Introduction

Food waste diary

We would like you to record food that is not eaten and hence disposed of in your household.

This diary is based over a period of seven days as this will give us a clear picture of common foods disposed of.

We are not here to judge what you dispose of or how much! The more honest you are, the more useful the research will be.

How to fill in the diary

You will be asked to record the type of food you, or any member of your household, disposes of, for each of four eating times - breakfast, lunch and dinner. An additional table, called 'between meals', can be used for when you dispose of food at any other point.

1. Please fill out the diary after each meal - one entry for each food and drink item that you dispose of
2. Estimate and record the number of cups, slices or portions that were thrown away
3. If your household hasn't disposed of any food or drink after a meal then please tick the box at the bottom of the table.
(If you place food or drink back in the fridge to store it or freeze it to consume later on, then it is not being disposed of, so you would not record it in the diary.)

When you are finished filling out the diary, click Next Meal to save your responses, and close the link. You will be able to open the same link to resume later.

## Instructions

Please read the below instructions carefully before filling out the diary.

Reminder: please record all food originally meant for people in your household that is put in the general waste bin, compost, worm farm, down the sink or fed to pets etc. This may include inedible parts of foods such as eggshells, bones or vegetable peelings, edible foods such as a banana, or cooked meals not eaten, such as fried rice.
[PDF instructions here]

## Electronic food diary

Click here to view the instructions

Reminder: please record all food originally meant for people in your household that is put in the general waste bin, compost, worm farm, down the sink or fed to pets etc. This may include inedible parts of foods such as eggshells, bones or vegetable peelings, edible foods such as a banana, or cooked meals not eaten, such as fried rice.

## Please enter the date for day 1.

[Defaults to current date]
DD/MM

## Day 1 Breakfast

Please describe the food and drink that you disposed of from breakfast in the table below.
[Diary]
Day 1 Lunch
Please describe the food and drink that you disposed of from lunch in the table below.
[Diary]
Day 1 Dinner
Please describe the food and drink that you disposed of from dinner in the table below. [Diary]
Day 1 Between meals
Please describe the food and drink that you disposed of from between meals (e.g. when unloading the shopping or disposing of an item from the fridge, or food disposed of from snacks), not associated with any particular meal, in the table below.
[Diary]
Please click Next for day 2 diary.
Click here to view the instructions

Reminder: please record all food originally meant for people in your household that is put in the general waste bin, compost, worm farm, down the sink or fed to pets etc. This may include inedible parts of foods such as eggshells, bones or vegetable peelings, edible foods such as a banana, or cooked meals not eaten, such as fried rice.

Please enter the date for day 2.
[Defaults to current date]
DD/MM

## Day 2 Breakfast

Please describe the food and drink that you disposed of from breakfast in the table below. [Diary]

Day 2 Lunch
Please describe the food and drink that you disposed of from lunch in the table below.
[Diary]
Day 2 Dinner
Please describe the food and drink that you disposed of from dinner in the table below. [Diary]
Day 2 Between meals
Please describe the food and drink that you disposed of from between meals (e.g. when unloading the shopping or disposing of an item from the fridge, or food disposed of from snacks), not associated with any particular meal, in the table below.
[Diary]

Reminder: please record all food originally meant for people in your household that is put in the general waste bin, compost, worm farm, down the sink or fed to pets etc. This may include inedible parts of foods such as eggshells, bones or vegetable peelings, edible foods such as a banana, or cooked meals not eaten, such as fried rice.

Please click Next for day 3 diary.
Click here to view the instructions
Please enter the date for day 3.
[Defaults to current date]
DD/MM

## Day 3 Breakfast

Please describe the food and drink that you disposed of from breakfast in the table below.
[Diary]
Day 3 Lunch
Please describe the food and drink that you disposed of from lunch in the table below.
[Diary]
Day 3 Dinner
Please describe the food and drink that you disposed of from dinner in the table below. [Diary]

Day 3 Between meals
Please describe the food and drink that you disposed of from between meals (e.g. when unloading the shopping or disposing of an item from the fridge, or food disposed of from snacks), not associated with any particular meal, in the table below.
[Diary]
Thanks for completing the first $\mathbf{3}$ days of the diary. Your response for the first $\mathbf{3}$ days has been recorded.

Please enter the date for day 4.
[Defaults to current date]
DD/MM

## Day 4 Breakfast

Please describe the food and drink that you disposed of from breakfast in the table below. [Diary]

Day 4 Lunch
Please describe the food and drink that you disposed of from lunch in the table below.
[Diary]
Day 4 Dinner
Please describe the food and drink that you disposed of from dinner in the table below. [Diary]
Day 4 Between meals
Please describe the food and drink that you disposed of from between meals (e.g. when unloading the shopping or disposing of an item from the fridge, or food disposed of from snacks), not associated with any particular meal, in the table below.
[Diary]
Thanks for completing the first 4 days of the diary. Your response for the first 4 days has been recorded.
For accessing the diary for days 5 to 7, please bookmark and use this new link.
[New link]
Instinct and Reason
Please click Next for day 5 diary.
Click here to view the instructions

Reminder: please record all food originally meant for people in your household that is put in the general waste bin, compost, worm farm, down the sink or fed to pets etc. This may include inedible parts of foods such as eggshells, bones or vegetable peelings, edible foods such as a banana, or cooked meals not eaten, such as fried rice.

Please enter the date for day 5.
[Defaults to current date]
DD/MM

Day 5 Breakfast
Please describe the food and drink that you disposed of from breakfast in the table below. [Diary]

Day 5 Lunch
Please describe the food and drink that you disposed of from lunch in the table below.
[Diary]
Day 5 Dinner
Please describe the food and drink that you disposed of from dinner in the table below. [Diary]
Day 5 Between meals
Please describe the food and drink that you disposed of from between meals (e.g. when unloading the shopping or disposing of an item from the fridge, or food disposed of from snacks), not associated with any particular meal, in the table below.
[Diary]
Please click Next for day 6 diary.
Click here to view the instructions

Reminder: please record all food originally meant for people in your household that is put in the general waste bin, compost, worm farm, down the sink or fed to pets etc. This may include inedible parts of foods such as eggshells, bones or vegetable peelings, edible foods such as a banana, or cooked meals not eaten, such as fried rice.

