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Supporting document 3

FSANZ's Consumer Insights Tracker

Application A1269 - Cultured quail as a novel food

Executive summary

The Consumer Insights Tracker (CIT) is an online survey of 1,237 Australian and 810 New Zealand consumers aged 18+ years. It is based on a nationally representative sample by the interlocked quotas of age, gender and location. The CIT consisted of approximately 40 quantitative questions, four of which measured consumers' awareness, safety perceptions and consumption intentions regarding cell-cultured meat. The key findings from the CIT relating to cell-cultured meat are outlined below.

Consumers' generally have low levels of awareness of cell-cultured meat, as most consumers (74%) have either never heard of cell-cultured meat or have heard of it but know very little or nothing about it. This is not surprising, given that cell-cultured meat is currently not available for sale in Australia and New Zealand. Although most consumers (62%) are currently not confident in the safety of cell-cultured meat, more than half of consumers (52.3%) are at least open to being persuaded to try it. Of those that said they would readily incorporate cell-cultured meat into their diets (23.6%), most (50.5%) stated that cell-cultured meat would partly replace traditional meat in their diet.

It is important to note that results from the CIT only represent a single snapshot in time. Consumers' consumption intentions regarding cell-cultured meat could therefore change as they become more familiar with the product.

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1. Introduction

In April 2023, FSANZ commissioned PureProfile to conduct a quantitative survey of consumers in Australia and New Zealand (the Consumer Insights Tracker; CIT). The CIT consisted of approximately 40 questions that measured the following:

- Consumer’s trust and confidence in the food supply and in FSANZ;
- Consumer’s use, understanding, and trust in food labelling;
- Consumer’s attitudes and consumption behaviours around new and emerging foods; and
- Consumer’s food safety understanding and behaviours.

This document provides an overview of the methodology and key findings of the CIT relevant to Application A1269. The term ‘cell-cultured’ meat is used throughout this document (consistent with the CFS and other supporting documents for A1269). However, note that cell-cultured meat was described to participants as “cell-based meat (that is, meat produced from animal cells, sometimes referred to as ‘lab-grown meat’)” in the CIT (see Methods section).

A complete report outlining the full methodology and all findings from the CIT will be released by the end of 2023.

2. Methods

2.1 Sampling

1,237 Australians and 810 New Zealanders aged 18 years and over were recruited for this survey via PureProfile’s online market research panel. PureProfile is an Australian company with a subsidiary in New Zealand that has 400,000 panel members in Australia and 150,000 in New Zealand. The sample was nationally representative by the interlocked quotas of age, gender and location. We also obtained a good spread of different levels of education and equivalised household income¹ (via use of separate quotas). The sample also included a slight oversampling of Aboriginal and Torres Straight Islanders in Australia (4.9%) and of Māori in New Zealand (17.9%). A more detailed overview of the key demographics of the participants is provided in the Appendix.

2.2 Development of survey questions

The survey instrument was developed by FSANZ’s social scientists with extensive internal and external consultation, including with international food regulatory agencies who have experience in running similar surveys, and an academic with statistical expertise. In order to ensure its comprehension and usability, the survey instrument was cognitively tested with a sample of 15 consumers from diverse cultural backgrounds. After being revised in response to the findings, it was then piloted with a sample of 120 consumers before finally being fully implemented.

The following four survey questions were included in the final survey instrument that are of relevance to Application A1269:

¹ Equivalised annual household income is an adjusted measure that takes into account the size of the household and the age of its members. Equivalised annual household income was calculated according to the [OECD-modified equivalence scale](#) using the average income for each income bracket response option.

