

# Waitrose

## Turning waste food into packaging



### Summary

Waitrose has worked with one of its suppliers to produce two gluten free fusilli pastas from green peas and red lentils. The packaging for these products is, in part made, from the peas and pulses that are not of the required quality needed to make pasta. Driven by the Courtauld Commitment 2025, Waitrose has worked with its supply chain to tackle the challenge of food waste, and minimise packaging through waste valorisation. For more information about the approach Waitrose is taking to food waste through the Courtauld Commitment [click here](#).



### Key Facts

- Pasta packaging part-made from food ingredients
- Reduced packaging greenhouse gas emissions by 20%
- Partnership across the supply chain to deliver the outcome
- Less than two years from concept to retail sales
- Exploring other opportunities to convert food by-product into food packaging.
- WRAP's Food Waste Valorisation programme aims to develop innovative solutions for waste

## Surplus food into packs

Since September 2016, Waitrose has been retailing two gluten free fusilli pastas as part of its LoveLife range: one made from green peas and the other from red lentils. The packaging for these products is, in part made, from the pulses that do not meet the required quality during production.

Instead of being discarded, the surplus pulses are used to help create the 250g box in which the pasta is packaged.



## Eco-credentials

This packaging is made from 55% sustainably sourced virgin tree pulp, 30% recycled paper and 15% from the pulses waste.

The box can be placed in direct contact with the pasta, which eliminates the need for an inner plastic sleeve within the pack. This approach has reduced associated greenhouse gas emissions from the packaging by 20%. The pasta box is also 100% recyclable back into secondary cardboard.

## Ethical supply chains

Gluten-free products are currently experiencing rapid growth. The gluten free pasta came about as a product-led initiative that fell under Waitrose's health umbrella. The business identified a suitable supplier in Italy, Pedon, which could manufacture pasta entirely from red lentils and green peas.

In exploring the chain of custody for ingredient sourcing and pasta production with Pedon, Waitrose identified broader sustainability opportunities for the product.

Pedon has developed a programme called 'Save the Waste', which promotes an integrated supply chain that creates and

distributes value to all stakeholders, from the manufacturer to the end consumer.

This includes a cultivation agreement with the agricultural cooperatives in the areas from where the lentils and peas are sourced. This agreement promotes economic and social development in these regions, including independent ethical initiatives, such as the development of schools.



In addition, Pedon, highlighted to Waitrose the work it had already undertaken through 'Save the Waste' to incorporate waste by-products into some of its product packaging.

## Drivers for Waitrose



As a signatory to the Courtauld Commitment 2025, Waitrose is committed to tackling the challenge of food waste, including exploring valorisation opportunities for unavoidable wastes. The potential to close the loop on food by-product by incorporating this into product packaging was an opportunity Waitrose was keen to pursue with Pedon. Waitrose instructed Pedon to see if they could produce a similar type of packaging for the gluten free pasta using the pulses that didn't make the grade for food production.

## Making the packaging

During the quality control process, Pedon rejects some pulses that do not meet the required quality. Pedon have formed a partnership with two Vicenza-based companies, Favini and Lucaprint, to produce

the packaging that incorporates these streams.



*Nourishing confidence*

Favini specialises in the production of ecological paper and they developed the packaging paper, which they call 'CRUSH Fagiolo'. Lucaprint have developed the printing solution using eco-friendly inks.

Through this partnership, led by Pedon, they develop a sustainable packaging solution that met Waitrose's requirements.

## Timescales

Initial discussions about the gluten free pasta product commenced with Pedon in early 2015.



Discussions about the packaging then commenced from July 2015. The first products entered the shelves of Waitrose stores from September 2016, making for a quick turnaround from concept to product retail. A key stage was a review and confirmation of testing and certification with regards to the suitability of the packaging for direct food contact.

## Ingredients for success

There were a number of elements contributing to the success of this project.

1. Demand and supply for the packaging was well developed from the outset.

2. Similar packaging had already been produced by Pedon and partners making for a quicker development process.
3. Pedon was able to meet Waitrose's chain of custody requirements, a factor preventing other opportunities from progressing.
4. Pedon has a UK presence to support ongoing dialogue and negotiations with customers like Waitrose.
5. As well as being environmentally beneficial, the packaging is also fit for purpose in terms of product protection.

## Production costs

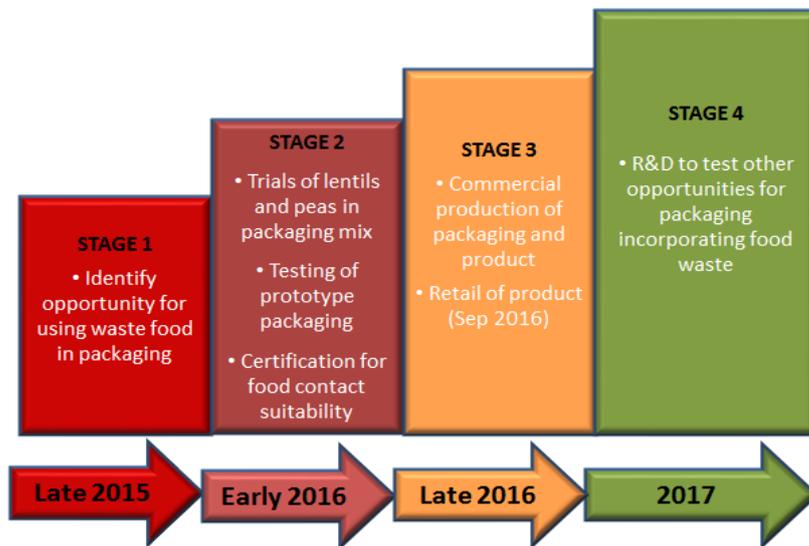
Production of the pasta per pack is more expensive than for a standard Waitrose pasta product. This is as a result of the pasta being a niche product serving a smaller share of the pasta market. However, in order to ensure that its product range serves the broadest range of customer needs, Waitrose is willing to pay a higher premium, particularly as the gluten free range is a growing market.

## Future opportunities

Opportunities for Waitrose to expand its use of pulse-based packaging are limited by the seasonality of the feedstock and Pedon's ongoing work with its growers to minimise by-product. Waitrose has been exploring opportunities using other feedstock.



It has already had success in producing egg cartons from equal parts rye grass and recycled paper. Waitrose is also exploring opportunities to use other bi-products of food production for its packaging, continuing to lead the way in exploring innovative ways to maximise value from food by-products.



to identify the best ways to recover products from food waste with the remaining wastes still being recycled in the most appropriate way.

WRAP's Food Waste Valorisation programme aims to develop innovative solutions for waste that challenge current thinking, add economic value to existing management processes and develop solutions and markets that will deliver new products into new applications.

**“We’re always looking at ways to cut down on our packaging, use more sustainable materials and reduce our food waste, so we’re pleased to be working towards all three of these targets with this new launch.”**  
**Jo Heywood, Waitrose Pasta Buyer**

## Courtauld Commitment 2025

The Courtauld Commitment 2025 is an ambitious ten-year commitment creating partnerships across the entire food supply chain including hospitality and food service sector, retailers, food & drink manufacturers, farmers and local authorities. Its aims to cut waste and greenhouse gas emissions associated with food and drink in the UK by at least one-fifth per capita in ten years, and reduce the impact of water use, with cumulative savings of around £20 billion. A key area of focus for the Courtauld Commitment 2025 is



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