Please enter the date for day 6.
[Defaults to current date]
DD/MM

## Day 6 Breakfast

Please describe the food and drink that you disposed of from breakfast in the table below. [Diary]

Day 6 Lunch
Please describe the food and drink that you disposed of from lunch in the table below.
[Diary]
Day 6 Dinner
Please describe the food and drink that you disposed of from dinner in the table below. [Diary]
Day 6 Between meals
Please describe the food and drink that you disposed of from between meals (e.g. when unloading the shopping or disposing of an item from the fridge, or food disposed of from snacks), not associated with any particular meal, in the table below.
[Diary]
Please click Next for day 7 diary.
Click here to view the instructions

Reminder: please record all food originally meant for people in your household that is put in the general waste bin, compost, worm farm, down the sink or fed to pets etc. This may include inedible
parts of foods such as eggshells, bones or vegetable peelings, edible foods such as a banana, or cooked meals not eaten, such as fried rice.

## Please enter the date for day 7.

[Defaults to current date]
DD/MM

## Day 7 Breakfast

Please describe the food and drink that you disposed of from breakfast in the table below.
[Diary]
Day 7 Lunch
Please describe the food and drink that you disposed of from lunch in the table below.
[Diary]

## Day 7 Dinner

Please describe the food and drink that you disposed of from dinner in the table below. [Diary]
Day 7 Between meals
Please describe the food and drink that you disposed of from between meals (e.g. when unloading the shopping or disposing of an item from the fridge, or food disposed of from snacks), not associated with any particular meal, in the table below.
[Diary]

## Assumptions around bread recorded in the diary

In the benchmark survey, the respondents were asked to record foods in cups (from 1 tablespoon to 6 or more cups). The exception to this was that bread was recorded in slices, rolls or loaves.

Most categories were captured in the benchmark as "cups" as this was determined in the piloting to be the most common and consistent measure across all Australian households

Respondents were asked to record bread in terms of "slices of bread".
The results are presented in this section as it was recorded by participants and then as a conversion to "kg".

The "kg" result has also been converted in this section to "\$" value based on the average price per category derived from the pricing analysis.

The slice of bread measure was converted using the average of the bread categories in the electronicdiary. The various categories are outlined below. The average weight by slice was 0.077 kg per slice.

|  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## Electronic-diary food library

The food library list entries were sorted alphabetically on the electronic-diary. The diary was a 'smart form'; when letters were typed, the list would narrow down to only those entries that included those characters.

| category | food |
| :--- | :--- |
| 2.1 | Artichoke - cooked, preserved |
| 2.1 | Artichoke - raw, fresh |
| 2.1 | Arugula - cooked, preserved |
| 2.1 | Asparagus - cooked, preserved |
| 2.1 | Asparagus - raw, fresh |
| 2.1 | Avocado - cooked, preserved |
| 2.1 | Avocado - raw, fresh |
| 2.1 | Bamboo - fresh or cooked |
| 2.1 | Bay leaves - raw, fresh |
| 2.1 | Bean - (green) cooked, preserved |
| 2.1 | Bean - (green) raw, fresh |
| 2.1 | Beetroot - cooked, preserved |
| 2.1 | Beetroot - raw, fresh |
| 2.1 | Black bean - cooked, preserved |
| 2.1 | Black bean - raw, fresh |
| 2.1 | Blood orange - cooked, preserved |
| 2.1 | Bok Choy / pak choi - cooked, preserved |
| 2.1 | Bok Choy / pak choi - raw, fresh |
| 2.1 | Broad bean - cooked, preserved |


| 2.1 | Broad bean - raw, fresh |
| :---: | :---: |
| 2.1 | Broccoli - cooked, preserved |
| 2.1 | Broccoli - raw, fresh |
| 2.1 | Broccolini - cooked, preserved |
| 2.1 | Broccolini - raw, fresh |
| 2.1 | Brussel sprouts - cooked, preserved |
| 2.1 | Brussel sprouts - raw, fresh |
| 2.1 | Cabbage - cooked, preserved |
| 2.1 | Cabbage - raw, fresh |
| 2.1 | Capers - cooked, preserved |
| 2.1 | Capers - raw, fresh |
| 2.1 | Capsicum - cooked, preserved |
| 2.1 | Capsicum - raw, fresh |
| 2.1 | Carrot - cooked, preserved |
| 2.1 | Carrot - raw, fresh |
| 2.1 | Cassava - cooked, preserved |
| 2.1 | Cassava - raw, fresh |
| 2.1 | Cauliflower - cooked, preserved |
| 2.1 | Cauliflower - raw, fresh |
| 2.1 | Celeriac - cooked, preserved |
| 2.1 | Celeriac - raw, fresh |
| 2.1 | Celery - cooked, preserved |
| 2.1 | Celery - raw, fresh |
| 2.1 | Chicory - cooked, preserved |
| 2.1 | Chicory - raw, fresh |
| 2.1 | Chilli - cooked, preserved |
| 2.1 | Chilli - raw, fresh |
| 2.1 | Chinese broccoli - cooked, preserved |
| 2.1 | Chinese broccoli - raw, fresh |
| 2.1 | Chives - cooked, preserved |
| 2.1 | Chives - raw, fresh |
| 2.1 | Choko - cooked, preserved |
| 2.1 | Choko - raw, fresh |
| 2.1 | Choy sum - cooked, preserved |
| 2.1 | Choy sum - raw, fresh |
| 2.1 | Corn - cooked, preserved |
| 2.1 | Corn - raw, fresh |
| 2.1 | Cucumber - cooked, preserved |
| 2.1 | Cucumber - raw, fresh |
| 2.1 | Edamame - fresh or defrosted |
| 2.1 | Eggplant/aubergine - cooked, preserved |
| 2.1 | Eggplant/aubergine - raw, fresh |
| 2.1 | Endive - cooked, preserved |
| 2.1 | Endive - raw, fresh |
| 2.1 | Fennel - cooked, preserved |
| 2.1 | Fennel - raw, fresh |
| 2.1 | Garlic - cooked, preserved |
| 2.1 | Garlic - raw, fresh |


