



Consumer Confidence in Prawns:

consumer perceptions of Australian Prawns

July 2017

management summary	3
awareness of, and concern about, issues surrounding Australian prawns	5
impact on the perceptions of Australian prawns	10
confidence in buying and eating Australian prawns	13
final thoughts and questions	16
respondent profiles	18
research design	21
appendix – Technical note	23
further information	26

The context

White spot disease (WSD) is an internationally notifiable disease of crustaceans caused by White Spot Syndrome Virus (WSSV). On 22nd November 2016 a WSSV incursion was first reported in Black Tiger Prawns (*Penaeus monodon*) grown on a prawn farm taking water from the Logan River, SE QLD.

Australia had previously been the only major prawn growing country that had not experienced whit spot disease.

In response to the WSD outbreak FRDC implemented the following projects to support the prawn farming and wild catch sector and provide clear direction towards planning for future recovery for affected farms and fisheries; and protecting the biosecurity of areas away from the Logan River control zone. Other agencies and industry have undertaken a range of other initiatives to respond to this outbreak.

A number of aquaculture operators have experienced a substantial impact and the evidence of white spot in the wild catch areas has raised concerns about the future of Australia's \$80 million prawn farming sector.

A market research study was initiated to provide an estimate of the likely 'reach' and 'impact' of this issue. The research was conducted with a representative sample of the Australian population aged 18+. Details of the research design are provided later in this report.

Key findings

Take out: almost one in three (30%) Australians reported they were aware of and concerned about the white spot contamination of prawns.

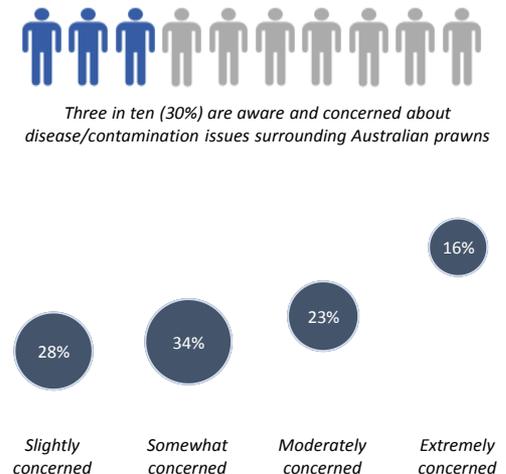
The surveys have provided estimates that:

- approximately 35% (95% confidence interval of $\pm 3.0\%$) reported that they were aware of an issue to do with Australian prawns.
- the majority of these identified the white spot or disease contamination as the root cause of the issue; with
- most people (89% - with a 95% confidence interval of $\pm 3.3\%$) indicating at least some concern with the issue.

Overall then, the research estimates that 30% (95% confidence interval of $\pm 2.8\%$) of the Australian population is aware of a white spot related issue and has expressed some concern about the issue. This provides a measure of the 'reach' of the issue.

The analysis also indicates that awareness of the issue was significantly higher level of awareness and concern among people in Queensland than those in other states and territories.

As shown opposite most people aware of the issue self report as being slightly or somewhat concerned. A much smaller cohort have self reported as extremely concerned.



When asked about what concerned them most, impacted consumers reported concerns about:

- the health impact of eating locally sourced prawns ;
- the economic impact on prawn farmers; and
- the availability and sustainability of prawns farmed in Australia.

Take out: the issue is likely to have the most potential downstream impact when consumers identify as being ‘extremely concerned’ about the issue.

The feedback during the research has indicated that:

The level of concern about the issue is correlated to different attitudes and confidence in the industry and in buying Australian prawns.

The results indicate a clear ‘tipping point’ when people are ‘extremely concerned’ with the issue with:

- an indication of their intention to ‘wait and see’ before buying prawns again; which has translated to a
- significantly lower confidence in buying Australian prawns; and
- a much lower willingness to be a ‘prawn advocate’.

That said, the majority of people aware and concerned are not ‘extremely concerned’ at this point.

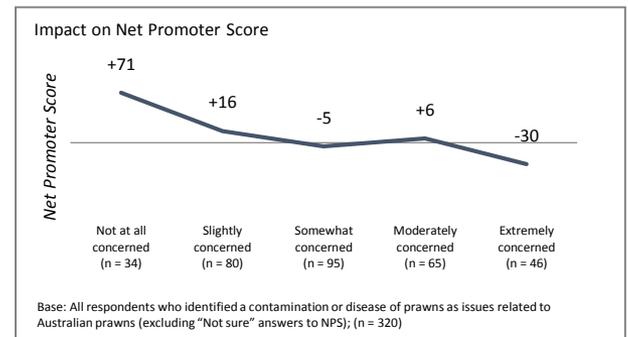
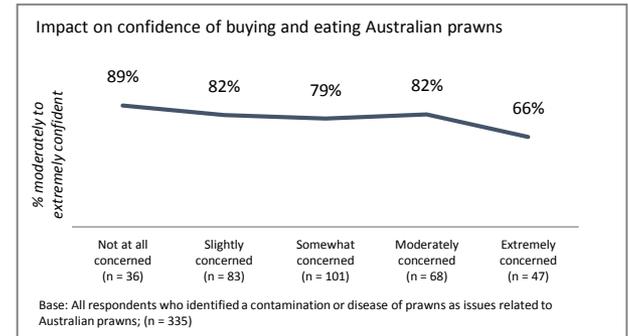
Having some concern or a moderate level of concern impacts their attitudes and intentions but not significantly so.

