

CRC Project Progress Summary compiled by Dean Lisson on 19th October 2010

Progress Report; CRC project 2009/708 “An Abalone Quality Assurance program for the Australian Wild Caught Abalone Industry”; Vin Gannon

This project has been temporarily suspended – it is currently being redesigned in light of early stage research findings from the CRC China Project 2009/723. An issue that needs further consideration is how an ongoing QA system will be paid for by industry (after rollout phase) – i.e. is there a commercial proposition for a QA program to continue after this project? This project will now be divided into two components as follows;

Module 1; *Harvest to Processor*; this component will deal with harvest practises from when an abalone is removed from the seabed right through to when it is received by the processor at the factory door. This module has been developed from a Code of Practise already developed in Tasmania and is virtually ready for rollout.

Module 2; *Processor to Restaurant*; This component will be developed to align with research findings generated by direct feedback from the CRC China Market project 2009/723. A Quality Assurance Code of Conduct has been developed as part of the China Market project and this will dictate to a large degree the quality assurance outcomes of this module. The module will focus on ensuring provision of premium grade abalone products for the 2009/723 project and will be trialled with those processors who have agreed to supply product for the market trials.

This project forms part of Objective 2 of Investment Platform 1 of the ACA's Strategic Plan – “Establish an ACA Ltd Quality Assurance and Product Integrity Program through the supply chain that is applied to all legally harvested Australian abalone”. The program is to involve fishers, processors, exporter/importers and handlers.

An important aspect of this project is that it will also utilise some of the emerging leaders in the Australian abalone industry. The ACA will identify five participants who will assist with the project by coordinating activities in each State or fishery.

The plan also recognises that each of the state jurisdictions have different regulatory requirements for the implementation of QA programs. This varies from voluntary programs to approved arrangements and fully audited food safety plans.

The original application has been endorsed by the ACA and subsequently endorsed by the Seafood CRC.

Consultation with abalone processors has revealed a variable level of quality

control driven by financial rewards and penalties to divers delivering fish to the factory. Most processors endorse the need for some form of nationally unified scheme.

The need to adopt a consistent quality assurance approach has been identified in both the Tasmanian Abalone Council Strategic Plan 2008-2013 and the Abalone Council of Australia Strategic Plan.

The agreed objectives for the project are as follows;

- 1 To implement/roll-out a voluntary QA program that is used by at least 80% of the Australian abalone industry
- 2 To develop audit criteria which can be used by individuals or thirds party auditors to determine compliance against the program.
- 3 To ensure that the QA program is owned, operated and maintained by the Abalone Council of Australia, is sustainable and is self funding.
- 4 To make a recommendation to the abalone industry about an Australian Wild Caught Abalone "Quality Assured" mark/logo that can be incorporated within the brand being developed as part of CRC project 2009/723; Analysis of product differentiation opportunities for Australian wild caught abalone in China.

The Abalone QA CoP program will be published as a formal working document and made freely available to all sectors of the Australian wild catch Abalone industry. Sample food safety plans for harvest vessels and divers will be developed and made available to industry. Workshops will be held in five States to train industry personnel in the implementation of the QA CoP program. A set of audit criteria which can be used to determine compliance against the program will be made available to all sectors of the industry to further assist in gaining compliance. A database to record lists of QA certified suppliers will be developed and populated.

Tasmanian processors have developed a set of assessment criteria that formed the basis of the current program. All processors in Victoria have been surveyed during April-May 2010 to develop a set of agreed quality specifications for Australian Wild Harvest Abalone.

Following these surveys, a finalised set of assessment criteria will be developed and incorporated into the Australian Wild Harvest Abalone QA Program.

It is anticipated that some degree of training of divers will be needed to implement the scheme. This could be as little as a half-day seminar, or may require more formal training. The costs of formal training are not included in this application and it is expected funds will be found from the TaFE sector for this training if needed. The cost of detailed training of auditors will need to be included.

