

Food surplus and waste
measurement and reporting

UK Guidelines

Target
Measure
Act



Contents

This document outlines common guidelines for UK companies in measuring and reporting food waste/surplus data, consistent with the [Food Loss and Waste Accounting and Reporting Standard \(FLW Standard\)](#).

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Core Recommendations

The following are overarching recommendations when measuring food surplus and waste, and if reporting food waste data. In some cases there are additional sector-specific recommendations within [Sector-specific guidance](#).

- i. **Define a 12-month time period and scope of operations to include.** As a minimum this should cover all operations that your business owns or controls in the UK.
- ii. **Quantify the tonnage of food and associated inedible parts sent to each of the following food waste destinations** [where applicable].
 - Anaerobic digestion/codigestion
 - Composting/aerobic processes
 - Incineration/controlled combustion
 - Land application
 - Landfill
 - Sewer/wastewater treatment
 - Not harvested/ploughed-in
 - Other (including unmanaged disposal)

Definitions of food, inedible parts and each destination can be found [here](#).

From this, quantify your overall food waste tonnage (total of the above) [NB – for some businesses, data on the amount of food waste may be obtainable without knowing the destinations (i.e., where it goes), so reporting just the total may be your first step].

- iii. **Express food waste as a % of the product and ingredient handled by your organisation** [i.e. tonnes waste ÷ (tonnes food product sold as intended + tonnes of food waste + tonnes sent to any of the destinations listed under iv)] *If tonnes cannot be measured, provide an alternative % metric such as % by value, and explain the method used.
- iv. **Separately quantify the tonnage of food sent to the following** [where applicable]:
 - Redistribution to people (e.g. through a charity or commercial redistributor)
 - Animal feed
 - Bio-based materials/biochemical processing (e.g. feedstock for other industrial products)

v. Describe your scope, methods, etc. using the Food Surplus and Waste Reporting Template

- The reporting template includes all the key requirements of the FLW Standard
- A [Data Capture Sheet](#) is also available that captures the same information in Excel format

To provide further insight into improvement actions, businesses may also choose to:

- **Separately quantify the proportion of food waste that is 'inedible parts'**. This is only relevant in some instances/for some businesses. It might apply, for example, in instances where the inedible parts cannot be feasibly prevented or used for other purposes; and so it might not be appropriate to include them in a meaningful food waste reduction target.
- **Include a breakdown of food waste** (e.g. key categories or component parts). Compositional analysis and waste mapping is highly recommended, to identify opportunities for preventing food waste from occurring, and upgrading (within the waste hierarchy) where prevention is not as easy.
- **Include operations beyond your own operational boundaries** (e.g. sites outside of the UK or in your supply chain). Where doing so this should be separately recorded and the scope clearly defined.

Food surplus and waste reporting template

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Introduction

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Food surplus and waste reporting template

Please see the [UK Guidelines](#) for further information on completing this template.

Company name: _____
 Name of person completing the report: _____ Date completed: _____

Summary

Reporting period (start date – end date): _____
 Overall food waste in tonnes: _____

Food waste as a % of the product and ingredient handled by your organisation*:

(Optional) Percentage of inedible parts included in total food waste tonnage:
 * This should be tonnes food waste ÷ tonnes food product produced or sold as intended ÷ food waste ÷ food sent to other destinations.
 If food tonnes cannot be measured, provide an alternative metric, such as % by value, and explain the method used.

Destinations for food waste (tonnes or %):	Quantity	Unit
Anaerobic digestion / co-digestion		
Composting / aerobic processes		
Incineration / controlled combustion		
Land application		
Landfill		
Sewer / wastewater treatment		
Not harvested / ploughed in		
Other (including unmanaged disposal)		
Not known		

* NB – the Dairy Processing Sector Guidance recommends reporting in both tonnes AND milk-equivalent

Other destinations (tonnes):	Quantity	Unit
Redistribution for human consumption*		
Animal feed		
Bio-based materials / biochemical processing		
Not known		

* It is important only to include here food that would have become waste if it had not been redistributed. Other donations to charities or sale to secondary markets should be excluded

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The [Reporting Template](#) provides a common template for UK Food and Drink Businesses to use when sharing food surplus and waste data.