The results indicate that any efforts to prevent an escalation of the perceived seriousness of the issue should be a priority, as once consumers identify as being extremely concerned there is a material impact on their attitudes and intentions.

The detailed results from the research now follows.

“I’m not clear whether this disease is still spreading, has been contained or is abating. I also don’t know what the effects on the human body are if one were to consume diseased prawns.”

“That it may not be immediately obvious that food I have eaten/I am about to eat is contaminated, and what the potential health-risks associated with eating disease-affected prawns is”

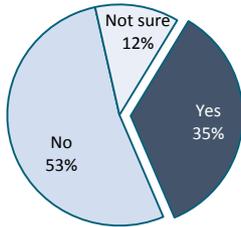


* Extremely small sample sizes. Exercise caution with these results

awareness of, and concern about, issues surrounding Australian prawns

awareness of, and concern about, issues surrounding Australian prawns

Have you seen, heard or been told about any recent issues OR have any concerns about Australian prawns?

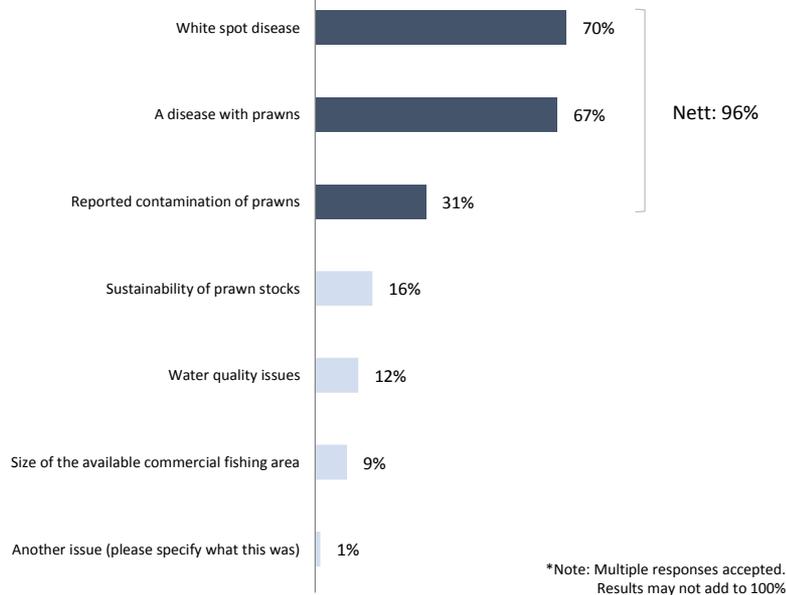


Base: All respondents; (n = 1,000)

The results indicate that 35% of respondents noted that they have heard or seen issues OR have concerns around about Australian prawns. Of these, 96% identified either a contamination or disease of prawns (including white spot) as the issue or issues they were aware of. Of these, 89% reported some level of concern about the issue.

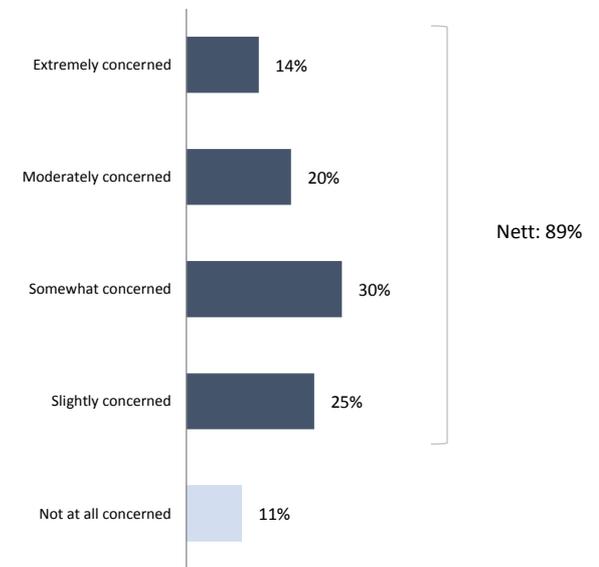
This represents an estimate of approximately 30% of all respondents who were aware of a contamination or disease issue or issues with Australian prawns and had some concern about the issue.

Which of the following issues how have you seen, heard or been told about?



Base: All respondents who indicated that they have heard or seen issues related to Australian prawns; (n = 350)

And how concerned are you about this issue or issues?



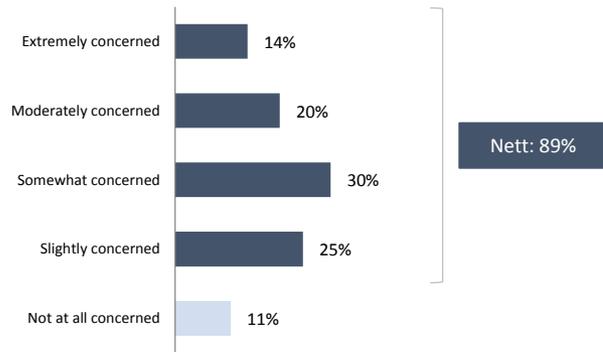
Base: All respondents who identified a contamination or disease of prawns as issues related to Australian prawns; (n = 335)

What we asked:

Have you seen, heard or been told about any recent issues OR have any concerns about Australian prawns?
 And which of the following issues how have you seen, heard or been told about? Please select all that apply.
 And how concerned are you about this issue or issues?

awareness of, and concern about, issues surrounding Australian prawns

And how concerned are you about this issue or issues and its impact on local seafood?



