Food surplus and waste reporting template

Company name: Greencore

Name of person completing the report: Group Environmental Manager Date completed: 12/12/18

Summary

Reporting period (start date – end date): FY18: 30/09/17 – 28/09/18

Overall food waste in tonnes: 40,912

Food waste as a % of the product and ingredient handled by your organisation*: 10.5%

(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.

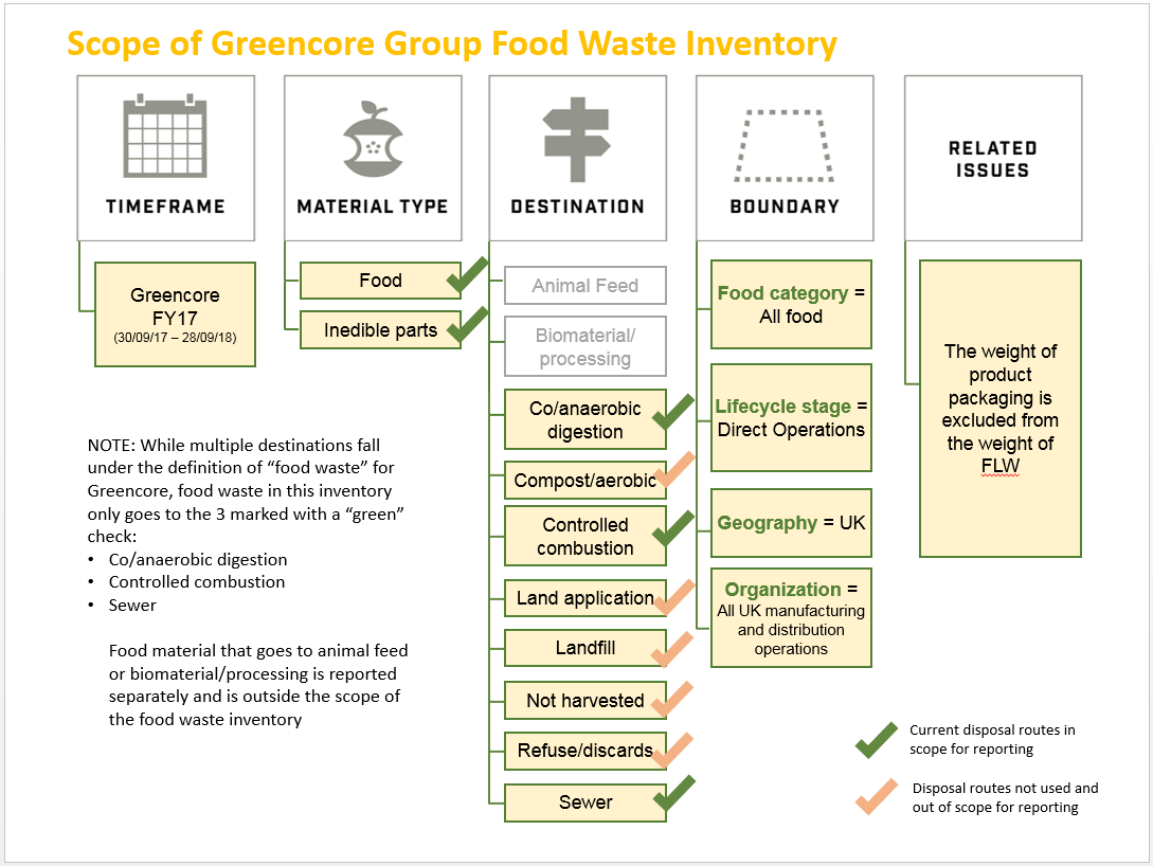
Destinations for food waste (tonnes or %)*:	Quantity	Unit
Anaerobic digestion / co-digestion	32,202	Tonnes
Composting / aerobic processes	0	Tonnes
Incineration / controlled combustion	1,964	Tonnes
Land application	0	Tonnes
Landfill	0	Tonnes
Sewer / wastewater treatment	6,746	Tonnes
Not harvested / ploughed in	0	Tonnes
Other (including unmanaged disposal)	0	Tonnes
Not known	0	Tonnes

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

Other destinations (tonnes):	Quantity	Unit
Redistribution for human consumption*	791	Tonnes
Animal feed	4,895	Tonnes
Bio-based materials / biochemical processing	0	Tonnes
Not known	0	Tonnes

* 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

Scope of the food waste inventory



Quantification methods and uncertainty

Sampling & scaling of data, or other means of gap filling:

Sampling techniques have been used to estimate the food waste losses to sewer/drain at all sites, and liquid waste streams that are tankered off site to go to Anaerobic digestion processes. A summary of the sampling methodologies used:

- To sewer (various methodologies depending on the nature of the food waste in the effluent and the monitoring data available):
- Analysis of regular composite effluent samples combined with effluent volume measurement (flow meters) to determine total effluent loading (KgCOD – Chemical Oxygen Demand) for individual sites. This is converted to a product equivalent estimate, utilising the average Kcal/100g for common products manufactured on that site, and a conversion from COD). This methodology was mainly used in our Prepared Meals division where a larger proportion of liquid products and ingredients are typically used and produced.
- Analysis of effluent sludge removed on Dissolved Air Flotation (DAF) effluent treatment plants (solids content typically 70% from food waste, and 30% from DAF chemicals), combined with sludge total weight from tankers passing over a weighbridge to estimate food waste in the sludge. Regular testing of pre- and post DAF effluent quality enables a good estimate of the proportion of food waste in the sludge, and the remaining food waste to sewer to be estimated. This methodology was mainly used in our Food to Go division, where a significant proportion of the food waste to drain (>80%) is recovered into the DAF sludge.
- For some of our smaller sites where there is limited or no effluent sampling and analysis, a factor (Kg food waste per m^3 of effluent discharged) based on similar sites where there is detailed monitoring has been applied to the effluent volume to estimate total food waste to sewer. This represents a very small proportion of the total food waste loss to sewer.

