

Helping food businesses

REFORMUL8

for a healthier future



Making waves with new lentil opportunities

Taylors Snacks are fourth-generation potato farmers who started making cracking crisps in 2009. Having teamed up with Mackie's of Scotland for 14 years, in 2023 a new era began with the launch of Taylors Snacks Ltd.

Our lentils waves are a delicious and better-for-you crunchy snack crafted in four flavours from air-popped lentils.

Lentils sound healthy...

In 2019, Taylors Snacks invested in salt roasting technology as an alternative way to expand pelleted snacks. Salt is used as a conductor of heat to expand the pellet rather than the traditional way of frying pellets for expansion.

Although the fat content in our lentil waves was naturally lower and they're an excellent source of

protein, the nutritionals weren't quite meeting the government's guide to products high in saturated fat, salt, and sugar (HFSS). It was falling somewhere inbetween which we felt was a lost opportunity.

The £5,000 we received in the fourth round of the Reformul8 Challenge Fund went towards the cost of ingredients, test packaging for a new 25g size as well as factory trials and nutritional analysis.

“This was a learning experience for us all, not least that those tiny tweaks really can make a big difference in the nutritional analysis”

**Sandra Nell,
Product Developer**

Food and Drink Federation Scotland's Reformulation for Health programme offers support to small to medium-sized companies, both FDF members and non-members. For more details, contact reformulation@fdfscotland.org.uk or visit www.fdfscotland.org.uk

CASE STUDY

What we did

We started working with our supplier on salt and sugar reduction back in 2022.

Altogether, the project took 12 months to liaise with suppliers, carry out nutritional analysis and sensory panels, and tweak flavour profile to keep in line with nutritional restrictions.

The in-house team included head of technical Gillian Black and product developer Sandra Nell, with a guiding hand from managing director James Taylor.

- the product is **salt roasted**, a healthier cooking process that naturally avoids fat as the product isn't fried
- the lentil has a nice base flavour to which the **“air popping” process** adds texture
- we looked at both the base pellet and the seasoning, but established that **reducing the salt** in the



seasoning wouldn't have had enough of an impact

- so we looked at reducing the salt in the **base pellet**, which includes the raw ingredients of lentil flour, and potato starch and salt by decreasing salt and proportionally increasing other ingredients.
- a supply mix-up opened our eyes to other solutions and to **try something new** – inspiration comes in many forms
- we managed to reduce the salt in the base pellet from 1.5g down to 0.5g, which gave scope to use a tastier seasoning, supporting our claim that **“we don't do bland”**.

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The findings

Having completed the reformulation project, we discovered:

- we discovered that the pellets could pop during the cooking process without using as much salt – a third, to be exact
- consequently, the salt content of the finished product has been reduced by around 58%, from over 2g to under a gramme.
- the results brought the lentil waves to within the Scottish Schools Nutritional Requirements
- fibre stayed the same, with a slight increase in protein levels. As we market our lentil waves as a source of protein, this was good news
- the fat level also remained the same, at around 60% less than a typical lentil snack
- measured against competitor products, the reformulated lentil waves now hold top spot for six out of eight nutritional values



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CASE STUDY

The benefits and learning points

We discovered it is still possible to deliver tasty snacks with nutritional restrictions that are not bland - our proud moment!

We've uncovered a variety of benefits from undertaking this project, that range from commercial through to employee engagement.

Health benefits: We've established the lentil waves as a **healthier snacking choice**.

They're no longer sitting in a nutritional grey area and we can really shout about the benefits that will allow us to market them as a healthy choice, a lower fat source of protein that is HFSS-compliant.

It's also brought them within the Scottish Schools Nutritional Requirements (2020).

Sales benefits: we have a new serving size to complete the range alongside the 80g sharing bag that was going into supermarket retail.

There has been **commercial opportunity** in the project as we've launched a 25g bag that is supplied wholesale to schools.

We're listed in 25 out of the 27 council authority areas, selling nearly 3,000 packs a day and considering adding a new product flavour in the next few months.

So calculated against annual sales,

this is a projected reduction of 378kg - over a third of a tonne less salt.

Team benefits: in pulling in the whole team to help with sensory panels, packaging design and keeping the production runs on time, it also proved to be a valuable exercise in **team development**.

The project did add a little pressure to what is essentially quite a small team and everyone rose to the occasion. Some were exposed to new product development - or the packing process - for the first time and developed a fresh appreciation for everything it takes to get our snacks on the shelves.

Finally, what continued to surprise us are that relatively **tiny tweaks** can make such a big difference in the nutritional analysis.

We don't do bland, so it was an educational experience in keeping the fine balance between making healthier products that keep the flavour that everyone loves.

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