

FINAL REPORT

Pilot Project to determine the effectiveness of FoodSafe Plus as a tool in meeting ANZFA* food safety requirements.

*Now FSANZ

*Richard N Stevens, Don Nicholls, Ian Doughty, Carole Theobald,
Peter Backshall and Janet Howieson.*



Project No. 2002/401

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*Now FSANZ (Food Standards Australia New Zealand)

PRINCIPAL INVESTIGATORS: Mr Richard N Stevens
WA Fishing Industry council
PO Box 55
Mount Hawthorn
WA 6915
Telephone: 08 9492 8888 Fax: 08 9244 2934
E: R&D@wafic.org.au

Mr Don Nicholls
Locked Bag 39
Cloisters Sq Post Office
PERTH WA 6850
Telephone: 08 4827341 Fax: 08 94827389
E: dnicholls@fish.wa.gov.au

KEYWORDS: **Seafood safety, Post Harvest, FoodSafe Plus, Best practice.**

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NON-TECHNICAL SUMMARY

2002/401 Pilot project to determine the effectiveness of FoodSafe Plus as a tool in meeting ANZFA* food safety requirements.

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E: R&D@wafic.org.au

Mr Don Nicholls
Locked Bag 39
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PERTH WA 6850
Telephone: 08 4827341 Fax: 08 94827389
E: dnicholls@fish.wa.gov.au

KEYWORDS: **Seafood safety, Post Harvest, FoodSafe Plus, Best practice.**

OBJECTIVES:

1. To determine the effectiveness of FoodSafe Plus in meeting the criteria of the current and proposed national and state food safety legislation and the Australian Seafood Standard.
2. To have a minimum five seafood businesses in Western Australia accredited with FoodSafe Plus
3. To undertake a benefit/cost analysis of businesses that become FoodSafe Plus accredited.
4. To have at least two environmental health practitioners (EHP's) in Western Australia experienced in the accreditation of seafood businesses to the standards of Food Safe Plus

NON-TECHNICAL SUMMARY

The project demonstrated that businesses that comply with FoodSafe Plus have work practices that will conform to the Australian Seafood Standard and thus comply with their responsibilities under the mandatory Food Safety Standards

Although the project was to introduce a food safety program to comply with Food Safety Standard 3.2.1, the consultants identified that pre-requisite programs to cover Food Safety Standard 3.2.2 and 3.2.3 were not in place and these were therefore included as part of the project.

The minimum number of businesses accredited to FoodSafe Plus exceeded the target in Western Australia. At the time of writing the final report, eight business

were accredited, or in the final stages of accreditation. Importantly, two businesses were deemed not to require a food safety plan in order to produce safe food. Two environmental health practitioners became familiar with the seafood industry and a further two (the consultants themselves) improved their knowledge of the seafood industry.

Although currently one of the simplest HACCP based food safety program models available, FoodSafe Plus would require considerable amendment to be a suitable model for the fishing industry sector. The consultants experience from this project found that participants were isolated, easily confused and intimidated by the size of the manual. They also had difficulty relating to the examples used and lacked the confidence and knowledge to modify forms for their own businesses without help.

Based on the findings of this pilot program, it is recommended that:

- FoodSafe Plus, as it currently exists, not be promoted for the fishing sector
- A program should be developed specifically for this industry sector that includes program criteria aligning with the Australian Seafood Standard, the Food Safety Standards (Standards 3.2.1, 3.2.2, 3.2.3) and the Primary Processing and Production standard for Seafood and which incorporates appropriate, simple examples.
- Facilitators and auditors should be trained, or train themselves, to implement the program
- Seafood Services Australia (SSA) or industry bodies e.g. WAFIC recognise and control the program as part of a product branding initiative e.g. database of auditors, facilitators and businesses status
- The auditors are monitored to maintain the integrity and consistency of the program.
- If a business chooses to adopt a quality system that satisfies the criteria for the industry program, this is recognised by regulators without a double audit.

The benefit/cost analysis showed that businesses that comply with Food Safe Plus have direct and indirect cost savings that outweigh the direct and indirect cost of implementation.

The total cost to implement FoodSafe Plus ranged from \$3,297 to \$13,175, with an average cost of \$7,054. Across the six businesses there was an *average minimum* benefit of \$10,483 from implementing FoodSafe Plus with a low of \$4,600 and a high of \$19,200. The net benefits range from a minimum of \$113 to a maximum of \$25,010. The cost-benefit ratio's ranged from a minimum of 1.02 to a potential maximum of 4.75. The expected benefits were mostly in the areas of marketing, management and whole-of-business.

Overall, the findings suggest that the FoodSafe Plus quality system is comparatively low cost and does enable business to meet more confidently the requirements of the FSANZ food safety standards.

ACKNOWLEDGEMENTS

The authors would like to acknowledge the many people who took part in this project, particularly the staff from those companies (see Section 4.2) that enthusiastically adopted the programme and made it work. Ian Doughty, Carole Theobald, Peter Williams and Peter Kampen completed facilitation and /or auditing during the pilot project. The Institute of Environmental Health must also be acknowledged for designing the programme. Peter Backshall completed the cost benefit analysis. Funding for the project was obtained from Seafood Services Australia.

1 BACKGROUND

The fishing industry takes a proactive approach to improving the safety and quality of its product. It has provided input and supports the development of a seafood food safety standard suitable for primary industry.