Progress Report; CRC project 2009/723: “Analysis of product differentiation opportunities for Australian Wild Caught Abalone in China—Stage 2”; Dean Lisson

The overall project, of which this current proposal is Stage 2, is designed to measure and benchmark the relative effectiveness of different market development activities for Australian wild caught Abalone in China. It will highlight the options that would be most effective in delivering the objectives of the abalone industry: increase the awareness of Australian Abalone, with the aim to increase repeat purchase from restaurants and increase the value per unit sold from restaurants.

Specifically, the Stage 2 project objectives are as follows;

1. To prove that Australian Wild Caught abalone products can be successfully differentiated within the Chinese market resulting in increased demand and increased value for abalone products (live, canned, frozen, dried, vacuum packed etc) within this principal market.
2. Following achievement of objective 1, to gain abalone industry support for the adoption of an ongoing Promotional Strategy funded via an industry levy
3. To develop an agreed national industry levy structure that will fund any ongoing Promotional strategy

Grey Group has recommended a series of Business to Business (B2B) and Business to Consumer (B2C) based programs. These trial programs will be restaurant based and will involve a total of 210 restaurants (120 in Shanghai, 40 in Beijing and 50 in Guangzhou). The programs will be progressively rolled out in each of the three cities between July 2010 and September 2011.

The official Trade Launch events for the project have now been completed for Shanghai (August 25th, 2010 at the Lan Club) and Guangzhou (15th to 18th September 2010 at the China International Small and Medium Enterprises Fair, CISMEF).

The PR company has been appointed by Grey Group; **Moisson** belongs to a media group that focuses on the high end lifestyle of affluent consumers and has close contacts with restaurant owners, hotels, CEO's, government and chefs - both local and international.

The China project team is currently resolving supply chain issues - i.e. ensuring that once the channel recruitment phase commences (after the Trade Launch events) restaurants will be able to obtain abalone products from the recruited processors via the white channel route into China.

An application for formal registration of the identifying industry mark (Australian Wild Abalone) has been lodged by Anisimoff Lawyers (Melbourne)

with the Australian Trade Marks office. Proceedings required for registration of the industry mark in China have also commenced.

Advice from the Department of Agriculture, Fisheries and Forestry has been obtained in relation to Chinese import regulations with respect to preservatives used in certain processed abalone products. The relevant regulations have been obtained (via Lynda Feazey from DAFF) and these have been translated into English.

Please note that as an offshoot of the China Market project, new abalone product forms are likely to be developed and tested for access into China. These potential new product forms include; high pressure processed (HPP) abalone meat vacuum pouch, raw chilled abalone meat in vacuum pouch and raw chilled abalone meat in modified atmosphere packaging. Provided access to China for these product forms can be obtained before the Marketing trial finishes, these products will be tested as part of the trials.

Please also note that a new ACA/CRC project is currently being drafted as a result of early stage research findings from the CRC China Project 2009/723. This project has the preliminary title of “*Development of a China Direct Trade Corridor for Australian Wild Abalone*”. This project will encompass all of the issues surrounding and ancillary to the establishment of a direct trade channel into China for wild caught abalone. Such issues include market access, quality assurance and product development. This trade channel will include “forward engagement” beyond the Chinese importer to the restaurants and retail food sector.

It has become apparent to members of the project team that the existing supply chain for abalone (and indeed all seafood products) from Australia to China is relatively unsophisticated and that there is currently a low level of engagement between the importers and the end consumer i.e. restaurants and their customers. This low degree of sophistication has caused a service gap to develop (in particular) between the end point in the supply chain and the premium “stand alone” and “hotel” restaurants in the tier one cities of Shanghai, Guangzhou and Beijing. In addition to this service “gap”, restaurants at the top level are subject to increasing levels of regulatory scrutiny regarding their sourcing of raw materials. Country of origin labelling is required along with the relevant food safety certification – these requirements effectively preclude supply via the “grey channel” which is used for the majority of seafood imports into China. Accordingly, a direct legal entry importation channel needs to be developed and implemented so that Australian seafood can enter China with the appropriate documentation and a high degree of product integrity. The development of such a direct supply model (coupled with the requirement for increased service levels) should be the subject of a further CRC funded research project – these elements are currently beyond the scope of project 2009/723

