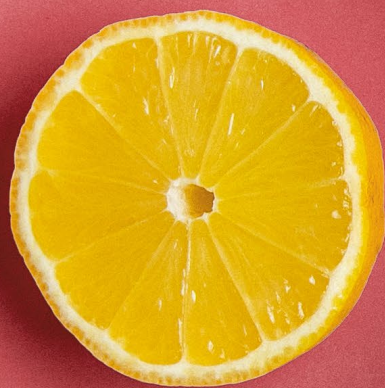


# Food waste

In-home research on  
food waste in Western  
Australian households

**November 2021**  
**Behavioural insights**



**FIGHT FOOD WASTE**  
Cooperative Research Centre  
REDUCE • TRANSFORM • ENGAGE



Australian Government  
Department of Industry, Science,  
Energy and Resources

**Business**  
Cooperative Research  
Centres Program



“Large amounts of household food waste could be avoided through better purchasing and storing of food, cooking the right portion size, eating leftovers, understanding food safety and date labels, and valuing food as done historically.”

**Fight Food Waste Cooperative Research Centre, 2018**

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**Be a GREAT Sort!**

Landfill is the last resort.



# Research

**The Fight Food Waste Cooperative Research Centre measured food waste in households across Australia. This included a sample of Western Australian (WA) households.**



Data was collected on household food waste using three instruments:

**1.**

**A survey:**  
household food waste managers self-reported data on food waste.

**324**

**WA households from a national sample of 2885**

**2.**

**An electronic diary:**  
household food waste managers documented their food waste for a week and estimated its volume (using cups).

**177**

**WA households from a national sample of 1462**

These households were selected from the survey respondents.

**3.**

**A physical bin audit:**  
the research centre measure the food waste found in general waste bins. The audit covered the same period as the electronic diary to enable comparisons.

**103**

**WA households from a national sample of 495**

These households were selected from the electronic diary respondents.

**The study compared the three food waste records and then used focus group discussions to explore the causes of and interventions for food waste.**

**The research was conducted from 10 November – 21 December 2020 and 30 January – 16 February 2021.**

# How much food do Western Australian households waste?

Instrument	Food waste reported (weight)
Surveys	2.00 kg per household per week
Electronic diary	2.83 kg per household per week
Bin audits (adjusted)	4.04 kg per household per week**

Food waste reported by WA households varied depending on the instrument used (survey, electronic diary, or bin audit).

\*\* The amount of food waste found in bin audits was adjusted based on evidence recorded in the electronic diaries (audited households also completed an electronic diary in the same week). The adjusted food waste figure accounts for all food waste including food in the general waste bin (audited) as well as food reported as composted, fed to pets or tipped down the sink (electronic diary).



Western Australian households waste

**4.04 kg**  
of food per week

(or 1.75 kg  
per person  
per week)

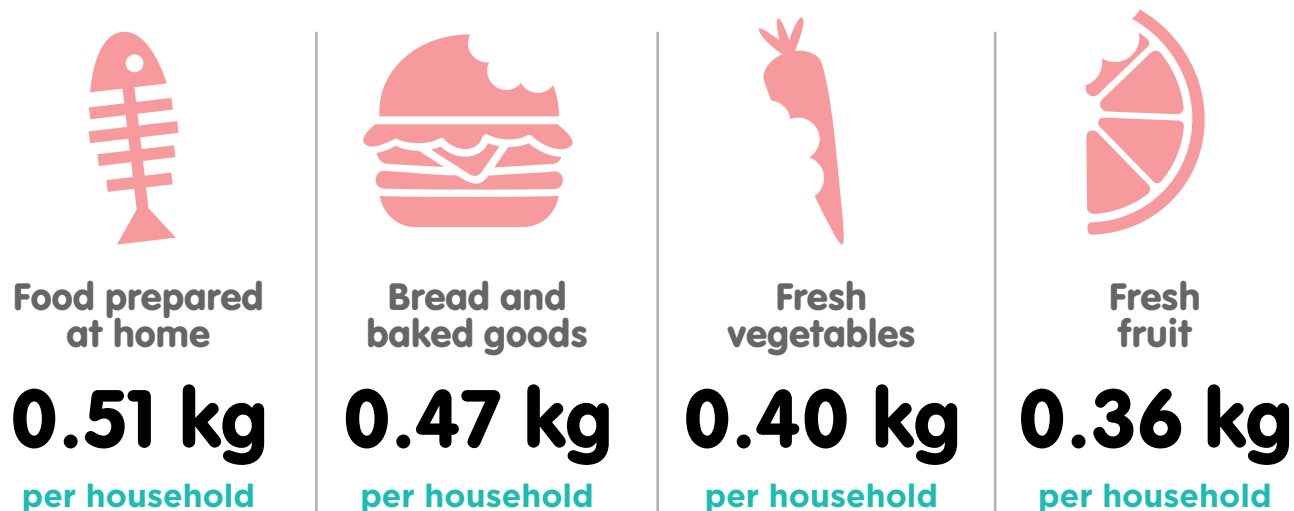
There was no statistically significant difference in the amount of food wasted by WA households when compared with the national sample.