The industry is looking for practical ways to introduce food safety programs so they may help a business, not hinder it. Many risk management systems in the marketplace have a focus on quality, and are very cumbersome and expensive for small businesses to implement and maintain. Annual audit charges may be prohibitive especially in country areas.

The Western Australian Fishing Industry Council (WAFIC) and the Western Australian Department of Fisheries Seafood Quality Management Initiative (SQMI) obtained funding from Seafood Services Australia to assess the suitability of FoodSafe Plus for the fishing sector.

The FoodSafe Plus Food Safety Program is a do-it-yourself HACCP-based food safety program, developed by the Australian Institute of Environmental Health. It was designed for the food service sector and guides a business through five modules to create a food safety program.

The manual is designed to be easy to follow and:

- Identifies elements of a food safety program
- Explains each element
- Provides a worked example of each element
- Supplies blank pages to enable a business to develop its own documents, specific to the business.

Food safety consultants were contracted to assess the effectiveness of the FoodSafe Plus manual for businesses in the fishing industry sector wishing to introduce their own food safety program.

2 NEED

There is a need for a cost effective, third party audited, HACCP based, food safety plan that may be implemented by small seafood businesses. FoodSafe Plus is one such programme that has in place a network of professionals who are able to facilitate and audit in locations throughout Western Australia. A pilot project conducted by SQMI into the SQF 2000 system identified the lack of seafood specific expertise as a major impediment in the facilitation of quality systems. This project will ensure a greater understanding of the seafood industry by facilitators and auditors of this system.

3 OBJECTIVES

1. To determine the effectiveness of FoodSafe Plus in meeting the criteria of the current and proposed national and state food safety legislation and the Australian Seafood Standard.
2. To have a minimum five seafood businesses in Western Australia accredited with FoodSafe Plus

- 3 To undertake a benefit/cost analysis of businesses that become FoodSafe Plus accredited.
- 4 To have at least two environmental health practitioners (EHP's) in Western Australia experienced in the accreditation of seafood businesses to the standards of Food Safe Plus.

4 METHODS AND FINDINGS

4.1 Introductory meeting

SQMI and WAFIC hosted a meeting of prospective participants to introduce the project and opportunity for them to meet the consultants and ask questions before committing to be part of the pilot.

The consultants provided an introduction to FoodSafe Plus and explained how it would meet the requirements of the new food safety standards including FSANZ *Standard 3.2.1, 3.2.2 and 3.2.3*.

During the introductory meeting, the project objectives were identified as:

- Assess the suitability of FoodSafe Plus for the participants' businesses
- Facilitate the implementation of FoodSafe Plus by the participating businesses
- Investigate available seafood training materials that may complement the program.

Documentation provided to participants at the introductory seminar is shown in Appendix 1.

Findings:

Participants seemed very committed and friendly and keen to introduce the program with the minimum of delay.

4.2 Participants

The following businesses agreed to participate in the pilots:

Perth Businesses

- Fremantle Sardine Company
- Fremantle Octopus Company
- West Coast Seafood
- Burswood Seafood
- ZenSea Gourmet Seafood
- Seafresh, Innaloo

Regional Businesses

- Leonard Sgherza, rock lobster boat
- Skeetas Garden Restaurant
- Sail Inn
- Geraldton Freemasons Hotel.
- Brad Arnup, rock lobster boat.

Later, Broomehill Barramundi, an aquaculture business located in Broomehill, also agreed to participate in the project.

Findings:

It was realised early in the piece that the operations on the rock lobster boats did not require FoodSafe Plus and these businesses would be better served by using existing Fisheries resources. Therefore, Leonard and the other rock lobster boat withdrew from the project. (For more detail see Appendix E) Seafresh, Geraldton Freemasons Hotel and ZenSea Gourment Seafood found it difficult to complete the program due to staffing changes and commitment, pressures and were unable to meet project deadlines, so withdrew before the internal audit phase.

4.3 Commitment of participants

All participants paid \$400 to participate in the project which entitled the business to:

- One FoodSafe Plus Kit.
- Access to technical advice from a facilitator.
- One on site visit by facilitator.
- Helpline access to the facilitator or project co-ordinator as required for support throughout the implementation process and technical advice.
- Staff training session.
- One desk audit, and
- One accreditation audit
- One remediation visit if required.

They also signed agreement with the following statements:

- I am aware that FoodSafe Plus is a HACCP based Food Safety Program and is designed to be self-paced. As this project is to be externally funded there is a requirement for this business to have completed implementation prior to September 30, 2003.
- I understand that in order for my business to get the maximum benefit from this program, I (or a person as selected) should develop this program with the support of the facilitator.
- I will undertake to keep records of any expenditure in terms of time and money that are incurred as a result of the FoodSafe Plus implementation.
- I am prepared to complete a readiness survey prior to implementation, and a post implementation survey.
- I am aware that information that is not of a confidential nature may be published regarding the cost and benefits of FoodSafe Plus implementation.

Findings:

Participants were very vocal in their commitment to the program, but with so many other industry pressures, found it difficult to commit the time and effort required to implement the program.

No participants contacted the consultants to say they had achieved a milestone ahead of time. The consultants had to contact all participants at every stage to motivate, cajole and remind them about the program. All participants negotiated “realistic” timelines with the consultants and none were met.

4.4 Reporting protocol

It was agreed that the consultants would provide monthly milestone reports to Fisheries WA and WAFIC.

