

External assessment 2024

Stimulus book

Food & Nutrition

General instruction

- Work in this book will not be marked.



Queensland
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Stimulus 1

Test kitchen report

A food company has developed three prototype formulations for ready-made meals for the nutrition consumer market (NCM) of overweight or obese consumers with food allergies or intolerances. The company has researched current consumer trends for this NCM and locally grown crops. The company has also tested the three prototypes with consumers in this NCM. The results are outlined in this report.

Prototype options

- Prototype 1: Creamy chicken with quinoa
- Prototype 2: Tuna and lentil bolognese with rice noodles
- Prototype 3: Moroccan mince with fruity rice

Current consumer trends for the NCM

- Trend 1: increased focus on local foods
Consumers are concerned about where their food comes from and understand that supporting local industry can reduce food miles.
- Trend 2: strong demand for minimally processed foods
Consumer demand for minimally processed food is driven by the belief that less processed foods are healthier.
- Trend 3: desire for affordable food
Consumers are price conscious when purchasing food.

Crops commonly grown in Queensland

- Grains: wheat, barley, canola, rice
- Nuts: peanuts, macadamias
- Legumes: lentils, peas, chickpeas, soybeans
- Vegetables: lettuce, tomatoes, garlic, onions, broccoli, spinach
- Other: sunflowers, sugar cane

Prototype 1: Creamy chicken with quinoa

	Food components	Procedure
4 servings Cost per serve: \$8.95	500 g chicken breast fillets, cubed 10 mL olive oil 200 g onions, diced 200 g mushrooms, sliced 10 g garlic, minced 2 g black pepper 110 g cream cheese 60 mL chicken stock 125 g cheddar cheese, grated 160 g quinoa 240 mL water, boiling	<ol style="list-style-type: none"> 1. Heat the oil in a pan and brown the chicken. Remove from pan. 2. Sauté the onions, mushrooms and garlic until tender. 3. Return the chicken to the pan. 4. Add combined cream cheese, pepper and chicken stock. Stir until smooth. 5. In another pan, add the quinoa to the boiling water. Turn the heat down and simmer for 10 minutes with the lid on. 6. Serve the chicken mixture with the quinoa. 7. Top with grated cheese.

Prototype 2: Tuna and lentil bolognese with rice noodles

	Food components	Procedure
4 servings Cost per serve: \$7.50	400 g tinned tuna (in water) 50 g red lentils 20 mL olive oil 400 g diced tinned tomatoes 200 g onion, diced 10 g garlic, minced 250 mL vegetable stock 50 g celery, diced 20 g basil, finely shredded 200 g rice noodles	<ol style="list-style-type: none"> 1. Heat the oil in a pan and sauté the onion, garlic and celery. 2. Add red lentils, tinned tomatoes and drained tuna. 3. Add vegetable stock. Cover and simmer for 10 minutes. 4. Stir through the shredded basil. 5. Place rice noodles in boiling water. Cook for two minutes then drain. 6. Top noodles with tuna sauce.

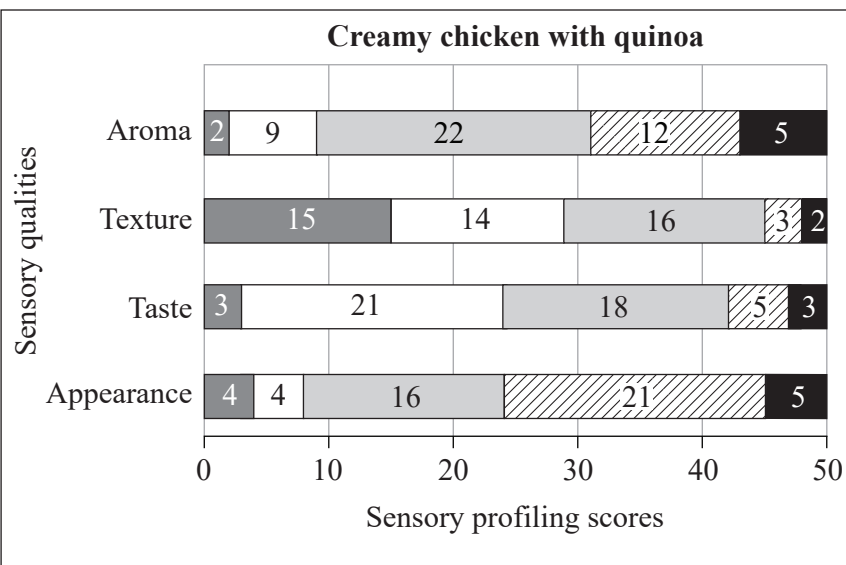
Prototype 3: Moroccan mince with fruity rice

	Food components	Procedure
4 servings Cost per serve: \$8.00	500 g beef mince 20 g Moroccan seasoning (coriander, cumin, paprika, turmeric, sea salt, garlic salt) 10 mL olive oil 200 g onion, diced 400 g diced tinned tomatoes 125 g brown rice 300 g spinach leaves 40 g dried apricot, diced 375 mL chicken stock 40 g almonds, chopped	<ol style="list-style-type: none"> 1. Heat the oil in a pan and sauté the onion until tender. 2. Add mince and brown. 3. Add Moroccan seasoning and tinned tomatoes. Simmer for 10 minutes. 4. Cook rice in chicken stock until all the stock has been absorbed. 5. Stir through the spinach leaves, diced dried apricot and chopped almonds. 6. Serve the Moroccan mince over the fruity rice.

