INFANT FORMULA FOR MUSSEL SPAT

Poor quality spat is a major cause of low retention in Greenshell™ longline farming and this is often compounded by seeding spat out at small and vulnerable sizes. Feeding up large quantities of spat to recover their nutritional condition quickly, and to grow them to larger and more robust sizes before seeding out, requires a specialty food that fits their needs.

Unfortunately, there is no off-the-shelf solution that works reliably for feeding up Greenshell™ spat, other than growing live microalgae. Testing of a range of imported shellfish spat food products that are used for nursery rearing of oysters and clam spat overseas has found that they do not work well with Greenshell™ spat which has unusual feeding behaviour and nutritional requirements.

To address this problem, researchers at the University of Auckland have teamed up with the Marine Farming Association, Coromandel Marine Farmers Association, Aquaculture New Zealand, Sanford and the Greenshell Spat Co and a number of other industry partners to develop a more effective food for Greenshell™ spat – almost like an infant formula for spat.

The research has attracted significant support from the stakeholder groups, with a significant contribution from the Ministry for Primary Industries through their Sustainable Food and Fibre Futures initiative.

In announcing the funding, Oceans and Fisheries, Minister Shane Jones commented, "This project seeks to increase the resilience of our mussels and significantly boost the sector's productivity

"The industry largely relies on wild caught spat, which has extremely low retention rates. Less than five per cent of wild caught spat survives after it's transferred to mussel farms, costing millions in lost production each year.

"The results from the project will ensure that spat are raised to a robust size before being transferred to farms."

"This project will address spat supply issues which are severely restricting the productivity and growth of the industry in New Zealand."

Improving spat performance in Greenshell™ will help the industry to reach Government's Aquaculture strategy goal to triple aquaculture sales revenue to $3 billion by 2035, which includes boosting Greenshell mussel earnings to $1 billion per year.

Lead researcher, Andrew Jeffs, from the University of Auckland, says to produce an effective spat feed from the research is a challenging but worthwhile goal. The initial research has identified some new approaches that have not been used previously for feeding shellfish spat, for which initial testing has produced some positive results. He is hopeful that initial prototype feeds will start to be tested with industry partners later in this year's spat season.

Picture: Off-the-shelf food from the USA that is widely used for feeding oyster and clam spat overseas, but it is not as effective when fed to Greenshell™ spat. Developing an equivalent bespoke feed for Greenshell™ spat is the aim for the research and development project.

- University of Auckland