

External assessment

Stimulus book

Food & Nutrition

General instruction

- Work in this book will not be marked.

Stimulus 1

Research and development: Test kitchen report

The Food Kit Company developed three prototype formulations in its test kitchen. The company then tested the prototype formulations and conducted other research. This report outlines the results of the testing and other research.

Prototype formulations developed for the nutrition consumer market of consumers experiencing diabetes

- Prototype formulation 1: Sticky pork with Hokkien noodles
- Prototype formulation 2: Chicken Madras with steamed jasmine rice
- Prototype formulation 3: Shepherd's pie

Research into consumer trends

1. Popularity of ready-to-prepare meal kits

The provision of ready-to-prepare meal kits for specific consumers is on the rise, making it easier for consumers to prepare healthy and nutritious meals.

2. Fresh is healthier

Consumption of fresh fruit and vegetables is increasing as consumers consider healthier fresh food options.

3. More variety in wholegrain food products

This greater variety has seen increased consumer consumption of wholegrain food products.

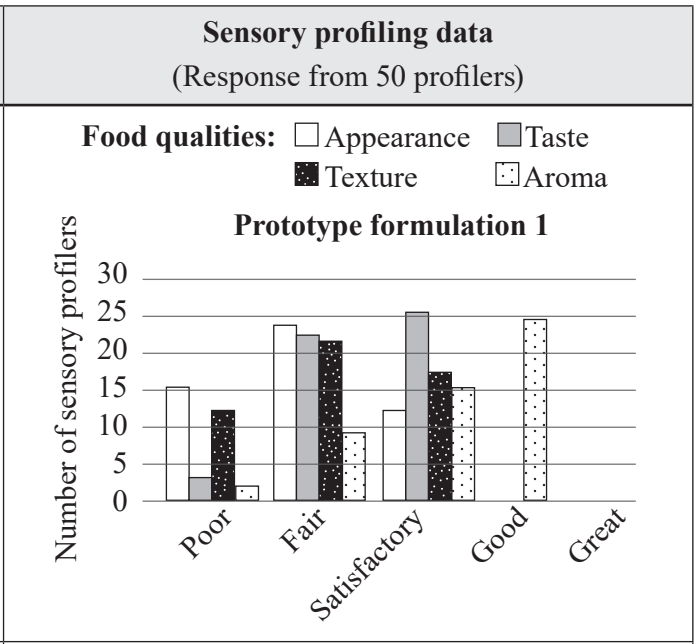
Considerations required for meals for consumers experiencing diabetes

The glycaemic index (GI) ranking of food components was used to determine the suitability of specific foods for consumers experiencing diabetes.

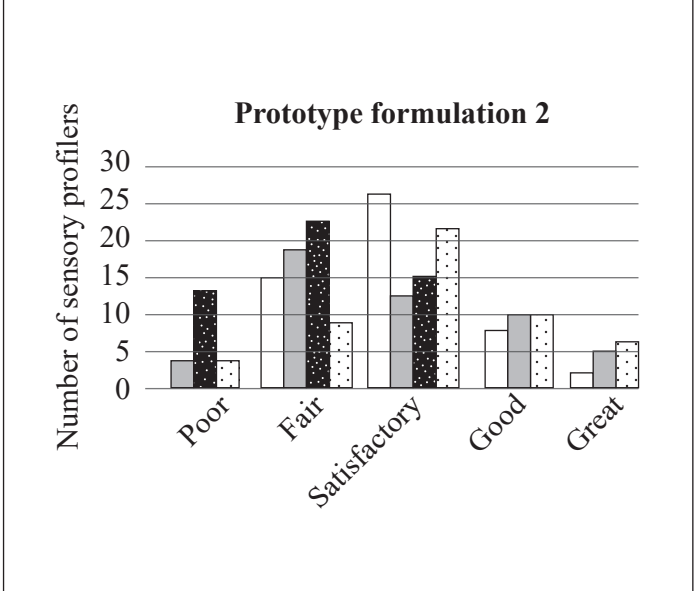
	Low-GI examples	Medium-GI examples	High-GI examples
Bread	fruit bread, low-GI white bread, mixed-grain bread, sourdough rye bread, sourdough wheat bread	croissants, crumpets, pita bread, taco shells, wholemeal bread	bagels, French baguette, gluten-free white bread, white bread
Grains	brown rice, instant noodles, pasta, quinoa, ravioli, rice noodles, rice pasta, semolina	couscous, gnocchi, Hokkien noodles, long-grain white rice, basmati rice	congee, corn pasta, glutinous rice, instant white rice, jasmine rice, short-grain white rice, tapioca
Vegetables	broccoli, celery, mushrooms, onion, snow peas, sweet corn, sweet potato, taro, tomato, yam, zucchini	baked potatoes, beetroot, pumpkin	carrot, parsnip, white potato
Legumes	kidney beans, lima beans, soybeans, chickpeas, lentils	baked beans in tomato sauce	broad beans
Fruit	apples, apricots, cherries, grapefruit, grapes, oranges, peaches, pears, plums, coconut milk	bananas, figs, mangoes, pawpaw, pineapple, rockmelon, sultanas, coconut sugar	dates, lychees, watermelon
Dairy	custard, milk, soy milk, yoghurt	condensed milk, ice cream	rice milk