The cost of food waste was estimated for **900** food categories and applied to the electronic diaries. Using this method, food waste was estimated to cost households **\$37.19** per household per week in WA. And this is likely to be a significant underestimate because the electronic diary only represents **68 per cent** of food waste, according to the results of the bin audit.

# How much food waste can be avoided?

Of the food waste recorded by WA households, at least 54 per cent was avoidable – the food could have been eaten. This equates to about 2.18 kg of avoidable food waste per household per week. The amount of avoidable food waste in WA was lower than the national average.

The four main types of avoidable food waste, by weight, are:



Compared with the national average, WA households wasted significantly more bread and bakery items and wasted considerably fewer fresh vegetables.

# Who is wasting the most food?

Based on the data in the electronic diaries, the groups wasting substantially more food than the average include:



## **busy families**

(especially young families with children under 17 years)



## **high-income households**

(those with household incomes over \$3,000 per week, or over \$156,000 per year)



## **those under 35 years of age**

(based on electronic diaries) or those aged 35 – 54 (based on raw audit data).

These groups should be considered as target audiences for behaviour change strategies. We should also consider the potential these groups have for change. For example, busy families may have more barriers to overcome when making changes to food waste behaviours.

The following groups waste significantly less food than average (based on the electronic diary results):

- those aged 55–74
- couples with no children
- those living alone
- those with household incomes of less than \$2,000 per week.



# Target behaviours

The following behaviours are associated with low food waste (ranked from most to least significant):

- 

**1. Using up the oldest food first.**  
**83%** of people who manage the household's food will mostly/always do this.
- 

**2. Putting food in the fridge or freezer so that it lasts longer.**  
**83%** of people who manage the household's food mostly/always do this.
- 

**3. Buying only what is on the shopping list.**  
**45%** of people who manage the household's food mostly/always do this.
- 

**4. Moving the oldest food to the front or top so that it can be used first.**  
**65%** of people who manage the household's food mostly/always do this.
- 

**5. Checking what is in the fridge or freezer before shopping.**  
**71%** of people who manage the household's food mostly/always do this.

These behaviours are more commonly associated with households that report lower amounts of food waste. The target audiences (busy households, those under 35 and high-income households) are considerably less likely to do each of these behaviours. These behaviours should be considered as priority behaviours to promote.

# Barriers

The following behaviours are associated with high food waste households (ranked from most significant to least significant):

- 1. Not knowing how to use cooked leftovers.**
- 2. Preparing extra food, just in case.**
- 3. Not knowing how to use leftover ingredients.**
- 4. Buying food 'just in case' (buying too much food).**

These wasteful behaviours may be associated with barriers to changing behaviour. For example, significantly more people (20–27%) in the target audiences agreed they didn't know how to use cooked leftovers or leftover ingredients.



# Food waste attitudes and opportunities for behaviour change

**Most people do not realise they are wasting food and identify themselves as low food wasters. This means they might not recognise the need to change their behaviours to avoid food waste.**

An interruption strategy may be required to encourage people to recognise they are wasting food. The introduction of food organic and garden organics (FOGO) services may provide an opportunity to prompt households to reduce their food waste. The act of collecting food waste in a kitchen caddy disrupts habits and makes food waste more visible to households. This change to collection services may make these households more open to messages on food waste avoidance.

WA households also report that it is not generally acceptable to be seen by others as wasting food. This provides an opportunity for behaviour change by promoting low food waste behaviours as social norms (just something we all do).



## Further reading

A full report on the national data is available on the Fight Food Waste Cooperative Research Centre website:

**Designing effective interventions to reduce household food waste.**



The Waste Authority gratefully acknowledges the contribution from the Fight Food Waste Cooperative Research Centre and other participants in this project. We also thank Instinct and Reason for collecting and analysing the data in this report.