

November 2018

Household Food and Drink Waste Resource Listing



This document summarises all of the resources (guidance, tools and research) produced by WRAP to support taking action to reduce household food and drink waste. Everything is hyperlinked, download this file at: <http://www.wrap.org.uk/content/food-waste-data>.

WRAP's vision is a world in which resources are used sustainably.

Our mission is to accelerate the move to a sustainable resource-efficient economy through re-inventing how we design, produce and sell products; re-thinking how we use and consume products; and re-defining what is possible through re-use and recycling.

Find out more at www.wrap.org.uk

Front cover photography: [Love Food Hate Waste Behaviours: Portions: Spaghetti.]

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1.0 Guidance

1.1 Material to Help You Support Citizen Behaviour Change

Love Food Hate Waste Partners Resource Library Evidence-based artwork, videos, materials, template editorial, campaign calendar etc. to support the Love Food Hate Waste campaign. All resources available FOC. Log in needed to download materials.	Ongoing
Citizen Food Waste Prevention - Partner Playbook This is a practical guide for anyone who wants to join us in the fight against food waste. It includes: - The latest insights on food waste prevention - Practical tools and ideas to help achieve change.	May-18

1.2 Action Needed to Make Changes to Products, Packaging and Labelling

Food date labelling and storage advice – best practice guidance (WRAP, Defra, FSA) Key information on how to apply food date labels, storage and freezing advice to ensure food is safe to eat, reduce citizen food waste and remove barriers to redistribution.	Nov-17
Category guidance on how changes to food labelling and product design can help reduce citizen food waste Category-specific (e.g. various meat and dairy products; fresh produce etc.) guidance on best practice pack design to help citizens buy the appropriate amounts of food, keep it fresher for longer and make best use of what they buy.	Nov-17 and on-going

2.0 Tools

Food Waste Prevention – a guide to help your business challenge existing product life and ‘open’ life This guide is structured around the 5 key stages for extending product life: fact finding, opportunity identification, validation, implementation and review and embed.	Mar-16
Food Waste Prevention – a guide to help your business increase ‘available’ product life for consumers This guide includes sections for manufacturers and retailers. It provides a number of questions to ask when reviewing product life during supply chain operations, forecasting and demand planning, buying and product development. The responses can be used to support further conversations with key stakeholders when developing specific actions.	Mar-16
Food Waste Prevention a worked example This document should be read alongside the guidance listed above. It is structured around the 5 key stages for investigating the potential for extending product life and has been based on the example of using a raw meat product. A blank template is also available.	Mar-16
Webinar on extending product life This short webinar runs through WRAP’s findings regarding extending product life and the steps we recommend companies take to challenge and make changes to product life settings.	Dec-15

3.0 Research

3.1 Understanding the Amounts & Causes of Household Food Waste

Household food waste: restated data for 2007-2015 This report restates existing estimates for the amounts of food waste produced by	May-18
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UK households between 2007 and 2015. The information has been restated to align it with new international standards that WRAP helped to develop. An infographic helps explain how the key numbers have changed.	
Household food waste in the UK, 2015 [See Household food waste: restated data for 2007-2015 for the latest data on UK household food waste] This report provided estimates for total and avoidable household food waste (HHFW) for 2014 and 2015, for the UK	Jan-17
Synthesis of Food Waste Compositional Data 2014 & 2015 [See Household food waste: restated data for 2007-2015 for the latest data on UK household food waste] Analysis of compositional data and WasteDataFlow information to produce estimates of food in local authority collected waste streams from UK homes in 2014 and 2015	Jan-17
Household food waste in Wales, 2015 Updated household food waste estimates for Wales 2015	Jan-17
Strategies to achieve economic and environmental gains by reducing food waste This report highlights the need for action on food waste and provides concrete examples of how this can be achieved.	Feb-15
Household Food and Drink Waste – A People Focus Explores relationship between the level of avoidable food and drink waste from households and factors including socio-demographics, behaviours and others relating to food, such as healthy eating and time available for food-related activities.	Oct-14
Household Food and Drink Waste – A Product Focus Detailed reasons about why food is thrown away, size of individual instances of waste and proportion of food left in packaging. Also details which meal occasions are linked to the most waste and the percentage of purchases that are wasted.	Jun-14
Household Food and Drink Waste in the United Kingdom 2012 [See Household food waste: restated data for 2007-2015 for the latest data on UK household food waste, and restated estimates for 2007 to 2015] Household food waste figures for 2012; published 2013. It includes details of the types of food and drink wasted, why it is thrown away, and where the material goes. It updates WRAP's 2007 estimates of household food and drink waste. <i>Also published alongside this report is a Methods Annex Report</i> <i>And separate estimates for food waste arising in Wales and Scotland</i> <i>Note: data in appendix A (% of purchases wasted) has been superseded</i> <i>Also published alongside this report is the Diary Instrument and Questionnaires used in the research.</i>	Nov-13
WRAP's Food Vision 2025 The benefits of reducing food waste in the UK by 2025.	Nov-13
Synthesis of Food Waste Compositional Data 2012 [See Household food waste: restated data for 2007-2015 for the latest data on UK household food waste, and restated estimates for 2007 to 2015] Analysis of compositional data and WasteDataFlow information to produce estimates of food in local authority collected waste streams from UK homes in 2012.	Nov-13
Environmental Impact of Grocery Products A review of evidence on resource use and environmental impacts across grocery sector products in the UK.	Mar-13
Estimates for Household Food and Drink Waste in the UK 2011 Synthesis of Food Waste Compositional Data 2010 [See Household food waste: restated data for 2007-2015 for the latest data on UK household food waste, and restated estimates for 2007 to 2015] Research showing that annual UK household food waste had fallen by 1.1 million tonnes (13%) over a three year period to an estimated 7.2 million tonnes.	Nov-11
Relationship Between Household Food Waste Collection and Prevention Literature review to assess the evidence that food waste collections promote food waste prevention behaviour.	Aug-11
The Water and Carbon Footprint of Household Food and Drink Waste Report highlighting the major environmental consequences of food and drink waste in the UK and globally.	Mar-11