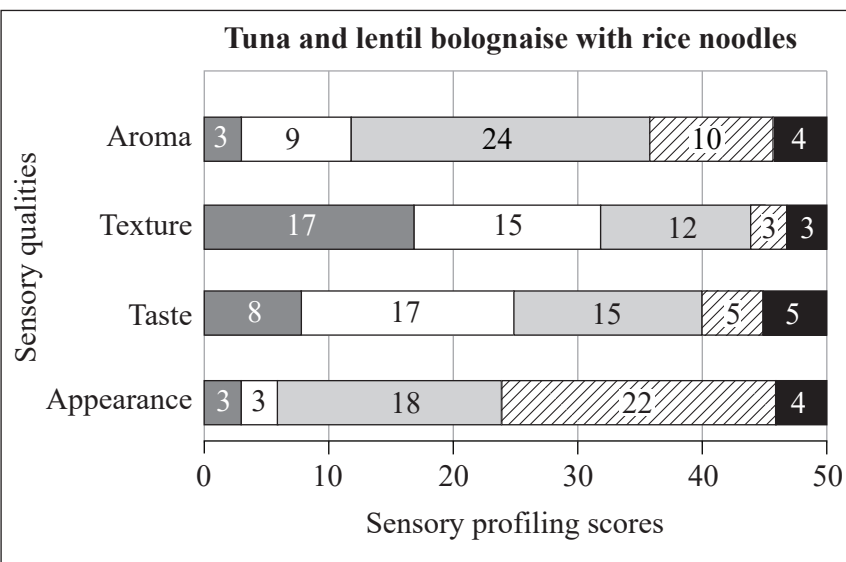
Sensory profiling data (50 profilers)

Key  poor  fair  satisfactory  good  excellent

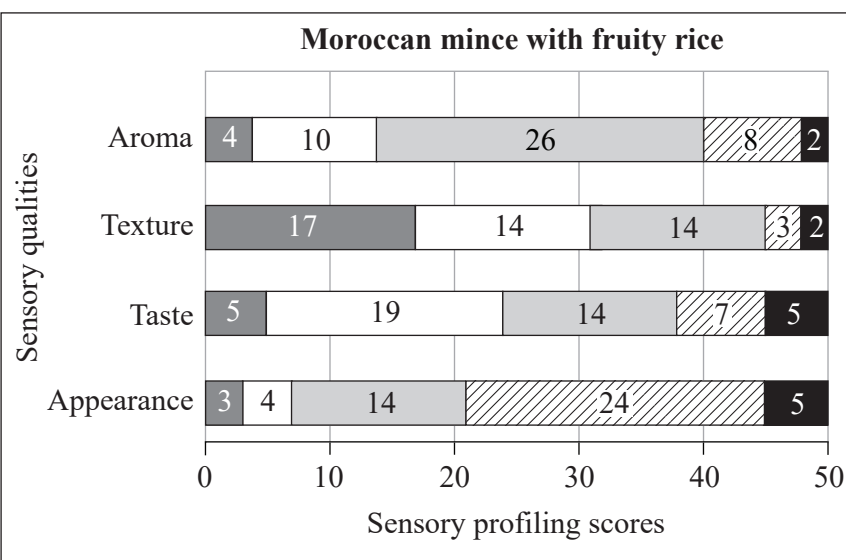
Nutritional information



Prototype 1 4 serves	Per serve 350 g	Per 100 g
Energy	2250 kJ	643 kJ
Protein	25.9 g	7.4 g
Fat, total – saturated	23.8 g 15.4 g	6.8 g 4.4 g
Carbohydrate – sugar	23.4 g 4.9 g	6.7 g 1.4 g
Fibre	1.2 g	0.3 g
Sodium	518 mg	148 mg



Prototype 2 4 serves	Per serve 350 g	Per 100 g
Energy	2100 kJ	600 kJ
Protein	15.1 g	4.3 g
Fat, total – saturated	13.3 g 2.3 g	3.8 g 0.7 g
Carbohydrate – sugar	62.0 g 6.7 g	17.7 g 1.9 g
Fibre	10.8 g	3.1 g
Sodium	395 mg	113 mg



Prototype 3 4 serves	Per serve 400 g	Per 100 g
Energy	2340 kJ	585 kJ
Protein	32.0 g	8 g
Fat, total – saturated	11.2 g 6.0 g	2.8 g 1.5 g
Carbohydrate – sugar	75.6 g 8.4 g	18.9 g 2.1 g
Fibre	9.2 g	2.3 g
Sodium	800 mg	200 mg

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