1. Have you **heard of** any of the following new or emerging foods?
 - Cell-based meat (that is, meat produced from animal cells, sometimes referred to as 'lab-grown meat')
(Response options: 0 = I have never heard of this before today, 1 = I have heard of it, but know very little or nothing about it, 2 = I have heard of it and know something about it but not enough to explain it to a friend, 3 = I have heard of it and know enough about it that I could explain it to a friend)

2. Thank you, now we would like to know how **confident** you would be in the **safety** of the following foods if you saw them for sale in Australian/New Zealand shops and supermarkets?
Even if you have never heard of these foods before today, please base your answer on how you would react if you saw it for sale in your local shops or supermarket in [Australia/New Zealand].
 - Cell-based meat (that is, meat produced from animal cells, sometimes referred to as 'lab-grown meat')
(Response option: 7 point likert scale, where 1 = "not confident at all; 7 = "Completely confident")

3. Assuming you liked the taste and the product was a similar price to meat and/or meat alternatives, do you think you would include cell-based meat in your diet?
Cell-based meat is meat produced from animal cells, sometimes referred to as 'lab-grown meat.'
(Response options: Yes, no, can't say/don't know).

4. [Asked to those who answered Yes to previous question]:
How do you think you would include cell-based meat in your diet? (Please select all that apply).
Note: Traditional meat refers to farm-raised beef, chicken, or pork, and plant-based proteins refers to plant-based meat alternatives (e.g. vegan 'mince' or 'sausage'), tofu, and/or lentils etc.
 - Completely replace traditional meat
 - Partly replace traditional meat
 - Consume in addition to traditional meat
 - Completely replace plant-based proteins
 - Partly replace plant-based proteins
 - Consume in addition to plant-based proteins
 - Other (Please specify)
 - Can't say/don't know

2.3 Analysis

Descriptive statistics (percentages, means, standard deviations) are reported where appropriate. For continuous data, an independent samples t-test with a bootstrapping procedure was used to determine whether there were any significant differences between Australia and New Zealand. Analyses were carried out using IBM SPSS Statistics software, Version 28.

3. Results

3.1 Consumers' awareness of cell-cultured meat

Consumers' generally have low levels of awareness of cell-cultured meat. As shown in Figure 1, most participants (74%) either had never heard of cell-cultured meat (35%) or had heard of it but knew very little or nothing about it (39%).

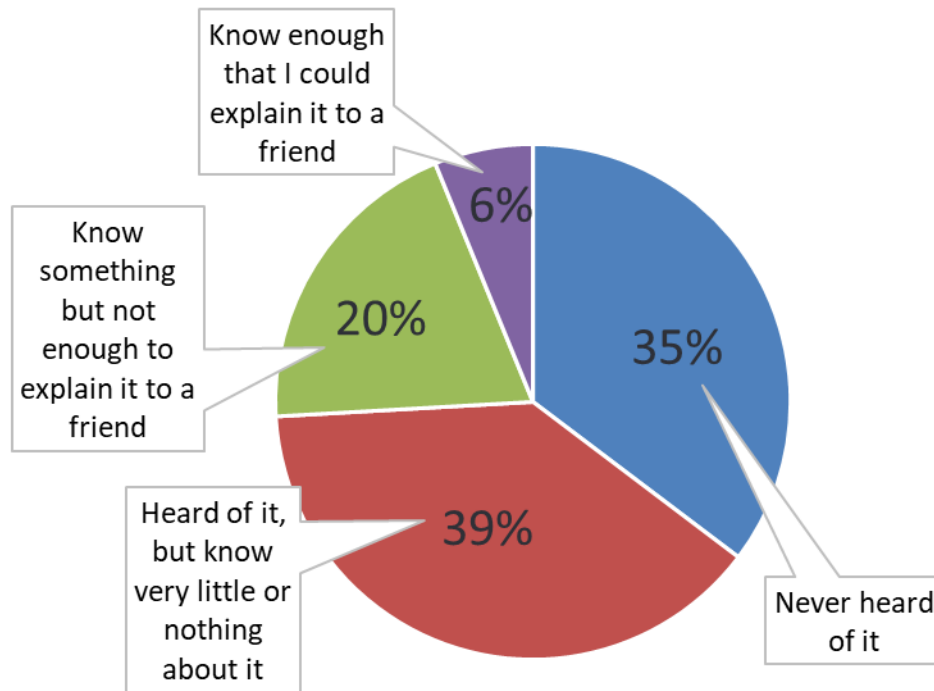


Figure 1 Percentage of participants that selected each response when asked whether they had heard of cell-cultured meat.

