

FRO-YO TO-GO



INTRODUCTION TESTING

A growing food trend is the increased demand for quality convenience products that are quick and healthy with a homemade quality to them.

AIM

To develop a novel, single-serve frozen yoghurt for school children and teenagers to complement Kapiti's existing product range. The product must not contain any artificial colours or flavours, be free from peanuts and tree nuts, and must contain live probiotic.

We ran nine trials to come up with a final recipe. We started with commercial yoghurt and moved on to using ABT culture to make our own yoghurt.

We ran a sensory testing panel to find out how our product was in the opinion of our target age range.

25 participants completing our sensory testing.

We had two variations of our product for them to test. In between tests they were given and consumed a water cracker to cleanse their palate.

Participants marked their satisfaction in each category on a 14 cm scale. From analysing the survey results we can conclude that test 2 was generally more popular than test 1.

DISCUSSION

Our main focus was to develop a frozen yogurt that contained no added refined sugar. The point of difference would also fit with the aim of developing a product for school children and teenagers, by providing a snack that is more nutritional than similar products. Possible sugar alternatives were fruit, honey, pure maple syrup, coconut sugar, molasses and brown rice syrup. To fit in with the Kapiti range, we thought using Manuka honey which could emphasize the idea of Kiwiana themed frozen yogurt.

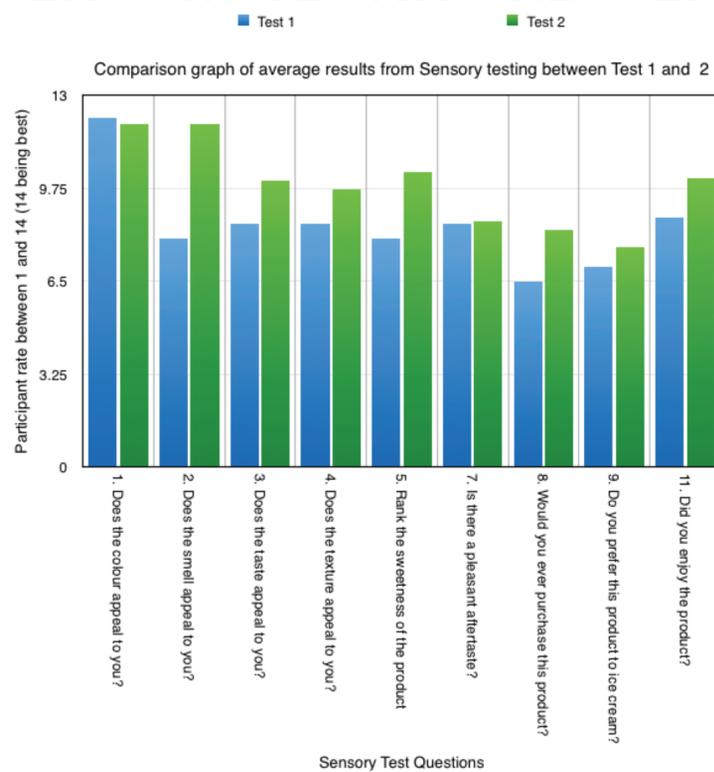
We found out that the creamier a frozen dessert is, the more fat and sugar it contains. Store bought frozen desserts generally have more air whipped into them, as well as thickeners and emulsifiers to help keep them creamy, and certainly a high amount of added sugar.

The results of having honey in our product as an alternative to sugar were great. We used the idea of an 'ice-block' style package. By freezing the yogurt in an ice-block shape with a stick in, this made a nice snack style product, and the hardness of our product worked perfectly as a lickable ice-block! It also fitted well with the name of the product - 'FroYoToGo', as an ice-block can be had anywhere on the go. We tested this by freezing small amounts in an ice cube tray.

OPPORTUNITY

This year Kapiti celebrates 30 years of being a renowned NZ Dairy Company. We have decided to create a product that is iconic and representative of New Zealand's tradition and culture.

SENSORY TESTING RESULTS



OUTCOME

Test 1 contains:

Yoghurt	1L
Manuka Honey	½ c
Boysenberries	63 g
Blueberries	63 g
Blackberries	63 g
Raspberries	63 g
Bananas	4
Water(for berries)	20mL

Test 2 contains:

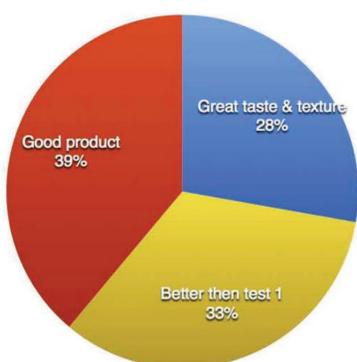
Yoghurt	1L
Manuka Honey	¼ c
Glucose syrup	¼ c
White sugar	¼ c
Banana	4
Blackberries	63 g
Blueberries	63 g
Boysenberries	63 g
Raspberries	63 g
Water(for berries)	20mL

ANALYSIS

12) Improvements and comments TEST 1



12) Improvements and comments TEST 2



CONCLUSION

In conclusion, we have achieved our aim as we succeeded in developing a single serve probiotic frozen yoghurt dessert. The product is marketed towards children and teenagers, as the flavour combination appeals to them. The yoghurt provides a rich source of calcium, which will help strong bones and teeth during puberty, and lowers the chance of osteoporosis in the future. Our point of difference in our product is no added sugar, and uses the creaminess and natural sweetness of NZ manuka honey. We think that our product could successfully fill the gap in the frozen yoghurt market, and sell well.

FURTHER WORK

In our frozen yoghurt product we would like to address the issue of crystallization, as we have found that our product freezes and crystallizes, and therefore becomes very hard, with a somewhat unpleasant texture. We think we can fix this by depressing the freezing point of our product, and also adding an emulsifier. This would also help make the product creamier and therefore hopefully more complimentary of the existing Kapiti range. We have come up with the idea of creating a 'kiwiana' flavour in order to further compliment the existing NZ Kapiti range.

PACKAGING

Waxed card tubes are functional, biodegradable and good on the go.



- single-serve frozen yoghurt
- contains live probiotic
- no artificial colours or flavours
- peanut free

REFLECTION

We are pleased with the product we created and have acknowledged our next steps towards improving our product. We have learnt a lot from this process that we will take with us in our further science and food technology endeavours. All round, it has been a very rewarding experience and has inspired us to continue to develop our frozen yoghurt product.

Acknowledgments:

