

Australian Prawn Farmers Association HACCP/QA/EMS Program

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and

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NON-TECHNICAL SUMMARY

2002/426 Australian Prawn Farmers Association HACCP program.
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KEYWORDS:

Prawn farms, quality assurance, EMS certification, safe food production

OBJECTIVES:

1. All prawn farmers in the Association will gain third party certification to an audited safe food and quality program and be trained to operate the Program to improve food safety and quality of the end product. All workers within the industry will gain a minimum competency level for working with prawns and seafood in general.
2. To develop and implement the program in keeping with the ASS (with the guidance of SSA). This will be Australian seafood industry's first on ground, industry-wide application of the ASS.

3. To provide worked several examples/templates for the prawn industry of:
 - a. A simple environmental management plan that addresses APFA Code of Practice;
 - b. An environmental management system (EMS) that addresses the majority of environmental compliance issues (based on ISO 14001 format);
 - c. Additional elements to allow transition to ISO 14001 EMS certification; and
 - d. A worked example of an integrated QA and EMS to certification standards.
4. A training program, co-joint with the safe food and quality program, so that the industry will gain a satisfactory competency level of awareness and ability to implement relevant environmental programs.

OUTCOMES ACHIEVED TO DATE

1. The Australian Prawn Farming Industry are all operating to a standard agreed grading system and are all operating to an agreed and auditable standard. This is verified that participating farms have all been independently audited and have been successfully certified under the former Woolworths Quality Vendor Management System (WVQMS) These farms have all successfully migrated to the current WQA (Woolworths Quality Assurance) system.
2. All prawn farmers have a quality manual and have received training in the correct procedures to be used for the manual. Procedures have been put in place whereby new entrants will have access to training to use the quality system.
3. The Australian Prawn Farming Industry has access to the tools to become environmentally friendly through an EMS template which has been developed as part of the project. Any prawn farmer can use this template and procedures to achieve ISO 14001 accreditation.

NON-TECHNICAL SUMMARY

Prior to the commencement of this project approximately eighteen months ago there was no food safety program developed for the Australian prawn farming industry. Nor was there was a quality program. There were no training modules available for the industry in relation to food safety or food quality. Also lacking were any relevant models for EMS in the Australian prawn farming industry. There was a need for these gaps to be addressed. APFA, Seafood Services Australia and Fisheries R&D Corporation jointly funded this initiative to fill those gaps.

This project has established the Australian prawn farming industry at the forefront of meeting new food safety legislation and is the first example of

industry-wide application of the Australian Seafood Standard. All participating producers now also meet the requirements of major retailers and supermarkets. The Association has received very positive feedback from food safety regulators including Safe Food Queensland, Safe Food NSW and Food Standards Australia New Zealand. The Association has been advised that Safe Food Qld is considering using the APFA Safe Food and QA Program as the model code for application in other sectors of the industry.

The project has facilitated a change in the culture of the industry and increased producers' awareness of the competitive advantages which can arise from addressing food safety and quality issues. Recent reports from participating members validate an increase in profitability through better returns for their produce.

A suite of manuals and electronic tools have been developed as part of the project. These manuals comprise:

1. The Safe Food and Quality Management Program Manual which is a suite of 30 documents detailing all steps in the prawn quality management system. Each farm can modify these documents to ensure that the final document is relevant to their individual operations but any changes must be approved by a consultant and be audited. The manual also contains a suite of template documents for record keeping.
2. The Safe Food and Quality Assurance Program Operational Records which is essentially a folder in which the farm will place all records associated with their quality management system.
3. The Environmental Management Program which will be supplied as an electronic template and will assist farmers to develop their Environmental Management Program.

All prawn farms have gained third party certification. For those farms that have achieved the Woolworths Vendor Quality Management System (WVQMS) certification, procedures have been implemented via a private consultant to maintain the currency of their manuals. The WVQMS has since been replaced with the Woolworths Quality Assurance (WQA) system. All farms have successfully migrated to and achieved WQA certification.

