



# Sea Based Paua Spat Production

Apex Marine Farm Ltd

# Reasons

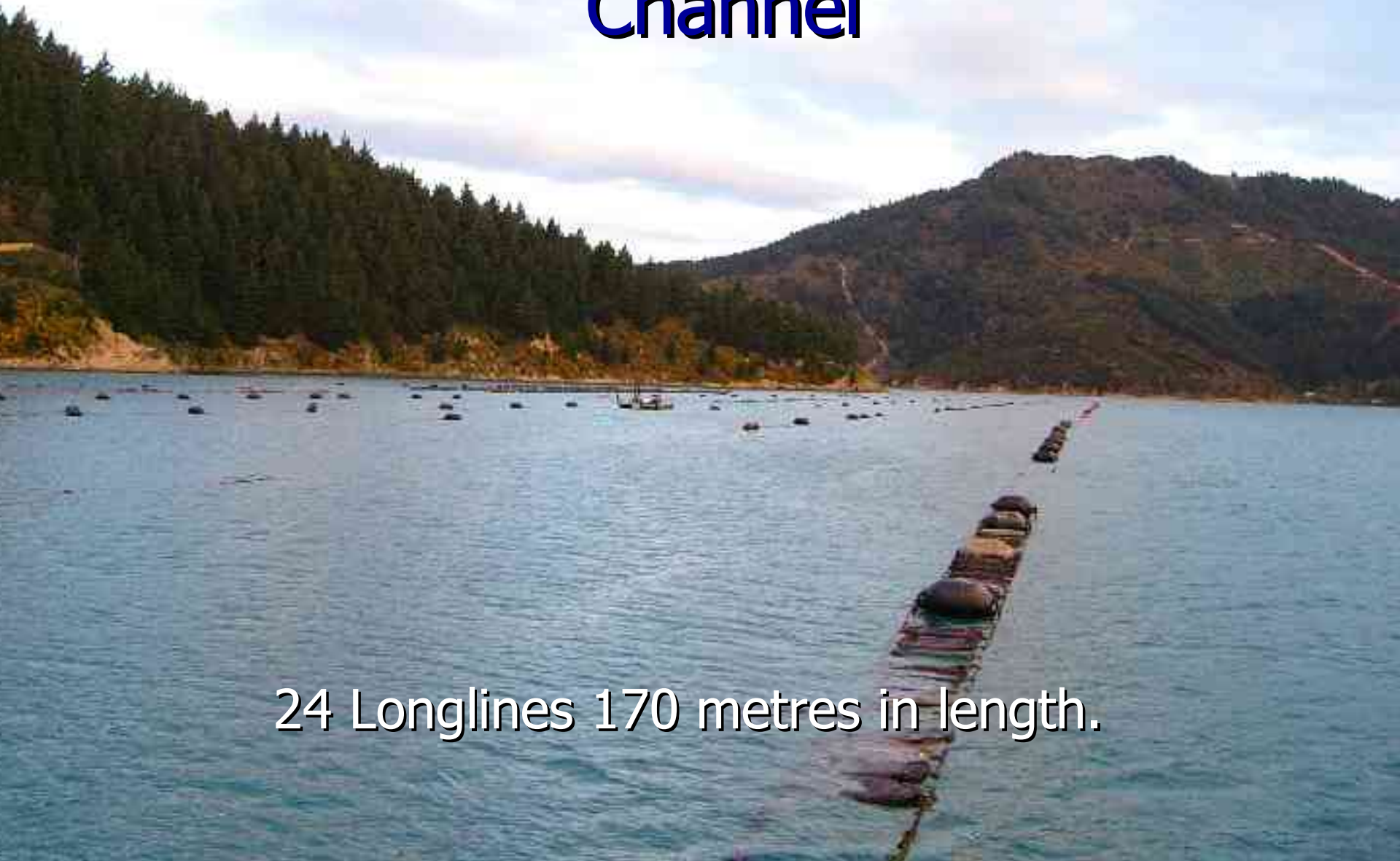
- Shore based expensive to grow from 10mm up to 25mm
- Allows purpose built spawning and early nursery systems to be more efficiently utilised
- Sea based systems have few size constraints and maybe more cost effective.
- Less change in diet being fed diatoms and seaweed from an early age .





# Licence 464 Ngaruru Bay Tory Channel

24 Longlines 170 metres in length.



# What have we done –last two years

- Applied and granted Technical Assessment Project From Foundation for Research, Science and Technology \$25,000 in January 2003
- Transferred Lot A (Jan 2003) Lot B (April 2003)
- Stopped project because of disease testing requirements from Ministry of Fisheries and problems with genetic purity imposed by Ministry of Fisheries.
- Recommenced when Ministry of Fisheries gave Cawthron disease clearance for six months. Lots 1-4 Nov 2004-January 2005

# Lot A (Jan 2003) and Lot B (April 2003)

- Tested systems on 3-8mm paua
- Reasonable survival but mortality occurred due to abrasion in bad weather
- Trial poorly set up in terms of early diatom preparation and poor access for paua to seaweed due to the system used.

# Lot 1; 3-4mm paua 12 November 2004

- New barrels trialled with ability to manipulate light levels
- Much more agitation but design improved to reduce mortalities
- Lost diatoms early so fed chopped up red and brown seaweeds
- Mortalities total 5 from 1274 paua on 7 March 2005

# Lot 1; 3-4mm Paua 12 November 2004 (cont)

- An uncharacteristic blue over settlement occurred
- A 150mm Octopus greeted us
- Also a number of crabs
- Mortalities had increased from 5 to 46
- Total shells counted 1274
- Total mortalities 3.61%

# Lot 2; 3-5mm paua 26 November 2004

- Same scenario as Lot 1
- Except 1.9mm liner used over 3mm mesh
- Liner removed 24 December 2004
- No mortalities noted
- Less blue over settlement than Lots 1&3
- No octopus
- Total shells counted 1173
- Total mortalities 2.98%





# Lot 3; 5 mm paua 17 December 2004

- Same scenario as Lot 1 & 2
- 1.9mm mesh not used
- Total numbers much higher at 2370
- Mortalities 3.16% on 24 May 2005
- Unavoidable morts had increased



# Lot 4; 1mm paua 21 January 2005

- Low densities
- Some left in hatchery
- Checked 18 February 2005 ; good growth
- Amphipods visited and ate food
- No way of assessing early mortality



# Conclusions

- Reseeding mainly about survival versus costs
- Substantial reduction in hatchery prices
- Volume no problem

