An update of Abalone farming in Australia - 2009



Species – Greenlip (H. laevigata)













Suited to raceway technology under shadecloth

Temperature range 10 - 25°C

Represents 60% of farmed output



"Tiger" - Hybrid cross of Blacklip * Greenlip (*H. rubra * H. laevigata*)



Lower temperature range 8 -22°C

Higher meat yield, better live shipment qualities, increased growth rate

35% of total output (4 farms), Blacklip is remaining 5%.

Suits farming environment better than Blacklip but requires darker conditions than greenlip.

Selective breeding more complex than single species.



Distribution of Australian Abalone farms -2009











Merger of two WA farms into one Boat based farm in Spencer Gulf gone Some small farms relinquish licenses or farm other species









2009 Production expected to be 820 tonnes















What are the issues faced by industry and what research is required to drive the industry forward?

> Apart from curing the Global Financial Crisis and stabilising exchange rates!

Issue -





Abalone Viral Ganglioneuritis (AVG)

- Four abalone farms affected in December and January 2005/06
 - two pump ashore farms
 - two sea farming operations
- All farms voluntarily de-stocked. This resulted in the loss of a formalised national selective breeding program where the progeny was to be made available to the rest of industry
- May 2006....First AVG case reported in wild stocks has since spread 200km but is now dissipating and in recovery
- June 2006. AVG declared an exotic disease under the Victorian Livestock Disease Control Act to provide for response actions
- AVG found in Tasmania in Sept 2008 in wild stocks in a separate incident



Health surveillance and biosecurity measures

- Recognised that all sectors Wild fishery, aquaculture and processors needed to upgrade disease prevention measures
- Victorian biosecurity COP in place for farms, fishery and processors
- Victorian Abalone farms implemented quarterly health surveillance scheme and annual biosecurity auditing.
- Translocation policy implemented
- Farmed Abalone used as a model for an Emergency Aquatic Animal Disease Response Agreement (EAADRA) template
- Nationalisation of all policies encouraged
- Polymerase chain reaction (PCR) test developed for AVG

Issue - Sustainability

A number of Farms operating under Environmental Management Systems (EMS) up to ISO 14001 level

- Abalone farmers in dialogue with WWF to investigate environmental accreditation
- The installation of wind and wave power for some land based farms is being assessed





for a living planet*



for a living planet®

Issue and research - Genetic Improvement

- Currently a program in place with a number of separate farms taking part but most farms practising mass selection
- Attempts to establish a national centralised breeding facility separate to but owned by commercial farms, this would increase security of stock through dispersal of families to participating farms and enable environmental testing
- Development of disease resistant lines highlighted with AVG occurrence
- Continue work on genetic tools; cryopreservation, hybridisation, triploids, marker assisted selection

Research topics Genetics AVG topics Epidemiology and biosecurity Nutrition Understanding the relationship between diets, stress, temperature and mortality. Epidemiology of diet and gut health interactions – survey of diet type, key water quality parameters, stocking density, age and epithelial integrity. Benchmarking of production parameters