Base: All respondents who identified a contamination or disease of prawns as issues related to Australian prawns; (n = 335)

In their own words....

"I am pretty sure that it was recommended not to eat these prawns from that particular area at that particular time. Lucky I did not consider buying prawns this period. (To have to decide). I was also concerned for the plight of the fishermen and associated businesses. I heard one fisherman lost \$20, 000 worth. Sad! I also feel for the well being of the actual seafood. I am also concerned for the environment."

"Have seen them on TV with 'the spots' & don't like it. Have been to the Prawn farm near Jacob's Well & seen on TV the devastation the 'spots' have done to the farm. Worried that the 'disease can stay in your body for years."

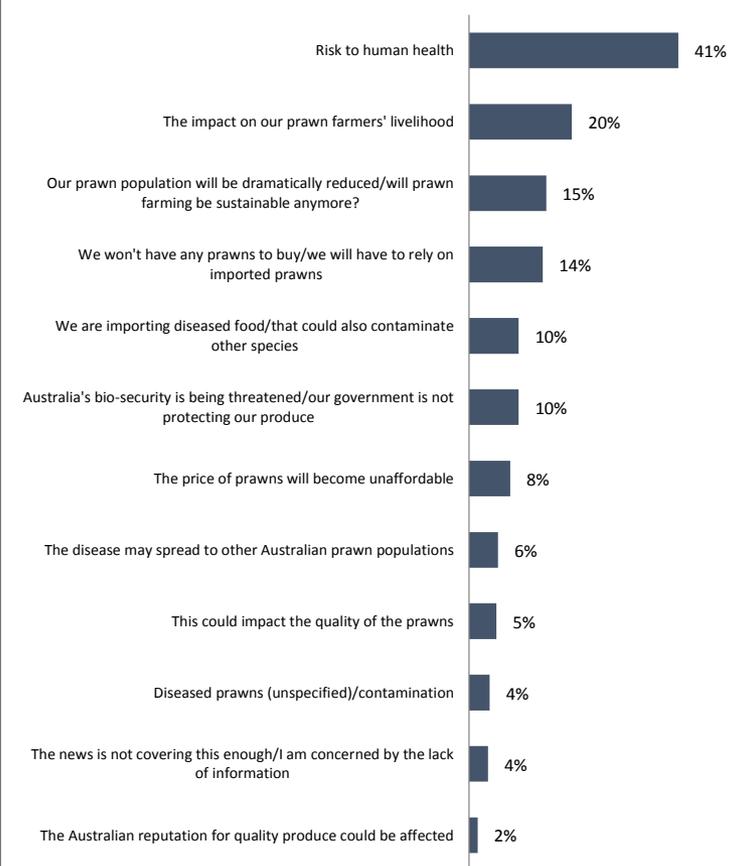
"The disease shouldn't have been allowed into Australia, and the resultant effects on Australian prawn farmers was very, very sad and shouldn't have been allowed to happen and appropriate compensation should be paid to all those affected"

"My concern is primarily for the prawn fishermen. Also for the sustainability of the industry in Australia. I trust Australian prawns to be good quality and would therefore like them to be available long term"

"I'm not clear whether this disease is still spreading, has been contained or is abating. I also don't know what the effects on the human body are if one were to consume diseased prawns."

"That it may not be immediately obvious that food I have eaten/I am about to eat is contaminated, and what the potential health-risks associated with eating disease-affected prawns is"

What is it about this issue that concerns you the most?



Base: All respondents who have seen or heard about issues surrounding Australian prawns, are concerned about these issues, and provided a response; (n = 299)

What we asked:

And how concerned are you about this issue or issues and its impact on local seafood?

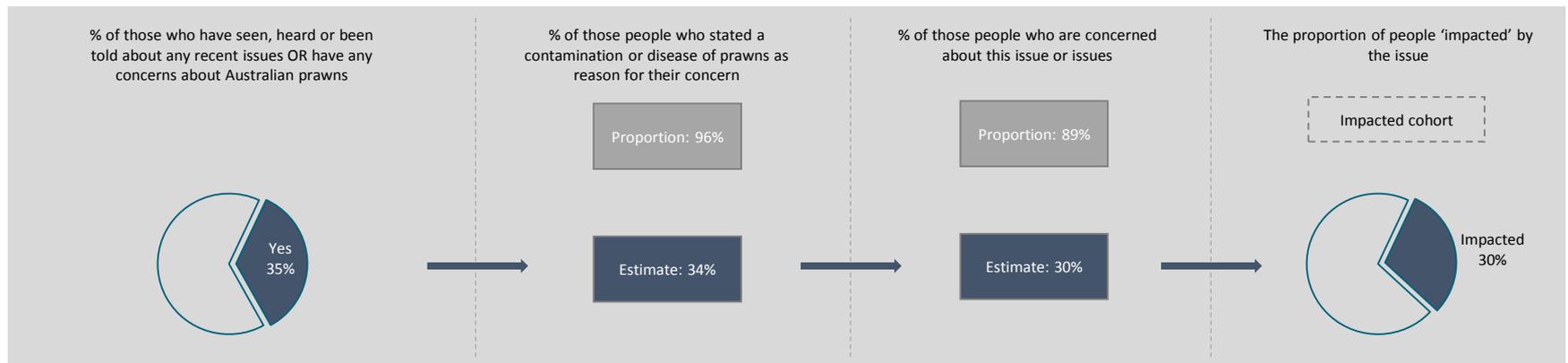
What is it about this issue that concerns you the most? Please provide as much detail as possible.

an estimate of the 'impact' of the issue

The results below summarise the information provided earlier in this report.

