

# QUARTERLY PROGRESS SUMMARY:

## Jul to Sep 2018

SPATNZ



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### Summary of progress during this quarter

Autumn and winter months have always been our most challenging time of year for larval rearing of Greenshell™ mussels in the hatchery. With intensive research over the years we have improved our winter success rate. The reporting quarter was very productive yielding 1.63 billion ready-to-settle larvae over three batches. Our total number of ready-to-settle larvae from this quarter has roughly doubled every year since 2015 when we commenced trials in the new hatchery.

The selective breeding programme consists of cohorts of families that are reared together from hatchery through to harvest on a number of sites. Those spawned in Feb 2017 have reached harvest size at some of the test sites, so harvest assessments have commenced. 98 of the 100 families created made it through the production pipeline, with two dropping out in the hatchery phase. Those spawned in Feb-Mar 2018 were intermediate seeded in the reporting quarter.

### Key highlights and achievements

- Reared 1.63 billion ready to settle larvae in the Jul-Sep quarter
- Commenced harvest assessments on the 2017 cohort of families, which were spawned in Feb 2017

### Upcoming

- DNA finger printing to optimise selective breeding

### Investment

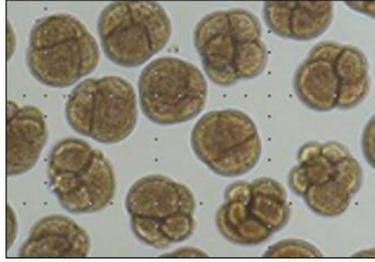
<b>Investment period</b>	<b>Industry contribution</b>	<b>MPI Contribution</b>	<b>Total Investment</b>
During this Quarter	\$0.09 M	\$0.09 M	\$0.18 M
Programme To Date	\$9.8 M	\$9.8 M	\$19.7 M

**Photos:** Early life stages of New Zealand Greenshell™ mussel.

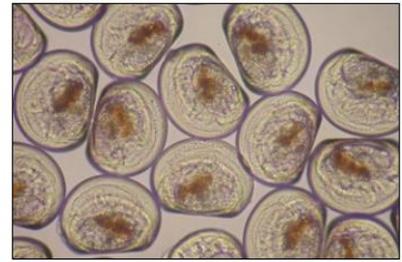
Female spawns 10-30 million eggs (orange)



Embryos dividing, 3 h old. 0.07 mm



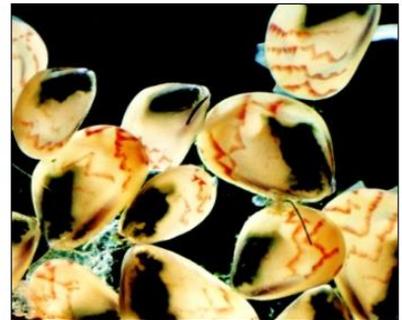
Swimming and feeding with shells at 4 d old, 0.1 mm



Swimming larva, 16 d old, 0.2 mm.  
Photo: Adam Rusk



Settled spat crawling on rope fibre, 0.7 mm, 6 w old



Mussel spat, 3 mm, 3 mo old.  
Photo: Cawthron Institute