

Helping food businesses

REFORMUL

for a healthier future



Building a reduced sugar oat bar

“This wasn’t just about replacing sugar, we wanted to create a product that hit the healthier eating brief without wavering on Aldomak’s commitment to great taste.”

“The project was a great opportunity to investigate new tastes and ingredients and explore different processes.”

**Marion McCormick,
Aldomak Director**

Based in Glasgow, Aldomak is a family business with 80 years of experience in the confectionery industry. We produce handmade confectionery with care and consideration. We boil, bake, cut and wrap Scotland’s favourite treats, inspired by recipes passed on by generations of crafty confectioners who made treats taste utterly delicious.

Why sugar reduction?

This project was driven by the consumer market as there is significant demand from our customers for reduced sugar products.

We are hoping to open the door to additional retail opportunities and maintain competitiveness as consumers seek healthier options.

We turned our attention to our rolled Scottish oat bars with a primary aim of reformulating a reduced

saturated fat and sugar raspberry and honey oat bar. However, as natural ingredients play such a huge part in our brand, an important secondary purpose was testing consumer acceptance of the honeyberry as a new flavour.

We received £5,000 in support from the third round of the Reformul8 Challenge Fund. This contributed to funding the cost of ingredients, our team’s time as well as the university collaboration.

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

The five-month project called on the skills of our Quality/Technical Manager Joan Craig, as well as providing an Aldomak placement for fourth year food science student, Annabelle Darling from Glasgow Caledonian University.

- **Benchmark:** we wanted to use the government’s guide to products high in saturated fat, salt, and sugar (HFSS) as a benchmark, aiming for a score of less than four (“healthy”) on the Nutrient Profile Score calculator.

Product specifications included needing a smooth, uniform appearance to the bar, keeping a low water activity level (giving a decent commercial shelf life), and keeping the product “clean label”, using as few artificial ingredients as possible.

- **Berries:** often we use seeds but these aren’t included in HFSS calculations. So as a nut-free site, we looked at different varieties of fruit, particularly Scottish soft fruit including the honeyberry.

The honeyberry is a wild Scottish berry, so looking beyond reducing sugar and fat, we believed it might be an ingredient that gave us a point of difference in the consumer market.

- **Recipes:** we experimented with different grades of fibres and starches, with inulin being used as fat and sugar replacer in the final formulation.

ALDOMAK

Handmade & Heavenly Confectionery



The recipes were trialed, with two types of bar being produced: one with raspberry and honey, one with honeyberry. Our aim was to get it as close as possible to HFSS compliance without compromising too much on taste and texture.

“We wanted to make a product that we are happy to sell,” said Joan.

“And we wanted to keep it as natural as possible, which when you’re reducing your sugars can be tricky in making sure your shelf life isn’t adversely affected.”

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The findings

As well as Aldomak's own internal sensory testing, Annabelle organised a taste panel for full sensory analysis with around 20 students, which gave us interesting insight into a younger consumer audience.

The feedback from the project found:

- the final product was high in fibre, with low enough saturated fat and sugar for the product to be classified as healthy under the HFSS calculation
- using international standards, we ascertained the nutrient content and water activity was comparable to an equivalent supermarket standard fat and sugar oat bar
- a sensory panel returned a high level of consumer acceptance for both bars, the raspberry & honey and the honeyberry
- we also established honeyberry was an acceptable flavour to consumers, and we would certainly consider further recipe development



Joan Craig

A final product is in the process of being tested for shelf-life longevity.

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CASE STUDY

The benefits and learning points

First of all, we conducted a successful product reformulation. But there were definitely useful wider learning points from the project.

Remember your market: we have a product but we're not convinced the market is quite ready for it. We now know that we can produce a fruit oat bar with a low HFSS score and additional health benefits that align well with consumer trends.

However in a competitive market with consumers unwilling to compromise on taste, we're not fully convinced customers are ready for that at the moment. But matching the non-HFSS supermarket equivalent on taste shows we are on the right track.

However we can **use the knowledge:** all the work involved has given us an improved commercial awareness beyond the theoretical experiment.

There is a lot of demand in the market for inulin as an ingredient so we can now make much more informed commercial calculations when it comes to developing new products as well as reformulating existing ones.

Also extremely helpful was the **access to facilities:** the collaboration with the university lab was great because the lack of available laboratory testing facilities is an increasing challenge for small and medium-sized businesses.

Getting access to things like predicted



The honeyberry

shelf life analysis can be very difficult these days.

It is a great opportunity to **develop the team:** from discovering new suppliers to increased understanding of the process, ingredients and chemistry involved in product development.

It's also made us look a bit more widely in terms of local, Scottish-based ingredients, and the reformulation team at FDF Scotland were incredibly helpful here. And having Annabelle as a fresh pair of eyes on what we're doing was invaluable.

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