The consultants developed feedback sheets for participants to

- assess the difficulty of working through each module
- estimate the time it took to complete each module

In addition to monthly reports, special reports were provided for the following:

- Assessment of suitability of crayfish operation to FoodSafe Plus (see Appendix 4)
- Assessment of training materials (Appendix 5)

Findings:

Milestone reports documented the barriers to program implementation at every stage.

4.5 Initial on-site meetings

The food safety consultants met with each participant at their business and explained the program in the context of their business. All participants agreed to complete various modules by particular dates and forward completed feedback sheets (see Appendix 2) by fax or mail.

All participants were encouraged to contact the food safety consultants if they had any queries at any time. The consultants stressed that they could be contacted out of hours or at weekends if necessary.

4.6 Jump starting the program

Findings:

- One participant forwarded the first feedback form. No other feedback forms were received.
- No participants contacted the food safety consultants unless it was to cancel an appointment.

All participants promised to meet agreed “realistic” timelines. Few met any of them. The consultants were aware that FoodSafe Plus is a self help program and so did not want to hassle participants unduly, so kept phone calls to questions about current status, offered help and reminded about feedback forms. During the calls, some participants would tell the consultants that they were making progress, when in reality they had not commenced the program.

As the consultants did not receive promised feedback sheets they changed tactics and made frequent coaching calls to motivate participants by a variety of methods including:

- Suggesting delegating tasks
- Providing summary forms that simplified FoodSafe Plus requirements (see Appendix 3)
- Providing fisheries specific training materials and developing appropriate questionnaires to support them as a training aid
- Facilitating businesses teaming up to develop programs together
- Playing one business off against another
- Shaming businesses to commence

And when all else failed

- Inviting them to leave the project

Findings:

- One on site visit was not enough as participants required mentoring and continuous reassurance throughout the implementation process.
- Participants treated the program development as a test that had to be done correctly and it took many discussions to convince them that the food safety program was their story of what happened in their business.
- Building confidence was an important factor to the uptake of the program.

It soon became apparent that participants could not do anything on their own as they lacked some or all of the following:

- quiet thinking time
- confidence to create documents
- sufficient written English skills
- computer skills.

4.7 Maintaining momentum

Empowering participants to delegate tasks was a major breakthrough in this project. However, this required the consultants revisiting each business and explaining the program and modules to the delegated staff member.

The consultants coached by phone wherever possible. The HACCP module of FoodSafe Plus is critical to food safety and is the most difficult to understand without mentoring. Therefore the consultants talked the participants through the HACCP module during special on-site visits.

This involved the consultants facilitating the participants to develop and complete their own:

- Process flow charts
- Hazard analysis tables
- Critical control point determinations
- Monitoring limits and corrective actions for each critical control point
- Hazard audit table

At each stage the items were discussed, relevant questions asked to elicit appropriate responses and findings streamlined so they related to what was actually happening in the business, not what was written in the FoodSafe Plus manual.

Findings:

At the end of this stage participants had developed a good understanding of HACCP principles, and a better understanding of the risks associated with their own food handling processes. They owned the information in their program.

4.8 Desk top audits

Audits followed the set auditing procedure to provide experience for participants. During desk top audits, it was noticed that some participants had not completed the last modules of FoodSafe Plus ie the scope, quality policy statements and program review requirements. These were soon remedied after short discussions. One participant had not commenced even module 1 and so withdrew from the program.

All participants apologised for their programs not looking “professional”. The consultants explained that they were more interested in content than presentation and that handwritten documents were acceptable. However, some of the participants expressed concern that they were embarrassed to show them to external auditors in their present state and felt they would not be readily understood.

The consultants decided to overcome this problem by typing up the information on computer where necessary, re-formatting it so it could be edited easily by the participants in the future and providing files with dividers so the information was presented in a logical order. A CD-ROM was also provided for each program containing all documents as separate files to facilitate review and update.

Findings:

Participants were delighted with their “professional” looking programs. They looked different to the originals, but contained the same information as in the handwritten versions. The participants were acknowledged for their work and the new format helped generate increased pride in their achievement.

4.9 External audits

With their re-formatted programs and having had exposure to the auditing process, all remaining participants were comfortable about the external audit. Some expressed concern that the audit may be before Christmas when the businesses were at their busiest. The consultants passed this information on to WAFIC and

Fisheries WA, so that audits could be arranged at a suitable time for all parties. Audits were delayed until after Easter 2004 when the seafood businesses were not quite so busy.

Some participants had only started keeping records for a couple of weeks and wanted longer to get into the habit of consistently keeping all records. Some felt they did not have enough records to demonstrate they were monitoring processes effectively and wanted a few more weeks to settle into the system.

Findings:

FoodSafe Plus requires a minimum of one month's records to be maintained to demonstrate that the program is being followed. Consequently, if external audits could be undertaken after Christmas this will give businesses time to gather enough records and also gain maximum benefit from the audit process.

Fremantle Sardines is in the process of moving premises, so requested that the consultants visit the new premises prior to the external audit. This was been arranged for early January, when the move had been completed.

