

# Supplier case studies – food waste.

September 2023



Tesco believe that no good food should go to waste, and we're working across our business – as well as with customers and suppliers – to drive positive, long-lasting change and help everyone work collectively to reduce food waste.

In these case studies, we'll look at sector specific challenges within the food industry, how we're supporting suppliers in reducing and redistributing their food surplus, and why it's important that growers have begun to measure and report their food waste.

**TESCO**

# Sector specific challenges

We know there are many challenges facing suppliers, as well as opportunities to improve and reduce food waste. The main sectors can be grouped into one of four categories – MFPE, Dairy, Produce and Impulse.

## Meat, Fish, Poultry and Eggs

Food waste intensity within the MFPE sector fell by 28% against the baseline year and changes related to efficiency of production and the cultivation of animals. This reduction has been achieved despite last year's challenges of rising fuel costs, inflation and issues across the supply chain.



### A. Espersen

In response to supply chain issues in accessing key ingredients, A Espersen focused on reducing food loss and waste as part of its business model. In 2022, they introduced a new puff pastry cutting tool – moving from an oval shape to rectangular cut – reducing pastry waste by more than 20%. They also introduced circular initiatives including repurposing leftovers into new products – for example into value for money fish fingers that still meet food safety standards.



### Noble Foods

Noble Foods' investment in new grading machinery and product handling equipment has reduced waste in the handling of eggs. They are now able to grade more efficiently, and using different equipment when stacking pallets decreases potential product damage and waste.



### Kepak

Kepak continue to implement operational changes to more easily identify and quickly disregard 'bad blood' from products marked as contaminated, stopping them coming into contact with sellable products and creating waste.

## Dairy

With dairy known as a short shelf life product, this industry contends with many risks for food loss and waste. Suppliers have taken steps to ensure optimal efficiency in the production stages, to help avoid this where possible, and food waste intensity within the dairy sector fell by 1% against the baseline year.



### Yeo Valley

Yeo Valley have found a way to reduce waste by minimising interruptions on packing machines – continuing to invest in higher speed filling machines and newer packing technology to avoid human interaction with products, resulting in reduced waste and improved efficiency.



### Froneri

Froneri decided to reduce their list of recipes, and in turn reduce the number of lines being produced, allowing retailers to better track inventory through less SKUs. Froneri's initiative reduced the number of clean-downs required between production runs, in turn reducing food waste.

## Produce

A key cause of food loss and waste in the Produce sector was a result of pest and climate related impacts. Food waste intensity within the Impulse sector fell by 13% against the baseline year



### Glinwell

Glinwell looked at the impact of external factors on their food waste, including the increase in energy prices. To help, crops were planted later and harvested/packed earlier to minimise usage.



### Berry Gardens/Driscoll's

This year Berry Gardens/Driscoll's reported a waste reduction of around 100 tonnes in their main packhouse, thanks to a focus on quality, freshness and improvements made in supply chain planning.



### Vitacress

Vitacress has focused on farm quality, resulting in less need to grade for size and disease, as well as utilising surplus material that would otherwise be wasted for processing.

## Impulse

A key form of food loss and waste across the Impulse sector was in the modification and maintenance of machinery. Food waste intensity within the Impulse sector increased by 178%.

**MARS**  
Foodservices

### Mars

Mars analyses weak points in its manufacturing process – focusing on its factories producing higher than average food waste to understand the drivers and opportunities for improvement at those sites.

## Reducing and redistributing surplus

As suppliers follow the food waste hierarchy, their priority is to reduce the amount of food surplus they produce. On occasion, surplus production can be difficult to avoid, but there are many initiatives in place to avoid surplus from going to waste. In the first instance this will be redirected to humans, before going to animal feed, and then anaerobic digestion. Utilising other options, such as setting up personalised and company specific employee initiatives and benefits, will help close the loop. This circular method allows potential waste to be used responsibly, often to the benefit of the business' supply chain and its local community.

In contrast to statistics in 2021, which suggested that less than 1% of food surplus was donated to a food redistribution charity, this option has become a core part of suppliers' food loss and waste prevention strategy. Most of the efforts to redirect surplus also entail collaboration, transforming a loss into a collaborative opportunity for social change.

### Redistributing to humans

In the waste hierarchy, the reduction of waste raw materials is the most preferable option as it directly prevents waste. Suppliers have collaborated to create innovative routes of food waste redistribution via charity partners and local community initiatives to help tackle food poverty in the UK.



### BROP

Notably, BROP have redirected produce that would have previously been considered as waste by collaborating with Tesco – using ‘wonky veg’ in Tesco’s Perfectly Imperfect range and selling baby potatoes in Slovakia and the Czech Republic and Slovakia.”.



Here are other examples where our suppliers are pioneering surplus diversion for human consumption:



### Yeo Valley

Yeo Valley ensures that if a product can 'go to mouth', it does. They achieved this by opening a range of waste channels, including donating food to food banks FareShare and TooGoodToGo. Yeo Valley has also made excess products more accessible through the introduction of a colleague shop to support colleagues and the local community.



### G's

G's Fresh donated excess food that had resulted from overproduction or out-of-specification crops via their partnerships with FareShare and City Harvest.



### DPS

DPS focused its food surplus plans by increasing the amount of edible fresh produce going to FareShare and City Harvest - redistributing over 145 tonnes of surplus to FareShare and 107 tonnes to City Harvest in 2022.

Additionally, DPS reduced food waste from their offices by using OLIO, which redistributes produce to the local community and donates smaller volumes of surplus to local businesses.



### EFC

EFC ensures no food fit to eat is wasted in their operations, redistributing 110 tonnes of food to City Harvest last year. EFC continues to work with local charities to redistribute surplus from shelf-life testing.