	Food components	Procedure
<p>Prototype formulation 1</p> <p>Sticky pork with Hokkien noodles</p> <p>Consumer preparation time: 35 minutes</p> <p>Servings per package: 4</p> <p>Serving size: 350 g</p>	<p>5 g kecap manis sachet</p> <p>20 g coconut sugar sachet</p> <p>5 g fish sauce</p> <p>500 g pork fillet, thinly sliced</p> <p>20 g coconut oil</p> <p>1 red onion, cut into wedges</p> <p>1 bunch broccolini, cut in half</p> <p>20 g chopped fresh ginger</p> <p>2 garlic cloves, thinly sliced</p> <p>1 stick lemongrass, chopped</p> <p>1 long fresh red chili, thinly sliced</p> <p>200 g snow peas, trimmed</p> <p>1 zucchini, cut into strips</p> <p>500 g Hokkien noodles</p>	<ol style="list-style-type: none"> 1. Cook noodles according to packet instructions. 2. To make marinade, combine the kecap manis, coconut sugar and fish sauce. Add pork and stir to coat. Set aside for 15 minutes. 3. Drain pork and reserve the marinade. Heat half of the oil in a wok over high heat and stir-fry the pork until browned. Rest the pork. 4. Heat remaining oil in wok. Add vegetables, herbs and spices. Stir-fry until aromatic. Add reserved marinade and stir-fry until vegetables are tender-crisp. 5. Add the pork fillet and noodles. Stir until combined.
<p>Prototype formulation 2</p> <p>Chicken Madras with steamed jasmine rice</p> <p>Consumer preparation time: 35 minutes</p> <p>Servings per package: 4</p> <p>Serving size: 400 g</p>	<p>40 g olive oil</p> <p>1 brown onion, diced</p> <p>1 cinnamon stick</p> <p>20 g ginger, finely chopped</p> <p>2 garlic cloves, chopped</p> <p>2 curry leaves</p> <p>2.5 g turmeric sachet</p> <p>2.5 g cumin sachet</p> <p>2.5 g coriander sachet</p> <p>2.5 g garam masala sachet</p> <p>pinch of cayenne pepper</p> <p>550 g chicken thigh fillets, cut in half</p> <p>2 tomatoes, roughly chopped</p> <p>250 g jasmine rice</p> <p>420 g coconut milk</p>	<ol style="list-style-type: none"> 1. Heat oil in a large saucepan. Cook onion and cinnamon, stirring frequently until golden brown. 2. Add all spices. Cook for 5 minutes, stirring constantly. 3. Add chicken and cook, stirring to coat in spice mixture. Add tomatoes and cover. Cook until chicken is tender and the tomatoes have broken down. 4. Cook rice according to packet directions. 5. Add the coconut milk to the chicken and stir to combine. Simmer for 1–2 minutes.
<p>Prototype formulation 3</p> <p>Shepherd's pie</p> <p>Consumer preparation time: 35 minutes</p> <p>Servings per package: 4</p> <p>Serving size: 300 g</p>	<p>20 g extra virgin olive oil</p> <p>1 brown onion, finely chopped</p> <p>2 garlic cloves, crushed</p> <p>1 carrot, finely diced</p> <p>1 celery stalk, finely diced</p> <p>20 g fresh rosemary leaves, finely chopped</p> <p>300 g lamb mince</p> <p>200 g cooked lentils</p> <p>40 g plain flour</p> <p>5 mL Worcestershire sauce</p> <p>20 g tomato paste sachet</p> <p>500 mL beef stock</p> <p>2 potatoes, peeled, chopped</p> <p>125 g milk</p> <p>20 g butter sachet</p>	<ol style="list-style-type: none"> 1. Heat oil in a frying pan. Add onion, garlic, carrot and celery. Cook, stirring, until softened. 2. Boil, then mash potatoes, adding milk and butter until smooth. Set aside. 3. Add rosemary to frying pan. Cook until fragrant. Increase heat and add mince. Cook, stirring to break up mince. Add lentils and cook for further 2 minutes. 4. Add flour, Worcestershire sauce and tomato paste and cook, stirring, for 1 minute. Add stock. Bring to the boil. Reduce heat to low. Cook until thickened. 5. Spoon mince mixture into baking dish. Top with mash. Bake at 180 °C until golden.