Those farms that are part of the WQA system undergo a 3rd party audit every six months. Farms who have a HACCP based food safety system in place undergo an audit every twelve months.

The project has also resulted in a world first ISO14001 certification of a prawn farm. Rocky Point Prawn Farm achieved ISO14001 accreditation in October 2003. The certification was noted by Federal Fisheries Minister Ian Macdonald as an achievement of importance to the Australian aquaculture industry, and underpins Rocky Point Prawn Farm's leadership in environmental sustainability.

Rocky Point Prawn Farm's ISO14001 certification was used as a model for the drafting of a generic EMS manual for wider industry application. The draft EMS Manual has been forwarded to Seafood Services Australia and will

constitute the next major component of the Associations initiatives in relation to environmental sustainability.

ACKNOWLEDGEMENTS

The authors would like to acknowledge the many people who took part in this project. This includes

- The Australian Prawn Farmers Association members and their staff
- Warren Lewis, Aqua Marine Marketing.
- Serena Zipf and the staff of Rocky Point Prawn Farm.

Funding for the project was provided through the Australian Government's Fisheries Research and Development Corporation through the Seafood Industry Development Fund which is administered by Seafood Services Australia.

BACKGROUND

With legislation being developed requiring all farming operations to achieve a level of food safety on-farm and the fact that the supermarkets and other major markets require farms to have a safe food program in place, the APFA researched the need for a method where APFA member farms could improve productivity, food safety and quality in their prawn farming operations. The Program to be developed would cover both food safety and quality issues and provide training aimed at increasing the level of knowledge within the prawn farming sector.

FRDC was involved in funding ASIQAP, which resulted in an ISO Best practice manual for prawn farms. This went some way to outlining quality standards. The development of the new Australian Seafood Standard will set a new benchmark to industry and the need for industry specific guidelines to assist people to understand and meet their responsibilities will be a vital link to making this new standard actually work in practice.

NEED

There was no current food safety program developed for the prawn farming industry and no training programs available for prawn farming employees. This initiative answers this vacuum and will set the prawn industry at the forefront to meeting new food safety legislation and to enable growers to meet current requirements by supermarkets and other sectors. The flow-on noted in other industries is that costly mistakes reduced and profitability rises because of the change in culture.

OBJECTIVES

The objectives of this project were:

1. All prawn farmers in the Association will gain third party certification to an audited safe food and quality program and be trained to operate the Program to improve food safety and quality of the end product. All workers within the industry will gain a minimum competency level for working with prawns and seafood in general.
2. To develop and implement the program in keeping with the ASS (with the guidance of SSA). This will be Australian seafood industry's first on ground, industry-wide application of the ASS.
3. To provide worked several examples/templates for the prawn industry of:
 - a. A simple environmental management plan that addresses APFA Code of Practice;
 - b. An environmental management system (EMS) that addresses the majority of environmental compliance issues (based on ISO 14001 format);

- c. Additional elements to allow transition to ISO 14001 EMS certification; and
 - d. A worked example of an integrated QA and EMS to certification standards.
4. A training program, co-joint with the safe food and quality program, so that the industry will gain a satisfactory competency level of awareness and ability to implement relevant environmental programs.

METHODS AND FINDINGS

The Australian Safe Food Consulting team led by Brad Hutchings and assisted by Mr Mark O'Sullivan undertook training of the twenty six prawn farmers and assisted them to implement their quality management system.

A further consultant was engaged by the APFA to develop a template which could be used by any farmer to implement an EMS for their operation. The template was successful in Rocky Point successfully achieving ISO 14001 certification for their operation.

Substantial improvements have been made against each of the objectives outlined in the original application.

A list of the achievements to date against each of the objectives is detailed below.

Objective 1

All participating prawn farmers in the project attained 3rd party accreditation SGS HACCP standard and for those that required it, to the WVQMS Standard (now the WQA) Standard. All farms were audited by SGS International Auditors.