The analysis shows the survey estimates of the cohort that has likely been impacted: that is the percentage of respondents who were aware of an issue or issues of contamination or disease of Australian prawns (including white spot) and have some concern about the issue or issues.

The results show a survey impact estimate of approximately 30% of respondents were aware of an issue or issues of contamination or disease of Australian prawns (including white spot) and have some concern about the issue or issues.



Base: All respondents; (n = 1,000)

an estimate of the 'impact' of the issue

The results below summarise the key results across different population sub groups. The result suggest the 'reach' of the issue (awareness and concern) varies across the nation and across the different population cohorts.

When compared to the national result the analysis identifies a small number of cohorts where there is a significant difference – for example in Queensland where the 'reach' of the issue is significantly higher than the national result, and in South Australia, Victoria and Western Australia where the reach is significantly lower. Similarly but perhaps not surprisingly, non seafood eaters seem significantly less aware and concerned with the issue than seafood consumers.

		Base (n =)	% of those who have seen, heard or been told about any recent issues OR have any concerns about Australian prawns	% of those people who stated a contamination or disease of prawns as reason for their concern	% of those people who are concerned about this issue or issues
	Overall	1,000	35%	34%	30%
Gender	Male	492	38%	37%	33%
	Female	508	32%	30%	27%
Age Group	18-24 years	144	22%	19%	16% ▼
	25-34 years	190	30%	27%	27%
	35-44 years	178	33%	31%	28%
	45-54 years	152	46%	45%	39% ▲
	55-64 years	146	37%	37%	35%
	65 years and above	190	42%	41%	35%
State	ACT	23*	52%	52%	43%
	NSW	272	27%	26%	24%
	NT	22*	36%	36%	32%
	QLD	225	68%	68%	60% ▲
	SA	82	18%	17%	12% ▼
	TAS	26*	35%	31%	31%
	VIC	246	21%	19%	17% ▼
	WA	104	25%	22%	19% ▼
Frequency of Eating Prawns	Regular (Once a month or more)	350	42%	39%	35%
	Occasional (less than once a month)	512	33%	32%	29%
	Non-Eaters (do not eat at all)	116	23%	23%	19% ▼

▲ ▼ Significantly higher/lower when compared to the Overall result at the 95% confidence level.

* Extremely small sample sizes. Exercise caution with these results

impact on the perceptions of Australian prawns

impact on the perceptions of Australian prawns

Given the issue or issues that have occurred, would you agree or disagree that...

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Not sure
The issues will have an impact on whether I buy Australian prawns	9%	22%	20%	32%	15%	2%
I will wait until the issue is resolved before buying Australian prawns again	12%	28%	27%	20%	12%	1%
There are sufficient controls in place to manage issues like this	9%	16%	28%	30%	9%	7%
The long term impact on Australian prawns will be minimal	8%	29%	30%	17%	6%	10%

Base: All respondents who identified a contamination or disease of prawns as issues related to Australian prawns; (n = 335)

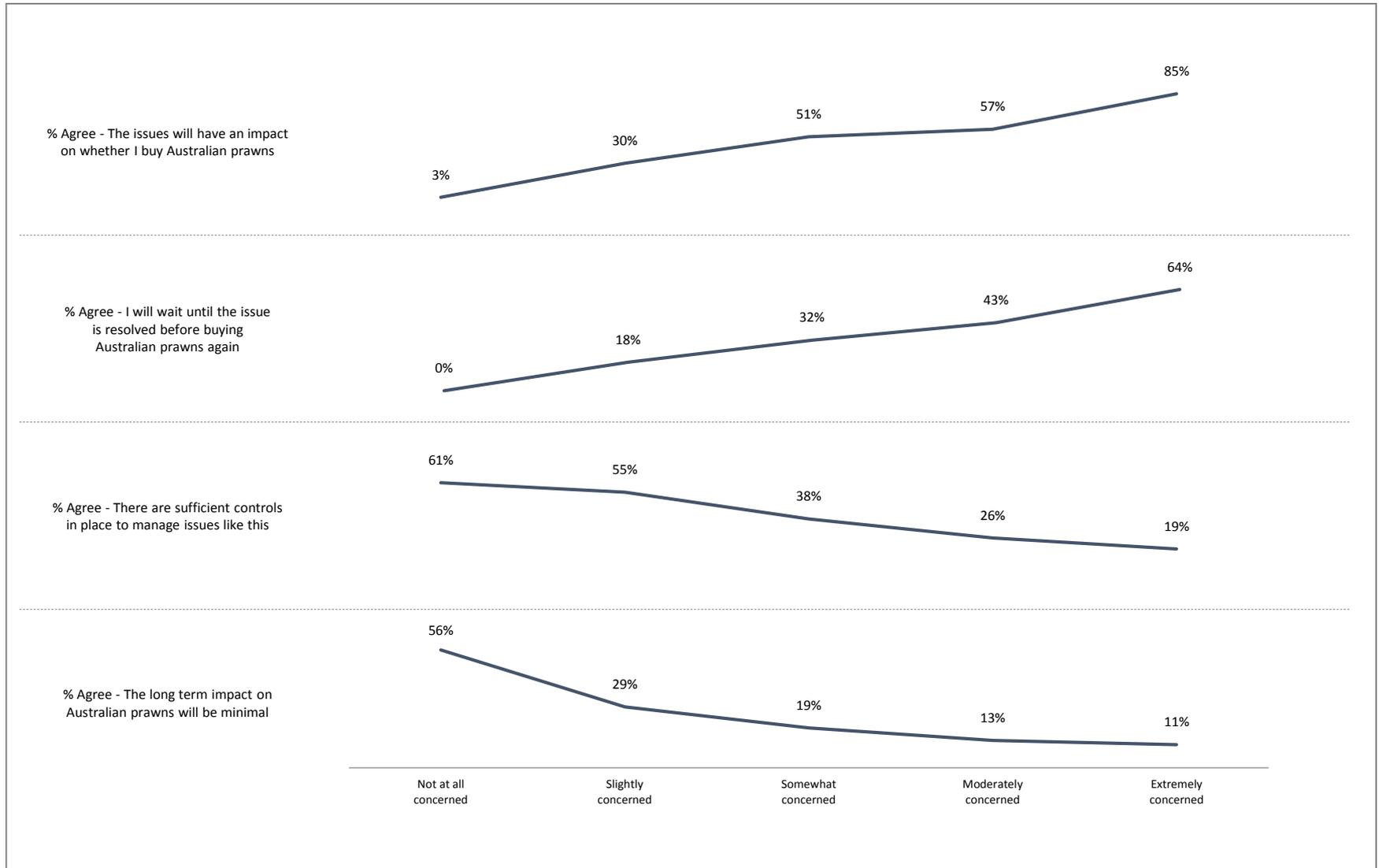
A look at perceptions by level of concern...

