

QUARTERLY PROGRESS SUMMARY:

Oct to Dec 2017

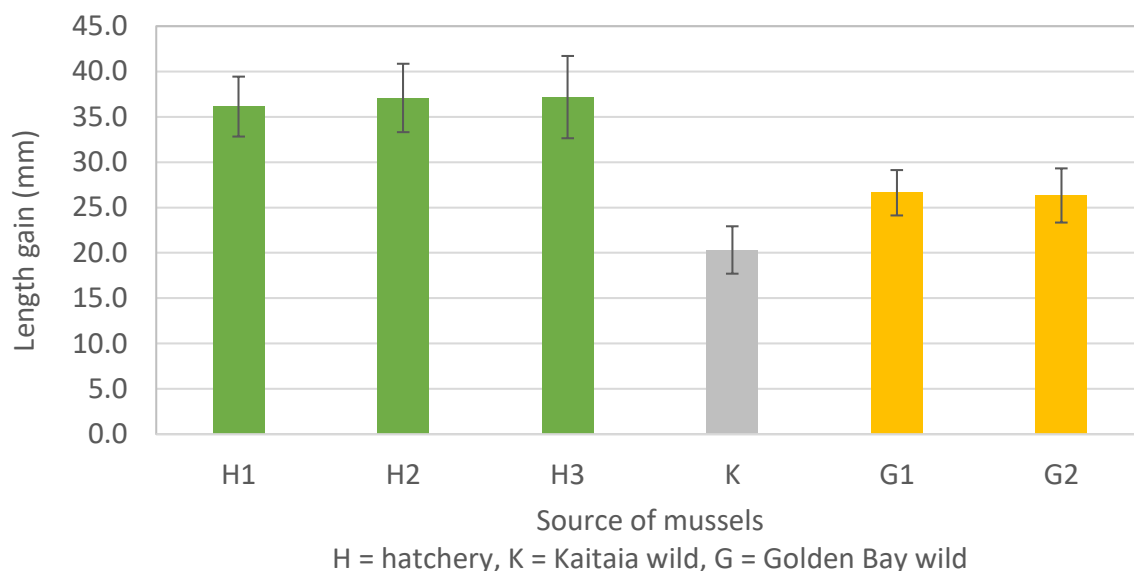
SPATNZ



Summary of progress during this quarter

Hatchery mussels are growing much more quickly than wild mussels: We've set up a big trial to compare three selected hatchery strains with 2 batches of Golden Bay wild spat and one batch of Kaitaia wild spat. Each of the 6 strains was final seeded at ~50 mm shell length onto 10 farms ranging from very poor to very good growing sites. In December we measured growth over 10.5 months from final seeding, and the results continued to show the big growth advantage of hatchery spat. On average, the length gain of the hatchery mussels over this period was 83% greater than that of the Kaitaia wild mussels and 39% greater than Golden Bay wild mussels. Four batches of the hatchery spat from the growout trial have now reached harvest size and been processed through Sanford's Havelock factory. Feedback from factory staff is very positive with comments like "great for processing", "nice and plump with very few flaws and very clean shells" and "it would be nice to process this every day".

Length gain (mm) over 10.5 mo (22 Jan to 11 Dec 2017) after being final seeded at ~50 mm.



The reporting quarter was our best ever in terms of the number of larvae settled. Three successful batches yielded 2.16 billion ready-to-settle larvae, nearly 2 billion of which were settled. This was 2-3 times more than in the same quarter of the previous 2 years.

Our main challenge at the moment is to improve the survival of the tiny spat after transfer to spat farms. Mussel recruitment is highly variable in nature and on farms, so volatility at this stage of mussel farming is common. We lose

a lot of our control over the environment of the mussels after they leave the hatchery, so it is much harder to ensure success.

About 40,000 mussels from the 2017 cohort of breeding programme families were engraved with an identification number in December then mixed and deployed to 6 different growing sites to assess their performance through to harvest.

Key highlights and achievements

- Robust data demonstrating the much faster growth of selected hatchery mussels relative to wild mussels using commercial farming methods
- Continued improvement of larval rearing scale and success relative to previous years
- 2017 cohort of families from the breeding programme were engraved and deployed to 6 grow-out farms

Upcoming

- Begin to harvest and process mussels from the growout trials described above
- Produce the 2018 cohort of selective breeding families, incorporating new genomic tools for the first time

Investment

Investment period	Industry contribution	MPI Contribution	Total Investment
During this Quarter	\$0.29 M	\$0.29 M	\$0.59 M
Programme To Date	\$9.1 M	\$9.1 M	\$18.2 M