Household Food and Drink Waste in the UK 2009 [See Household food waste: restated data for 2007-2015 for the latest data on UK household food waste, and restated estimates for 2007 to 2015] Household food waste figures for 2007; published 2009.	Nov-09
Down the Drain 2009 A study in which householders recorded the quantities of food and drink that they were disposing of down the drain. This data was used to inform the 2009 report .	Nov-09

3.2 Understanding the Retail Environment

Helping Consumers Reduce Food Waste – A Retail Survey A survey across UK retailers, covering a range of factors believed to influence household food waste for a selection of products. <ul style="list-style-type: none"> • 2017 report (2015 data) • 2012 Report (2011 data) • 2010 Report (2009 data) 	Feb-17 Jun-12 Aug-10
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3.3 Understanding Consumer Attitudes and Behaviour

Understanding Out of Home Consumer Food Waste Research to understand why food is wasted 'out of home' and what the barriers are to reduce food waste, both from a consumer and staff perspective.	Jun-13
Consumer Attitudes to Food Waste and Food Packaging Research, involving a combination of qualitative and quantitative methods, to explore consumers' attitudes to food and packaging.	Mar-13
An Investigation into Household Bread Waste Research to investigate consumers' attitudes, motivations and behaviour around buying, storing, using and throwing away bread and bakery products.	Mar-11
Food Storage and Packaging This report explores consumer attitudes towards food storage and packaging.	Aug-07
Understanding Consumer Food Management Behaviour Investigates consumer decision-making processes that result in food being wasted.	Jul-07
Food Behaviour Consumer Research: Quantitative Phase Explores consumer attitudes and behaviours relating to food and food waste, and what might motivate consumers to throw away less food.	Jun-07
We Don't Waste Food! A Household Survey Details perceptions and behaviour around food and household food waste.	Mar-07

3.4 Helping Consumers Buy the Right Amount

Investigation into the Possible Impact of Promotions on Food Waste Analysis of promotions deployed by the UK grocery sector and a consumer survey to understand what effect promotions might have on food waste.	Dec-11
Research into Consumer Behaviour in Relation to Food Dates and Portion Sizes This report details research findings relating to how consumer perception of food dates and their demand for more varied portion sizes affects food waste.	Jul-08

3.5 Helping Consumers Keep What They Buy at its Best

Opportunities to reduce waste along the journey of milk, from dairy to home Report by WRAP uncovers the scale of the milk waste across the supply chain and highlights the ways we can significantly reduce thousands of tonnes of milk waste worth more than £150 million.	Nov-18
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The Impact of Using Your Fridge and Freezer More Effectively Estimating the benefits and costs of more effective fridge and freezer use by consumers, in order to reduce the amount of household food waste.	Jul-13
Using Thermochromic Inks to Reduce Household Food Waste A scoping study to investigate the possible applications of thermochromic inks for household food and drink waste reduction.	Jul-13
Review of Literature about Freezing Food at Home This research aims to identify 'best practice' in terms of home freezing a range of foods, to inform customer communications and on-pack freezing guidance.	Jun-12
Reduction of Supply Chain and Consumer Potato Waste A report that evaluates ways of reducing levels of fresh potato waste along the retail supply chain and in the household. It includes a consumer survey, storage trial, packaging trials and in-store training.	Jan-12
Understanding Consumer Use of the Freezer A quantitative study into consumer attitudes, understanding and behaviour with regards to home-freezing food, store-bought frozen food and use of the freezer.	Aug-10
Insights Around the Domestic Refrigerator An extensive study of refrigerated food practices in the home, and experimental measurements of refrigerated food temperatures during their transit from the retail store to the domestic fridge.	Aug-10
A Performance Assessment of Domestic Fridge Thermometers A series of scientific experiments to ascertain the accuracy, resolution and responsiveness of domestic fridge thermometers to a change in temperature.	Dec-09
Seal Integrity and the Impact on Food Waste An investigation into contribution that inadequate heat sealing of food packaging makes to the generation of food waste and the development of sealing technology.	Mar-09
Helping Consumers Reduce Fruit and Vegetable Waste Research into consumer attitudes and behaviour around storage of fresh fruit and vegetables in the home and how optimal storage conditions could be communicated.	Apr-08