### Barfoots

Barfoots' partner charities, which include FareShare and UKHarvest, collect surplus good-quality food, including 'wonky veg', and distribute it to those in need. Through FareShare alone, as of March 2023, they have donated over 550 tonnes of vegetables, equal to over 1.3m meals.

## Redistributing to animal feed

When food is no longer fit for human consumption, suppliers have been reducing waste through sending to animal feed. Preferable over digestion, animal consumption offers a range of environmental and economic benefits. Growing livestock feed is incredibly land-intensive and uses resources such as water heavily. Utilising food surplus therefore offers a sustainable alternative.

Since May 2023, Premier Foods have redirected surplus custard from anaerobic digestion to animal feed.



This year, BROP made efforts to increase avenues of food redistribution by exporting surplus produce for animal feed abroad.



Yeo Valley directs any surplus produce that cannot be donated for human consumption via animal feed routes. DPS demonstrates the power of collaboration, as they achieved zero waste by sending all inedible surpluses as a site to animal feed (an impressive 335 tonnes).

Notably, innovation in the insect feed sector looks to reduce the amount of inedible surplus being sent to anaerobic digestion;



DPS have been conducting trials with AgriGrub (producers of insect-based animal feed currently supplying the pet food market) to reduce the amount of inedible surplus being sent to anaerobic digestion. Between May 2021 to January 2022, DPS sent 21 tonnes of inedible fresh produce to AgriGrub and are in the process of scaling their trials this year, with a view to send 750 tonnes (approximately 25% of overall food waste) to AgriGrub by the end of 2023.



EFC are scaling up trials within the insect feed sector, which, if successful, will enable the processing and utilisation of both inedible and edible parts resulting in product not fit for human consumption (currently being sent to anaerobic digestion) being used as insect feedstock. Conclusive results of the trials and next steps will be reported in the next report.



Flamingo has been actively engaging with partners and collaborating on food waste activities; an example of this is a successful application to GCRF Africa Round 3 funding competition investigating Black Soldier Fly for use in their operations. Results will be shared next year.

## Food waste reductions on farms

Alongside donations to charities, Barfoots utilises its food waste in innovative ways – using surplus waste unavoidably generated to power its farms and offices, and to create digestate which is used to fertilise crops.

# Measuring and reporting waste

This year, 36 global growers have started to measure and report their in-field and production food loss and waste to improve their understanding, identify hotspots, and reduce waste.

Many are now in their third year of reporting and achieving a 3% reduction in food waste at packhouse level and a 11% reduction on farm, in comparison to their baseline year.

## Increasing resilience

This year suppliers that focused on increasing resilience were able to increase the efficiency of their business with methods that prevent food waste before it occurs.



Barfoots collaborated with plant breeders to develop and test new varieties of crops able to grow more efficiently in a changing climate – reducing environmental pressures where extreme weather events are increasingly common place. Crop varieties have improved pest and disease tolerance to minimise crop waste both on the farm and in customer homes. They are also exploring new growing, harvesting, storage and shipping techniques to maximise crop quality and reduce waste.



Terra Natura International have recorded lower composting waste than in previous years, owing to the resistant tomato varieties they have been working with during 2022 – with more resistance to tomato disease that prevents crops from meeting quality requirements, and less waste. These new varieties meant that production in 2022 remained as predicted and product quality has remained improved, contributing overall to a decline of waste levels; from 2021 to 2022, composting waste declined by 53%.



This year, Daltex reduced on-farm waste by over 745 tonnes thanks to improved fertilisation and irrigation techniques, which have decreased the natural falling of fruits – causing most of their food loss. This was achieved due to the increased amounts of potassium in the crops. Daltex also introduced wood sticks to support lower branches of the trees, which touched the ground instead and were exposed to soil microbes that otherwise would cause spoilage.

## Closing the Loop

By closing the loop on production systems, growers can assign value to food waste and help establishing new products.



To reduce the amount of grapes that is wasted, Karsten send unpacked table grapes or grapes that are not suitable for certain markets to other areas including raisins and juice production. This prevents any food surplus or waste occurring from the packhouse. Karsten also plan all production activity to ensure no fruit is left behind on a vine to waste; and pre-planning market demand to anticipate volumes for the following day.



Martinavarro ensures that no fruit is considered waste if there is still a way to utilise the product. In line with this, they have donated all mandarins and oranges that do not meet quality requirements – but are still suitable for human consumption – to food banks and or to a secondary market. They also work closely with charities, NGOs and food banks to donate surplus throughout the year.

To determine where food waste is best allocated, Martinavarro have a process to identify and separate the fruit in their packhouses – whether it is suitable for human consumption and allocated to one of the above options, or for animal feed. and the other being animal feed, working closely with local farmers

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### Company initiatives

Businesses are in a position to make unique and bespoke innovations for their food waste, which work for their business and community.

- In an effort to reduce their food waste, one supplier holds periodic meetings with their growers and organisations on their products. As a company, they discuss various topics to reduce waste as waste figures but also delivery moments (which could also lead to waste) and use of plant protection products. These conversations help prepare the business for potential supply chain issues – such as growers sending large quantities of the product when the price was particularly high.
- Tru-Cape have introduced three new initiatives to reduce food waste. Firstly, new product lines in the form of two new brands using ‘less than perfect’ fruit that is out of spec for certain export markets, or the wrong size. They also sell surplus products at a reduced price to colleagues, and instigate multiple picks of produce on their farms – ensuring all fruit is removed from the orchard.
- Another company has repurposed unwanted materials from other companies into containers used to prevent food from perishing.
- For another, collaborative working has allowed them to connect with other organisations in their community by sharing surplus produce. For products with varying harvest dates (including tomatoes and cucumbers) and production rates, this supplier has rented a freezer to preserve the produce for third party interests.