The Reporting Template is intended for common use by UK food businesses, in order to generate a consistent Food Waste Report.

It is accompanied by an Excel-based [Data Capture Sheet](#) – which can automatically generate the information required to populate the template. The Data Capture Sheet can also help you keep track of historical data and assumptions as you progress.

Together they are intended as a common communication mechanism:

- for sharing information business-to-business;
- for reporting data into sector initiatives, such as Courtauld 2025;
- when reporting publicly – e.g. as a technical addendum to food waste data reported on websites/in CSR reports, etc.

The Reporting Template and Data Capture Sheet are supported by the UK's leading food retailers, manufacturers and hospitality and food service businesses.

The following provides information to help you complete the Reporting Template – referring to each template section.

A comprehensive set of clarifying Q&As is available [here](#).

The Data Capture sheet is available [here](#).

Scope of the food surplus and waste inventory

Describe the scope of your inventory using the diagram template provided in the link below.

The following outlines what we recommend UK food and drink businesses include in their scope when developing a food surplus and waste inventory.

Download your customisable template [here](#).

Timeframe

- **Report data for a 12 month period.**
- Either calendar or fiscal year is acceptable – or as appropriate for your business. Calendar year is preferred where possible.

In the Reporting Template, record the time period the data refers to (start/end date).

Material type

- **Include both 'food' and the associated 'inedible parts'** (see [Definitions](#)).
- If 'inedible parts' can be reliably separately quantified, it may be meaningful for some businesses to do so (see [Core Recommendations](#)). **This is optional.**
- If you have estimated the quantity/proportion of inedible parts (see [Definitions](#)), record this as indicated in the template and describe your approach in the Quantification Methods Section. If you have referred to any Sector Guidance, please also note this. Specific recommendations on defining and quantifying inedible parts are available in [Meat Processing Sector Guidance](#); and [Fresh Produce Sector Guidance](#).

Destination

- **Account for all food and associated inedible parts to any of the 'food waste' destinations and other destinations listed in the [Core Recommendations](#).**
- The 'food waste' destinations listed provide a common definition of food waste used by WRAP, IGD, Champions 12.3, the European Commission and UK Governments. We note that some other stakeholders may define food waste differently.
- The food waste definition WRAP, IGD and Champions 12.3 uses does **not** include material that goes to human redistribution, animal feed or bio-based materials/biochemical processing. However, recommended best practice is to track food and associated inedible parts to these destinations as well.
- Some destinations may not be relevant to your business and so you can exclude these. Similarly, if the amount of material to certain destinations is minimal, you can exclude this – with reference to the FLW Standard principle of 'relevance' (outlined in Chapter 5 of the FLW Standard). If you do not know the destinations, you can record this as 'not known'. Clarify any exclusions or omissions in the [Quantifications and Uncertainty Section](#).

Scope of the food surplus and waste inventory

Boundary: Business sector/food category

- **Your scope should cover all food and/or beverage products that you sell.**
- State if any significant categories are excluded.
- Businesses may find it useful to clarify this aspect of their scope using their SIC sector classification.

Boundary: Geography

- **Cover direct operations in the UK as a minimum.**
- Beyond this, companies may choose to extend the scope of their quantification to different geographies (e.g. across global operations).
- A separate Reporting Template is recommended for different geographies.

Boundary: Lifecycle stage

(business operations included)

- **Seek to cover all operations your business owns or directly controls.**
- [Sector Guidance](#) also provides further clarifications on aspects such as accounting for rejects, condemnations, etc.
- In the Reporting Template/scope diagram clearly describe the scope of the operations that you **have included** – such as storage facilities, distribution centres, or warehouses – and any that you **have excluded** (e.g. because of lack of data currently, or because they are very small/ immaterial).
- A separate Reporting Template is recommended for operations beyond your own operational control – e.g. in your supply chain.
- A separate Reporting Template is also recommended for distinctly different Business Units – such as retail vs manufacturing vs farming operations.