| 2.1 | Gherkin - cooked, preserved |
| :---: | :---: |
| 2.1 | Gherkin - raw, fresh |
| 2.1 | Ginger - cooked, preserved |
| 2.1 | Ginger - raw, fresh |
| 2.1 | Grape vine leaf - cooked, preserved |
| 2.1 | Grape vine leaf- raw, fresh |
| 2.1 | Kale - cooked, preserved |
| 2.1 | Kale - raw, fresh |
| 2.1 | Kidney bean - cooked, preserved |
| 2.1 | Kidney bean - raw, fresh |
| 2.1 | Kohlrabi - cooked, preserved |
| 2.1 | Kohlrabi - raw, fresh |
| 2.1 | Leek - cooked, preserved |
| 2.1 | Leek - raw, fresh |
| 2.1 | Lemon-cooked, preserved |
| 2.1 | Lemon-raw, fresh |
| 2.1 | Lettuce - cooked, preserved |
| 2.1 | Lettuce - raw, fresh |
| 2.1 | Lime - cooked, preserved |
| 2.1 | Lime - raw, fresh |
| 2.1 | Mixed leaves - raw, fresh |
| 2.1 | Mushroom - cooked, preserved |
| 2.1 | Mushroom - raw, fresh |
| 2.1 | Okra - cooked, preserved |
| 2.1 | Okra - raw, fresh |
| 2.1 | Olive - cooked, preserved |
| 2.1 | Olive - raw, fresh |
| 2.1 | Onion - cooked, preserved |
| 2.1 | Onion - raw, fresh |
| 2.1 | Orange - cooked, preserved |
| 2.1 | Orange - raw, fresh |
| 2.1 | Parsley - cooked, preserved |
| 2.1 | Parsley - raw, fresh |
| 2.1 | Parsnip - cooked, preserved |
| 2.1 | Parsnip - raw, fresh |
| 2.1 | Pea - cooked, preserved |
| 2.1 | Pea - raw, fresh |
| 2.1 | Peppers - cooked, preserved |
| 2.1 | Peppers - raw, fresh |
| 2.1 | Potato - cooked, preserved |
| 2.1 | Potato - raw, fresh |
| 2.1 | Pumpkin - cooked, preserved |
| 2.1 | Pumpkin-raw, fresh |
| 2.1 | Radicchio - cooked, preserved |
| 2.1 | Radicchio - raw, fresh |
| 2.1 | Radish - cooked, preserved |
| 2.1 | Radish - raw, fresh |
| 2.1 | Rocket/arugula - cooked, preserved |


| 2.1 | Rocket/arugula /arugula - raw, fresh |
| :---: | :---: |
| 2.1 | Salad - raw, fresh |
| 2.1 | Seaweed-cooked, preserved |
| 2.1 | Seaweed - raw, fresh |
| 2.1 | Shallot - cooked, preserved |
| 2.1 | Shallot - raw, fresh |
| 2.1 | Silverbeet - cooked, preserved |
| 2.1 | Silverbeet - raw, fresh |
| 2.1 | Snow peas - cooked, preserved |
| 2.1 | Snow peas - raw, fresh |
| 2.1 | Spinach (english) - cooked, preserved |
| 2.1 | Spinach (english) - raw, fresh |
| 2.1 | Sprouts - cooked, preserved |
| 2.1 | Sprouts - raw, fresh |
| 2.1 | Squash - cooked, preserved |
| 2.1 | Squash - raw, fresh |
| 2.1 | Swede - cooked, preserved |
| 2.1 | Swede - raw, fresh |
| 2.1 | Sweet potato - cooked, preserved |
| 2.1 | Sweet potato - raw, fresh |
| 2.1 | Tangelo - raw, fresh |
| 2.1 | Taro - cooked, preserved |
| 2.1 | Taro - raw, fresh |
| 2.1 | Tomato - cooked, preserved |
| 2.1 | Tomato - raw, fresh |
| 2.1 | Turnip - cooked, preserved |
| 2.1 | Turnip - raw, fresh |
| 2.1 | Vegetable (raw) - other, not listed |
| 2.1 | Watercress - cooked, preserved |
| 2.1 | Watercress - raw, fresh |
| 2.1 | Yam-cooked, preserved |
| 2.1 | Yam - raw, fresh |
| 2.1 | Zucchini/courgette - cooked, preserved |
| 2.1 | Zucchini/courgette - raw, fresh |
| 2.3 | Basil - fresh |
| 2.3 | Cardamom - fresh |
| 2.3 | Chilli - fresh |
| 2.3 | Chives - fresh |
| 2.3 | Coriander/cilantro - fresh |
| 2.3 | Curry leaves - fresh |
| 2.3 | Dill - fresh |
| 2.3 | Ginger - fresh |
| 2.3 | Lemongrass - fresh |
| 2.3 | Mint - fresh |
| 2.3 | Mustard seeds - fresh leaves |
| 2.3 | Oregano-fresh |
| 2.3 | Parsley - fresh |
| 2.3 | Rosemary - fresh |

