

## OUR CLIENTS

Future in tech facilitator Allison Lawrie introduced us to mentor Sarah Beaton, of Hawkins Watts.

Sarah Beaton is a Food Technologist currently working at Hawkins Watts – a leading ingredient manufacturer to the New Zealand food industry. Sarah’s day-to-day work life involves product development, shelf life extension, quality control, customer request and updating products. Sarah has provided the team with her knowledge and Food Technology experience to provide advice and contribute ideas and improvements for the bar. We have communicated with our clients via email to organise regular meetings to consult our ideas.

## TRIALLING

### Trial One:

Original Recipe

### Trial Two:

Addition of pistachio and macadamia nuts, removal of peanut butter + honey binding agent.

### Trial Three:

Toasting of ingredients below 46 degrees.

### Trial Four:

Removal of dried fruits, addition of freeze-dried fruit, 3 flavours

### Trial Five:

Dehydrating fruits, removal of oats (gluten-free), addition of almonds to spread and prunes/dates.

Ingredients	Nutrients	Properties
Coconut	Low in cholesterol and sodium Good source of manganese	Base and Flavouring Ingredient
Walnuts	Vitamin E, antioxidant and anti inflammatory benefits	Base and Flavouring Ingredient
Almonds	Low in cholesterol and sodium Good source of riboflavin, vitamin E, magnesium and manganese	Base and Flavouring Ingredient
Pistachios	Low in cholesterol and sodium Good source of vitamin B6, copper and manganese	Base and Flavouring Ingredient
Hazelnuts	Low in cholesterol and sodium Good source of vitamin E, copper and manganese	Base and Flavouring Ingredient
Dates	Low in sodium	Binding Ingredient

Ingredients	Nutrients	Properties
Chocolate Chips	Low in cholesterol and sodium Good source of copper and manganese	Binding and Flavouring Ingredient
Hazelnuts	Low in cholesterol and sodium Good source of vitamin E, copper and manganese	Base Ingredient
Almonds	Low in cholesterol and sodium Good source of riboflavin, vitamin E, magnesium and manganese	Base Ingredient
Coconut Oil	Low in sodium, cholesterol Good source of natural fats	Binding Ingredient

Ingredients	Nutrients	Properties
Oranges	Low in saturated fat and cholesterol Good source of dietary fibre, folate and vitamin C	Flavouring Ingredient
Kiwifruit	Low in cholesterol and sodium Good source of magnesium, dietary fibre, potassium and vitamin C	Flavouring Ingredient
Pineapple	Low in sodium Good source of thiamin, manganese, vitamin B6 and vitamin C	Flavouring Ingredient
Raspberries	Low in saturated fat and sodium Good source of vitamin K, vitamin C, magnesium, manganese and dietary fibre	Flavouring Ingredient

Diocesan School for Girls Team #ROAR

By: Tayla, Sabrina, Jade and Emilee



## BRIEF

Hawkins Watts provided the team with an opportunity for us to develop a product for their company.

Develop a novel functional food product targeted at children between the ages of 5 – 12 years old. The product must be consistent with the image of a customer of Hawkins Watts – a start up food company specialising in nutritious foods for children.

The product could/must: be a single serve, shelf stable product, make a nutrition and/or health claim that you think is relevant to the target market (by fortifying your product with a chosen mineral), meet the FSANZ regulations for functional foods, be targeted at children aged 5 – 12 years old, packaging must be appropriate for a shelf stable product and attract your target market.

Specifications:

- Unbaked
- Single serve
- Gluten free
- Providing a healthy, nutritious snack bar
- Incorporate a homemade spread already on the market

## DISASSEMBLY

As a group, the decision was made to disassemble a product that was fully raw. The granola bar that was currently on the market, on the shelves in the supermarket contained low amounts of fruit and nuts, as well added sugar and artificial flavours.

Though, our product has been developed to use raw ingredients, though in terms of accessing ingredients at school, we were unable to use raw ingredients to bind our granola bar. This means that the chocolate, dates, coconut oil and prunes are the only ingredients that have been used that do not meet our ‘raw’ ingredient listings. Our product is also gluten free, and high in nutrients from ingredients used. Through the stages of development and trialing of our product, we continued to modify our recipe, adding different varieties of nuts and fruit to enhance the nutritional and flavour values.

## PACKAGING

As a team, we analysed and looked at different packaging ideas. The team decided that we would design our own original packaging, a fun play on the word ‘raw’. Since our product is targeted at 5-12 year old children we wanted to have packaging that would draw attention to this market. This was done by, the base colour of the packaging - metallic silver, followed by a bright orange and yellow logo to make up the #ROAR design, catching the eyes of our target market.

### TRIAL ONE



### TRIAL TWO



### TRIAL THREE



### TRIAL FOUR



## VACUUM FORMING

As a team, we trailed many different ways that our bar could be molded into the correct shape and size for our target market. After discussing these ways we came to the conclusion that the best way of making our bar to the size and shape we required was to trays vacuum formed to the correct dimensions. These molds enabled us to create bars that were the same size as one another that also held together when removed. Not only this, but we found that this saved time when producing the bars. Originally the bar mix was packed into a baking tin, and then cut into the desired size. Though this method did not hold the bar mixture together, giving the finished product a messy finish compared to the finish that the vacuum molds leave us with.