

Bringing a greater sense of transparency to the food chain to cut waste

Anti-food-waste expert, WRAP, declares that around a third of all food produced is lost or wasted, contributing 8-10% of overall man-made greenhouse gases. The recent Food Waste Action Week looked at slicing global food waste in half by 2030. After celebrating the success of its first event in 2021, this year's sustainability pact was the tipping point for actionable change.

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It is clear from the WRAP 2021 report that businesses are already successfully implementing waste interventions.

Last year, meat processors collectively reported more than 20,000 tonnes of food waste reduction – an average 30% reduction from those companies reporting year-on-year.

Moving forward, WRAP report that businesses comprising over 75% of the UK meat processing sector have committed to the Food Waste Reduction Roadmap with the aim of slicing their food waste numbers in half.

Even so, if businesses are to meet the new Courtauld Commitment environmental targets for 2030, there is still some work to be done.

This article examines how new technology, automation and lean manufacturing in the meat industry can bring a greater sense of transparency to the food chain and cut waste.

Lead with efficient automation

By leading with efficient automation, it is far more likely that food processors, equipment choices and quality control processes will facilitate the reduction in meat waste, rather than hinder it.

The utilisation of automation tools and 'smart' inspection machinery will help to ensure waste, safety and production efficiency remains tightly controlled.

Most of today's food metal detectors are 'smart' and connected. This allows immediate and remote access, enabling food manufacturers to view the current equipment status, monitor rejects and maintain continuous, smooth production lines.

Tighten time-saving procedures

Manually carrying out regular checks can drain resources; consider implementing digital testing instead.

Guaranteed to save food manufacturers time and money, Halo Digital Testing from Fortress automatically checks for all metal materials – ferrous, non-ferrous and stainless steel – which is crucial for meat, poultry and fish manufacturers.

A unique new premium and hygienic conveyor design featured on the new Raptor series is another big labour, time and money saver.

Overcoming the challenge of loosening belt tension during machine sanitation, operators simply unclip and disconnect the conveyor motor, lift out and re-assemble in seconds.

Optimise detection

The meat manufacturing industry requires high-speed, multi-line food packing operations which can produce huge amounts of unnecessary waste.

Rejection systems can remove entire lines of produce, resulting in tonnes of quality product gone to waste. These losses not only impact environmental waste but economical too, as it is estimated the cost per line of false rejects is over £14,000, depending on the scale of the problem.

Given that meat processors use a wide array of mixers, dicers and slicers – most made from stainless steel – Fortress has intentionally focused its efforts on addressing harmful contaminant risks and reducing by-product.

These upstream inspection machines can help to capture contaminants in their largest form,



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minimise meat waste and enhance productivity. Upstream is often the place where we can get two or three times the performance level.

There is a better opportunity to identify where the source of a potential problem may be if there are several units throughout the line, especially when adding ingredients at different points or performing different processes.

Stop the surplus production

Overproduction and overfilling dramatically contribute to annual food waste numbers. Even a few grams surplus in every food pack can rapidly equate to thousands of pounds per month; inefficiencies that the Fortress Raptor checkweighing and combination series targets.

By capturing sample readings by the millisecond, the high-end Raptor

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control system provides accurate and consistent weighing results which is a game changer for meat and poultry processors concerned about product waste and giveaway.

Using Raptor's digital data capture feature, manufacturers can pinpoint upstream operational deficiencies, including overfilling of packs, processing and packaging waste.

Meat waste has value

Whether it is environmental, economic or productivity-measured, manufactured meat waste always has a value.

By investing in accurate weighing, dosing and inspection equipment, manufacturers can add back into their bottom line to strategise future production methods and combat rising farmgate and food costs.

The increases in energy costs, CO₂, transportation and labour make it even more imperative to consider the whole waste picture and how precision processing can protect profit margins.

Implementing time-saving and digital processes, automated calibration of machinery and better detection systems can help to acquire financial savings and tackle the war on food waste in the meat industry.

References are available from the author on request