3.6 Helping Consumers Use What They Buy

Guidance to challenge and extend product life Various guides to assist manufacturers and retailers in challenging product life and extending product life.	Mar-16
Reducing food waste by extending product life Demonstrates the business case for reviewing product life, and recommends five ways that retailers and manufacturers can act on this opportunity. WRAP's recommendations do not require any alterations to packaging design or product formulation, and do not compromise on food safety or quality in any way.	Mar-15
Product Life Feasibility Study Project to assess the feasibility of gathering data around product life determination practices within the retail supply chain.	Sep-12
Consumer Insight: Date Labels and Storage Guidance Research to determine consumer understanding and use of date labels and storage guidance in order to reduce household food waste.	May-11
Developing new meat packaging: a) Reducing Household Meat Waste through Portioning Innovative packaging formats to help prevent meat portions being wasted.	May-11
b) Packaging Optimisation for Whole, Fresh Chicken Reducing the weight of whole, fresh chicken packaging while also enabling an extension to shelf life.	Jul-10
Research into Consumer Behaviour in Relation to Food Dates and Portion Sizes This report details research findings relating to how consumer perception of food dates and their demand for more varied portion sizes affects food waste.	Jul-08

4.0 Case Studies

Search for WRAP Case Studies Examples of activities undertaken by food businesses and others to help reduce food waste at home.	Ongoing
West London Food Waste Campaign This detailed case study contains more information about the comprehensive Love Food Hate Waste (LFHW) campaign in West London and its impacts.	Sep-13
Love Food Hate Waste Communications Case Studies Showing the impact of different communication methods, 2008-2011.	2008-2011
Love Food Champions An initiative between Love Food Hate Waste and the Women's Institute that helped participants reduce how much food they were throwing away by half.	Oct-08

5.0 Evaluating Impact

Household food waste: restated data for 2007-2015 This report restates existing estimates for the amounts of food waste produced by UK households between 2007 and 2015. The information has been restated to align it with new international standards that WRAP helped to develop. An infographic helps explain how the key numbers have changed.	May-18
Developing Love Food Hate Waste 'Save More' activities This report describes how the 'Save More' activities were developed, piloted and evaluated, working with community organisations and expert reviewers	Dec-14
UK Food Waste – Historical Changes and How Amounts Might be Influenced in the Future An assessment of how food waste levels have changed historically in the UK, and the potential impact of a range of 'exogenous' factors and interventions on food waste levels in the future.	Nov-14
Development of WRAP's Econometric Model Using an econometric modelling approach to understand the influences on food waste and food purchases. A separate paper details qualitative and quantitative analysis to evaluate the impact of WRAP and partner activity over the period of WRAP's last Business Plan.	Jan-14
Evaluation of Courtauld Food Waste Target – Phase 2 WRAP worked closely with the 53 signatories of the Courtauld Commitment 2 to achieve financial and environmental savings. <i>Also published alongside this results document is a Household Food Waste Target Results – Technical Paper</i>	Nov-13
Evaluation of Courtauld Food Waste Target – Phase 1	Sept-10
West London Food Waste Campaign Work to evaluate the potential impact on food waste arisings of running a comprehensive Love Food Hate Waste (LFHW) campaign.	Sep-13
The Milk Model: Simulating Milk Waste in the Home Development of a method to simulate a household over time and model the purchases, consumption and waste within that household to investigate how various factors influence waste.	Jan-13
Evaluating the Impact of WRAP's Cascade Training Programme Report evaluating the impact of WRAP's Love Food Hate Waste community engagement training programmes.	Jul-12

6.0 Published Papers

Nutrition in the Bin: A Nutritional and Environmental Assessment of Food Wasted in the UK Frontiers in Nutrition	Mar-18
Model selection and averaging in the assessment of the drivers of household food waste to reduce the probability of false positives PLOS One	Feb-18
Preventing Food Waste: Case Studies of Japan and the United Kingdom This OECD report contains case studies of food loss and waste policy practices in Japan and the United Kingdom. WRAP contributed to this report	Mar-15
New Climate Economy WRAP contributed to a new report laying out how countries across the world can reduce the risks of climate change and achieve high-quality, resilient and inclusive economic growth.	Sep-14
Sustainable Consumption: Stakeholder Perspectives "Food for Thought" WRAP's journey to quantifiably reduce food waste at both the industry and consumer levels.	Nov-13
Spaghetti Soup: The Complex World of Food Waste Behaviours Resources, Conservation and Recycling.	May-13
Food and Drink Waste from Households in the UK Nutrition Bulletin, 36: 460–467.	Dec-11
Reducing Food Waste in the UK: Where Science and Culture Meet Food Science & Technology Journal.	Jun-11

7.0 Related activities

For information about WRAP's other food waste activities (including Hospitality and Food Service, and Manufacturing and Retail), please visit:

- <http://www.wrap.org.uk/food-waste-reduction>

www.wrap.org.uk/content/food-waste-data