3.2 Consumers' perceptions of the safety of cell-cultured meat

Most consumers (62%) would not be confident in the safety of cell-cultured meat if it became available for sale in Australian/New Zealand shops and supermarkets. Figure 2 shows the percentage of participants who selected each option in response to this question, for both Australia and New Zealand. Although Australians were significantly more confident in the safety of cell-cultured meat ($M = 3.00$, $SD = 1.70$), compared to New Zealanders ($M = 2.84$, $SD = 1.65$; $t(2045) = 2.13$, $p = 0.034$), both countries generally had low levels of confidence (i.e., tended to select below the midpoint of the scale).

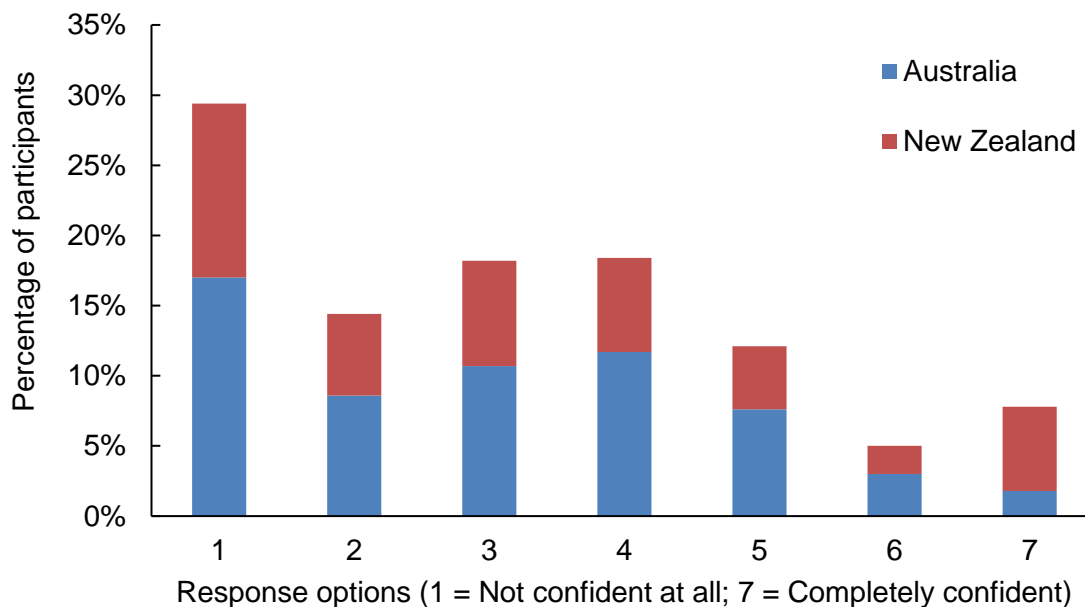


Figure 2 Percentage of participants that selected each response when asked whether they were confident in the safety of cell-cultured meat if it became available for sale.

3.3 Consumers' consumption intentions regarding cell-cultured meat

Only 23.6% of consumers said that they would include cell-cultured meat in their diet. 28.7% said that they were unsure, and 47.7% said that they would not include cell-cultured meat in their diet. This indicates that just over half of consumers (52.3%) are at least open to being persuaded to try it.

Of those that said they would include cell-cultured meat in their diet, most (50.5%) said that cell-cultured meat would partly replace traditional meat. Figure 3 shows the percentage of participants that selected each response option when asked how they would incorporate cell-cultured meat into their diet. Note that only participants who previously indicated that they would include cell-cultured meat in their diet were asked this question, and participants could select more than one response option.