4.10 Status of Businesses at Completion of Project (August 2004).

Business	Type of seafood enterprise	Progress to date
GERALDTON		
Sail Inn	Restaurant	Awaiting accreditation having passed final audit
Geraldton Freemasons Hotel	Not applicable	Unlikely to complete program
Skeetas Garden Restaurant	Restaurant	Awaiting accreditation having passed final audit
PERTH		
Burswood Seafood, Burswood	Retail seafood	Undergone external audit, have attended to compliance issues, awaiting return visit by auditor for final accreditation.
Zen Sea, Subiaco	Restaurant	Ready for external audit, but not answering calls to undergo audit
West Coast Seafood, Burswood	Retail Seafood	Undergone external audit, attending to compliance issues raised at audit (labelling issue only, awaiting advice from DOHWA).
Fremantle Octopus Company, O'Connor	Seafood processing	Accredited
Fremantle Sardine Company, Fremantle	Seafood processing	Accredited
Seafresh, Innaloo	Not applicable	Unlikely to complete modules.
Len Sgherza, Fremantle Harbour	Not applicable	Operation unsuitable for FoodSafe Plus, so DOF agreed to remove from project.
BROOMEHILL		
Di Holly, Broomehill Barramundi	Aquaculture	Accredited
CERVANTES		
Brad Arnup, now at Cervantes	Not applicable	Operation unsuitable for FoodSafe Plus, so DOF agreed to remove from project.

5 GENERAL DISCUSSION

From the experience gained facilitating the program, the consultants identified that most problems emanated from either the materials or the participants and therefore these will be discussed separately.

5.1 Materials

FoodSafe Plus was designed originally as a self-help program for the food service sector. It helps a business to develop and implement its own program by working through five modules. The problems experienced when implementing each module are described below.

5.1.1 Module 1 – Training

FoodSafe Plus recommends that a complementary program, the FoodSafe Food Handler Training Program or equivalent be used to provide basic food handler training for all staff. The following observations were made:

- The recently revised FoodSafe Food Handler Training Program would cost participants an additional \$100 and includes a video in mime, workbooks, a Guide for Proprietors and template forms in PDF format on a CD-ROM.
- The video is set in a deli and the examples used are not all appropriate to the seafood industry. None of the businesses in the project had video players in the workplace.
- The document templates in the Guide for Proprietors would be duplicated by a business doing FoodSafe Plus. The documents on the CD-ROM cannot be customised by a business as they are in PDF format.
- The workbooks contain valuable information, including information on how to use thermometers, wear protective clothing, keeping health records and separating recalled foods etc - but this information could be obtained from other sources for less than \$100.
- The consultants looked at training packages available to the seafood industry (see Appendix F) and while the materials were excellent, they required a computer and computer knowledge to use them. These would be excellent resources for people undertaking further training where they could be in a supported environment.
- The Seafood Retailers Guide provided an excellent free resource, specific for the industry sector that covered the main food hygiene elements required by FoodSafe. The package contained a simple handbook (suitable for food handlers) and a more in-depth guide suitable for supervisors, managers and proprietors.
- The Seafood Retailers Guide did not contain any question sheet or other method of assessment. Therefore, the consultants prepared a questionnaire that could be completed by the participants to assess training and also be a useful education aid. There is no pass or fail with the questionnaire.

- The Food Safety Standards require food businesses to inform their food handlers of their health and hygiene responsibilities. Details of these responsibilities were provided to all participants and included in their in-house induction training programs.

By adopting these suggestions, all participants were able to develop an in-house training program that satisfied the training requirements of FoodSafe Plus without using the FoodSafe Food Handler Training Program.

5.1.2 Module 2 – Inventory

Most participants were able to complete the Suppliers List and Product Schedule from existing materials. However, the following observations were made:

- Most participants had difficulty developing an Organisation Chart that included all tasks associated with managing a food safety program. Even using the FoodSafe Plus example, the relevance of each item was not understood.
- Throughout FoodSafe Plus there are 14 written commitments required. These are quality requirements, but are included in the program. Most participants saw these as documents that “had to be right” and they therefore became a barrier to implementation. However, the consultants summarised them all onto one page, saving 13 pages in the food safety program and overcoming the barrier of participants trying to word paragraphs when only a sentence was required. If any written commitment was not included in a program, this would result in a non conformance to FoodSafe Plus requirements. Having the commitments on one page also would facilitate the audit process.
- The FoodSafe Plus manuals contained an outdated version of the Food Industry Recall Protocol. All participants were provided with updated versions from Food Standards Australia New Zealand.
- FoodSafe Plus does not contain simple food recall worksheets or procedures, yet requires a system for food recall to be considered. Many of the participants were manufacturers or wholesalers and legislation requires them to have a written food recall procedure. The consultants provided guidance in this area and developed appropriate simple procedures and worksheets with each business. FoodSafe Plus does not cover food recall well.

5.1.3 Procedures and Worksheets

There are a number of procedures in FoodSafe Plus that were found to be confusing for participants:

- Cleaning and sanitation of walls, floors and surfaces refers to cleaning non food contact surfaces as well as cleaning and sanitising food contact surfaces. Participants tried to fit their operations to the procedures without modification and this resulted in a procedure that did not represent the needs of the business.
- A number of businesses did not have accurate, probe thermometers as required by legislation when handling potentially hazardous food. The Ice point calibration procedure took time to do and was not convenient for some participants that did not have unbagged ice. A second method using a reference thermometer was developed and included as an additional optional procedure for participants.

- The pest control procedure example given would not provide any records of observations made that did not identify pests. This was amended so that appropriate records could be kept.
- The facility maintenance procedure example was too complicated and contained inappropriate examples. Participants were reluctant to change it as it was complicated and so adopted it in its entirety even though it did not reflect the business practices.
- The staff training procedure was again mostly copied from FoodSafe Plus, including the reference to the FoodSafe Food Handler Training Program, which nobody actually used.
- The recall procedure should logically be included in this module.

