

Reducing food waste

In brief

- Roughly one third of all food produced for human consumption is wasted within the Austrian food chain. Households could save up to € 300 per year.
- Reducing food waste releases finite resources, diminishes environmental risks and avoids financial losses.
- Avoidable causes include overproduction, improper packaging and storage, or misleading expiry date labelling.
- What can be done? Promising options for action include reviewing food safety regulations, facilitating direct marketing channels and simplified expiry date labelling.

What is it about?

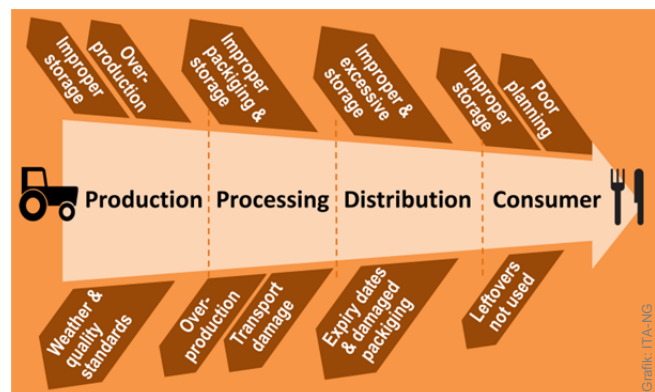
Austrians throw away one fifth of all food they buy. Half of this waste could be avoided, but consumers are not the only ones to blame. Farmers, manufacturers, retailers, and food service operators (e.g. hotels, restaurants, hospitals) all contribute. The entire food chain wastes roughly one third of food produced for human consumption. The extend of waste in Austria: more than 260 kg per capita and year. Although this is close to EU average, there is much room for improvement: the Czech Republic and Slovakia, for example, both waste a third less. Environmental and economic impacts accumulate with avoidable losses at every step of the food chain.

Environmental impact. Wasting food means losing resources such as land, water and energy in which producers, manufacturers, and distributors have invested. Animal-derived products require many more resources than crops. Globally, dietary preferences are shifting towards the consumption of meat and other animal-derived products. Along with rising

population levels, this will lead to increased pressure on food supply as well as the climate system. In Europe, each ton of wasted food generates almost two tons of greenhouse gas emissions. Reducing food waste would save resources and lower agricultural greenhouse gas emissions.

Economic losses. Austrian households could save up to € 300 annually. Discarding products in their original packaging increases overall losses the most, closely followed by meat, fish, milk, and eggs. Cereals, fruit, and vegetables make up the bulk of wasted food, but are relatively cheap and thus have less of an economic impact compared with products derived from animals. There is also great potential for savings in the catering industry (€ 395 million) which throws away 5–45 per cent of all prepared food.

Presumably, farmers, producers, and distributors lose money, too, but the few existing studies mainly refer to households. Comprehensive studies which include the costs of the consumption of resources are largely missing. Furthermore, food wasted in rich countries also increases worldwide food demand and thus world market prices. This reduces the purchasing power of poorer people, especially in developing countries.



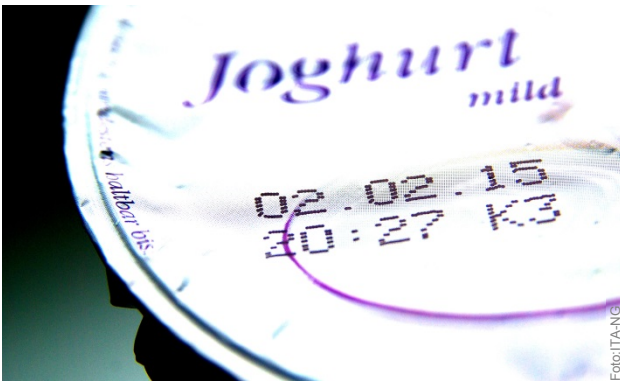
Numerous reasons cause food waste in the chain 'from farm to fork'.

Causes for food losses. In Austria, consumers are responsible for almost half of the total waste. Reasons include poor planning during purchasing, confusion about expiry dates, inadequate storage, cooking oversized meals, and ignorance about how to reuse leftovers. Agricultural production generates around 30 per cent of the total food waste. Poor weather conditions, low market prices which do not justify harvesting, and discarding because of rigorous quality standards are the main causes. Postharvest handling, processing and packaging account for a fifth of the total waste. Losses also occur during transport, storage, and processing or when products are rejected as unsuitable. There are smaller losses in the distribution sector (wholesale and retail) which are the result of errors in packaging and labelling, non-compliance with food safety requirements, exceeding expiry dates, inadequate stock management, marketing strategies, or logistical constraints.

Approaches so far

By 2020, the European Commission wants to halve food waste. Thanks to one measure, the number of marketing standards for fruit and vegetables was reduced from 36 to ten in 2009. In practice, this had little impact as few more products of deviant shape, size, or colour were sold. The main reason: trading companies voluntarily kept the standards to maintain existing logistical processes with regard to storage, packaging, and distribution.

Therefore, new standards ought to be developed in close cooperation with producers, retailers, civil society organisations, and scientists who should all consider quality in terms of taste, natural purity, nutritional value, and growing conditions rather than mere shape, size, or colour.



Households produce almost half of the total food waste – confusion about expiry dates is just one of the reasons.

Often, consumers throw away products in their original packaging with expired **'best before'** dates, which do not refer to food safety and are not set by law. It is more or less the manufacturer who warrants a date based on their own laboratory studies and sets it very conservatively to avoid liability. By contrast, **'use by'** indicates the last day of safe consumption. This is especially important for easily perishable products such as minced meat or raw fish. Confusing the two dates is a common mistake. Simplified labelling, better readability, or better consumer information would prove helpful. An additional option would be to abolish expiry dates for stable products such as rice or noodles.

Distributors and the retail sector have already started to apply measures aimed at increasing efficiency, e.g. intelligent ordering systems or RFID technology, which is used to, amongst other things, collect temperature data during transport. Other 'intelligent' technologies promise to reduce food waste at different levels of the food chain, i.e. packaging labels, refrigerators, supermarket trolleys, or waste bins. Nevertheless, they are currently only being developed. It is uncertain as to how much they can contribute to solving the problem and whether they cause any side or rebound effects.

What to do?

Cutting food waste is an international task as food chains are comprehensively interlinked. Nevertheless, Austria could take immediate action against major driving forces when it comes to discarding food.

- Reviewing current food safety regulations could identify provisions that are not mandatory with regard to protecting human health, but would otherwise cause a lot of waste.
- Amending marketing standards focussing on external appearance towards consumption quality: taste, natural purity, nutritional value, and growing conditions.
- Facilitating alternative marketing channels (farmers' markets, producer co-operatives, solidarity purchasing groups, community-supported agriculture) for fruit and vegetables not meeting marketing standards would reduce waste as well as shorten transport distances.
- Improving food date labelling to reduce confusion between 'best before' and 'use by'. 'Best before' should reflect the true shelf life of products. Abolishing expiration dates for stable products is another option.
- Limitation of donors' and charities' liability as well as facilitating private food sharing initiatives to redistribute surplus food would not only cut waste, but also help economically disadvantaged people.

Further reading

Priefer, C.; Jörisen, J.; Bräutigam, K.-R.: Technology options for feeding 10 billion people. Options for cutting food waste – Final report. Brussels, Belgium: European Parliament 2013 (STOA – Science and Technology Options Assessment / ETAG)

europarl.europa.eu/RegData/etudes/etudes/JOIN/2013/513515/IPOL_JOIN_ET%282013%29513515_EN.pdf

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