ZERO IS NOT A NUMBER

WAYS TO REDUCE FRESH FOOD WASTE

Roughly one-third of food produced for human consumption is lost or wasted – about 1.3 billion tons per year globally, at an estimated cost of $907 billion. Clearly, this is unacceptable from ethical and economic standpoints, and there is mounting pressure worldwide from governments, industry, and consumer-interest groups to tackle the issue. However, any idea that waste can be eliminated completely is an illusion. Achieving zero waste is not only unrealistic, but would also require a dramatic reduction in the availability of products and limits on consumer choice. That said, the opportunity to reduce waste is still very significant and, if pursued correctly, offers an upside for producers, retailers, and consumers alike.

If retailers improve the freshness of products they sell and increase the remaining shelf life, it will not only help to reduce waste at the consumer level and improve customer satisfaction, but also reduce retailers' operational costs and waste levels. Beyond those cost savings,

retailers excelling in freshness will also increase sales and market share, and improve their image in the eyes of consumers. And, if food waste could be reduced from 2 percent to 1.5 percent of total sales, for example, a typical retailer with a net margin of 3 percent would see its net income increase by 17 percent.

We worked with the Efficient Consumer Response (ECR) Community Shrinkage and On-Shelf Availability Group to investigate how reducing waste affects on-shelf availability, and vice versa. To this end, we launched a major international study that was conducted by a leading research institute in the retail sector, Eindhoven University of Technology in the Netherlands. This work led to three key recommendations for retailers to find the right compromise between reducing waste and driving sales for their business.

The full report can be accessed at www.ecr-shrink-group.com.

METHODOLOGY

Three large European grocery retailers participated in the study. They provided information on more than 17,000 products and, in 27 stores, allowed for further analysis of the fresh convenience, fruits and vegetables, and fresh meat categories, where 50 percent of their waste was generated.

RESULTS: HOW LOW CAN YOU GO?

The study revealed three key findings: Waste and availability targets are a balancing act; there is a simple and accurate way to predict waste; and a high proportion of waste does not always mean lots of room for improvement.

WASTE AND AVAILABILITY TARGETS ARE A BALANCING ACT

It is well known that higher on-shelf availability is likely to drive an increase in waste.

The study was able to quantify this relationship across three fresh categories. (See Exhibit 1.) It also showed how expected minimum waste differed between products, even when on-shelf availability was the same.

Exhibit 1: Products with similar levels of on-shelf availability can have different levels of waste
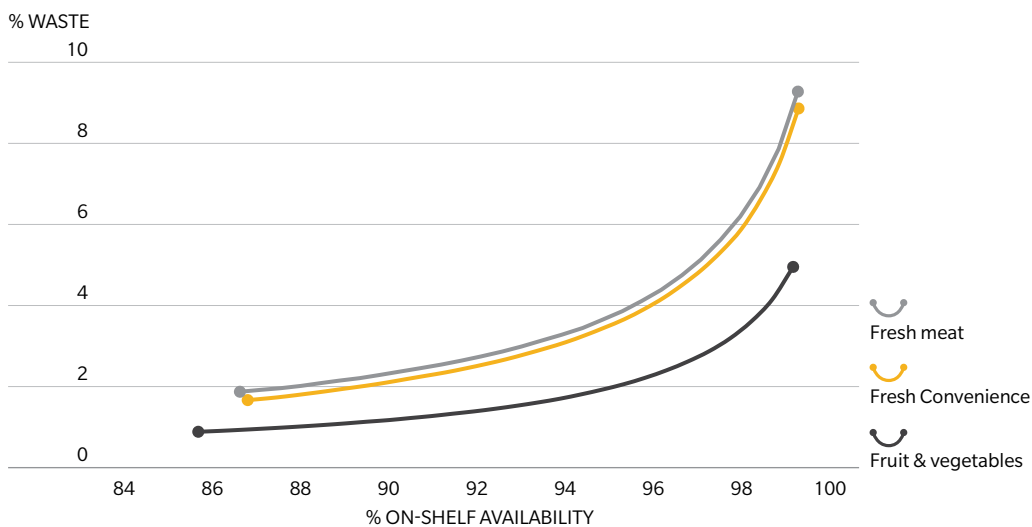
These findings illustrate the importance of determining the right target for on-shelf availability. If a target is set too high, there is a risk of excessive waste. But if the waste target is set too aggressively, it can have a detrimental effect on on-shelf availability, missed sales, and customer satisfaction. Choosing the right target depends on the category and the store, and the decision should not be taken lightly.

