

# The Growing Tragedy of Food Waste

Five actions  
retailers can take  
to counteract the  
crisis now



## Several steps can be taken to reduce food waste

Food waste in the US is estimated to be a staggering 40 million tons,<sup>2</sup> worth approximately US\$48.3 billion (€32.5 billion). However, it is not the financial cost alone that is important. The cost to our climate is more shocking.

Food has an enormous environmental impact. Not only is it a waste of natural resources including water and energy used in production, but food waste is a source of greenhouse gas emissions. Globally, the carbon footprint from food waste generates around 3.3 gigatons of carbon dioxide each year, approximately six percent of total greenhouse gas emissions<sup>4</sup>.

The responsibility for this tragedy lands on everyone, however those who deal with large amounts of food share most of the blame. According to WWF, over 15% of food is lost before leaving the farm<sup>5</sup>. This comes from things out of their control, like crop failures, pre-harvest and post-harvest losses, as well as in human caused inefficiencies such as mishandling, and transportation losses. In transit and in the supermarket, food waste can also be caused by damaged and decayed goods, expired dates, seasonal products, or overstocked goods. It is estimated that supermarkets lose \$15 billion annually due to the perishable nature of foods

The distribution of food waste in the supply chain:



Farming  
**30-40%**



Manufacturing  
**10%**



Grocery Retail  
**30%**

Food is also wasted by consumers in the home through excessive stock, expiry dates, improper storage and leftovers.

If society is to become more sustainable, then there is a collective responsibility to reduce and limit food waste across the supply chain, in retail, and inside our own fridges.

**This guide outlines five ways retailers can reduce food waste, including optimizing partnerships, adopting more protective packaging, improving localization strategy, enabling gentler handling of products in store, and utilizing track and trace technologies.**

## Action 1

### Optimize your partnerships for an overall faster supply chain

Getting food from the farm to the fork as quickly as possible helps to keep produce fresh and minimizes risk of spoiling. One way this can be achieved is by ensuring high efficiency through the supply chain, with no blockages holding up the movement of goods from one area to another. Strong inventory management is key as well, ensuring optimized quality and shelf life. Any inefficiencies would delay the produce on its journey and risk perishing.

One way to realize efficiencies and streamline logistics is by choosing better partners and ensuring that they are all on board with your goals. You and your team are not equipped to be experts in every small piece of the supply chain, so choosing partners with a mindset for sustainability and efficiency on par with your own can make a huge difference. Are your partners owning up to their own claims? Do they continually optimize the way they work with you? Is their process flexible enough to stand up to your unique challenges? Surrounding your brand with partners you can trust is a key way to bring more efficiency into the speed and effectiveness of your supply chain.



## Action 2

### Use protective packaging to reduce damage

Another way to reduce food waste is to ensure product is adequately protected so it can arrive at the point of a display in excellent condition. In some cases this means adding protective layers of cornerboards or slip sheets to increase load stability and reduce damage. It could mean adding more shocks to cargo trucks so that speed bumps don't take a toll. Packaging can especially make a significant difference in how well product is protected as it is transported.

There are two types of packaging to consider. The primary packaging, which contains the product, is one consideration. This could be, for example, the pulp egg carton that holds eggs in place. Another consideration is the secondary packaging, which is the next layer of packaging, for example, the box or crate holding many individual cartons.

There are many types of secondary packaging, including corrugated cardboard, corrugated combo bins, foldable bulk bins and reusable plastic containers (RPCs). Each provide different levels of protection. For example, corrugated boxes have a higher risk of getting wet or crushed compared to RPCs, and therefore damaging the produce. Making sense of the many packaging options in the market could be an important first step to making a big difference on the amount of food that is damaged by your supply chain each year.

## Action 3

### Consider the benefits of a stronger localization strategy

Food waste can be reduced by sourcing produce locally where and when possible. Presently, food is frequently flown halfway across the world to satisfy the appetites of consumers. However, not only is this considered environmentally unfriendly, but transporting perishable goods over these huge distances presents many opportunities for food to become damaged.

By shortening the distances between producer and consumer, retailers can create a faster supply chain, therefore dramatically reducing spoilage and ultimately food loss.

#### **Action 4**

### **Enable less handling by in-store labor**

Grocery stores, restaurants, and food service companies account for about 40% of food waste. Awareness of food waste has been rising, and action has been taken to reduce waste, with some supermarkets removing use-by dates from bagged fruit and vegetables. However, there is still more to do.

The design and layout of a food display can have a significant impact on waste. For example, produce presented in an appealing way will increase sales and reduce the amount of product that spoils. That's because consumers are more likely to be drawn towards and select products from a display that looks good.

Another consideration is handling. It's simple: the more a product is handled, the more it is at risk of being damaged. So, minimizing handling is key to reducing risk. Retail-ready crates are designed to reduce the handling of produce and eggs, therefore reducing the risk of spoiling. Retail-ready crates can be moved directly from a truck, straight onto the store floor and point of display, without individual perishable

#### **Action 5**

### **Utilize track and trace technology**

Advancements in cloud, IoT and digital technologies now make tracking and tracing perishable products throughout the supply chain a reality. The latest track and trace technologies provide greater insight than ever before on the storage and logistics processes, which can help retailers to reduce food waste. By implementing track and trace solutions, retailers have visibility of the location and condition which food has been transported in at any given point in time.

Food traceability also means sources of food contamination and fraud in the supply chain can be identified. This assures a safe and quality product is delivered to the end consumer. In addition, traceability supports the accurate withdrawal and recall of unsafe food if required. The more information available, the quicker and easier it is to identify the affected food and mitigate risk to consumers.



# Reducing food waste makes dollars and sense.

Food waste is prevalent worldwide and throughout the entire supply chain, but this doesn't need to be the case. This guide has demonstrated that there are some key areas that could contribute towards reducing waste and packaging is a key part of the solution. Not only does quality reusable packaging play an important role in protecting products during storage, transport, and display, but RPCs improve efficiency as well. With RPCs to protect them, products can be moved quickly through the supply chain, without great risk of damage.

With over 63 years of experience partnering with leaders in the food industry, Tosca is prepared to walk alongside you as you work to eliminate food waste. Tosca is an expert in designing high-performing supply chains and working closely with customers to help them reduce waste. By adopting reusables, Tosca's partners gain the ability to eliminate inefficiencies, improve sustainability and boost their bottom line.



Learn more at [toscaltd.com](https://toscaltd.com)

# Appendix

- [www.rts.com/resources/guides/food-waste-america/](http://www.rts.com/resources/guides/food-waste-america/)
- <https://unfccc.int/news/antonio-guterres-climate-change-is-biggest-threat-to-global-economy>
- [https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5\\_all\\_final.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf)
- <https://www.epa.gov/climate-indicators/climate-change-indicators-atmospheric-concentrations-greenhouse-gases>
- <https://www.swissre.com/media/press-release/nr-20210422-economics-of-climate-change-risks.html>
- [EU aims to “give humanity a fighting chance” with catch-all climate plan](#)