	The issues will have an impact on whether I buy Australian prawns				I will wait until the issue is resolved before buying Australian prawns again				There are sufficient controls in place to manage issues like this				The long term impact on Australian prawns will be minimal		
	Disagree	Neither + Not sure	Agree		Disagree	Neither + Not sure	Agree		Disagree	Neither + Not sure	Agree		Disagree	Neither + Not sure	Agree
Not at all concerned (n = 36)	83%	14%	3%		86%	14%	0%		14%	25%	61%		14%	31%	56%
Slightly concerned (n = 83)	45%	25%	30%		51%	31%	18%		14%	30%	55%		30%	41%	29%
Somewhat concerned (n = 101)	16%	33%	51%		30%	39%	32%		20%	43%	38%		39%	43%	19%
Moderately concerned (n = 68)	26%	16%	57%		32%	25%	43%		40%	34%	26%		37%	50%	13%
Extremely concerned (n = 47)	9%	6%	85%		21%	15%	64%		43%	38%	19%		62%	28%	11%
Overall (n = 335)	31%	22%	47%		40%	28%	32%		25%	35%	40%		37%	40%	23%

What we asked:

Given the issue or issues that have occurred, would you agree or disagree that...

impact on the perceptions of Australian prawns



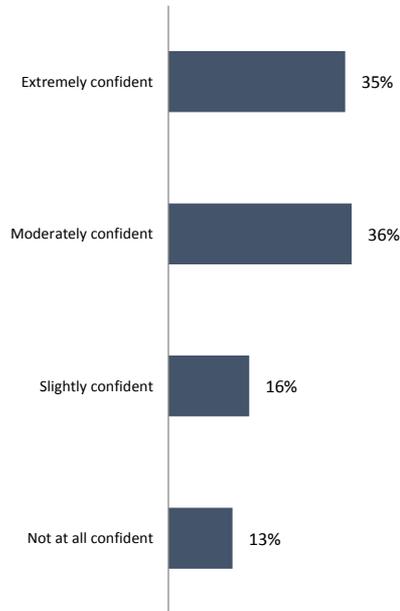
What we asked:

Given the issue or issues that have occurred, would you agree or disagree that...
And how concerned are you about this issue or issues?

confidence in buying and eating Australian prawns

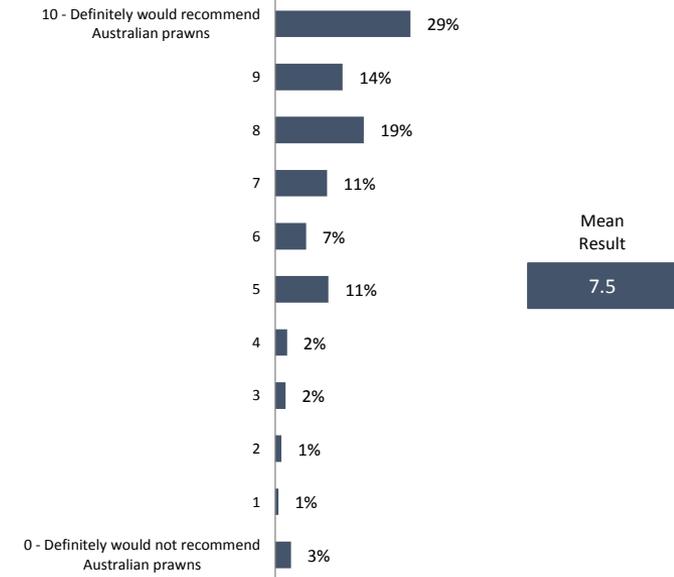
confidence in buying and eating Australian prawns

How confident are you in buying and eating Australian prawns?



Base: All respondents; (n = 1,000)

And how likely would you be to recommend eating Australian prawns to other friends, family and people you know?