## 2.3

## 2.3

3.1
3.1

## 3.1

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## 3.1

## 3.1

## 3.1

## 3.1

3.1

## 3.1

3.1
3.1 Coriander/cilantro - cooked, canned, preserved

## 3.1

3.1
3.1 Eggplant/aubergine - canned, frozen, dried
3.1

## 3.1

3.1 Frozen cut chips - canned, frozen, dried
3.1 Garlic - canned, frozen, dried
3.1 Gherkin - canned, frozen, dried
3.1 Ginger - canned, frozen, dried
3.1 Ginger-cooked, canned, preserved
3.1 Grape vine leaf - canned, frozen, dried
3.1 Kale - canned, frozen, dried
3.1 Kidney bean - canned, frozen, dried
3.1 Kohlrabi - canned, frozen, dried
3.1 Leek - canned, frozen, dried
3.1 Lemon - cooked, preserved or dried
3.1 Lemongrass - cooked, canned, preserved
3.1 Lettuce - canned, frozen, dried
3.1 Mint - cooked, canned, preserved
3.1 Mushroom - canned, frozen, dried
3.1 Mustard seeds - cooked, canned, preserved leaves
3.1 Okra - canned, frozen, dried
3.1 Olive - canned, frozen, dried
3.1 Onion - canned, frozen, dried
3.1 Oregano - cooked, canned, preserved
3.1 Parsley - canned, frozen, dried
3.1 Parsley - cooked, canned, preserved
3.1 Parsnip - canned, frozen, dried
3.1 Pea - canned, frozen, dried
3.1 Peppers - canned, frozen, dried
3.1 Potato - canned, frozen, dried
3.1 Pumpkin - canned, frozen, dried
3.1 Radish - canned, frozen, dried
3.1 Rocket/arugula - canned, frozen, dried
3.1 Rosemary - cooked, canned, preserved
3.1 Sage - cooked, canned, preserved
3.1 Salad (processed) - canned, frozen, dried
3.1 Seaweed - canned, frozen, dried
3.1 Shallot - canned, frozen, dried
3.1 Silverbeet - canned, frozen, dried
3.1 Snow peas - canned, frozen, dried
3.1 Spinach (english) - canned, frozen, dried
3.1 Sprouts - canned, frozen, dried
3.1 Squash - canned, frozen, dried
3.1 Swede - canned, frozen, dried
3.1 Sweet potato - canned, frozen, dried
3.1 Taro - canned, frozen, dried
3.1 Thyme - cooked, canned, preserved
3.1 Tomato - canned, frozen, dried
3.1 Turmeric - cooked, canned, preserved
3.1 Turnip - canned, frozen, dried
3.1 Vegetable (canned, frozen, cooked, dried) - other, not listed
3.1 Watercress - canned, frozen, dried
3.1 Yam - canned, frozen, dried
3.1 Zucchini/courgette - canned, frozen, dried
3.2 Chickpea - cooked, preserved or dried
3.2 Edamame - cooked, preserved or dried
3.2 Lentil - cooked, preserved or dried
3.2 Lupin - cooked, preserved or dried
3.2 Peas - cooked, preserved or dried
3.2
3.2
3.2
3.2
4.1
4.1
4.1
4.1
4.1
4.1
4.1
4.1
4.1
4.1
4.1
4.1
4.1

- Fig -raw, fresh
4.1 Fruit (raw/fresh) - other, not listed
4.1 Fruit salad - raw, fresh
4.1 Goji - raw, fresh
4.1
4.1
4.1
4.1 Honeydew - raw, fresh
4.1 Jackfruit - raw, fresh
4.1 Kiwi fruit - raw, fresh
4.1 Kumquat - raw, fresh
4.1 Loquat - raw, fresh
4.1 Lychee - raw, fresh
4.1 Mandarin - raw, fresh
4.1 Mango - raw, fresh
4.1 Melon - raw, fresh
4.1 Mixed fruit - raw, fresh
4.1 Mulberry - raw, fresh
4.1 Nectarine - raw, fresh
4.1 Passionfruit - raw, fresh
4.1 Pawpaw - raw, fresh
4.1 Peach - raw, fresh
4.1 Peach - raw, fresh
4.1 Pear-raw, fresh
4.1 Persimmon - raw, fresh
4.1 Pineapple - raw, fresh
4.1 Plum - raw, fresh
4.1 Pomegranate - raw, fresh
4.1 Prickly Pear - raw, fresh
4.1 Quandong - raw, fresh
4.1 Quince - raw, fresh
4.1 Rambutan - raw, fresh
4.1 Raspberry - raw, fresh
4.1 Starfruit - raw, fresh
4.1 Strawberry - raw, fresh
4.1 Sultana grapes - raw, fresh
4.1 Tamarillo raw, fresh
4.1 Tamarond - raw, fresh
4.1 Tangerine - raw, fresh
$5.1 \quad$ Acai berry - ground/juice
5.1 Apple - cooked, preserved
5.1 Apricot - cooked, preserved
5.1 Banana - cooked, preserved
5.1 Blackberry - cooked, preserved
5.1 Blueberry - cooked, preserved
5.1 Cherry - cooked, preserved
5.1 Cranberry - cooked, preserved
5.1 Currants - cooked, preserved
5.1 Dates - canned, frozen, dried
5.1 Dates - cooked, preserved
5.1 Feijoa - canned, frozen, dried
5.1 Feijoa - cooked, preserved
5.1 Fig - canned, frozen, dried
5.1 Fig-cooked, preserved
5.1 Fruit (canned, frozen, cooked, dried) - other, not listed
5.1 Fruit salad - canned, frozen, dried
5.1 Fruit salad - cooked, preserved
5.1 Goji - canned, frozen, dried
5.1 Goji - cooked, preserved
5.1 Grape - canned, frozen, dried
5.1 Grape - cooked, preserved
5.1 Grapefruit - canned, frozen, dried
5.1 Grapefruit - cooked, preserved
5.1 Guava - canned, frozen, dried
5.1 Guava - cooked, preserved
5.1 Honeydew - canned, frozen, dried
5.1 Honeydew - cooked, preserved
5.1 Jackfruit - canned, frozen, dried
5.1 Jackfruit - cooked, preserved
5.1 Kiwi fruit - canned, frozen, dried
5.1 Kiwi fruit - cooked, preserved
5.1 Kumquat - canned, frozen, dried
5.1 Kumquat - cooked, preserved
5.1 Lemon - canned, frozen, dried
5.1 Lemon - cooked, preserved
5.1 Lime - canned, frozen, dried
5.1 Loquat - canned, frozen, dried
5.1 Loquat - cooked, preserved
5.1 Lychee - canned, frozen, dried
5.1 Lychee - cooked, preserved
5.1 Mandarin - canned, frozen, dried
5.1 Mandarin - cooked, preserved
5.1 Mango - canned, frozen, dried
5.1 Mango - cooked, preserved
5.1 Melon - canned, frozen, dried
5.1 Melon - cooked, preserved
5.1 Mixed fruit - canned, frozen, dried
5.1 Mixed fruit - cooked, preserved
5.1 Mulberry - canned, frozen, dried
5.1 Mulberry - cooked, preserved
5.1 Nectarine - canned, frozen, dried
5.1 Nectarine - cooked, preserved
5.1 Orange - canned, frozen, dried
5.1 Passionfruit - canned, frozen, dried
5.1 Passionfruit - cooked, preserved
5.1 Pawpaw - canned, frozen, dried
5.1 Pawpaw - cooked, preserved
5.1 Peach - canned, frozen, dried
5.1 Peach - canned, frozen, dried
5.1 Peach - cooked, preserved
5.1 Peach - cooked, preserved
5.1 Pear - canned, frozen, dried
5.1 Pear - cooked, preserved
5.1 Persimmon - canned, frozen, dried
5.1 Persimmon - cooked, preserved
5.1 Pineapple - canned, frozen, dried
5.1 Pineapple - cooked, preserved
5.1 Plum - canned, frozen, dried
5.1 Plum - cooked, preserved
5.1 Pomegranate - canned, frozen, dried
5.1 Pomegranate - cooked, preserved
5.1 Prickly Pear - canned, frozen, dried
5.1 Prickly Pear - cooked, preserved
5.1 Quandong - canned, frozen, dried
5.1 Quandong - cooked, preserved
5.1 Quince - canned, frozen, dried
5.1 Quince - cooked, preserved
5.1 Rambutan - canned, frozen, dried
5.1 Rambutan - cooked, preserved
5.1 Raspberry - canned, frozen, dried
5.1 Raspberry - cooked, preserved
5.1 Strawberry - canned, frozen, dried
5.1 Strawberry - cooked, preserved
5.1 Sultana grapes - canned, frozen, dried
5.1 Sultana grapes - cooked, preserved
5.1 Tamarillo - cooked, preserved
5.1 Tangelo - cooked, preserved
5.1 Tangerine - cooked, preserved
6.1 Braised meat-cooked, preserved or dried
6.1 Curry
6.1 Fried rice
6.1 Fritter
6.1 Hamburger - home made
6.1 Hot dog w - bread roll, trimmings - home made
6.1 Kebab (shish, donor)
6.1 Lasagne - home made/ pre - prepared
$6.1 \quad$ Nasi goreng
6.1 Noodle meal home made/ pre-prepared - ready to eat
6.1 Other home made meal (vegetarian)
6.1 Other home made meal (with meat)
6.1 Pad thai / pad see ew
6.1 Pizza - home made/ pre-prepared/ supermarket bought
6.1 Rice (cooked) - unseasoned, any grain type
6.1 Savoury pudding eg black pudding
6.1 Soup - home made
6.1 Stew or casserole - home made
6.1 Stew/ casserole home made
6.1 Tacos - home made
6.2
6.2

