



PROTECTING AUSSIE PRAWN FARMS

PARTNERS



IN SHORT

This Food Agility CRC project validated eDNA water sampling for early detection of disease in prawn farms, comparing it to the industry 'gold standard' of tissue sampling.

"The information and techniques gained from this research are going straight into our company's Biosecurity and Health Management plan. That's quality and impactful R&D with real commercial benefit."

Tony Charles, Australian Prawn Farms

THE CHALLENGE

Prawn farmers face threats from diseases that can destroy entire prawn stocks or cause stunted growth or deformities resulting in lower harvests. Current testing involves collecting tissue samples from prawns which is time consuming, labour intensive, costly and only provides information after an infection occurs. There's also the risk of spreading disease across the farm during the sampling process.

OUR APPROACH

This project used eDNA samples taken from the water in prawn ponds to provide an early warning system for the presence of pathogens in the environment, before a disease outbreak can occur. The effectiveness of eDNA sampling in prawn ponds over two farm production cycles was compared to the 'gold standard' of tissue sampling to allow the method to be validated for wider industry use. The research investigated the pond and environmental conditions and their link to disease outbreaks. Tools to assist in management and an early alert system for disease risk were also developed.

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