



Food Waste in the Swedish Grocery Retail Sector – data reported from the sector

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Swedish Environmental Emission Data



Food Waste in the Grocery Retail Sector

- Voluntary data contribution from the retail sector (large part of market)
- Interviews and updates to data to ensure similar reporting methods
- Using economic data to account for missing reporting in retail sector
- Food waste in the grocery retail sector
- Future

Data from Grocery Retail Sector

- Five grocery store chains voluntarily contributed data on food waste for the year 2018 to the Swedish Environmental Protection Agency.



Covering the whole grocery retail sector

- Business registry Statistics Sweden
 - 2 chains with chain name in all stores
- Market share in NACE:
 - 47111, 47112, 47210, 47220, 47230, 47241 and 47242
- Together with the retail map from HUI/DLF: estimate missing part of relevant NACE:s.
- Assume relationship between food waste and market share
- Calculate total food waste in retail sector

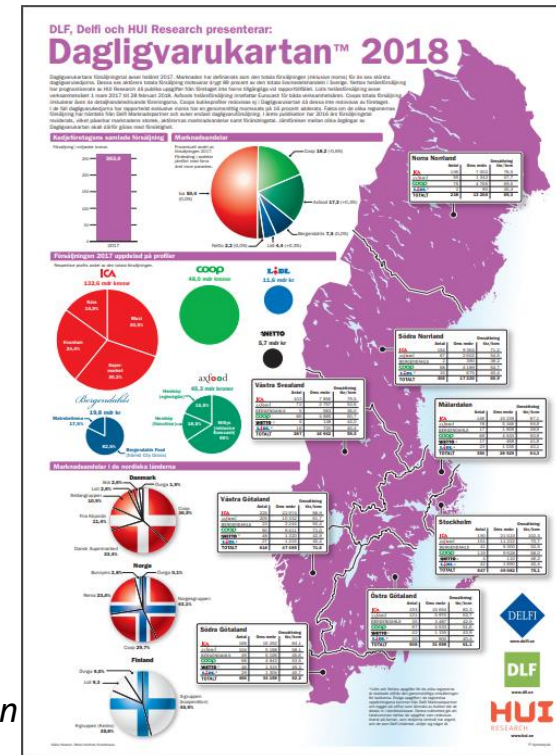


Image from Dagligvarukartan 2018



www.delfi.se



www.dlf.se



www.hui.se

TT Nyhetsbyrån

Outcome

- Food waste in grocery retail sector estimated to
 - 100 000 tonnes
 - Ca 10 kg per capita
 - Compare to ca 70 kg per capita for household food waste



NATURVÅRDSVERKET

MATAV FALL I SVERIGE

Uppkomst och behandling 2018



SWEDISH FOOD WASTE: AN OVERVIEW

How much food waste was generated in Sweden in 2018? Where in the food value chain was most food waste generated? In this report you can read about this and much more. The report illustrates the food waste flow in Sweden 2018. In the end of the report there is a short description on how the statistics are produced.

In 2018 1.3 million tonnes of food waste were generated in Sweden. This corresponds to an average of 13 kilograms food waste per person. You could fill the nation's Guben with this food waste four times and still have some left. Slightly the household food waste could fill Guben three times.

The figures include both food waste from separate collection and food waste in the residual waste, i.e. food waste that is discarded together with other mixed waste streams. Food waste from households, discarded in the drain, originates from food from primary production, agriculture and fishery, retail food stores, large scale catering establishments, restaurants and food industries are all included in the figures.

The total amount of food waste was slightly larger than in 2016 (see table 1). This is due to an increase of generated food waste from the retail sector (food stores), which is related to a change in method for calculation. 71 percent of the food waste came from the households, followed by retail (food stores) and agriculture.