Boundary: Organisation

- Report the number of facilities represented by the inventory.

Related issues

- **Confirm the weight of product packaging is excluded from the weight of food waste.**
- If reporting on farm-level operations, confirm that losses of crops not yet ready for harvest are excluded. Further guidance on accounting for harvest losses is also available in WRAP's [Fresh Produce Sector Guidance](#).

Related resources online at www.FLWProtocol.org

- Chapter 6 in the FLW Standard provides additional guidance on establishing scope.
- Case studies highlight how various types of companies are using the FLW Standard, showcasing how companies select and describe the scope of their food waste inventory and challenges faced and overcome.
- Short 3- to 5-minute video clips walk you through the definition of material types, destinations, and scope under the Trainings section.
- Review the definitions for material types, destinations, and boundary in the Tools and Resources section.

How to complete the summary section

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Food surplus and waste reporting template

Please see the [UK Guidelines](#) for further information on completing this template.

Company name: _____
 Name of person completing the report: _____ Date completed: _____

Summary

Reporting period (start date – end date): _____
 Overall food waste in tonnes: _____
 Food waste as a % of the product and ingredient handled by your organisation*: _____
 (Optional) Percentage of inedible parts included in total food waste tonnage: _____
*This should be tonnes food waste ÷ tonnes food product produced or sold as intended ÷ food waste ÷ food sent to other destinations. If food tonnes cannot be measured, provide an alternative metric, such as % by value, and explain the method used.

Destinations for food waste (tonnes or %):	Quantity	Unit
Anaerobic digestion / co-digestion		
Composting / aerobic processes		
Incineration / controlled combustion		
Land application		
Landfill		
Sewer / wastewater treatment		
Not harvested / ploughed in		
Other (including unmanaged disposal)		
Not known		

*NB – the Dairy Processing Sector Guidance recommends reporting in both tonnes AND milk-equivalent

Other destinations (tonnes)	Quantity	Unit
Redistribution for human consumption*		
Animal feed		
Bio-based materials / biochemical processing		
Not known		

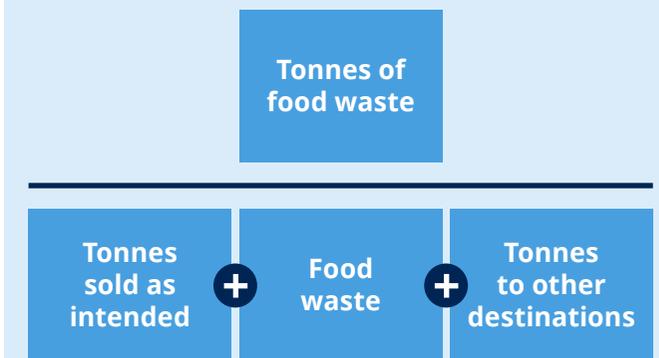
*It is important only to include here food that would have become waste if it had not been redistributed. Other donations to charities or sale to secondary markets should be excluded.

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- Quantify the tonnage of food and associated inedible parts sent to each of the destinations listed [where applicable] (see [Definitions](#)).
- If you do not know the destinations, you can record this as 'not known'. Clarify any exclusions or omissions in the Quantifications and Uncertainty Section.

- Report values in tonnes – unless otherwise specified. For example, the [Dairy Processing Sector Guidance](#) recommends reporting in both tonnes AND milk-equivalents (to account in a consistent way for very dilute waste streams).
- Quantify your total food waste, for example by summing the total to each of the food waste destinations listed.
- Express this as a % of the tonnage of product and ingredient handled by your organisation. For an example calculation, see Box A.
- To provide further insight into improvement actions, businesses may also choose to separately quantify the proportion of food waste that is 'inedible parts' (see [Definitions](#)). This is only relevant in some instances/for some businesses. It might apply, for example, in instances where the inedible parts cannot be feasibly prevented or used for other purposes.
- If you have estimated the quantity/proportion of inedible parts, record this as indicated in the template and describe your approach. If you have referred to any Sector Guidance, please also note this. Specific recommendations on defining and quantifying inedible parts are available in [Meat Processing Sector Guidance](#); and [Fresh Produce Sector Guidance](#).

