

# OceaNZ Blue

## Paua from pristine waters

TechNZ supports the food and beverage sector to develop new products, processes and services and improve technical knowledge and R&D capability. Up to \$50 million is invested each year in New Zealand businesses to grow world-class companies through innovative technology.



### The Company

OceaNZ Blue has the largest abalone (paua) farming facility in New Zealand, and has a growth plan that will eventually make it one of the biggest in the world. Formed six years ago, OceaNZ Blue is located south of Whangarei alongside NIWA's Bream Bay Aquaculture Park. Its farm covers an area the size of a football field and has a deep water intake (600 metres out into cool, clean ocean waters), rigorous filtration and a disease free status. Their product is cryogenically frozen minutes after harvest in an onsite, state-of-the-art processing facility, and is supplied to international markets in Japan, other parts of Asia and the United States.

### The Research and Development

In 2003, TechNZ – the Foundation for Research, Science and Technology's business investment programme – invested close to \$350,000 to support a ground-breaking abalone breeding programme. It focused on developing selective breeding technologies, improved husbandry techniques and higher larval production rates to produce fast-growing strains with greater market appeal.

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OceaNZ Blue had to start from scratch to understand the science behind breeding and farming abalone, says CEO Doug Lloyd.



### Fact File

**Location:** Bream Bay, south of Whangarei

**Staff:** 27

**Exporting:** Nearly 100% of revenue is from exports

**First TechNZ investment:** 2003

**Value of TechNZ investment:** \$440,000

**Projected revenue from R&D:** \$6 million by 2011

Above: OceaNZ Blue used TechNZ funding to support a ground-breaking abalone breeding programme.

“ TechNZ support helped OceaNZ Blue develop the tools to track back five years, identify important characteristics in abalone and breed them into its stock. Further TechNZ support has allowed the company to employ a world-leading abalone expert to solve issues around algal feed for young abalone. ”

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New Zealand Government

“ We’ve been delighted with our investments in OceaNZ Blue. Abalone are notoriously hard to grow but OceaNZ Blue has put the necessary time and money into understanding how to do it. They are now poised to become a profitable, world-class company. ”

Stephen Flint, TechNZ Business Manager

“If you are breeding sheep or beef there is a huge amount of knowledge about how to improve productivity, but none of that existed, or was available to us, with abalone. It has been a massive and ongoing task to identify the characteristics that would speed up growth rates and develop optimum breeding conditions and protocols, while ensuring our product is of the highest quality.”

Farmed abalone can take up to four years to grow to market size, and six or seven years to be of a suitable breeding size, says Lloyd, so even a 10 per cent improvement in growth rates can deliver a huge financial return.

“The R&D was a big undertaking for a start-up company and we wouldn’t have embarked on the project without that support,” says Doug. “Even now that we are in production I don’t think we’d have the resources to begin something of that scale on our own.”

A further TechNZ investment of \$90,000 allowed the company to employ Dr Rodney Roberts, a world-leading expert in the field of abalone breeding. Dr Roberts’ work has helped OceaNZ Blue to increase survival rates of young abalone, which are haemophiliacs and highly susceptible to changes in their environment. Dr Roberts, who is now R&D Manager with the company, used his expertise to develop new strains of algae to feed the abalone, and has improved growing techniques.

TechNZ funding is also supporting work by a Masters student from the University of Auckland, who is building on Dr Robert’s initial research to understand the reproductive cycle of the algal food source and ensure reliable, year-round levels of production.

## The Achievements

Investment in R&D has positioned OceaNZ Blue to become a world leader in abalone farming and exporting, and the company’s success is helping to build New Zealand’s capability and international reputation for aquaculture.

As a result of the original R&D project, OceaNZ Blue has developed the first DNA markers for abalone in New Zealand and now has the tools to track back five years, identify important characteristics and breed them into its stock.

Dr Roberts’ work in improving food supplies for young abalone mean the numbers coming out of the OceaNZ Blue nursery have grown from around one million a year to two and a half million, enough to support the company’s growth plans.

OceaNZ Blue is expecting production of 70 tonnes this year and aims to reach its goal of 250 tonnes of saleable abalone by 2012, making it one of the biggest commercial abalone farming ventures in the world.

Japan was an early market for OceaNZ Blue, but the United States is currently the key destination, with their product highly valued for the company’s natural processing methods and because it is grown in New Zealand’s pristine waters.

[www.oceanzblue.co.nz](http://www.oceanzblue.co.nz)



OceaNZ Blue has developed unique intellectual property around breeding and raising New Zealand paua.

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