

# Food Safety and Innovation

## Seafood Subprogram

SOUTH  
AUSTRALIAN  
RESEARCH &  
DEVELOPMENT  
INSTITUTE  
**PIRSA**

The Seafood Subprogram sits within the SARDI Food Safety and Innovation Research Program. The subprogram themes are Seafood Safety and Market Access, as well as Seafood Innovation and Value Adding.

The core aims of the Seafood Subprogram are to support:

- Protecting the health of seafood consumers and enhancing Australia's position as a trusted supplier of seafood.
- Developing new products, enhancing product quality and improving cold chain and processing efficiencies to maximise the post-harvest value and commercial competitiveness of Australian seafood industries.

### Key capabilities:

**Risk analysis** – Identification of food safety hazards across the supply chain, ranking of hazards in terms of risk, and quantitative risk assessment to support improvement in risk management practices across the supply chain and market access.

**Technical market access** – Research to allow resolution of technical barriers to trade, maintaining international market access. Technical input into the development of new international regulatory seafood standards to ensure they are risk commensurate and cost effective. Provision of information on existing international regulatory standards for Australian seafood exporters.

**Marine biotoxins and harmful algal blooms** – Investigation of food safety issues related to harmful algal blooms and marine biotoxins in seafood in Australia.

### Seafood microbiology and molecular biology

– Analysis of seafood in PC2 rated laboratories for microbiological pathogens and indicator organisms. These can be used for optimisation of seafood processing performance, shelf-life assessment, industry benchmarking, and safety evaluations of new product types.

**Acute toxicity assessment** – Assessment of natural toxins, including epidemiological and toxicological hazard assessment.

**Chemical residues** – Testing residues and contaminants in seafood, including product safety verification and selection of residue test methods to facilitate quality control and export of seafood products.

**Post-harvest handling** – Investigation of the impacts of post-harvest handling on product quality and resultant shelf-life.

**Process optimisation** – Evaluation of new cooling and processing technologies to enhance product quality and shelf-life, minimise wastage and optimise efficiencies.

**New product development** – The development of novel products, that are safe and cost effective. These include alternative products from waste materials, by-catch or under-utilised lower grade fish.

**Packaging** – Application of new and existing packaging technologies to seafood to maximize product quality and shelf-life and access new markets.

**Shelf-life assessment** – Microbiological, chemical and sensory techniques to evaluate impacts of post-harvest handling, processing and packaging.



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