Box A – Calculating % food waste

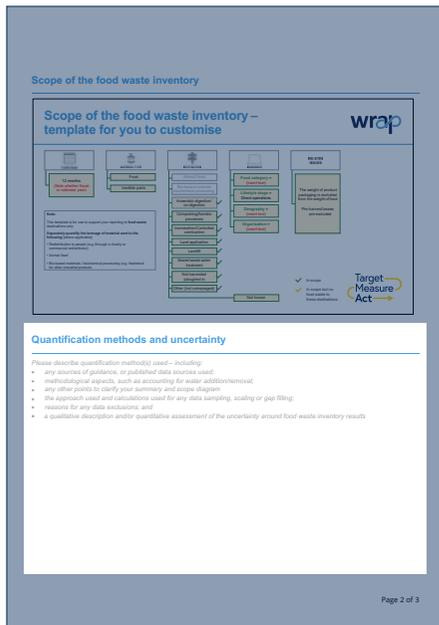


Example: 3 tonnes of food waste / (90 tonnes sold as intended + 3 tonnes of food waste + 0.5 tonnes to other destinations [e.g. redistribution to humans, animal feed, or bio-material processing]) = 3.20%

Tonnages should exclude the weight of packaging. If packaging weight is not known then use the WRAP estimate of 15% of total weight (i.e. assume 15% of the weight of your packaged food waste is packaging).

If tonnes cannot be measured then provide an alternative % metric such as % by value, and explain the method used.

How to complete the quantification methods and uncertainties section



The FLW Standard allows companies to select whatever method is most appropriate to their needs and resource availability. As a minimum, record the method(s) used.

In this Section of the Reporting Template describe quantification method(s) used – including:

- Any sources of guidance, or published data sources used;
- Methodological aspects, such as accounting for water addition/removal: if water is added (e.g. for cleaning purposes) or removed (e.g. if using a dehydrator) from the food waste. The FLW Standard advises accounting for the weight of material that reflects the state in which it was generated before water was added or removed. In the Reporting Template please state how you have accounted for water addition/removal. Further recommendations for dairy processing are included in WRAP's [Dairy Processing Sector Guidance](#). **Q&As on this point are also available.**

- Any other points to clarify your summary and scope diagram – e.g. significant omissions and exclusions, unknown destinations, approach for quantifying inedible parts, etc.
- The approach used and calculations used for any data sampling, scaling or gap filling;
- Reasons for any data exclusions; and
- A qualitative description and/or quantitative assessment of the uncertainty around your food surplus and waste inventory results.

Do keep in mind that you don't need a completely accurate number to get started with quantifying the amount of your food surplus and waste.

Further guidance on quantification methods is included in [box B](#) overleaf.

Box B – Data Collection Methods

There are two main ways to collect data. You use one or both of these approaches.

1. Gather and evaluate existing data and/or records, and/or
2. Where existing data is of poor quality or not available, undertake a new calculation.

For existing data and/or records:

- Available data sources include waste collection receipts, weighbridge tickets, inputs/outputs of materials. For the amount of surplus food donated, ask food collection agencies for data.
- Assess if the existing data fits the scope of your inventory (e.g. is it for 12 months, what material types and destinations are represented).
- Assess if the data is reliable enough to be used **(for guidance on evaluating uncertainty, see Chapter 9 in the FLW Standard)**.
- Develop estimates if need be. For example, in order to calculate food waste by destination, if the food waste is included in mixed waste streams, one option is to use estimates to separate food waste from the other waste (e.g., apply the average fraction of food waste to the total waste to landfill data). Where material is already collected separately (e.g., surplus food to animal feed, food waste to co/anaerobic digestion, compost/aerobic processes, or land application), you should be able to use the data 'as is'.

If you need to undertake a new calculation of food waste, you can measure, approximate, or infer it by calculation. Chapter 7 in the FLW Standard provides guidance on the various options; moreover, the FLW Protocol provides guidance on a range of commonly used methods for quantifying food waste in the stand-alone Guidance on FLW Quantification Methods.

