SafeFish Technical Work Prioritisation 2016

Every few years SafeFish reviews its technical work program in order to help provide the best outcomes for the industry. The review involves identifying existing and emerging food safety, trade and market access issues and prioritising these issues. Similar reviews have occurred in 2011 and 2014. The review raises awareness of issues of importance to the seafood industry with funders; forms a priority listing for future SafeFish work; and encourages researchers and funders to address the issues.

The objectives of the current review were to:

- Scan all food safety and trade and market access issues impacting, or likely to impact, the Australian seafood industry
- Rank these risks against a set of agreed criteria
- Determine the work priorities for SafeFish over the next few years from the priority risk list.

The following sources were approached for data/information to identify potential food safety and trade and market issues:

- OzFoodNet – Epidemiological data
- Food Standards Australia New Zealand (FSANZ) – Food recall data
- European Food Safety Authority (EFSA) – Emerging Risks Exchange Network reports
- Codex Alimentarius Commission
- Department of Agriculture and Water Resources (DAWR) – National Residue Survey program, Import Testing Program, trade detect data (export), trade recall data (export)
- SafeFish – direct enquiries, communication survey, direct contact with the seafood industry and stakeholders

Summary of issues identified

The issues identified were compiled and collated into three categories: suitable for consideration by SafeFish during the prioritisation process; suitable as potential education and training activities; or removed from further consideration. Any issues that were removed from further consideration were generally as a result on being non-specific, or not a food safety or trade and market access issue.

Issues or hazards considered in the prioritisation process where:

- Export restriction for canned abalone into China based on Chinese sulphite regulations
- Ciguatera
- Food fraud and food authenticity
- Off label chemical use in Australia
- Parasites in finfish
- Per and poly fluoroalkyl substances (PFASs) – formally known as perfluorinated compounds (PFC)
- Potentially high levels of mercury in crustaceans
- Potentially high levels of arsenic in *Amusium* scallops in WA and QLD

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- Validation and use of rapid test kits for marine biotoxin testing
- Vibrios in bivalve shellfish
- Water retention chemicals

Prioritisation Workshop

Information on the issues above was collated. The issues were then ranked at a SafeFish Prioritisation workshop held at South Australian Research and Development Institute (SARDI), Adelaide on 25th November 2016. SafeFish partners and Chair participated in the ranking process which was facilitated by Lens Stephens.

A risk matrix (Appendix 1) was created with the following risk categories:

- Trade and Market Access
- Public Health
- Regulatory Impacts
- Economic Impacts
- Reputational Impacts (media and political)
- Environmental/Sustainability Issues

Final risk categories were: very high risk (1), high risk (2-6), medium risk (7-15), and low risk (16-25). A copy of the matrix was provided to all the participants. The facilitator introduced the risk matrix and the format was accepted by all the participants and all agreed with the matrix and its criteria.

Each issue was assessed against each category in the risk matrix. Minimum, maximum and median scores were recorded and an overall ranking given. This ranking was by default the minimum score in any category, but may have been adjusted after discussion.

The issue of absence of rapid and validated biotoxin test as a precautionary harvest management tool was discussed by the participants and it was agreed that since this is not a hazard, this issue can't be assessed for risk in the risk matrix provided. This issue needs to be discussed separately and hence was excluded from the ranking exercise.

Results:

Six high priority issues have been identified in the prioritisation workshop and will be used to develop a program of work for SafeFish for the next two to three years:

- export restrictions for canned abalone into China based on Chinese sulphite regulations;
- harmful algal blooms and their impact on seafood;
- ciguatera toxins in fish;
- Vibrio species in bivalve shellfish;
- food fraud and food authenticity; and
- potential accumulation of arsenic in *Amusium* spp. (saucer scallops).

Medium priority issues were: off-label chemical use in Australia; per and poly fluoroalkyl substances (PFAS), formally known as perfluorinated compounds (PFC); and parasites in finfish.

Water retention chemicals in fish and potentially high levels of mercury in crustaceans were ranked as low priority issues.

A summary sheet of the individual scores can be seen in Appendix 2.

Conclusion

All participants agreed that the process worked well and the matrix was appropriate. Feedback included:

- Background report contained correct level of information
- Facilitation worked well
- More time could be allowed for issue assessment

SafeFish will focus resources on the six main priority areas for the remaining funded period.

Full report on the prioritisation process and workshop can be requested from SafeFish at alison.turnbull@sa.gov.au.

