ISSUE

Around one third or 30% of New Zealand children are overweight or obese. Modern diets, especially fastfoods, include large amounts of sugar and salt. Through research, we identified a gap in the market for a healthy, low sugar alternative to the range of sauces presently available.

AIM

To successfully develop a versatile, shelf stable, vegetable based sauce, which is low in sugar that targets health conscious families and children. It should be a healthier sauce alternative for consumers looking to improve their diets through the reduction of sugar and salt.

METHOD

Conduct market research on existing tomato sauces and other sauce products both in New Zealand as well as internationally and identifying a gap in the market, brainstorming possible products ideas

Disassemble and analyse existing sauces to identify and compare packaging and nutritional attributes

Research trends and future trends relating to health statistics and prevention

Develop initial concepts and ideas followed by surveys to gain opinions to evaluate our initial products

Further extensive experimentation contributing to the development of our product with vegetables, ingredients, consistency and flavours

Client feedback on final products and survey to choose one product to proceed with

Scientific research including food preservation, microbial testing, viscosity testing and pH testing

Research and development of packaging, labels and branding

Final formulation of sauce produced in official packaging and sealed

Client and target market final sensory evaluation

SPECIFICATIONS

- Shelf Stable
- Versatile
- Health star rating above 3.0
- Low sugar and salt
- Appealing to target market (children)

CHALLENGES

- Adding a variety of vegetables without negatively impacting the colour of our base tomato sauce
- Creating a sauce that is appealing to both children and their parents as well as other individuals looking to make health conscious diet decisions
- Designing packaging directed at children whilst being appealing to parents (the purchasers) and adults
- Getting our basic sauce recipe to form and thicken after reducing sugar

FINAL OUTCOME

We developed a shelf stable, versatile, vegetable based sauce which is low in sugar and salt. Our product met a 3.5 health star rating which is above our minimum requirement set in our criteria. Our sensory evaluation showed the product to be visually appealing, as well as being rated highly in taste, satisfying our target market.

Nutrition Information

<table>
<thead>
<tr>
<th>Nutrition Information</th>
<th>Average Quantity per Serving</th>
<th>Average Quantity per 100 g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>81 kJ (18.00 kcal)</td>
<td>344 kJ (78 kcal)</td>
</tr>
<tr>
<td>Protein</td>
<td>0.5 g</td>
<td>2.2 g</td>
</tr>
<tr>
<td>Fat</td>
<td>0.2 g</td>
<td>0.9 g</td>
</tr>
<tr>
<td>Total Fat, saturated</td>
<td>0.0 g</td>
<td>0.1 g</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>3.3 g</td>
<td>12.8 g</td>
</tr>
<tr>
<td>Sugar</td>
<td>3.2 g</td>
<td>12.8 g</td>
</tr>
</tbody>
</table>

Students Involved: Briana Lyons, Jemima Peck Emily Crosse
Teacher: Margie Ellis Mentor: Sandra Chambers
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