- To Anaerobic digestion – some of the food waste streams contain packaging. For each relevant waste stream, our Group waste management team worked with waste service providers to estimate the levels of packaging present through a visual and physical assessment of a number of waste loads. This was used to give an approximate % packaging content that was applied to the total tonnage for that individual waste stream (directly measured over weighbridges) to get an estimate of the total food waste.
- To controlled combustion – some of the general waste streams contain a small proportion of food waste (e.g. residues on ingredient packaging, part processed products or where local segregation has not been totally effective). For each relevant waste stream, our Group waste management team worked with waste service providers to estimate the levels of food waste present through a visual and physical assessment of a number of waste loads. This was used to give an approximate % food waste content that was applied to the total tonnage for that individual waste stream (directly measured over weighbridges) to get an estimate of the total food waste during the year.

Accounting for water addition / removal:
Where waste streams contain additional water (e.g. effluent sludge), representative samples have been taken and analysed to give a typical water content

Assurance and declaration

☒ Please tick this box to confirm that this report is based on the Food Loss and Waste Accounting Standard principles of Relevance, Completeness, Consistency, Transparency and Accuracy.

This report is subject to internal review by the Greencore Group Sustainability team

Narrative

Waste data notes:

- This waste data is based on all of the waste streams (including losses to sewer) from all of Greencore's UK Operations (manufacturing and distribution), for our 2018 financial year.
- Our total food production (UK) for this period was 392,654 tonnes. Our food waste was 40,912 tonnes, which equates to 10.5% of food produced. Our total food waste excluding losses to drain was 29,605 tonnes, which equates to 7.6% of food produced.
- Greencore has a diverse and extensive product range that we provide to large customer base. Many of our products have short shelf life. These factors result in shorter production runs and more frequent changeovers which leads to a higher risk of wastages.
- Very short shelf life products have also made food redistribution more challenging but we continue to work with our food redistribution partners to find solutions to this.
- Given the diverse nature of our manufacturing operations, our food waste is in many different formats, and from different sources; comprising various ingredients, part processed or finished products, ingredients residues on primary packaging, waste associated with washing down processing equipment, out of specification ingredients and inedible parts (e.g. beetroot peelings, avocado stones etc.).
- The majority (80%) of our food waste goes to anaerobic digestion, either directly on or off site, or indirectly after being removed in our effluent treatment plants. Our AD plant processing liquid food waste at Selby produced just under 1MWh of electricity, approximately 10% of the sites electricity demand. 15% of our food waste is lost directly to sewer, whilst the remaining 5% ends up in our general waste streams that are sent to controlled combustion with energy recovery

What we are doing to tackle food waste

At Greencore, we want to actively manage our impact on the environment, including efficiently using and respecting all resources. We're focusing on a number of areas, including reducing food waste produced through the manufacture of our different products, redistributing surplus food, and exploring new ways to put inedible food to good use.

Tackling food waste within our operations

Greencore is investing heavily in our Greencore Manufacturing Excellence (GME) programme, which aims to significantly reduce the amount of waste food created during our operations. We launched Greencore Manufacturing Excellence in summer 2017 across all 15 of our UK sites and have since seen Standard Operational metrics improving across the UK towards reducing food waste.

We now have an improvement team in place across the UK to deliver specific tools for our sites to reduce food waste, including regular reporting and collaborative sessions and new techniques to drive waste reduction and yield improvement.

Redistributing surplus food

Greencore works with a number of organisations to redistribute as much of its surplus product as possible. These include Fareshare, The Company Shop, and its charity, The Community Shop which provides support services to vulnerable and disadvantaged people.

In our 2018 financial year, we avoided 791 tonnes of waste by redistributing food for human consumption through Fareshare and The Company Shop/Community Shop, equivalent to around 1.9 million meals. We have recently also started to work with the Felix Project in West London who collect surplus food for charities so they can provide healthy meals and help the most vulnerable in our society.

Sending food for use as animal feed

Where we can segregate our food waste, we collect suitable food and ingredients for use as animal feed. This activity is limited predominately to waste bread crusts from sandwich manufacturing operations as we need to take care to avoid cross contamination. In our financial year in 2018, we sent 4,895 tonnes of food waste to animal feed.

Exploring new ways to generate bio-renewables

Unfortunately, waste from certain ingredients used in the manufacturing of our products is currently unavoidable (for example bread crusts form the end of loaves for sandwiches, avocado peel and stones, beetroot peelings). We are exploring several projects with third parties and universities to try to maximise value from these waste streams through direct extraction ingredients still of use, and the use of food wastes as components for other products like food dyes. We also linked up with Toast Ale to regularly provide waste bread from sandwich production into Adnams brewery for use as an ingredient in beer.