The following observations were made regarding the worksheets used in FoodSafe Plus:

- Cleaning and Sanitising, Food Deliveries and appliance temperature monitoring worksheets are included in module 1, but logically they should be included in Module 3. (They are in module 1 as they are included in the old FoodSafe Food Handler Training Program and module 1 consolidated this. The new FoodSafe Food Handler Training Program contains additional forms that are not included in FoodSafe Plus as explained under training section.) However, businesses that do not do FoodSafe Food Handler training cannot understand why these procedures are separated from the others and this creates confusion.
- Facility maintenance worksheet example was complicated and all businesses developed their own, simpler forms.
- FoodSafe Plus is not well laid out as there are not complementary worksheets for each procedure.

5.1.4 Module 4 – HACCP

This module is the most critical for food safety and the business must understand what it is doing for the system to work properly. The following observations were made:

- The process flow charts in FoodSafe Plus are good as they consider activities by function not by individual food. However, they are based on food service examples and were difficult for participants to modify to reflect their own operations.
- FoodSafe Plus requires a flow chart to identify each step in the process. If the flow chart is overly complicated, it will overly complicate all subsequent HACCP documentation and can result in a lot of duplicated forms and unnecessary effort and paperwork. Many businesses developed flow charts that, on discussion with consultants, were found not to reflect all steps in the process. Modifying the flow chart meant that all subsequent documents had to be amended.
- The next steps of the HACCP process (hazard analysis, critical control point determination, monitoring limits and corrective action and hazard audit table) utilise information from the previous step. This is not explained well in FoodSafe Plus and participants were completing forms independently, not bringing information forward. This made the HACCP process more complicated than it needed to be. It also increased

inconsistencies within documentation that could lead to non conformances during audit.

- The CCP determination guide did not elicit those hazards that were associated with hygiene and environment, which are covered by good manufacturing practice. A revised CCP determination guide was developed to facilitate the identification of CCPs that were not controlled by hygiene procedures ie true CCPs.
- Participants were tempted to use the examples provided in FoodSafe Plus when they were not sure at any stage of module 4 – this resulted in references to raw meat, when no meat was on the premises or cooking times when no cooking was done and other inconsistencies.

This area proved to be the most difficult for all participants and would be extremely difficult for a business to implement without technical assistance.

5.1.5 Module 5 – Commitment and Control

Many participants focused so much on module 4 that they failed to notice that module 5 existed. The following observations were noted:

- In FoodSafe Plus not enough emphasis is placed on the importance of the scope of the food safety program. This was especially important with West Coast Seafood that operates out of Burswood Seafood's premises. This arrangement meant that items such as facility maintenance and equipment temperature monitoring were out of the control of West Coast Seafood as they were the responsibility of the building owner e.g. Burswood Seafood. If this arrangement was not identified in the scope it would result in a non conformance of West Coast Seafood's program as all necessary areas would not have been included in it.
- The Quality Policy Statement is used as the certificate for FoodSafe Plus. Most participants used very similar wording to that used in the example as they were afraid to change the wording as it contained written commitments that were required by the program. The summary of written commitments overcame this restriction, but most businesses kept to the example used in the program.
- The program review and amendment documentation was copied directly from FoodSafe Plus. There is no procedure for program review and the consultants explained that audit reports could be used to generate a review of the program.
- The index system was followed by most participants, but many missed items were identified during the desk top audit.

5.2 Participants

During the implementation process the following observations were made by participants:

- All participants were busy running their businesses and found it hard to make time to get started on the food safety program, especially as it was not seen to be able to generate more income.
- Some thought the manual looked technical and difficult, adding to the barrier for uptake

- All participants were committed to food safety and doing the program, but few could find the time to do it. (“It needed to be on fire in the top of the in tray to get attention!”). Without the continuous chasing up by the consultants it is doubted if any participants would have completed the program.
- Participants were very unwilling to delegate (“I’ll get round to it!”, “There’s only me that knows the business well”).
- Participants had no quiet time – mobile phones were constantly ringing, staff were constantly asking questions or customers were needing attention.
- When the tasks were delegated, the program progressed more quickly. The participants were able to discuss the program with their delegate, who then had the time to put the discussion into practice.
- Most participants lacked computer skills and so were not able to type up documents. There were no computer templates to work from in FoodSafe Plus which meant that all forms had to be retyped completely, adding to the barrier for implementation.
- Participants were concerned about “getting it right” and were not confident with their written English and therefore relied heavily on the wording in examples.
- Some participants had long established bad habits and were challenged by the procedures in FoodSafe Plus. For example, some businesses had never sanitised a food contact surface. In other businesses, where sanitisers were used, they were used inappropriately, ie not to recommended dilutions. General food handling by some businesses was poor, for example, hats were not worn when handling open food, hand washing was not to the food safety standards as hands were rinsed under cold water without soaping, tea towels and cloths were used inappropriately etc
- Some participants could not see the benefits of a food safety program and saw it as hoops to jump through to get a certificate to help them trade. However, when they realised that they wrote the program (not the consultants), and that every form had to earn its keep, they began to understand what they did and had to find answers to many questions that could impact on the safety of their product. Demonstrating that they handled food safely was a new concept.
- Many participants had a good understanding of fish quality but a poor understanding of food safety. Some assumed more knowledge about food safety than they actually had.
- Many had a poor understanding of legislative requirements that could affect their business.

