

Wasting less food

Packaging that makes it easier to store food

Packaging keeps food fresh and so avoids spillage. Losses are very small at the source and during distribution, but Belgian households throw away about 10% of all the food they purchase. To reduce that percentage, new types of packaging are being made to actively and intelligently protect the food. They not only prolong storage life, but also inform on the product's true freshness. They also make it possible to consume the product in several phases.

prevent **pack**

More efficient refrigerator management

Food wastage between the stages of production and distribution is minimal because packaging protects adequately against decay. However, further down the value chain, every Belgian household throws away on average 10% of all purchased food. In most cases, it's leftovers, but it's also products that have

perished in the fridge. To assist consumers in better managing the cold storage of food, new types of packaging are underway. Less wastage is good for the environment. Believe it or not, discarded food often has more impact on the environment than the packaging itself.

Prolonging the storage life of food products

Today, there are various technologies that help prolong the storage life of food. Active packaging (see also Feature) checks and controls the humidity and the concentrations of oxygen (O₂), carbon dioxide (CO₂) and nitrogen (N₂). This means the food stays fresh for longer.

Intelligent packaging indicates the true freshness of food at any given moment in the logistics chain. This is extremely useful. Packaging can get damaged or become exposed to higher temperatures, during a temporary breakdown of the cooling chain for instance. In such cases, the quality of the food deteriorates faster than expected. Intelligent labels can help ensure the products can still be consumed in time.

How does food decay?

There are different mechanisms leading to food decay:

- Microbial decay, often in combination with germ growth
- Chemical and enzymatic activity that lead to vitamin loss and changes in the colour, flavour, odour and texture
- Oxidation and acidification
- Migration of gases and humidity, altering the texture and flavour

Good packaging protects food against all of these mechanisms.

good to remember

Packaging **limits food waste** because they prolong the product's life expectancy

Clear information on the packaging helps consumers **better manage their food**

Active packaging **makes preservatives less necessary** and are **beneficial** to food safety

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Active packaging prolongs storage life without adding preservatives. It also simplifies the distribution of fresh products.

Information on true freshness

To avoid waste, it is extremely important that packaging states the ideal storage temperature. However, intelligent labels take things a step further. They take into account each unforeseen event such as incidents during transportation and distribution or any "casual" handling at home. Therefore, storage

life information is always up-to-date. Consumers are sensitized and stimulated to always store food in a cold environment and to consume it in a timely fashion. More and more packaging can be closed or sealed after opening to better protect the product.

Healthy for people and the environment

Active packaging not only limits waste, it is also good for our general health. The packaged product remains fresh for a longer period, so packaging is an excellent alternative to preservatives that can be present in the food. Food's prolonged life expectancy has other benefits as well:

- Treatments such as sterilization and cooling are becoming less imperative
- Air shipments can be replaced by slower, more environmentally friendly transportation methods

Multiple packaging and portioning

Ever more packaging can be closed and sealed again after opening to protect the product better. Moreover, in Europe

there is a trend to propose different volumes so that each household can adjust its groceries and consumption to its own needs.

Intelligent labels stimulate consumers to manage the content of their refrigerator optimally.

For additional information :

- On innovative packaging: www.pack4food.be
- On food and waste: www.wrap.org.uk