Base: All respondents (excluding "Not sure" answers); (n = 935)

Net Promoter Score



Detractors (0-6)	Passives (7-8)	Promoters (9-10)
28%	29%	43%

+15

NPS

=

43%

Promoters

-

28%

Detractors



Base: All respondents (excluding "Not sure" answers); (n = 935)

What we asked:

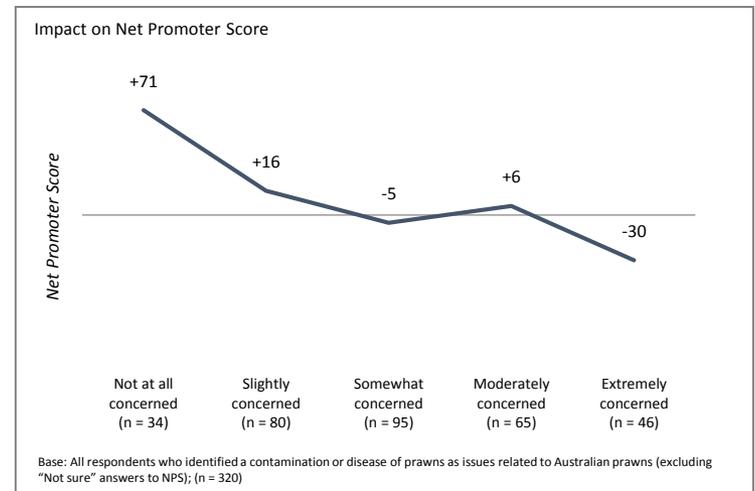
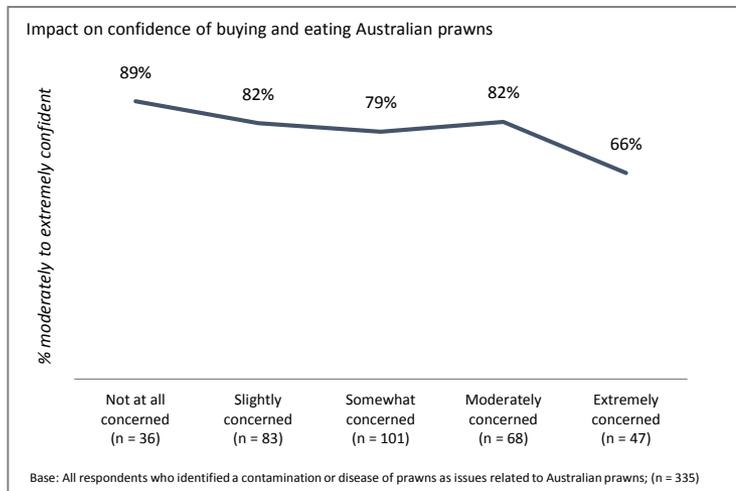
How confident are you in buying and eating Australian prawns?

And how likely would you be to recommend eating Australian prawns to other friends, family and people you know?

impact on the perceptions of Australian prawns

The results below summarise the impact of the issue across two key measures – confidence in buying prawns and a willingness to advocate for prawns.

The results indicate the different attitudes, intentions and advocacy held by those people aware of the issue but with different levels of concern about the issue. Perhaps the most compelling of these results is the much lower ratings reported by those people who self reported as being 'extremely concerned' with the issue. They have significantly different attitudes and intentions than the other cohorts.



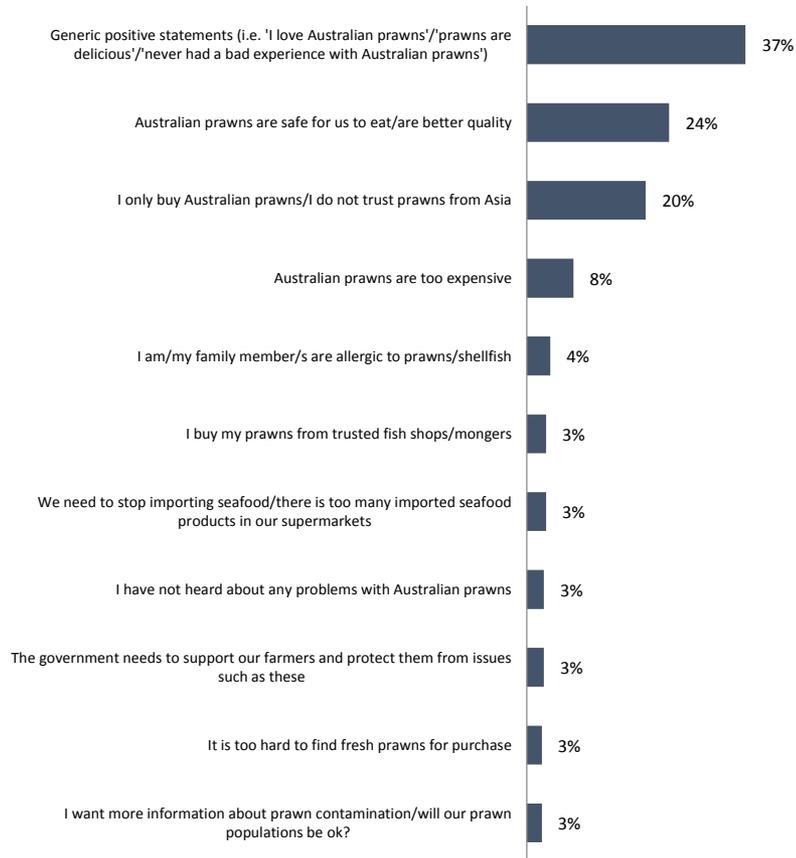
What we asked:

How confident are you in buying and eating Australian prawns?
 And how likely would you be to recommend eating Australian prawns to other friends, family and people you know?
 And how concerned are you about this issue or issues?

final thoughts and questions

final thoughts and questions

Do you have any other comments or feedback about your experiences with Australian prawns?