THERE IS A SIMPLE AND ACCURATE WAY TO PREDICT WASTE

It is possible to calculate an expected case waste index for each product by measuring the average daily demand for a product, the size of each case of product, and product shelf life. The larger the index, the more likely it is that case items will go unsold before the expiration date. The lower the index, the more frequently each case will sell out before expiration, reducing waste. This makes it a good indicator for how much waste to expect for a product in a store. (See Exhibit 2.)

A HIGH PROPORTION OF WASTE DOES NOT ALWAYS MEAN LOTS OF SCOPE FOR IMPROVEMENT

When benchmarking the 27 participating stores, significant differences in fresh waste were observed. Some of this variation was due to differences between the stores' daily sales, case sizes used, and shelf lives of the products they stocked. To control for these factors, the performance of a store – assessed as on-shelf availability and percentage waste – was compared against predicted waste. This takes into account key characteristics – like the product range, the average daily demand, and the shelf life – which may vary from store to store or between categories.

Exhibit 2: Average waste versus expected case waste index
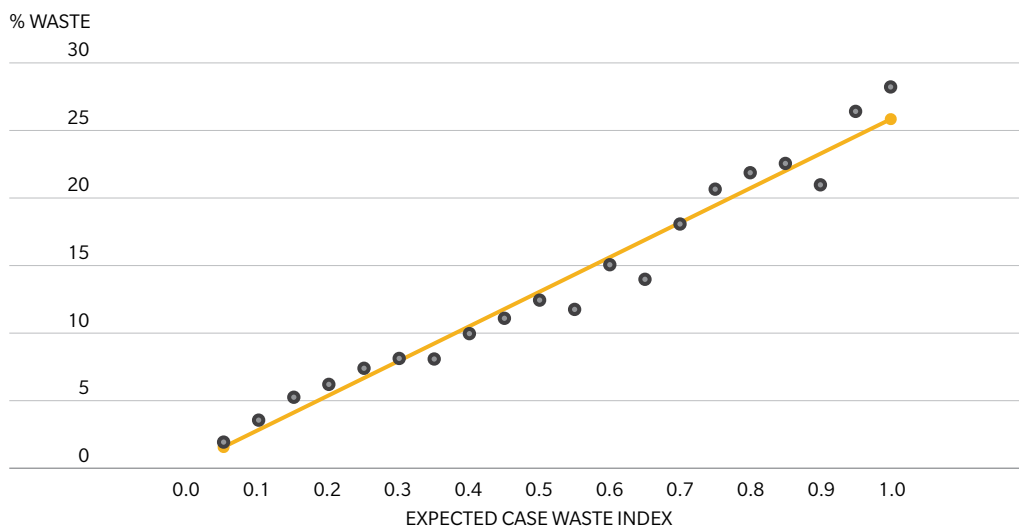
Source: Efficient Consumer Response (ECR) Community Shrinkage and On-Shelf Availability Group and Oliver Wyman research and analysis

This makes it possible to map each store's performance against expected waste: the distance between predicted minimum waste and actual performance reflects the scope for improvement. (See Exhibit 3.)

