

## TEAM MEMBERS

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# YOGO

Students are from  
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## INTRODUCTION

There is an increasing number of female teenagers skipping important meals such as breakfast, because of the lack of time. Without an adequate meal, research has suggested that it can make learning harder for students. To solve this largely increasing problem, we have decided to create a protein-enriched yoghurt drink that is convenient to drink on the go.

## OPPORTUNITY

In the current New Zealand market, there is a large absence of drinkable yoghurts. The creation of a yoghurt drink could potentially fill this gap and could appeal to the New Zealand market, as it does in global markets like China.

## AIM

To develop a protein enriched yoghurt drink for teenagers. The product must be highly nutritious, and contain a substantial amount of energy and protein that growing teenagers need. Additionally, the drink should be convenient to take and consume on the go.

## SENSORY TEST RESULTS



## FURTHER WORK

- To increase profitability, we would create our own yoghurt instead of using pre-made commercial yoghurt.
- Address the issue of chia seeds, by finding the right quantity that does not cause the drink to solidify.
- Substitute the added sugar with a natural alternative of stevia or Manuka honey.
- Use high methyl pectin. This would improve the drinks shelf stability.

## CONCLUSION

In conclusion, we were able to achieve our aim of creating a convenient, protein enriched drink for teenage girls that contributes to the recommended daily intake of protein. Our final formulation, consisted of 4.5% protein and 2.5% sugar. This is considered a high amount of protein and a low amount of sugar, allowing us to market the product as "high protein" and "low in sugar". The drink has a strawberry flavour, enjoyed by many people. We made sure that the drink was small and convenient. We believe that our product could successfully fill the gap in the drinkable yoghurt market, and sell well.

## TRIALS

Throughout the process of this investigation we conducted a 7 trials, which allowed us the right attributes that would be enjoyed by teenagers. These trials looked at:

- Consistency - water : yoghurt ratios
- Protein levels - milk powder
- Texture - chia seeds
- Flavour - strawberries

## SENSORY TEST FORMUALTIONS

Ingredients	Yoghurt 1	Yoghurt 2	Yoghurt 3	Yoghurt 4
	Weight			
Yoghurt	54.9g	40.0g	54.9g	40.0g
Strawberries	16.0g	16.0g	16.0g	16.0g
Strawberry Essence	2 tsp	2tsp	2tsp	2tsp
Water	29.1g	39.9g	24.1g	34.9g
Caster Sugar	0g	0g	5.0g	5.0g
Skim Milk Powder	0g	4.1g	0g	4.1g

## DISCUSSION

The sensory testing allowed us to receive feedback on our product from our target market and also enabled us to evaluate what needed to be done to improve our product.

From our sensory results, we noticed that the majority of our participants preferred Yoghurt 3. This is shown by the graph "Favourite Yoghurt Drink" where 15 out of 18 people preferred Yoghurt 3. Also from the graph, there were 3 participants that liked the addition of the skim milk powder in Yoghurt 2.

Although both of these factors were present in Yoghurt 4, the "Taste of Yoghurt" graph showed us that 13 out of 19 participants believed that the taste was terrible/alright. Comments from the sensory testing showed us that it was too sweet.

To improve our final product, a formulation that combined both aspects of Yoghurt 2 and 3 was formulated. This formulation contained half the amount of added sugar of 3% (3 g per 100 grams) and had an increased amount of strawberries in it. This was done due to feedback from the testing suggesting that we add more strawberries.

## FINAL FORMULATION

Ingredients	Weight
Yoghurt	40.0g
Strawberries	25.0g
Strawberry Essence	2 tsp
Water	27.9g
Caster Sugar	3.0g
Skim Milk Powder	4.1g



## MARKETING

The product would be sold in a 500ml opaque bottle made out of biodegradable plastic. It would have opaque packaging, as this would stop consumers seeing the natural separation that occurs between the yoghurt and the added protein.

The total cost of ingredients for one 500ml bottle would roughly be \$4.47, with packaging at \$0.25. This brings the total manufacturing price to \$4.72 each. To create a profit, the product would need to be marketed at around \$6.

The label will display the nutritonal content and that it is "High in Protein".



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