Progress Report; CRC project 2008/909: "Market Access for abalone to the EU"; Dr Cath McLeod et al

Paralytic Shellfish Toxins (PST's) are the most common and widespread marine bio-toxins detected globally. These toxins are water-soluble and heat stable and have been confirmed as causing the toxic syndrome known as paralytic shellfish poisoning (PSP) in humans, primarily

The draft final report for this important project has recently been submitted to key stakeholders for review and comment. The report confirms that there exists a negligible risk of Paralytic Shellfish Poisoning (PSP) to humans from the consumption of *H.laevigata* (greenlip abalone) even after the high contamination expected during typical dinoflagellate blooms. This is good news for the wild harvest sector and I accept Cath McLeod's (PI) advice that the report should provide positive outcomes regarding regaining EU access and shoring up our position with Codex.

I would certainly support the publication of this report in scientific journals (such as *Toxicon*) as a means to obtain peer review credibility and to make it more compelling to overseas regulatory authorities.

I am pleased to report that the EU has accepted the conclusions from the above project and that Australian wild harvest abalone has now formally regained access to the EU markets.

With regards to the development of the "follow-on" project on abalone market access (bio-toxins), Dr Cath McLeod has drafted a full application for the CRC to consider. I have attached the latest version for you.

A key aim of the proposed new project is to provide an updated risk assessment to support standard setting processes at Codex - more specifically to support the debate that bio-toxin standards should be risk based and not mandated across the board. This assessment will also be able to support negotiations with China and Japan (note that bio-toxins are currently being targeted by these markets). As discussed at a meeting early in the year, the project looks to fill some of the data gaps identified in the first project (e.g. lack of data), and also extend the Risk Assessment to other marine bio-toxins (in addition to PSTs).

Regarding the funding situation, the CRC has supported funding for \$100K towards this work at the concept stage, but the cost of the project far exceeds this (~\$360K). To try and bridge the funding gap Dr McLeod will be submitting an application to the South Australian Premiers fund in October 2010 and seeking co-funding from the NZ Association (this seems likely at this stage).

The technical trade hurdles that Australian seafood products have to overcome to maintain international market access increase each year, with additional microbiological and chemical tests being imposed by importing countries. The Australian abalone sector has not escaped this increasing regulation trend. For example:

- In 2010 abalone and marine bio-toxins are being targeted by the Chinese and Japan authorities for import testing. - Regulatory standards for marine biotoxins in abalone have been enforced by the EU since 2007. - The Codex Committee on Fish and Fishery Products are progressing an international abalone standard with proposed marine biotoxin testing requirements. These standards would potentially require Australia to intensively sample abalone from the entire coast line.

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Australia is a major producer (4,816 tonnes caught 2008) and exporter (~74 % of total production exported in 2008) of 'wild caught' abalone. Due to the reliance of the abalone sector on export, it is important that technical access requirements are appropriate in scale. Meeting a standard for bio-toxin levels fundamentally would not appear to be an unreasonable requirement. However, the application of marine bio-toxin standards in Australia is logistically difficult to implement and costly, because this potentially would require the testing of a large proportion of the coastline in order to comply.

