



# Genics

## An ON program case study

Securing global food production through smart pathogen detection and breeding selection.

Genics is providing technology solutions to advance cost-effective pathogen detection for all shrimp farmers, transforming disease and stock line management.

### The challenge

Disease is a major impediment to productivity in food production systems globally and is often a non-insurable open risk. This leads to significant losses to shrimp farmers.

---

**Revolutionising shrimp farming practices to deliver global food security and improve data delivery time for informed decision-making.**

---

### The response

Genics has developed cost effective testing solutions for multi-pathogen testing for shrimp breeders.

Key products include:

- prawn (shrimp) pathogen detection technology that can quickly detect multiple pathogens in shrimp in a single test
- a heritage panel that determines stock pedigree and genetic relationships in prawns.

The proprietary technology quantitatively detects 13 pathogens of commercial relevance at sensitivity levels equal to – and in most cases superior to – current World Organisation for Animal Health and standard industry tests.

### The impact

As a result of this technology, increased aquaculture production is predicted through improvements in breeding, feeds, health care and disease control, as well as changes in production systems. Future applications in fish, porcine and bird industries also allow for increased food production without expanding agricultural land.

Without the ON program it is likely the technology would ever have been commercialised. The net present value from participating in the ON program is assessed as \$16.5 million (at a seven per cent real discount rate), while the benefit-cost ratio is 8.2.

Foresighted longer-term impacts include a contribution towards delivering global food security.