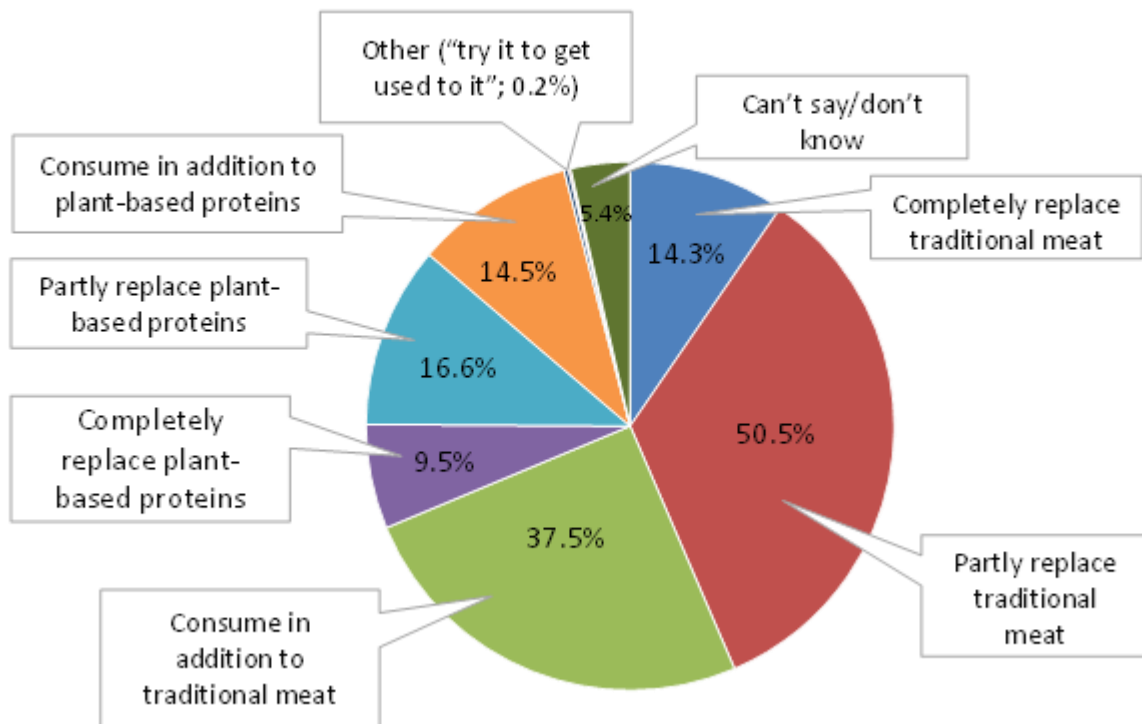


Figure 3 Percentage of participants that selected each response when asked how they would incorporate cell-cultured meat into their diets (note: participants could select more than one response).

4. Limitations

There are a number of caveats that should be considered when interpreting these results.

Firstly, results from the CIT only represent a single snapshot in time. The finding that consumers currently have low levels of awareness of cell-cultured meat is not surprising, given that cell-cultured meat is not currently available for sale in Australia and New Zealand. Consumers' consumption intentions regarding cell-cultured meat could therefore change as they become more familiar with the product.

Secondly, the CIT measured consumers' behavioural *intentions* regarding cell-cultured meat, and it is well known that behavioural intentions do not always correspond to actual behaviour (Sheeran & Webb, 2016). However, it was not possible to measure consumers' actual behaviours regarding cell-cultured meat, given that cell-cultured meat is not currently available for sale in Australia and New Zealand.

Thirdly, we described cell-cultured meat to participants as "cell-based meat (that is, meat produced from animal cells, sometimes referred to as 'lab-grown meat')." Findings from the A1269 consumer literature review (see SD2) indicate that the term "lab-grown meat" causes people to think that the product is more unsafe (compared to other terminologies). Therefore this likely had an impact on participants' safety concerns of cell-cultured meat in the CIT. However, given that this terminology is commonly used in the media, it may still provide an accurate snapshot of what consumers' current safety perceptions are (based on information they have likely been exposed to). Nevertheless, there is evidence that consumer

perceptions of cell-cultured meat are highly malleable, depending on the type of information they receive about the product (e.g., neutral descriptions vs. positive descriptions; see SD2). Finally, the CIT has the usual limitations associated with an online survey conducted on a nationally representative sample. The non-response rate of potential survey respondents is unknown. Although the final sample was nationally representative by three interlocking factors (age, gender, location), it is possible that non-respondents of the survey had common factors that made them less likely to participate. Additionally, members of an online panel may have certain characteristics that differ from the broader population.

