Research note

Food surplus and waste in UK wholesale grocery, 2015

This short research note provides updated (2015) estimates for food surplus and waste in wholesale grocery sector, including cash and carry, and specialist wholesale markets.

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Front cover photography: New Covent Garden Market

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Background

WRAP recently published updated 2014/5 estimates for food surplus and waste in the UK grocery supply chain[1]. These covered manufacturing and retail in detail, and initial estimates for third-party logistics. The wholesale sector was not included within the research scope of this project, but estimates were included in previous WRAP research[2]. These UK estimates (17,000 tonnes/year) were based on findings from the Defra Commercial and Industry Waste Survey (2009), combined with the Institute of Grocery Distribution (IGD) wholesale market data used to split the grocery retailer component from wholesale supply into the foodservice sector.

This note describes supplementary work carried out following completion of the grocery supply chain research published in May 2016. The objectives were to update estimates for wholesale grocery food surplus and food waste in order to give a more complete picture for the grocery supply chain. The relevant components of the wholesale sector include cash and carry and specialist wholesale markets, as defined below.

Definitions and scope

The following were within the scope of this research:

- Specialist wholesale markets: specialist markets that are of localised importance in major cities supplying certain categories of product (for example: fresh fruit and vegetables, meat or fish) only to independent grocery retailers (including street markets) as well as the foodservice sector. They generally operate over a six day week and are located in major cities across the UK.
- Cash and carry wholesalers: supply a wide range of food and grocery categories with the majority of sales made through self-service depots. Their primary customers are independent grocery retailers and the foodservice sector, but may also have significant secondary customer bases in catering and general business users.

The following were out of scope:

- Delivered grocery wholesalers were excluded due to overlaps with the recently published WRAP retail and third-party logistics estimates[3]: these operators supply product by delivery service to customers in the grocery retail sector. These customers are primarily independent and convenience grocery retailers which may also include multi-site operators.

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[1] *Quantification of food surplus, waste and related materials in the supply chain,* *http://www.wrap.org.uk/content/quantification-food-surplus-waste-and-related-materials-supply-chain*
[2] *Estimates of waste in the food and drink supply chain,* *http://www.wrap.org.uk/content/estimates-waste-food-and-drink-supply-chain*
[3] Estimates of food surplus and waste associated with independent stores and their depots were contained within *Quantification of food surplus, waste and related materials in the supply chain,* *http://www.wrap.org.uk/content/quantification-food-surplus-waste-and-related-materials-supply-chain*

- Delivered foodservice wholesalers were also excluded as they do not supply the retail grocery sector. These delivered operators service a wide range of businesses in the foodservice and hospitality sector including cafes, restaurants, quick service restaurants, staff canteens, schools, prisons and hospitals.
- Retail street markets selling a variety of goods that might include groceries, farmers' markets, covered markets and itinerant street stalls.

Methodology

Key wholesale companies were contacted across the sub-sectors within the grocery supply chain with telephone interviews conducted in March and April 2016. Interviews were completed with four specialist wholesale markets, three cash and carry wholesalers and one firm operating within both cash and carry and delivered grocery markets (with the latter element excluded as it was out of scope).

Data were obtained from interviews on total tonnages of food waste segregated from wholesale sites, as well as quantities of mixed waste and any food surplus redistributed or sent to animal feed.

Interviews with Specialist Wholesale Markets included the largest specialist wholesale markets based in London, providing data on markets supplying fish, meat and fresh fruit and vegetables.

Results were then scaled for the UK using listings from NABMA[4] combined with web-searches that detailed local authority operated specialist wholesale markets within major UK cities. For those specialist wholesale markets supplying fresh fruit and vegetables, the relationship between selling area (square footage) and food waste/ food surplus was used as a proxy for scaling the data to a UK level. Overall, data available on both waste and floor area covered 50% of specialist markets within cities, with the remainder estimated through the waste per square footage factor. For animal by-products sent to rendering from meat and fish wholesale markets, separate calculations were made based on the estimated share of selling area dedicated to meat and fish, which was known for a third of selling area for such markets located in UK cities.

As no site visits were conducted to assess redistribution potential, assumptions were applied from online sources and reported redistribution from the sector from interviews and from data reported by the redistribution sector to provide an indicative figure of redistribution potential.

Four major cash and carry wholesalers provided data, representing approximately three-quarters of UK cash and carry depots[5], including one firm operating in both delivered grocery and cash and carry markets.

In the absence of primary data from site visits, it was assumed that the redistribution potential would be broadly similar to that identified within the retail sector[6.] Conversely, it

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[4] *National Association of British Market Authorities: http://www.nabma.com/*
[5] *IGD Research 2011: http://www.igd.com/Research/Retail/UK-wholesale-market-overview/#4*

was assumed that there was less potential to divert suitable surplus food to animal feed, due to the differences between cash and carry and retail bakery products (with in-store bakeries in retail supermarkets being a major source of material for animal feed). The potential for safe segregation of eligible food surplus from cash and carry for use in animal feed was therefore regarded as more limited than is the case for retailer in-store bakery.

Results

Estimates for food surplus and food waste for 2015, and potential for additional redistribution and diversion to animal feed are shown in Table 1.

Table 1: Estimates for food surplus and food waste for 2015, and potential for additional redistribution and diversion to animal feed (tonnes)

	Total food waste (t)	Animal by-products sent to rendering from meat and fish wholesale markets (t)	Current redistribution (t)	Current diversion to animal feed (t)	Additional redistribution potential (t)	Additional animal feed potential (t)
UK Specialist Wholesale Markets	30,000-40,000	150-300	50-100	0	5,000-10,000	0
Cash & Carry Wholesale Markets	6,000-10,000	0	200-250	20-40	2,500-5,000	100-200
Total (Mean; [potential range])	43,000 [36,000-50,000]	225 [150-300]	300 [250-350]	30 [20-40]	11,250 [7,500-15,000]	150 [100-200]

[6] *As described in Quantification of food surplus, waste and related materials in the supply chain, http://www.wrap.org.uk/content/quantification-food-surplus-waste-and-related-materials-supply-chain*

Conclusions

Revised estimates for food waste arising in the wholesale grocery sector are higher than those previously reported, with a mean estimate of 43,000 tonnes for 2015 compared to the estimate published for 2011 of 17,000 tonnes. This reflects better information on food waste quantities and a higher degree of segregation of food waste from the mixed waste streams than was previously the case. The numbers are subject to uncertainty from the estimation process, but are thought to be of good reliability due the coverage of the primary data collected for both specialist wholesale and cash and carry markets. It should not be concluded from this report that food waste has increased within this sector, as the data are not comparable to the 2011 estimates. Food surpluses were also estimated, including food for redistribution or diversion to animal feed. These should only be regarded as indicative figures, but it does appear that there is potential to increase the amount of food surplus redistributed significantly, and therefore reduce the amount of food ending up as waste.