The results illustrate how high levels of waste do not necessarily mean there is high potential to reduce it. Conversely, stores or categories with low levels of waste could still be far from optimal. If retailers focus on the wrong stores, waste reduction measures may be fruitless or even counterproductive. Recognizing where the waste reduction potential lies is crucial for tackling it effectively.
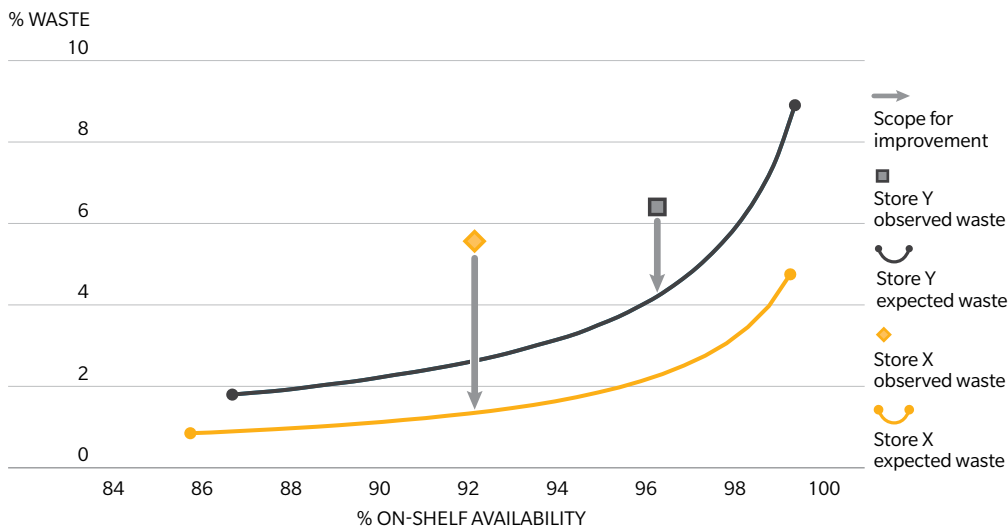
THREE WAYS TO REDUCE WASTE

The study yielded three key recommendations for cutting back waste in fresh categories: Set the right waste and availability targets; target stores and categories that have more scope for improvement; and increase product shelf life.

SET THE RIGHT WASTE AND AVAILABILITY TARGETS

Setting the on-shelf availability target is a strategic decision. Retailers with a strategy focused on high levels of customer service typically aim for an on-shelf availability of at least 98 percent for dry groceries. For perishables, however, they typically aim lower, given the direct impact that availability has on the amount of waste.

To find the optimal trade-off between availability and waste, calculating the expected waste will allow retailers to understand the full bottom-line impact of raising or lowering availability targets.

Exhibit 3: Actual fresh waste performance of two stores versus predicted waste

% WASTE

% ON-SHELF AVAILABILITY

Scope for improvement

Store Y observed waste

Store Y expected waste

Store X observed waste

Store X expected waste

Different parts of the product range should have different targets. For example, slow movers with a short shelf life should have a significantly lower on-shelf availability target (and/or higher waste target) compared to fast movers with a medium to long shelf life.

The benefit of setting differentiated targets can be huge: The study found that setting different targets for fast- and slow-moving items could reduce waste by 12 percent or increase on-shelf availability by 1.3 percent, compared to a one-size-fits-all approach.

TARGET STORES AND CATEGORIES THAT HAVE MORE SCOPE FOR IMPROVEMENT

The expected case waste index is both easy to calculate and highly predictive of waste. Category managers, supply chain managers, buyers, and suppliers can easily identify which of their items have high expected case waste and choose those as a starting point for tackling the waste problem.

Moreover, it is a useful concept to trigger the right kind of conversations across functional departments: A large case size may help to reduce logistics costs, but what is the point if half of the products regularly end up as waste?

Benchmarking also makes it possible to identify which stores and fresh departments have the biggest gap between actual performance and predicted waste. The outputs can act as a starting point for implementing best practices at underperforming stores.

INCREASE SHELF LIFE

Increasing a fresh product's shelf life by just one day provides big benefits. In categories where products currently have a shelf life of eight days or less, an extra day of life reduces waste by 42.8 percent or increases on-shelf availability by 3.4 percent.

A good way to improve shelf life in fresh categories is to remove minimum order sizes from the distribution center, enabling fresh products to be delivered to stores in the most flexible way possible. Businesses need to consider the operational complexity it introduces and the cost implications. But the waste reduction potential could be sizable: In our sample, this approach reduced waste by 32.5 percent and increased on-shelf availability by 2 percent.

CONCLUSION

Retailers often view waste as a fact of life, but it is actually a question of choice. Retailers have many opportunities to reduce it, increase category and store efficiencies, and improve profits. By finding the right balance between waste and on shelf availability and recognizing areas of underperformance, retailers will be able to deliver a sizable reduction of waste.