Appendix 1: Risk matrix

		Risk Categories							Likelihood				
		Trade and Market Access	**Public Health**	**Regulatory Issues**	**Economic Impacts**	**Reputational Impacts**	**Environmental /Sustainability Issues**		**Commonly occurs**	**Known to occur or it has happened in the past**	**Could occur or I have heard of it happening (published information)**	**Not likely to occur**	**Practically impossible**
									A	**B**	**C**	**D**	**E**
Consequences	**High 1**	Immediate and final cessation of trade (Global Impact)	Fatalities	Under consideration at Codex/DAWR/FSANZ with potential implication for Australian Trade	Broad impact across seafood industry ≥$100 Million	Serious media/ministerial interest/public outcry (International coverage)	Effects national food security	1	**1**	**2**	**4**	**7**	**11**
	2	Partial Cessation (either from one country/product)	Serious illness/injury or large outbreak (i.e. ≥50 people)	Under consideration with State regulators with potential impact for Australian Trade	$10 Million to <$100 Million	Significant adverse national media (major bulletins)	Emerging/growing issue caused by changing environments; new risk management strategies needed	2	**3**	**5**	**8**	**12**	**16**
	3	Recall	Long term minor illness or small outbreak (i.e. Gastro <50 people)	Emerging issue likely to need/bring on new regulatory change	$1 Million to <$10 Million	Heightened media/concern by local community	Change to sustainable/ management practices (National)	3	**6**	**9**	**13**	**17**	**20**
	4	Warning/advice of non-conformance	Product recall/rejection or customer complaint	Additional training will resolve issue	$100,000 to <$1 Million	Minor/local coverage (one-offs)	Emerging and growing local issue	4	**10**	**14**	**18**	**21**	**23**
	Low 5	No trade impact	Not significant	No regulatory issue	<$100,000	No impact	Not related to environmental/ sustainability issues	5	**15**	**19**	**22**	**24**	**25**

Nominal questions to consider when determining the consequence and likelihood

Trade and Market Access	**Public Health**	**Regulatory Issues**	**Economic Impacts**	**Reputational Impacts (Media/Political)**	**Environmental /Sustainability Issues**
1. Are there any Codex standards/guidelines? 2. Who are the major trading partners and what are their regulations? 3. Is there a history? Previous hazard analysis, recalls, trade defects (domestic or international), risk assessments 4. Is there a management practice?	1. What are the symptoms? 2. What is known about the hazard analysis/characterisation/exposure assessment 3. What is known about epidemiology? (Are there any at-risk populations?) 4. Size of market? Number of serves/year or tonnes per year	1. Is there a FSANZ Standard? 2. Is the current Standard appropriate? 3. Is more guidance needed? 4. Is the Australian Standard in line with International Standard(s) 5. It is on Codex agenda 6. Are detection systems commercially available and affordable? 7. Are regulatory enforcement agencies well trained?	1. How many sectors are involved? 2. What is the combined value of the sectors involved? 3. Is the issue likely to affect domestic/export? 4. What is the cost of risk management options?	1. What are the reputational risks (i.e. health, political/brand etc.)? 2. Is it a current issue nationally or internationally 3. Is the issue static, growing or reducing? 4. Is it likely to cause public outcry? 5. Is the sector high profile? 6. Is it recreational fishery? 7. Does it affect aboriginal/Torrens Strait Islanders or human rights? 8. Does it affect social licence to operate? 9. Will there be conflict between states/territories? 10. Is there an effective organisation to manage incident/change? 11. Is there Ministerial interest?	Is it related to an environmental issue? 1. Is it a climate change issue? 2. Is it a local change in environment condition? Is it related to sustainability? 1. Is it caused by implementation of sustainable practices (i.e. less reliance on antibiotics?) 2. Will risk management cause issues for sustainable practices? 3. Does it affect food security?

Appendix 2: Issue summary sheet

Category	Sulphites in canned abalone	HABs	Ciguatera	Vibrios in bivalves	Food fraud & authenticity	Arsenic in *Amusium* scallops	Off label chemical use	PFAS	Parasites in finfish	Water retention	Mercury in crustaceans
Trade and Market Access	5	4	11	5	5	13	8	13	13	19	17
Public Health	18	5	5	5	13.5	13	13	18	17	25	20.5
Regulatory Issues	3	**3.5**	11	8.5	8	8	13	8	18	18	18
Economic Impacts	5	5	8	8	8.5	13	8.5	13	14	16	17
Reputational Impacts	13	5	8.5	8	5	5	8	11	18	15.5	17
Environmental/ Sustainability Issues	25	9	13	13	13.5	22	14	8.5	18	25	22.5
Overall	3	3.5	5	5	5	5	8	8	13	15.5	17
Current activity in Australia?	Y	Y	N	N	N	N	N	Y	Y	N	
Current SafeFish Priority Area	Y	Y	Y	Emerging	TBC						
	Look for opportunities	technical advise	Current and continue	Communication with WA and QLD	Look for opportunities	Liaise with DAWR+industry	Watching brief	Watching brief with FSANZ	Info/education includes sushi	No action currently	Risk communication/ mentoring