5.3 Environmental Health Practitioners

The consultants contracted to facilitate the project in Perth and Geraldton had considerable experience with FoodSafe Plus and were on the team that originally developed the product for the Australian Institute of Environmental Health. The FoodSafe Plus programs developed as part of the project were subsequently audited

by two auditors one of whom was also on the initial FoodSafe Plus development team. The second auditor lectures in food safety at a technical college.

All consultants and auditors, come from a legislative enforcement background so were conversant with food safety legislation. All now have experience in the accreditation and/or auditing of seafood businesses to the standards of Food Safe Plus.

6 BENEFITS

(report by Peter Backshall)

6.1 Introduction

A Pilot Project undertaken by Seafood Services Australia, the WAFIC and SQMI aimed to determine the effectiveness of FoodSafe Plus in meeting FSANZ Food Safety Standards as required of Australia's new food safety legislation. FoodSafe Plus is a quality management system that was designed and is owned by the Australian Institute of Environmental Health. It is a comparatively low cost, third party audited, HACCP based, food safety plan that can be self-taught and self-implemented by small seafood businesses.

An objective of the Pilot Project was to undertake a cost-benefit analysis of businesses that became FoodSafe Plus accredited. This would provide an indication of the cost effectiveness of the FoodSafe Plus System as well as identify further information on the benefits and costs associated with implementing Food Safety Plans within the seafood industry. This report presents the findings of a cost-benefit study on the implementation of FoodSafe Plus in six seafood businesses in Western Australia.

6.2 Methods

In the seafood industry it is possible for business-level costs to be determined using actual data (e.g. from accounting records, purchase receipts or quotes/contracts) or estimates (based on time allocated, resources used, outputs delivered). In this instance, the steps in developing the documentation and standards required of a FoodSafe Plus Quality System were identified and incorporated into a checklist. Business owners or the person responsible for implementing FoodSafe Plus were interviewed and asked to *estimate* the hours or costs required to undertake each step in developing their FoodSafe Plus system. Costs were estimated for labour, materials - consumables, and capital equipment. Labour costs were estimated based on the number of hours assigned to each step (or task) and converted using a standard rate of \$45/hour.

Previous studies¹ on seafood businesses have identified a range of potential benefits that might accrue from adopting a quality management system. Similarly, the benefits of adopting quality management systems are known to accrue over time and are generally not evident in the period immediately following implementation. Further, attempts to quantify benefits are often hampered by the lack of quantifiable measures and the intangible nature of some benefits, which makes them difficult to measure. Given these limitations hedonic values were gathered by asking business owners to consider each potential benefit as having no / low / medium / high impact

¹ The SQMI Report on the Cost-Benefit of Adopting SQF2000 provides a comprehensive review of previous research.

or if possible assign an estimated dollar value based on 'what the potential benefit was worth to the business'. Where necessary the impact of a benefit was converted into a monetary value using a range of dollar values (e.g. low impact: \$1-\$499, medium impact: \$500-\$1999, high impact: \$2000-\$4000+). The total 'expected' benefit of adopting FoodSafe Plus was calculated based on the summation of 'estimated values' for a range of expected benefits.

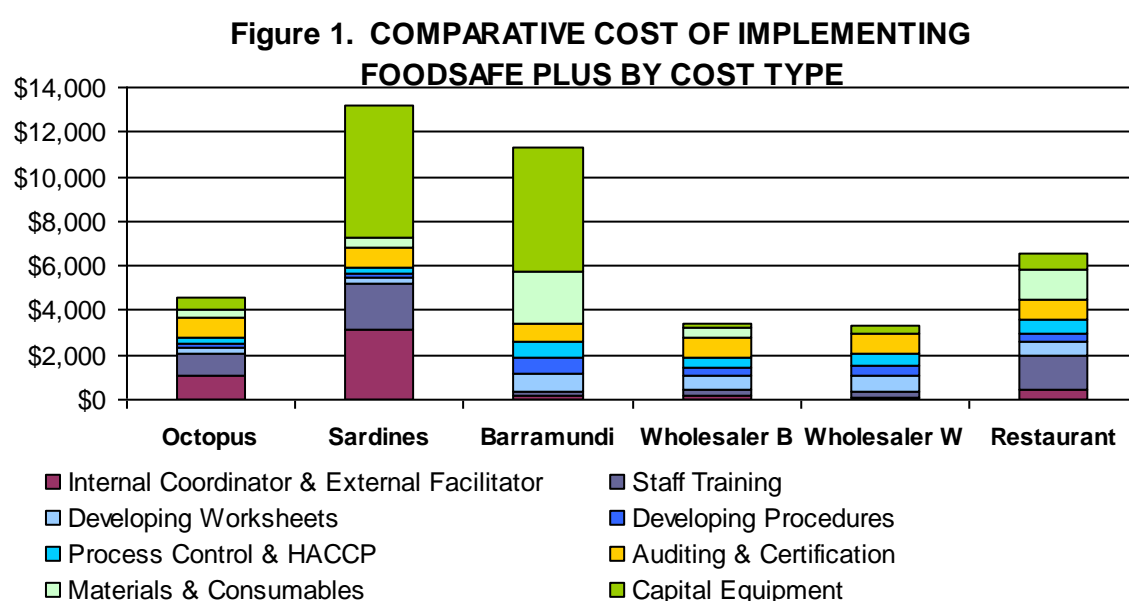
The estimated costs and the expected benefits to the Owner / Operator were used to calculate the net benefit and a cost-benefit ratio for each of six businesses. Group results were analysed including where the costs were incurred and what aspects of the business were expected to benefit.

