

Bee-Nut Bar

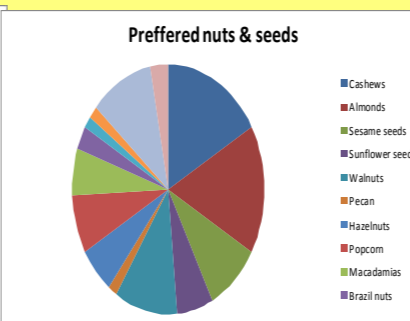
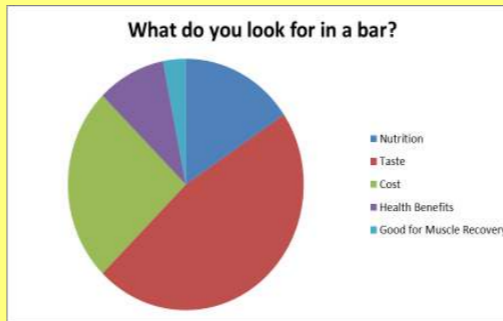
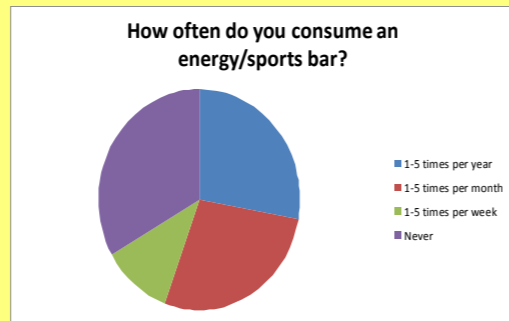
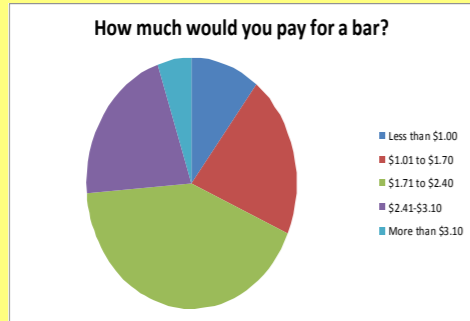
Amohia Afeaki — Kuramahaurangi Kotlowski — Poutoa Papaali — Chance Warbrick



NEED FOR OUR PRODUCT



All team members have a high interest in sports and other physical activities. As a team we know how vital the recovery process is and how important it is to have an equally balanced level of protein and carbohydrates. We found through our survey that athletes would prefer to eat an energy bar after a workout. So the challenge was given to us to develop an energy bar that will cater to their needs.



BRIEF

We developed this bar under the idea that secondary school sports athletes are not receiving the required nutrients for a good recovery. Under careful discussion we came to a conclusion that an energy bar that is moist but cost effective, high in nutrition, and has a good portion in size will be developed.



Acknowledgements: NZIFST, CREST

Hayden (Mentor),

Lee Huffman (Plant & Food research),

Jessie McKenzie (RSC)

Gay Watson (Future-In tech)

B'Dcunha (Teacher)

NUTRITION INFORMATION

Servings per package:	1.00	
Serving size:	40.00 g	
	Average Quantity per Serving	Average Quantity per 100 g
Energy	757 kJ	1890 kJ
Protein	4.1 g	10.3 g
Fat, total	10.5 g	26.2 g
- saturated	3.9 g	9.7 g
Carbohydrate	17.1 g	42.7 g
- sugars	15.3 g	38.2 g
Sodium	20 mg	51 mg

METHOD

- Conducting surveys of preferred price and ingredients etc.
- Evaluation of target market
- Research on protein serving recommendations for teenagers
- Research on health benefits and nutritional values of ingredients
- Numerous trials of bar
- Sourcing of ingredients
- Shelf life trials



DESIRABLE PRODUCT

ATTRIBUTES

- Affordable and healthy for secondary school athletes in South Auckland
- Moist (not dry and hard to eat) and crunchy
- Rich in protein at least 10g of protein for energy and enough to supply an energy boost.
- Product has a catchy, name on packaging
- Maximum of 300 calories
- Maximum of 10g sugar
- saturated fat less than 4g
- Unique jelly texture
- Long shelf life
- Use of ingredients with health benefits (honey, coconut oil)

TRIALS

- T1:** Test quantity of gelatine and citric acid needed to get desired texture and taste.
- T2:** To improve the texture and decrease the sour taste.
- T3:** To try the recipe from previous trials with some more crunchy ingredients.
- T4:** To test the texture of our gelatine, honey and oil bar WITH nuts this time.
- T5:** Tested bar with a chocolate base and a variety of nuts and seeds as we found that teenage athletes liked chocolate in their bars.
- T6:** To compare the taste of the bar WITH a chocolate base to a bar WITHOUT a chocolate base
- T7:** To form a recipe with ingredients measured in grams to improve the accuracy.
- T8:** Trialled bar with coconut oil and more nuts to have a consistency of nuts throughout the bar.
- T9:** Trial a bar made with canola oil (instead of coconut oil) with the bar made from trial 8b. This will determine our final recipe.

RECIPE

Our initial idea for the recipe for our bar was to find the right type of nuts as well as dried up fruit that taste good together. We ended up trialling several different recipes. The ingredients ranged from sunflower seeds to banana chips and dried apple. After our visit to Hayden's Boosta factory we came up with the idea to incorporate his bar with our nut bar but instead of using pectin we used gelatine. We trialled multiple recipes to find the right proportion of water to gelatine and honey. We then added nuts that we found went good together and had high nutritional values.