Chicken / pork / vegetable roll - takeaway
Hamburger - takeaway
6.2 Hot dog w-bread roll, trimmings - takeaway
6.2 Lasagne - takeaway
6.2 Noodles - takeaway dish

$$
6.2
$$

## 6.2

6.2

Other take away meal (vegetarian)
8.1 Beef - raw/ uncooked steak or mince, meat or fat trimmings
8.1 Burger - raw/ uncooked
8.1 Chicken - raw/ uncooked, meat or fat trimmings
8.1 Duck - raw/ uncooked , meat or fat trimmings
8.1 Hamburger mince or patty (raw/ uncooked)
8.1 Meat (raw/uncooked) - other, not listed
8.1 Pork- raw/ uncooked, meat or fat trimmings
8.1 Sausage - raw/ uncooked
8.1 Sushi
8.2 Beef jerky
8.2 Beef mince (cooked)
8.2 Beef steak - red meat (cooked)
8.2 Cabanosi / frankfurt
8.2 Chicken - (cooked) fried, poached, grilled
8.2 Chops - red or white meat (cooked)
8.2 Devon
8.2 Duck (cooked)
8.2 Ham
8.2 Hamburger mince or patty (cooked)
8.2 Lamb (cooked), mince or steak
8.2 Meat (cooked/preserved) - other, not listed
8.2 Pork (cooked), mince, chops
8.2 Pork, cured (proscuitto, pancetta)
8.2 Quail (cooked)
8.2 Salami
8.2
8.2

Sausage - pork/ lamb/ chicken (cooked)
Spam
8.2 Turkey (cooked)
9.1 Abalone - raw
9.1 Anchovy - raw
9.1 Barramundi - raw
9.1 Bassa - raw
9.1 Blue - raw
9.1 Bream - raw
9.1 Cod-raw
9.1 Crab-raw
9.1 Fish (raw) - other, not listed
9.1 Fish roe/caviar
9.1 Flathead - raw
9.1 Gemfish - raw
9.1 Kangaroo - raw
9.1 Kingfish - raw
9.1 Lobster - raw
9.1 Mackerel - raw
9.1 Morwong - raw
9.1 Mullet - raw
9.1 Mulloway - raw
9.1 Mussel - raw
9.1 Octopus - raw
9.1 Oyster - raw
9.1 Prawn - raw
9.1 Salmon - raw
9.1 Sardine - canned, preserved, dried
9.1 Sardine - raw
9.1 Scallop - raw
9.1 Seafood/fish (raw) - other, not listed
9.1 Shark - raw
9.1 Silver - raw
9.1 Snapper - raw
9.1 Sprat-raw
9.1 Squid - raw
9.1 Tilapia - raw
9.1 Trout - raw
9.1 Tuna - raw
9.1 Whiting - raw
9.2 Abalone - cooked, canned, preserved
9.2 Anchovy - cooked, canned, preserved
9.2 Barramundi - cooked, canned, preserved10.1
10.1
10.1