6.3 Findings

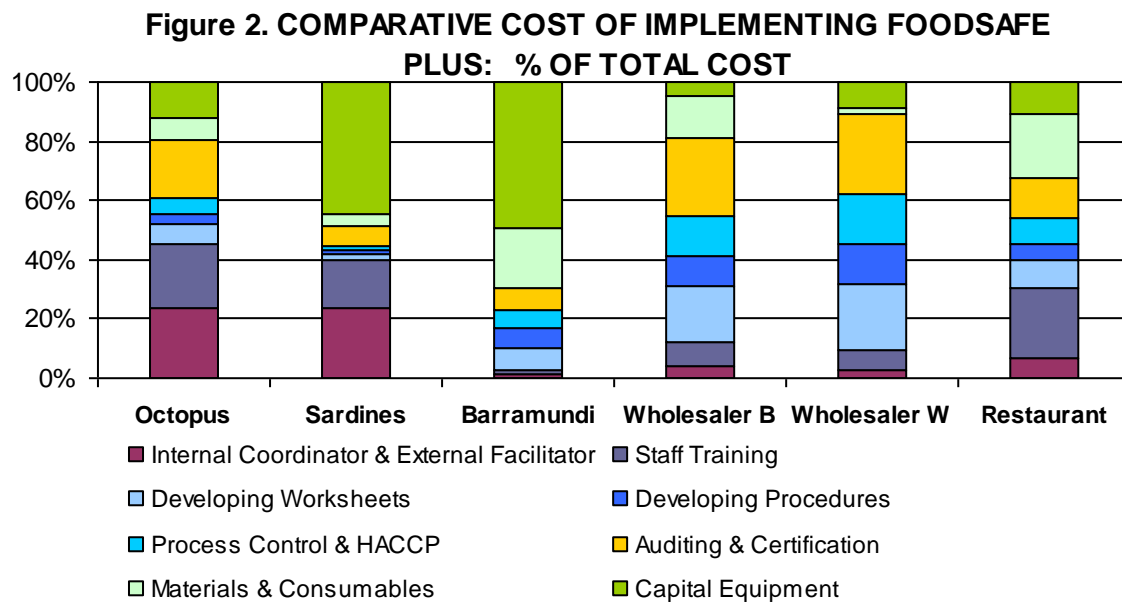
Six seafood businesses were interviewed after developing a FoodSafe Plus quality system to an audit-ready stage. The businesses included one restaurant, three harvesters-processors (one aquaculturist), and two wholesalers-retailers. All the businesses were small, family operated ventures of five or fewer employees, with one venture located in regional Western Australia and five located in Perth. The characteristics of each business are shown in Table 1.

Costs

The total cost to implement FoodSafe Plus ranged from \$3,297 to \$13,175, with an average cost of \$7,054 (refer to Figure 1 below). Two businesses required new capital equipment such as a new sink and associated plumbing, and new lighting and hygiene / wash facilities, which increased their overall costs. On average, the businesses spent \$2,188 on capital equipment. Another significant cost component was the development of documentation such as worksheets, flow diagrams and HACCP-Control sheets, costing an average of \$1,400. Auditing and certification cost on average \$888 which was similar to the average cost of staff training (\$874) and internal and external coordinators (\$844). The average cost to facilitate the development of FoodSafe Plus was \$2,300.



Expressing the cost categories as a percentage of total costs suggests there were variations across all six businesses. Each business had unique costs in developing FoodSafe Plus. For example, capital costs could be up to 45% or as low as 5% of the total cost with the other cost categories ranging from 5% to 25% of the total cost (refer to figure 2). This may be due to the level of pre-existing food safety practices and facilities within a business or the ability of the business to self-facilitate the development of documentation with minimal time and effort.



PARTICIPANT BUSINESS CHARACTERISTICS	Octopus	Sardines	Barramundi	Wholesaler B	Wholesaler W	Restaurant
Main raw materials, processes & final products	octopus; ice slurry to snap freezing to grading to steaming to marinating to bottling; pickled octopus;	sardines; ice slurry to filleting to marinating to freezing; fresh / marinated / frozen sardines;	Barramundi fingerlings; grown-out to gilled/gutted/scaled to fillets or trunks; chilled barramundi	120 varieties of fresh & frozen seafood; re-packaging; fillets and packaged seafood.	Variety of frozen seafood; sorting and packaging; packaged - sealed - labelled frozen seafood.	Variety of seafood and fresh foods; preparing, cooking and cleaning; seafood & fresh food meals.
Main type of customers	Restaurants & wholesalers	Seafood wholesalers	Restaurants	Consumers, end users	Consumers, end users	Consumers, end users
Understanding of food safety & hygiene <i>before</i> Foodsafe	Above average	Above average	Average	Above average	Fair	Average
Understanding of food safety & hygiene <i>after</i> Foodsafe	Above average	Above average	Above average	Above average	Above average	Average
Ability to meet food safety standards <i>before</i> Foodsafe	Average	Average	Average	Average	Above average	Average
Ability to meet food safety standards <i>after</i> Foodsafe	Above average	Above average	Above average	Above average	Above average	Average
What has changed to improve your food safety standards	Record keeping & staff awareness	Record keeping; stricter practices; educated & aware staff	Record keeping & traceability.	Documented procedures; staff awareness; entrenched practices.	Documented worksheets & procedures; improved staff practices.	Training; monitoring; Temperature control; greater awareness of food safety standards.
How confident are you of meeting food safety standards	Highly confident	Confident	Confident	Confident	Confident	Confident
Would you prefer a QA system other than Foodsafe	No	No	No	No	No	No