Related Resources

- Use the [FLW Quantification Method Ranking Tool](#) to help you select the most appropriate method(s)
- WRAP is also developing guidance on:
 - quantifying food waste to sewer/wastewater treatment; and
 - quantifying food waste within mixed food/packaging streams arising at retail.

How to complete the narrative section

Assurance and declaration

Please tick this box to confirm that this report is based on the [Food Loss and Waste Accounting Standard](#) principles of **Reliability, Completeness, Consistency, Transparency and Accuracy**.

If assurance of the food surplus and waste data is undertaken (which may include peer review, verification, validation, quality assurance, quality control, and audit), provide an assurance statement and description.

Narrative (optional)

Use this section to describe any of the following:

1. Your food waste hotspots (e.g. compositional split of food waste tonnage by product type)
2. Actions that you are taking to reduce your operational food waste
3. Progress to date – e.g. if you are tracking food waste over time, what progress have you made, are there any factors that have significantly affected your results (e.g. changes in supply and demand, new data / re-baselining), etc.
4. Actions taken to work in partnership with suppliers to reduce food waste (e.g. number of whole chain Food Waste Reduction Plans in place)
5. How you have engaged consumers to reduce food waste (e.g. adopting know best practices for food date labelling and storage advice; helping test new innovations; awareness raising)

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Use this section to describe:

1. **Your food waste hotspots** (e.g. compositional split of food waste tonnage by product type).
2. **Actions that you are taking to reduce your operational food waste.**
3. **Progress to date** – e.g. if you are tracking food waste over time, what progress have you made, are there any factors that have significantly affected your results (e.g. changes in supply and demand, new data/re-baselining), etc.
4. **Actions taken to work in partnership with suppliers** to reduce food waste (e.g. number of whole chain Food Waste Reduction Plans in place).*
5. **How you have engaged consumers** to reduce food waste (e.g. adopting know best practices for food date labelling and storage advice; helping test new innovations; awareness raising).*

* See the Food Waste Reduction Roadmap Toolkit for a checklist of what should be included in a good Whole Chain Food Waste Reduction plan and a checklist of key actions for businesses to help reduce consumer food waste

Definitions

Definitions

Food	Any substance that is – or was at some point – intended for human consumption. This includes both food and drink. This includes material that has spoiled and is therefore no longer fit for human consumption (i.e. would be regarded as no longer edible, for example due to it passing a ‘use by’ date or being spoiled). It does not include cosmetics, tobacco, or substances used only as drugs. It does not include processing agents used along the food supply chain, for example, water to clean or cook raw materials in factories or at home.	Food surplus	For the purposes of the UK guidance, the term ‘food surplus’ describes any food and inedible parts that are sent to the following: <ul style="list-style-type: none"> • Redistribution to people (e.g. through a charity or commercial redistributor) • Animal feed • Bio-based materials/biochemical processing (e.g. feedstock for other industrial products)
Inedible Parts	<p>Components associated with a food that would never have been intended to be consumed by humans – such as shells, bones, pits/ stones. ‘Inedible parts’ do not include packaging, or food that could once have been eaten but has been spoiled or passed its ‘use by’ date.</p> <p>For some businesses, it may be helpful to separately quantify ‘inedible parts’ and ‘food’ (e.g. when developing a meaningful food waste reduction target), as opportunities to reduce or redirect the inedible parts to higher value options may be limited.</p> <p>What is considered ‘inedible parts’ can vary in different supply chains and geographies. To enable some consistency for UK businesses, industry stakeholders have agreed specific definitions of ‘inedible parts’ for relevant products. These are available in the following sector guidelines: Meat Processing Sector Guidance; and Fresh Produce Sector Guidance.</p>	Food by-products	A by-product is an output from a production process that is not the main intended product but which has a value as an input to other food, feed or non-food markets. To qualify as a by-product the material must meet certain criteria (e.g., have value and be certain to find a market). Examples include grain leftover from brewing sent for animal feed and whey created during the production of dairy products and sold for protein production. Neither of these examples would be considered food waste based on the interpretation of the scope for SDG12.3.
Food waste	For the purposes of this UK guidance, the term ‘Food Waste’ describes any food and inedible parts sent to any of the Food Waste Destinations listed below. This definition excludes any material that is sent for redistribution to people, animal feed or, conversion into industrial products (collectively referred to as ‘food surplus’).	Food loss	The term food loss is used by some to represent a proportion of food that ends up being removed from the food supply chain. It is often differentiated from ‘food waste’ on the basis of the stage in the supply chain where the food is lost (e.g. on farm) or the reasons why the food is lost (e.g. due to ‘unintentional’ events such as disease or weather). Determining the difference between what may be defined as food loss versus food waste consistently can be difficult. The term ‘food waste’ as defined in this document is intended to cover all stages of the supply chain.