In 2009, fundamental research was undertaken (ASCRC Project 2008/909) to determine the risk that Australian abalone carried to consumers. This research demonstrated that marine bio-toxins in Australian abalone are well below acceptable standards and are of negligible risk. On the basis of the preliminary data generated in Project 2008/909, a minimalistic sampling and testing regime was proposed that would verify the ongoing extremely low bio-toxin status of our product. However, Project 2008/909 also identified significant data gaps that adversely affect the accuracy of the risk assessment and this limits our ability to promote a minimalistic sampling/testing strategy. The major data gaps identified were:

- Insufficient data on levels of marine bio-toxins in wild-caught Australian abalone (only 52 samples analysed in Australia).
- Limited data available on depuration dynamics of toxins from abalone. - No data available on the effect of the actual canning process on the levels of toxins in abalone.

Therefore, in order to confidently promote a risk based bio-toxin testing strategy with Asian markets (China and Japan) and at Codex, the data gaps identified in Project 2008/909 need to be addressed. Consequently the research proposed in the new project application aims to: (1) provide baseline data on marine bio-toxins in Australian abalone; and (2) develop a scientifically robust position (risk assessment) to support Australian negotiations with key export markets (China) to implement risk based marine bio-toxin testing protocols.

A letter of support for this project from the ACA has been recently sent to the CRC.

Progress Report; CRC project 2009/714: “Decision Support Tools for economic optimisation of invertebrate fisheries”; Dr Klaas Hartman and Dr Caleb Gardner

This project will conduct baseline economic studies across all Australian abalone fisheries that will provide a snapshot of the fisheries and will provide the basis for the economic analyses. A methodology will be produced for using the economic data and stock assessment reports to make TACC recommendations. The economic benefits of various fishing to market strategies will be determined.

This project is linked to the “decision support tools” projects for SRL and WRL and the ACA board have requested that they see the work done to date on SRL and WRL before committing fully to this project.

A project concept proposal was discussed at the ACA meeting on March 15, 2010 and ACA board gave conditional approval, contingent on some further consideration of the budget, in light of work already done in some states and in the SRL and WRL fisheries. The board supported the concept with \$272k as an upper limit. Klaas Hartmann (PI) and Caleb will have a full proposal within 1-2 months for the ACA to consider.

At the ACA meeting of 16th August 2010, this project was further discussed. Klaas Hartman is no longer involved in this project. After considerable discussion between ACA board members, CRC representatives and Caleb Gardner, it was resolved that we cannot consider giving final approval to this project until the following occurs;

1. The ACA receives additional feedback from SRL and WRL regarding the work that has been completed under this project for the lobster fisheries – i.e. how worthwhile it has been and an analysis of current and future project outcomes that may be useful to industry.
2. The chairman of the Industry committee for this project, Rodney Trelogen addresses the next ACA meeting.

Progress Report; CRC project 2010/704 “ Maximising the value by minimising stressing abalone – Optimising harvesting strategies”; Dr Craig Mundy and Dr Natalie Moltschaniwskyj

Harvesting, handling and transportation of abalone are stressful events and influence the capacity of the animals to recover from harvesting and their post

harvest survival. Having a better understanding of the stress profile during these phases will enable divers, transport drivers and processors to better manage the supply chain and will maximise the condition and survival rates of abalone and ensure that the maximum value of the harvest quota is retained. The concept proposal for this project has been modified several times and has been before the CRC RAC for consideration.

A workshop was held in Hobart (Monday 10/5/10) and the project scope was agreed with industry stakeholders to include the development of a stress profile from (a) point of harvest to processor and (b) during tank holding phase prior to export and/or processing. The stress profiles are to be developed for a range of harvesting and transport scenarios including day fishing from runabouts and extended stay fishing from abalone mother-boats.

Based on the understanding gained from the stress profiles, the project will make a series of recommendations regarding improved harvesting, handling and transportation methods as well as how to minimise stress (and spawning) of abalone whilst in the tank holding phase prior to export and/or processing.

Craig and Natalie have drafted a full proposal with budget for consideration by the FRDC and CRC boards. I have been informed by phone that this project has just received (as of 18th October, 2010) full approval from the FRDC and CRC Boards and that the project will formally commence early in 2011.