Base: All respondents (excluding those who did not answer or who answered "don't know"/"nothing"); (n = 280)

*Note: this chart excludes responses accounting for <3% responses given by the viable respondents.

In their own words...

"I know the problem with Prawns is in no way harmful to humans. As they have to be cooked I see even less concerned about human consumption however I do strongly feel for the Prawn Farmers as the disease must have been introduced into Queensland and should be subject to Government financial support during their time and up to the production of disease free prawns."

"I have always ensured that prawns I buy are Australian and they have always been an exceptional product. I want the government to ensure that our industry is protected in order that the Australian product remains the superior choice."

"I love Australian prawns and will only buy them, not prawns from overseas as I know that not all countries have the same food regulations as Australia"

"Only just found out thanks to SMH that one should buy frozen Australian prawns as they are processed the freshest. I would NEVER buy Vannami prawns as I believe they are overfished and probably sprayed with chemical. People do though....and they buy basa from the Mekong delta. I'd rather not eat seafood if I couldn't afford Oz or NZ."

"I have always enjoyed Australian prawns and deliberately avoid imported ones. Your questions seem to imply there has been recent problems - I am totally unaware but would like to know any details."

"They taste fine, and I can be sure that the origin of the seafood is safe, and isn't using slave labour to catch the prawns. So I'm helping Aussie jobs, and eating decent seafood as well"

"Given the standards we have in Australia around food I am quite confident there will be no problems with consuming prawns and that any affected prawns will be kept out of the market."

"We always choose Australian prawns where available as we find them to be far superior in taste and quality to the imported Asian prawns"

"There are always good quality and fresh. I always have good memories of eating prawns with my family on special occasions."

"We preferred to buy everything that is Australian made. In my experience I truly enjoyed eating Australian prawns."

"I don't like seafood as such, but I would feel more confident buying Australian prawns for my family rather than overseas varieties."

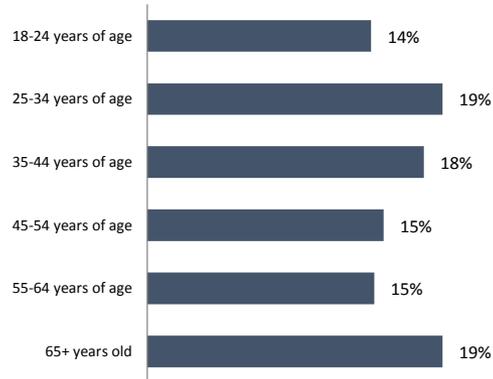
What we asked:

Do you have any other comments or feedback about your experiences with Australian prawns? Please provide as much detail as possible.

respondent profiles

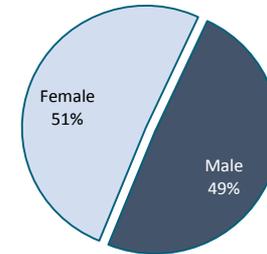
respondent profiles

Age of survey respondents



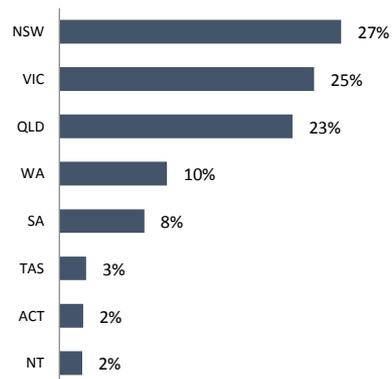
Base: All respondents; (n = 1,000)

Gender of survey respondents



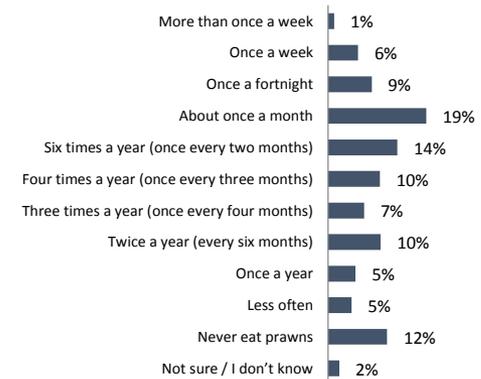
Base: All respondents; (n = 1,000)

Location of survey respondents



Base: All respondents; (n = 1,000)

Frequency of eating Australian prawns as part of a meal in the last 12 months



Base: All respondents; (n = 1,000)

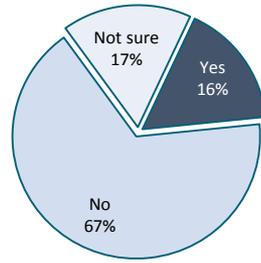
What we asked:

In which of the following age brackets do you fit?
And what postcode do you live in?

Are you...
Over the past 12 months, how often would you say that you have eaten Australian **prawns** as a main meal or part of a meal either in your home or away from home?