Food waste in Sweden	Year	2012		2014		2016		2018	
		Tonnes	kg/capita	Tonnes	kg/capita	Tonnes	kg/capita	Tonnes	kg/capita
Food waste from households	2018	917 000	10	917 000	10	917 000	10	917 000	10
Food waste from retail	2018	171 000	1.9	171 000	1.9	171 000	1.9	171 000	1.9
Food waste from agriculture and fishery	2018	41 000	0.5	41 000	0.5	41 000	0.5	41 000	0.5
Food waste from large scale catering establishments	2018	84 000	1.0	84 000	1.0	84 000	1.0	84 000	1.0
Food waste from restaurants	2018	73 000	0.8	73 000	0.8	73 000	0.8	73 000	0.8
Food waste from food industries	2018	100 000	1.2	100 000	1.2	100 000	1.2	100 000	1.2
Total	2018	1 365 000	15.6	1 365 000	15.6	1 365 000	15.6	1 365 000	15.6

Table 1: Generated food waste (Sweden 2012, 2014, 2016 and 2018) (rounded numbers)

Figure 1 shows the distribution of generated food waste throughout the food value chain. Primary production includes agriculture and fisheries. Production takes place in the food industry. Distribution includes both retail (food stores) and wholesale trade. But food waste data for wholesale trade is currently missing. Consumption includes food waste from restaurants, large scale catering establishments and households.

Food waste includes both unavoidable and avoidable food waste. The avoidable food waste is most relevant in order to reduce the food waste. Food scraps, fruits and vegetables discarded for being shredded or moldy and discarded food in unopened packaging are examples of unavoidable food waste. Peels, coffee grounds and bones from meat and fish are examples of unavoidable food waste.

In order to increase the resource management in the food chain, the Swedish government has set a milestone target concerning biological treatment of food waste. Measures are to be taken so that, by 2020, resource management in the food chain is improved through separation and biological treatment of at least 50 percent of food waste from households, large scale catering establishments, food stores and restaurants, with the aim of recovering great nutrients. In addition, at least 40 percent of the food waste should be treated in such a way that energy is also recovered.

The target is not reached. In 2018, about 38 percent of food waste was composted or treated through anaerobic digestion so that nutrients were recovered. The share that was anaerobically digested, so that both nutrients and energy were recovered, was 33 percent. Food and beverages discarded down the drain in households are not included in the milestone target.

Table 2: Climate impact, acidification and eutrophication for different kinds of food, rounded to two decimals (samples from Martin Brandt, 2017).

Food	CO ₂ e		Acid		Eutroph		CO ₂ e		Acid		Eutroph		
	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	
Climate impact													
Small portion	1.08	4.00	0.07	1.00	0.07	1.00	0.07	1.00	0.07	1.00	0.07	1.00	
Production avoid	23.50	1.19	1.34	2.91	7.47	2.88	1.10	0.23	1.75	0.07	0.39		
kg CO ₂ e/kg wet food product													
Acidification													
Small portion	2.08	0.02	0.17	0.05	0.07	0.05	0.02	0.08	0.02	0.05	0.02	0.05	
Production avoid	5.47	0.08	0.05	0.05	0.07	0.05	0.02	0.08	0.02	0.05	0.02	0.05	
kg SO ₂ e/kg wet food product													
Eutrophication													
Small portion	2.09	0.02	0.05	0.13	0.03	0.03	0.01	0.08	0.01	0.03	0.01	0.03	
Production avoid	0.16	0.17	0.02	0.02	0.03	0.03	0.01	0.08	0.01	0.03	0.01	0.03	
kg PO ₄ e/kg wet food product													

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The production and consumption of food have an environmental impact and cause about half of the total eutrophication and 20-25 percent of the total climate impact in Sweden. Throwing away food that could have been eaten, avoidable food waste, is a waste of both resources and money. Therefore, the reduction of avoidable food waste is a priority both in Sweden and internationally.

Food waste in Sweden 2018

Total: 1 300 000 tonnes
Total per person: 13 kg/year

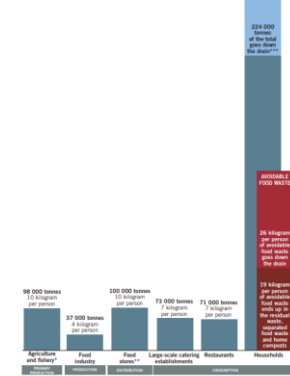


Figure 3: Generated food waste 2018, shown on the various sectors of the food chain.

[Food Waste in Sweden, EPA Report – english summary](https://www.naturvardsverket.se/Documents/publ-filer/8800/978-91-620-8861-3.pdf?pid=26710)
<https://www.naturvardsverket.se/Documents/publ-filer/8800/978-91-620-8861-3.pdf?pid=26710>



Future

- Questionnaire
 - Increase detail level and coherence. Now least common denominator
- Wholesale
- "Frivillig överenskommelse" – Voluntary agreement

Questions?

Thank you for listening!

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