        Sliced bread - large size
    10.1

        Sliced bread - standard size10.2
    10.2$10.2 \quad$ Bun (sweet)
Bassa - cooked, canned, preserved
Blue - cooked, canned, preserved
Bream - cooked, canned, preserved
Cod - cooked, canned, preserved
Crab-cooked, canned, preserved
Flathead - cooked, canned, preserved
Gemfish - cooked, canned, preserved
Kangaroo-cooked, canned, preserved
Kingfish - cooked, canned, preserved
Lobster - cooked, canned, preserved
Mackerel - cooked, canned, preserved
Morwong - cooked, canned, preserved
Mullet - cooked, canned, preserved
Mulloway - cooked, canned, preserved
Mussel - cooked, canned, preserved
Octopus - cooked, canned, preserved
Octopus - tinned
Oyster - cooked, canned, preserved
Prawn - cooked, canned, preserved
Salmon - cooked, canned, preserved
Salmon tinned
Salted fish
Sardines - tinned
Scallop - cooked, canned, preserved
Shark - cooked, canned, preserved
Silver - cooked, canned, preserved
Smoked salmon
Snapper - cooked, canned, preserved
Sprat - cooked, canned, preserved
Squid - cooked, canned, preserved
Tilapia - cooked, canned, preserved
Trout - cooked, canned, preserved
Tuna - cooked, canned, preserved
Whiting - cooked, canned, preserved
Bread - other, not listed
Bread loaf
Bread roll
Breadcrumbs
Bun (savoury)
Flat bread
Plain bun
Breakfast muffin
Brownie
10.2 Bun (sweet)
10.2 Cake batter / cookie dough (raw)
Seafood/fish (cooked, canned, preserved) - other, not listed

| 10.2 | Chocolate mousse |
| :---: | :---: |
| 10.2 | Cream bun |
| 10.2 | Crumpet |
| 10.2 | Doughnut/donut |
| 10.2 | English style muffin |
| 10.2 | Fruit bun |
| 10.2 | Muffin |
| 10.2 | Slice (vanilla, caramel) |
| 10.2 | Tiramisu |
| 10.3 | Banana bread/cake |
| 10.3 | Cake - all types |
| 10.3 | Cheesecake |
| 10.3 | Cone |
| 10.3 | Crepe |
| 10.3 | Dessert - other, not listed |
| 10.3 | Ice cream |
| 10.3 | Lamington |
| 10.3 | Lamington |
| 10.3 | Pancake |
| 10.3 | Pavlova |
| 10.3 | Pavolva |
| 10.3 | Pikelet |
| 10.3 | Pudding |
| 10.3 | Rice pudding |
| 10.3 | Scone |
| 10.4 | Biscuits - sweet |
| 10.4 | Chocolate biscuits |
| 10.4 | Cookie |
| 10.4 | Sweet biscuits |
| 10.5 | Apple pie |
| 10.5 | Croissant |
| 10.5 | Mince pie (sweet) |
| 10.5 | Muesli slice |
| 10.5 | Pastry |
| 10.5 | Pastry (sweet) - other, not listed |
| 10.5 | Pie (sweet) |
| 10.5 | Slice |
| 10.5 | Tart (sweet) |
| 10.6 | Dumplings (meat) |
| 10.6 | Dumplings (vegetarian) |
| 10.6 | Meat pie (savoury) |
| 10.6 | Pastie |
| 10.6 | Pastry (savoury) - other, not listed |
| 10.6 | Quiche |
| 10.6 | Sausage roll |
| 10.6 | Tart (savoury) |
| 10.6 | Vegetarian pie (savoury) |
| 11.1 | Butter - dairy and non-dairy |


| 11.1 | Buttermilk - dairy and non-dairy |
| :---: | :---: |
| 11.1 | Cheese - dairy and non-dairy |
| 11.1 | Cream - dairy and non-dairy |
| 11.1 | Custard - dairy and non-dairy |
| 11.1 | Dairy - other, not listed |
| 11.1 | Dairy substitute |
| 11.1 | Eggs - raw / uncooked |
| 11.1 | Eggs (cooked) poached, fried, scrambled, other |
| 11.1 | Ghee |
| 11.1 | Milk - dairy |
| 11.1 | Non-dairy milk, any type (soy, almond, cashew, oat, hemp) |
| 11.1 | Sour cream - dairy and non-dairy |
| 11.1 | Yoghurt/yogurt - dairy and non-dairy |
| 12.1 | Miso paste, soup |
| 12.1 | Mustard - paste |
| 12.1 | Salsa verde / hot sauce |
| 12.3 | Allspice - ground |
| 12.3 | Basil - dried |
| 12.3 | Bay leaves - whole, ground |
| 12.3 | Chilli - dried, powdered |
| 12.3 | Chives - dried, ground |
| 12.3 | Cinnamon ground |
| 12.3 | Cinnamon stick/ quill |
| 12.3 | Cloves - ground or whole |
| 12.3 | Coriander/cilantro seed - dried, ground or whole |
| 12.3 | Cumin - ground, seeds |
| 12.3 | Curry - powdered, dried |
| 12.3 | Curry leaves - dried |
| 12.3 | Dill - dried |
| 12.3 | Dried whole |
| 12.3 | Fennel - ground, seeds |
| 12.3 | Fenugreek - ground, seeds |
| 12.3 | Ginger - ground, dried |
| 12.3 | Lemongrass - dried |
| 12.3 | Mint - dried, ground |
| 12.3 | Mix of spices - unable to separate different types |
| 12.3 | Mixed spice - ground |
| 12.3 | Mustard - ground, seeds |
| 12.3 | Nutmeg - ground or whole |
| 12.3 | Oregano - ground, dried |
| 12.3 | Paprika - any type eg smoked, Hungarian |
| 12.3 | Parsley - dried |
| 12.3 | Pepper - black, white |
| 12.3 | Pepper - dried seeds, ground |
| 12.3 | Pepper - ground, whole peppercorns |
| 12.3 | Rosemary - ground, dried |
| 12.3 | Sage - ground, dried |
| 12.3 | Salt |