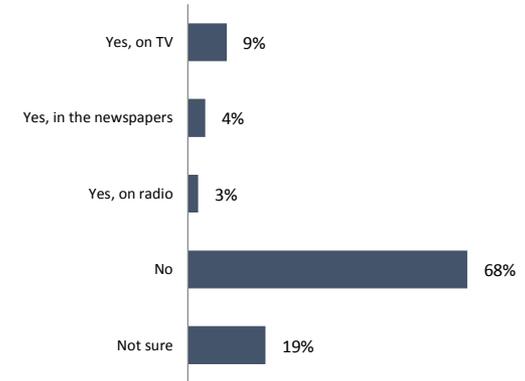
respondent profiles

Recognition of Queensland Prawns logo



Base: All QLD respondents; (n = 225)

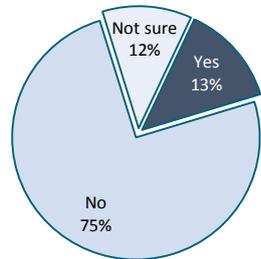
Seen or heard any advertising promoting Australian prawns



Base: All respondents; (n = 1,000)

*Note: Multiple responses accepted. Results may not add to 100%

Recognition of Love Australian Prawns logo



Base: All respondents; (n = 300)

What we asked:

(Queensland Prawns) Before today have you seen this logo?

(Love Australian Prawns) Before today have you seen this logo?

In the last 3 months have you seen or heard any advertising promoting Australian prawns? Please select all that apply.

research design

Methodology

The study involved an online survey amongst a representative group of Australian residents. Respondents were sourced via an accredited online market research panel provider; Survey Sampling International (SSI). This methodology provides a random and representative sample of respondents in a highly cost efficient way.

Sample

The final sample size for the market research was n = 1,000. The final age and gender profile of the respondents were matched back to the ABS estimate of the population profile. It was decided that, given the similarity of the profiles, no weighting of the market research data would be required.

Questionnaire

Respondents were asked to completed a 10 minute online survey which covered a range of topics including:

- Prawn consumption behaviour;
- Perceptions of issues or concerns around Australian prawns;
- Identification of the issue(s) they were aware of and concerns around this issue/issues;
- Perceived impact of these issues on Australian prawns; and
- Demographics.

A copy of the questionnaire used in the research is included in the appendix of this report.

Timing

In total, 1,000 interviews were conducted between the 25th June – 30th June 2017.

appendix – Technical note

Reliability of the Estimates

The estimates in this report are based on information obtained from a sample survey. Any data collection may encounter factors, known as non-sampling error, which can impact on the reliability of the resulting statistics. In addition, the reliability of estimates based on sample surveys are also subject to sampling variability. That is, the estimates may differ from those that would have been produced had all persons in the population been included in the survey.

Non-sampling error

Non-sampling error may occur in any collection, whether it is based on a sample or a full count such as a census. Sources of non-sampling error include non-response, errors in reporting by respondents or recording of answers by interviewers and errors in coding and processing data. Every effort is made to reduce non-sampling error by careful design of survey questionnaires and quality control procedures at all stages of data processing.

Sampling error

One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of persons was included. There are about two chances in three (67%) that a sample estimate will differ by less than one SE from the number that would have been obtained if all persons had been surveyed, and about 19 chances in 20 (95%) that the difference will be less than two SEs.

Calculation of Confidence Interval

If 50% of all the people in a population of 20,000 people drink coffee in the morning, and if you were repeat the survey of 377 people ("Did you drink coffee this morning?") many times, then 95% of the time, your survey would find that between 45% and 55% of the people in your sample answered "Yes".

The remaining 5% of the time, or for 1 in 20 survey questions, you would expect the survey response to be more than the margin of error away from the true answer.

When you survey a sample of the population, you don't know that you've found the correct answer, but you do know that there's a 95% chance that you're within the margin of error of the correct answer.

In terms of the numbers selected above, the margin of error *MoE* is given by:

$$MoE = z * \sqrt{\frac{\hat{p}(1 - \hat{p})}{n}}$$

where *n* is the sample size, \hat{p} is the fraction of responses that you are interested in, and *z* is the [critical value](#) for the 95% confidence level (in this case, 1.96).

This calculation is based on the [Normal distribution](#), and assumes you have more than about 30 samples.

Margin of Error for a given sample size and survey estimate.		Sample Size						
		30	50	75	100	150	200	300
Survey Estimate	10%	n/a	n/a	n/a	± 5.88%	± 4.80%	± 4.16%	± 3.39%
	20%	n/a	± 11.09%	± 9.05%	± 7.84%	± 6.40%	± 5.54%	± 4.53%
	30%	n/a	± 12.70%	± 10.37%	± 8.98%	± 7.33%	± 6.35%	± 5.18%
	40%	± 17.53%	± 13.58%	± 11.09%	± 9.60%	± 7.84%	± 6.79%	± 5.54%
	50%	± 17.89%	± 13.86%	± 11.32%	± 9.80%	± 8.00%	± 6.93%	± 5.66%
	60%	± 17.53%	± 13.58%	± 11.09%	± 9.60%	± 7.84%	± 6.79%	± 5.54%
	70%	n/a	± 12.70%	± 10.37%	± 8.98%	± 7.33%	± 6.35%	± 5.18%
	80%	n/a	± 11.09%	± 9.05%	± 7.84%	± 6.40%	± 5.54%	± 4.53%
	90%	n/a	n/a	n/a	± 5.88%	± 4.80%	± 4.16%	± 3.39%

Note. Margin of Errors are provided at the 95% confidence level on the assumption of a large population size (non-finite) and normally distributed. Results labelled "n/a" are due to the assumption of the normal distribution not being upheld ($n\hat{p} < 10$ or $n(1-\hat{p}) < 10$).

Consumer Confidence in Prawns:
consumer perceptions of Australian Prawns

July 2017

want more information?

Contact Intuitive Solutions

Michael Sparks
Director | Intuitive Solutions
E: msparks@intuitivesolutions.com.au