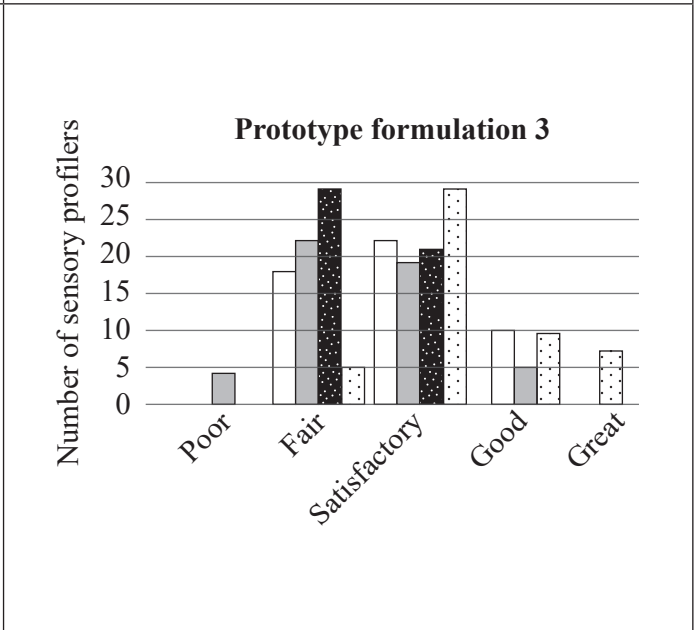
Nutrition information panel		
	Average quantity per serving	Average quantity per 100 g
Energy	1113.7 kJ	318.2 kJ
Protein	35.7 g	10.2 g
Fat, total	7 g	2 g
– saturated	4.9 g	1.4 g
Carbohydrate	18.9 g	5.4 g
– sugars	11.9 g	3.4 g
– fibre	7 g	2 g
Sodium	624.75 mg	178.5 mg



	Average quantity per serving	Average quantity per 100 g
Energy	2820 kJ	705 kJ
Protein	35.7 g	8.9 g
Fat, total	28.6 g	7.2 g
– saturated	9.1 g	2.275 g
Carbohydrate	16.4 g	4.1 g
– sugars	3.6 g	0.9 g
– fibre	3.5 g	0.875 g
Sodium	79 mg	19.8 mg



	Average quantity per serving	Average quantity per 100 g
Energy	2166 kJ	722 kJ
Protein	33.6 g	11.2 g
Fat, total	20.1 g	6.7 g
– saturated	7.2 g	2.4 g
Carbohydrate	38.4 g	12.8 g
– sugars	4.8 g	1.6 g
– fibre	5.0 g	1.67 g
Sodium	942 mg	314 mg



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