

'You can't manage what you can't measure'

Food waste is a major issue in the food industry, with food loss and waste occurring at all levels of the food supply chain. Action is beginning to be taken by businesses to tackle food waste, mainly focusing at the retail end of the supply chain. However, much more can be done to reduce food waste along the whole supply chain and the most effective way to start this process is by measuring the waste.

Having the processes in place to quantify food waste can help a business to evaluate the scale and principle causes of food waste and loss. Having data to quantify the amount of waste arising at all stages in the supply chain is the first step toward putting a plan in place for reduction and being able to communicate the positive impacts of reducing waste.



Defining food loss and waste (FAO)

Food losses are defined as the decrease in the quantity and quality of food at the production end of the supply chain.

Food waste is part of food loss, but denotes the discarding or alternative use of food that is safe for human consumption along the entire food supply chain.

Tools businesses can use to measure and monitor

There are different methodologies and tools that can be used for driving improvements in measuring, monitoring and reducing food waste at different stages in the supply chain (some examples are given in Table 1).

Decisions on the appropriateness of tools have to be made on a case by case basis depending on the waste hotspots identified and resources available in your business. The key to success is to keep processes as simple as possible and to gain buy-in at all levels within the company.

Table 1 Examples of methods and tools for measuring and monitoring food waste

In premises customer waste	<ul style="list-style-type: none"> • Install containers in kitchen for plate waste, record weight, monitor • Use smart meters to record plate waste data electronically
Store waste	<ul style="list-style-type: none"> • Input data on availability of food waste to online platforms designed to connect with redistribution organisations who are able collect food waste for use in charitable sector.
Kitchen Waste	<ul style="list-style-type: none"> • Online toolkits for caterers and chefs to monitor where waste occurs in kitchen, monitor procurement and recipe formulation to minimise waste
Processing waste	<ul style="list-style-type: none"> • Waste mapping of processing sites to highlight manufacturing waste, review communications across site and with suppliers
On-farm waste	<ul style="list-style-type: none"> • Engage with primary producers to identify reasons for farm level waste • Review specifications to understand impact on food waste

Value to business of measuring, monitoring and reducing food waste

As a result of reducing food waste along the food supply chain there are many positive outcomes for businesses:

Operational efficiencies: Reducing food waste and wasted resources going into production of food results in cost savings. According to comments by Tesco, “Transparency and measurement are essential for identifying hotspots, and in tackling the causes of food waste. It helps everyone understand how much, where and why food is being wasted”. ([Food waste data](#))

Positive environmental impact: Taking action to avoid food waste helps reduce GHG emissions coming from both the production of food (use of fertilisers, energy used for farm machinery etc) and from the wasted food that may end up in landfill sites.

Improved communications: Corporate commitment to reducing food waste may be reported in CSR reports and other non-financial reports once data on food waste reduction activities is available.

Employee engagement: Studies have found that employee retention, productivity and engagement all go up when companies have strong corporate sustainability practices. Taking a proactive approach to reducing food waste is a key element in business sustainability credentials.

Reputational gains: Reducing food loss and waste can strengthen relationships with consumers and improve customer retention ([Customer loyalty](#)).

Favourable treatment by investors: Pressure has increased from investors to monitor and report on sustainability measures including progress made on food waste reduction.

Tax savings: In some countries there is the potential for tax savings to businesses that transfer unsold food to charities to improve nutritional outcomes of the disadvantaged.

Conclusion

The use of food waste tools and methodologies is helping to increase awareness as to where food waste is being generated along businesses’ supply chains. This identification of waste is leading to the initiation of whole supply chain solutions which can minimise the negative environmental and social impacts of food waste and also can help businesses to capitalise on the benefits of improved efficiencies.



About the Author

Leslie is an Agri-Food Sustainability Consultant with over 25 years' experience working with food businesses to improve the efficiency and sustainability of their supply chains. Leslie leads on ADAS's engagement with Courtauld signatories and manages ADAS's technical input to WRAP's fresh produce and meat working groups. This work has focused on finding more resource efficient ways to produce fruit, vegetables and meat to save on costs and to reduce waste, water use and GHG emissions. Leslie has close links with food redistribution charities and supports food sector businesses in finding creative ways to reduce food waste at all stages in their supply chains.