Farms that are part of the WQA system are audited every six months and those who have attained SGA HACCP standard are audited every twelve months.

The Association has received very encouraging feedback from major retailers as to the improvement in quality of product arising from the implementation of the Program. In particular, there are significant improvements in grading (Classes A, B and C now introduced), sorting (class sizes) and colour specs.

Objective 2

The Program is consistent with the Australian Seafood Standard (ASS) and is the first successful application of a third-party audited industry-wide application of the ASS.

Objective 3

The Association has overseen the production of a draft EMS template for the Australian prawn farming industry which incorporates

- The APFA Environmental Code of Practice;
- An ISO14001-based EMS template;
- Additional elements to allow transition to ISO 14001 certification for those farms who wish to do so; and
- A worked example of an integrated QA and EMS to certification standards.

Objective 3 was modelled off the APFA-EPA-SSA funded ISO 14001 model designed and implemented at Rocky Point Prawn Farm in 2002/03. They achieved ISO 14001 Certification in October 2003 and the certificate was presented to the owners of the farm by the federal Fisheries Minister Ian Macdonald in November 2003. Attached are copies of the certificate and related press articles.

Objective 4

The food safety and Hazard Analysis Critical Control Point (HACCP) training program has been completed. Three one day training sessions were conducted in three sites, namely Gold Coast, Mackay, and Cairns. The manuals which were developed as part of this project formed the basis of the training program. Each farm was provided with a copy of the manuals. All farmers used the generic manual as the starting point and have amended the manual to meet their specific requirements.

A full list of the farms that participated in the program and the outcomes of the training program can be found in the Benefits section of this report.

GENERAL DISCUSSION

The program is based on meeting all HACCP and other safe food criteria and much of it is based on residue and microbiological analysis. Over time the Program will have a significant database of microbiological and residue data of all prawn farms registered with the Program. This data will be used to verify that farmed prawns are safe and meet all requirements.

The HACCP/QA component of the project has resulted in very significant improvements in the quality of farmed prawns from our members. In this regard, I have received positive feedback from major retailers and wholesalers, particularly in relation to improved grading, sorting and colour classing. All participating farms have also completed SGS independent audits and have achieved WQMS certification.

23 Copies of the Safe Food and Quality Management Program Manual have been developed. These were distributed to:

- The 20 participating prawn farms as part of the training program
- A copy to Australian Prawn Farmers Association
- A copy to Seafood Services Australia

- A copy held by Australian Safe Food Consulting.

Rocky Point Prawn Farm is one company who has achieved ISO 14001 using this program. The media coverage of this event is attached.

The Association has completed the EMS manual for wider industry application

Seafood Services Australia will hold and maintain the electronic copies of the three sets of manuals and will make the manuals available through the SSA online bookshop in either a printed or electronic form.

(www.seafoodbookshop.com)

SSA has also developed a procedure whereby the currency of the manuals will be maintained through a feedback loop associated with all future purchases. (see Further Development section of report).

This has been a very successful project. It has had widespread industry support, and has improved our competitive advantage both domestically and abroad. The project has highlighted our members' commitment to food safety, quality and environmental sustainability.

BENEFITS

The HACCP/QA component of the project has resulted in very significant improvements in the quality of farmed prawns from our members. Major retailers and wholesalers have commented on improved grading, sorting and colour classing.

This has resulted in greater public acceptance of the product, particularly product meeting premium grade. It has also had a significant influence on pricing structure within the market, by differentiating products of variable grading, allowing for improved prices for premium product. It is difficult to quantify the price benefits arising from the project because of other major influences on the market in 2002/03, notably a doubling of imports of cheap Asian prawn, SARS and currency fluctuations.

An additional major benefit has been an increase in the number of potential markets available to our producers. This is mainly due to the added credibility and assurance given to the product arising from independent SGS audits and HACCP certification.

Industry-wide certification has most certainly improved the image of the industry in the wholesale and retail markets, and many of our farms are now advertising this fact in their own marketing campaigns.