Definitions

Food waste destinations

Anaerobic digestion/ Codigestion	Breaking down material via bacteria in the absence of oxygen. This process generates biogas and nutrient-rich matter that can be used as fertiliser. Codigestion refers to the simultaneous anaerobic digestion of food waste and other organic material in one digester. This destination includes fermentation (converting carbohydrates – such as glucose, fructose, and sucrose – via microbes into alcohols in the absence of oxygen to create products such as biogas). All food materials sent to anaerobic digestion/codigestion should be quantified and recorded.	Sewer/wastewater treatment	Sending material down the sewer (with or without prior treatment), including that which may go to a facility designed to treat wastewater.
Composting/ aerobic processes	Breaking down material via bacteria in oxygen-rich environments. Composting refers to the production of organic material (via aerobic processes) that can be used as a soil amendment.	Not harvested/ ploughed-in	Leaving crops that were ready for harvest in the field or tilling them into the soil.
Incineration/ controlled combustion	Sending material to a facility that is specifically designed for combustion in a controlled manner, which may include some form of energy recovery.	Other (including unmanaged disposal)	Sending material to a destination that is different from those listed above. It might include material included with the 'Refuse/discards/litter' destination defined in the FLW Standard – which encompasses open dumps (i.e. uncovered, unlined), open burn (i.e. not in a controlled facility), and fish discards. If including this destination in your inventory you should describe what it includes in supporting notes.
Land application	Spreading, spraying, injecting, or incorporating organic material onto or below the surface of the land to enhance soil quality.		
Landfill	Sending material to an area of land or an excavated site that is specifically designed and built to receive wastes.		

Definitions

Other destinations

Redistribution to people

In the context of waste prevention, only include redistributed surplus food where the food would otherwise have ended up as waste, or would have been sent to one of the other destinations below. This may include food redistributed by both charitable organisations (such as FareShare, Food Cycle) and commercial ones (such as Company Shop, who also operate Community Shop). Where surplus is sold, explain why this qualifies as waste prevention.

Do not include food that is produced or provided expressly for donation, any food that is donated but still suitable for retail sale, or regular sale of food to secondary markets.

Animal feed

Diverting food and/or inedible parts, directly or after processing, to animals

Bio-based materials/ biochemical processing

This refers to destinations in which food and/or inedible parts are 'valorised' by conversion into industrial products. Examples include creating fibres for packaging material, creating bioplastics (e.g. polylactic acid), rendering into a raw material to make products such as soaps or cosmetics. If material is sent to this destination and accounted as 'surplus', rather than 'food waste', businesses should undertake due diligence with the recipient of the material to ensure that valorisation into other industrial products occurs, as intended (e.g. producing saleable products for chemicals, packaging markets, saleable biodiesel, etc.)

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The logo for 'Target Measure Act' features the words 'Target', 'Measure', and 'Act' stacked vertically in white. A yellow arrow starts from the right side of 'Target', loops around the top and right, and points down towards 'Measure'. Another yellow arrow starts from the right side of 'Measure', loops around the top and right, and points down towards 'Act'. A third yellow arrow starts from the left side of 'Act' and points horizontally to the right.

Contact
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