| 12.3 | Salt subsitute |
| :---: | :---: |
| 12.3 | Seasoning - other, not listed |
| 12.3 | Spice (ground, dried) - other, not listed |
| 12.3 | Stock - cubes, liquid (vegetarian, meat) |
| 12.3 | Stock - liquid, dry powder, cube |
| 12.3 | Taco mix - ground |
| 12.3 | Thyme - ground, dried |
| 12.3 | Turmeric - ground, dried |
| 12.4 | Agave |
| 12.4 | Honey |
| 12.4 | Jam |
| 12.4 | Jelly |
| 12.4 | Peanut butter |
| 12.4 | Vegemite |
| 12.5 | Babaganoush dip |
| 12.5 | Barbeque sauce |
| 12.5 | BBQ sauce |
| 12.5 | Canola oil |
| 12.5 | Chutney |
| 12.5 | Dip - other, not listed |
| 12.5 | Grapeseed oil |
| 12.5 | Gravy |
| 12.5 | Hummus dip |
| 12.5 | Ketchup |
| 12.5 | Lard/ fat/ dripping - any animal |
| 12.5 | Mayonnaise |
| 12.5 | Mirin |
| 12.5 | Olive oil |
| 12.5 | Peanut oil |
| 12.5 | Salad dressing |
| 12.5 | Salsa |
| 12.5 | Sauce/condiment - other, not listed |
| 12.5 | Sesame Oil |
| 12.5 | Soy |
| 12.5 | Tahini |
| 12.5 | Tamari |
| 12.5 | Tartare sauce |
| 12.5 | Tomato paste |
| 12.5 | Tomato sauce / ketchup |
| 12.5 | Tomato/ BBQ sauce |
| 12.5 | Tzatziki dip |
| 12.5 | Vinegar |
| 12.5 | Worcestershire sauce |
| 13.1 | Breakfast cereal |
| 13.1 | Breakfast cereal beverage - ready to drink |
| 13.1 | Canelloni - raw / uncooked |
| 13.1 | Couscous (dried, pearled) |
| 13.1 | Lasagne sheets - fresh or dried |


| 13.1 | Macaroni |
| :---: | :---: |
| 13.1 | Muesli |
| 13.1 | Noodles - packet - dried |
| 13.1 | Pasta (cooked) - any shape, fresh / dried |
| 13.1 | Pasta (uncooked / raw) - any shape |
| 13.1 | Pastry - fresh, dried or frozen (uncooked) |
| 13.1 | Pizza base only - perhaps with sauce |
| 13.1 | Spaghetti (cooked) |
| 13.1 | Spaghetti (uncooked/ raw) |
| 13.2 | Burghul /bourghul / bulgur cracked wheat |
| 13.2 | Cornflour - raw / uncooked |
| 13.2 | Cornmeal (polenta, maize) |
| 13.2 | Couscous - raw / uncooked |
| 13.2 | Flour - any type, raw/ uncooked |
| 13.2 | Grain/ flour - other, not listed |
| 13.2 | Millet - raw / uncooked |
| 13.2 | Oats |
| 13.2 | Porridge |
| 13.2 | Psyllium |
| 13.2 | Quinoa |
| 13.2 | Rice - raw / uncooked |
| 13.2 | Rolled oats - raw / uncooked |
| 13.2 | Semolina |
| 13.2 | Sorghum |
| 13.2 | Spelt |
| 13.2 | Tapioca |
| 13.2 | Triticale |
| 13.2 | Wheat |
| 13.3 | Baking chocolate |
| 13.3 | Baking ingredient - other, not listed |
| 13.3 | Baking soda |
| 13.3 | Bicarbionate of soda |
| 13.3 | Chocolate - baking |
| 13.3 | Cocoa |
| 13.3 | Corn starch |
| 13.3 | Cream of tartare |
| 13.3 | Gelatine |
| 13.3 | Glucose |
| 13.3 | Gluten, from wheat |
| 13.3 | Meringue |
| 13.3 | Potato starch |
| 13.3 | Starch |
| 13.3 | Stevia (fresh, processed) |
| 13.3 | Sugar |
| 13.3 | Sugar substitute (artificial) |
| 13.3 | Syrup |
| 13.3 | Tartare |
| 13.3 | Vanilla |


| 13.3 | Wax |
| :---: | :---: |
| 13.3 | Yeast/ yeast dry powder |
| 13.4 | Almonds - roasted, raw |
| 13.4 | Brazilnuts - roasted, raw |
| 13.4 | Cashews - roasted, raw |
| 13.4 | Chia seeds - raw, cooked |
| 13.4 | Coconut - cooked, preserved or dried |
| 13.4 | Edible seeds - other, not listed |
| 13.4 | Hazelnuts - roasted, raw |
| 13.4 | Macadamias - roasted, raw |
| 13.4 | Nuts - other, not listed |
| 13.4 | Peanuts - roasted, raw |
| 13.4 | Pecan - roasted, raw |
| 13.4 | Pepitas/ edible pumpkin seeds |
| 13.4 | Pistachios - roasted, raw |
| 13.4 | Walnut - roasted, raw |
| 15.1 | Bubble gum |
| 15.1 | Caramels |
| 15.1 | Chewing gum / bubble gum |
| 15.1 | Chocolate - eating |
| 15.1 | Eating chocolate |
| 15.1 | Lemon sherbet |
| 15.1 | Liquorice/licorice (sweet) |
| 15.1 | Lollies/candy |
| 15.5 | Crackers |
| 15.5 | Nori / seaweed |
| 15.5 | Rice cakes |
| 15.5 | Rice crackers |
| 15.5 | Spring roll |
| 17.1 | Asparagus stem/end |
| 17.1 | Bean (green) ends |
| 17.1 | Beetroot leaves |
| 17.1 | Bok Choy / pak choi ends |
| 17.1 | Broad bean husks |
| 17.1 | Broccoli stem/ leaves |
| 17.1 | Brussel sprout ends |
| 17.1 | Cabbage stem/outer leaves |
| 17.1 | Carrot peel |
| 17.1 | Carrot top/stems |
| 17.1 | Cassava end |
| 17.1 | Cauliflower stem/leaves |
| 17.1 | Celeriac end/leaves |
| 17.1 | Celery end |
| 17.1 | Choy sum ends |
| 17.1 | Coriander stems |
| 17.1 | Fennel end/core |
| 17.1 | Ginger peel |
| 17.1 | Kale stem/end |