The project has been recognised by food safety regulators as the preferred model for meeting proposed new regulation for food safety standards.

FURTHER DEVELOPMENT

Distribution of the Manuals

A key plank of this program is the development of the suite of manuals. All members of the APFA currently have a set of manuals. It is important, however, that a procedure be developed to facilitate the future maintenance and distribution of the manuals to new entries to the industry. It is crucial that the manuals continue to be refined and thus remain relevant to the industry.

- The suite of manuals will be maintained and sold by Seafood Services Australia through the online bookshop.
- SSA will distribute the manuals in either a hardcopy and/or electronic forms.
- The recipient of the program would normally contact a HACCP training provider and would arrange for the purchase of a set of manuals from SSA.
- Following training, the manual would be amended to ensure that it was relevant to the individual operation.
- A one page feedback sheet will be distributed with each manual for the recipient to complete and to indicate where the manual may be deficient.
- Upon receipt of the feedback, SSA will determine if the relevant section of the manual needs to be amended in any way.
- If major problems with the manual are encountered, SSA will advise the APFA of the issue who will in turn advise its members.

Environmental Management Initiatives

Since completing the project, the Australian Government has invested in a Scoping Study, funded through the Aquaculture Action Agenda, to assess the capability of three farms to proceed with the implementation of the template Environmental Management Program.

The three farms are:

- Seafarm;
- Gold Coast Marine Aquaculture; and
- TPF Management.

The scoping study has been completed and presented to the Department of Agriculture, Fisheries and Forestry and the National Aquaculture Council.

It is envisaged that the scoping study will assist in the eventual 'rollout' of the template into those three businesses, and ultimately the industry.

Further funding has been secured for the 'rollout' of the template through an eco-efficiency agreement with the Department of The Environment and Heritage on seven Australian prawn farms, including the three farms mentioned above.

PLANNED OUTCOMES

The planned outcome of this project was for all APFA members to adopt a best practice approach to food safety and to have a template developed that could be used in the future for any farm to achieve ISO 14000 accreditation.

As a result of this project, all farms have completed HACCP training and many have been successful in achieving WVQMS certification. A full list of individual outcomes is listed below.

Prawn Farm	HACCP Implemented	WVQMS Certification achieved
Ausea Holdings	Yes	
Bundaberg Prawn Farm		Yes
Australian Prawn Farms Pty Ltd		Yes
The D'Arcy Group	Yes	
Fortune Enterprises (Mission Beach)		Yes
Fortune Enterprises (Yamba)		Yes
Gold Coast Marine Aquaculture	Yes	
Hamilton Prawn Farm		Yes
Harbour Light Prawns	Yes	
Mackay Prawn Farm		Yes
Melivan Pty Ltd	Yes	
Monagold Pty Ltd	Yes	
Paradise Prawn Farm		Yes
Pearler Pty Ltd		Yes
Seafresh Australia Pty Ltd		Yes
Sunrise Seafood Pty Ltd		Yes
Tasty Prawns Pty Ltd		Yes
TPF Management	Yes	
Tycoon International Pty Ltd		Yes
W.D. and Y Aquaculture		Yes

A further positive outcome of this project has been the development of a template that can be achieved by any company wishing to achieve ISO 14001 certification. This has been tested and, as highlighted previously, Rocky Point

Prawn Farm has been successful in achieving certification, the first in the world.

This project has assisted the Australian prawn industry to operate as one of the safest and environmentally friendly in the world.

INTELLECTUAL PROPERTY

This report remains the property of the Australian Prawn Farmer's Association, for the benefit of its members.

The Australian Prawn Farmer' Association allows Seafood Services Australia to sell and/or distribute the document.

STAFF WHO WORKED ON THE PROJECT

- Brad Hutchings, Seafarmers Pty Ltd
- David White, Seafarmers Pty Ltd
- Mark O'Sullivan, Wild Halos Pty Ltd

ATTACHMENTS TO THE REPORT

CD Copy of reports