5. References

Sheeran, P., & Webb, T. L. (2016). The intention–behavior gap. *Social and Personality Psychology Compass*, 10(9), 503-518.

6. Appendix - key demographics of participants

Table 1 Age, gender, level of education, cultural background, household composition and Equivalised Annual Household income.

	Australia		New Zealand		Total	
	N	%	N	%	N	%
Age group						
18-24 years	97	7.9%	83	10.2%	180	8.8%
25-34 years	255	20.6%	192	23.7%	447	21.8%
35-44 years	231	18.7%	160	19.8%	391	19.1%
45-54 years	200	16.2%	138	17.0%	338	16.5%
55-64 years	187	15.1%	98	12.1%	285	13.9%
65+ years	267	21.6%	139	17.2%	406	19.8%
Gender						
Male	601	48.6%	379	46.8%	980	47.9%
Female	633	51.2%	430	53.1%	1063	51.9%
Nonbinary and Other	2	0.2%	0	0.0%	2	0.1%
Prefer not to say	1	0.1%	1	0.1%	2	0.1%
Education						
High school or below	374	30.2%	227	28.0%	601	29.4%
Vocational/trade qualification	356	28.8%	205	25.3%	561	27.4%
Undergraduate degree	331	26.8%	247	30.5%	578	28.2%
Postgraduate degree	176	14.2%	131	16.2%	307	15.0%
Cultural background*						
Australian/New Zealand European	628	50.8%	574	70.9%	1202	58.7%
Aboriginal and/or Torres Strait Islander	61	4.9%	0	0.0%	61	3.0%
Māori	4	0.3%	145	17.9%	149	7.3%
Pacific Islander	2	0.2%	40	4.9%	42	2.1%
European	549	44.4%	109	13.5%	575	28.1%
Asian	126	10.2%	109	13.5%	235	11.5%
African and Middle Eastern	15	1.2%	6	0.7%	21	1.0%
People of the Americas	8	0.6%	10	1.2%	18	0.9%
Prefer not to say	18	1.5%	11	1.4%	29	1.4%
Household Composition						
Children < 15 years in household	352	28.5%	294	36.6%	1401	68.4%
No children < 15 years in household	885	71.5%	516	63.7%	646	31.6%
Equivalised Annual Household Income Tiers[#]						
Low income (≤ \$41,599)	453	36.6%	273	33.7%	726	35.5%
Middle income (\$41,600-\$77,999)	373	30.2%	290	35.8%	663	32.4%
High income (≥ \$78,000)	344	27.8%	180	22.2%	524	25.6%
Prefer not to say	67	5.4%	67	8.3%	134	6.5%

* As respondents were able to select multiple responses, percentages may not add up to 100.

Equivalised annual household income was calculated according to the [OECD-modified equivalence scale](#) using the average income for each income bracket response option.

Table 2 *State or territory location of Australian participants*

	N	%
Australian State or Territory		
New South Wales	396	32.0%
Victoria	319	25.8%
Queensland	249	20.1%
South Australia	86	7.0%
Western Australia	129	10.4%
Tasmania	22	1.8%
Northern Territory	27	2.2%
Australian Capital Territory	9	0.7%
Total	1237	100%
Metro or Regional Location		
Metro Australia	858	69.4%
Regional Australia	379	30.6%

Table 3 *Regional location of New Zealand participants*

	N	%
New Zealand Regions		
Northland Region	32	4.0%
Auckland Region	270	33.3%
Bay of Plenty Region	49	6.0%
Waikato	77	9.5%
Gisborne District	6	0.7%
Hawke's Bay Region	32	4.0%
Taranaki	24	3.0%
Manawatu-Wanganui	43	5.3%
Wellington Region	90	11.1%
Tasman District	5	0.6%
Nelson	10	1.2%
Marlborough Region	5	0.6%
Canterbury	109	13.5%
West Coast	2	0.2%
Otago	40	4.9%
Southland	16	2.0%
Total	810	100.0%