17.1 Leek end
17.1 Lettuce end/stem
17.1 Other vegetable peel/skin (edible)
17.1 Parsley stems
17.1 Potato peel
17.1 Pumpkin peel
17.1 Snow pea - outer pods
17.1 Spring onion / shallot / french onion ends/tops
17.2 Banana peel/skin
17.2 Cucumber end
17.2 Kiwi fruit skin
17.2 Mango skin
17.2 Melon skin
17.2 Other fruit peel/skin (edible)
17.3 Apple core
17.3 Avocado pip/seed
17.3 Beef bone
17.3 Beef fat
17.3 Blood orange peel/rind/seeds
17.3 Capsicum seeds/ core
17.3 Cherry pip
17.3 Chicken bones
17.3 Chicken fat
17.3 Corn cob
17.3 Crab shell
17.3 Eggshells
17.3 Garlic peel
17.3 Grapefruit peel/rind/seeds
17.3 Lamb bone
17.3 Lemon peel/rind/seeds
17.3 Lime peel/rind/seeds
17.3 Mandarin peel/rind/seeds
17.3 Mango pip
17.3 Olive pips
17.3 Onion peel
17.3 Orange peel/rind/seeds
17.3 Other fruit cores/seeds/stems/stalks
$17.3 \quad$ Other fruit peel/skin (inedible)
17.3 Other vegetable cores/seeds/stems/stalks
17.3 Other vegetable peel/skin (inedible)
17.3 Oyster shell
17.3 Papaya seeds
17.3 Pea/bean pod
17.3 Pineapple stem/ peel
17.3 Pork bone
17.3 Pork fat
17.3 Prawn shell
17.3 Pumpkin seeds/stem (raw, from pumpkin)
17.3 Radicchio stem
17.3 Rockmelon/cantaloupe seeds
17.3 Seafood/fish bones/scales - other, not listed
17.3 Seafood/shellfish shells - other, not listed
17.3 Strawberry stems/leaves
17.3 Tangelo peel/rind/seeds
17.3 Tangerine peel/rind/seeds
17.3 Tomato vine
17.3 turkey bone
17.3 Turkey fat
17.3 Watermelon seeds
17.3 Zucchini/courgette end/stem
20.1 Coffee - granulated/instant/powder/bag
20.1 Coffee - grounds (used or unused)
20.1 Coffee beans
20.1 Loose leaf tea
20.1 Nutritional powders
20.1 Tea bag
20.1 Tea leaves
20.1 Whey powder
20.2 Apple juice (fresh)
20.2 Apple juice (reconstituted)
20.2 Apricot nectar
20.2 Beer - all strengths
20.2 Coke/ Pepsi
20.2 Cordial
20.2 Electrolyte drinks
20.2 Energy drinks
20.2 Fruit juice (fresh) - other, not listed
20.2 Fruit juice (reconstituted)
20.2 Guava juice
20.2 Juice/brine from canned fruit/vegetables
20.2 Lemonade
20.2 Milkshake - any flavours
20.2 Orange juice (fresh)
20.2 Orange juice (reconstituted)
20.2 Other - soft drink / sport drink, not listed
20.2 Smoothie - any flavours
20.2 Soft drink
20.2 Soy drink
20.2 Sports drinks
20.2 Sprite/ 7 - Up
20.2 Tea or coffee, with water/milk
20.2 Vegetable juice (fresh)

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FIGHT FOOD WASTE Cooperative Research Centre

Australian Government


[^0]:    Significance two tailed test of difference a
    a 99 per cent level of confidence $[\mathrm{O} / \square$
    significantly less/more than the total sample]

[^1]:    Base: Total $n=1,462$ (NSW $n=382$, QLD $n=280$, VIC $n=287$, ACT $n=134$, WA $n=177$, SA $n=131$, NT $n=19$, TAS $n=52$ )
    Note: All food disposal methods were included in this food waste calculation

[^2]:    Base: Total $n=1,462$ (Female $n=921$, Male $n=540$, Other $n=1$ )
    Note: All food disposal methods were included in this food waste calculation

[^3]:    Base: Total $n=1,462$ (No income and negative income $n=10, \$ 1-\$ 999$ per week $n=387, \$ 1,000-\$ 1,999$ per week $n=447$, $\$ 2,000-\$ 2,999$ per week $n=219, \$ 3,000+$ per week $n=279$, Prefer not to say $n=120$ ) Note: All food disposal methods were included in this food waste calculation

[^4]:    Base: Total $n=1,462$ (Unrelated people $n=31$, Couple with no children $n=180$, Couple with children $<17 n=431$, Couple with adult children (>18) $n=119$, Single parent with children ( $<17$ ) $n=52$, Single parent with adult children ( >18) $n=42$, Empty nesters $n=270$, Living alone $n=252$, Other $n=78$, Prefer not to say $n=7$ )
    Note: Food given to animals, tipped down the drain or put into compost/ worm bin were not included in this food waste calculation

[^5]:    Base: Total $n=1,462$
    Note: All food disposal methods were included in this food waste calculation
    *No significance testing was undertaken on this slide.

[^6]:    Base: Total n=1,462
    Note: All food disposal methods were included in this food waste calculation
    *No significance testing was undertaken on this slide.

[^7]:    Base: Total n=1,462
    Note: All food disposal methods were included in this food waste calculation
    *No significance testing was undertaken on this slide.

[^8]:    Base: Total $n=1,462$
    Note: All food disposal methods were included in this food waste calculation
    *No significance testing was undertaken on this slide.

[^9]:    Base: Total n=1,462
    Note: All food disposal methods were included in this food waste calculation
    *No significance testing was undertaken on this slide.