Benefits

Across the six businesses there was an *average minimum* benefit of \$10,483 expected from implementing FoodSafe Plus, with a low of \$4,600 and a high of \$19,200 (refer to Table 2). The estimated benefits occurred mostly in the areas of marketing, management and business, with operations and human resources noticeably less in potential benefits. The most significant benefits were in respect to branding; business image; supplier / buyer confidence; improved understanding of food safety / hygiene; increased staff awareness of safety / hygiene; more confident managing risk; improved compliance; improved record keeping and traceability; and improved practices and techniques. These findings are consistent with similar studies such as the SQMI study of the SQF2000 quality system.

Table 2

SUMMARY OF BENEFITS	Octopus	Sardines	Barramundi	Wholesaler B	Wholesaler W	Restaurant
Marketing	\$4,500	\$9,000	\$1,600	\$2,300	\$2,200	\$700
Operations	\$1,000	\$3,100	\$600	\$800	\$500	\$4,300
Management	\$1,500	\$3,500	\$3,400	\$400	\$1,600	\$2,500
Human Resources	\$1,100	\$1,600	\$1,500	\$300	\$200	\$2,400
Business	\$1,500	\$2,000	\$4,500	\$800	\$1,700	\$1,800
Total Benefits*	\$9,600	\$19,200	\$11,600	\$4,600	\$6,200	\$11,700

(*estimated minimum value)

A review of the costs and benefits of adopting FoodSafe Plus across six seafood businesses indicate a positive net benefit and a positive benefit cost ratio (refer to table 3 on the following page). This suggests that the six businesses expect future benefits to outweigh the costs and that the time and resources invested in gaining accreditation to FoodSafe Plus are expected to generate positive returns. For example, the net benefits range from a potential minimum of \$113 to a potential maximum of \$25,010, and similarly the cost-benefit ratio's range from a potential minimum of 1.02 to a potential maximum of 4.75.

Table 3

SUMMARY OF RATIO'S & NET BENEFITS	Octopus	Sardines	Barramundi	Wholesaler B	Wholesaler W	Restaurant
Minimum Benefit Cost Ratio	2.08	1.44	1.02	1.03	1.88	1.77
Maximum Benefit Cost Ratio	4.18	2.90	2.41	2.82	4.39	4.75
Estimated Minimum Net benefit	\$4,936	\$5,827	\$215	\$113	\$2,903	\$5,058
Estimated Maximum Net benefit	\$14,520	\$25,010	\$15,967	\$6,181	\$11,187	\$24,521

6.4 Conclusions

The total cost to implement FoodSafe Plus ranged from \$3,297 to \$13,175, with an average cost of \$7,054.

Across the six businesses there was an *average minimum* benefit of \$10,483 from implementing FoodSafe Plus with a low of \$4,600 and a high of \$19,200.

The net benefits range from a minimum of \$113 to a maximum of \$25,010. The cost-benefit ratio's ranged from a minimum of 1.02 to a potential maximum of 4.75.

The expected benefits were mostly in the areas of marketing, management and whole-of-business.

Overall, the findings suggest that the FoodSafe Plus food safety program is comparatively low cost and does enable business to more confidently meet the requirements of the FSANZ food safety standards.

7 FURTHER DEVELOPMENT

Based on the findings of this pilot program, it is recommended that:

FoodSafe Plus, as it currently exists, not be promoted a suitable manual for the fishing sector

A program should be developed specifically for this industry sector that includes program criteria aligning with The Australian Seafood Standard, Food Safety Standard 3.2.1 and the Primary Processing and Production standard for Seafood and which incorporates appropriate, simple examples.

Facilitators and auditors should be trained, or train themselves, to implement the program

Seafood Services Australia (SSA) or industry bodies e.g. WAFIC recognise and control the program as part of a product branding initiative e.g. database of auditors, facilitators and businesses status

The auditors are monitored to maintain the integrity and consistency of the program.

If a business chooses to adopt a quality system that satisfies the criteria for the industry program, this is recognised by regulators without a double audit.

8 PLANNED OUTCOMES

Six seafood businesses are now be accredited with FoodSafe Plus, with another two expected to achieve compliance in the next two months. These businesses will be able to demonstrate that they meet their legislative obligation to provide safe food. The consultation and audit processes within the project have resulted in increased expertise in facilitation and audit of seafood premises.

9 CONCLUSIONS

A self help food safety program is unlikely to be implemented in a small business unless it is delegated to someone with appropriate technical skills and there are suitable administrative resources in place to support it e.g. computers and people with computer skills. Money (within reason) is not a barrier. If the product is seen to have benefit for the business it will be used.

However, there is little incentive to develop and implement a program as there is little food safety enforcement so bad operators are not penalised and they compete with the good operators getting the same price for products.

If product branding required a minimum standard of food safety program across the industry, then all businesses would need to attain this standard before they could trade. However, this would require much publicity so the consumer will pay more for better quality and safer fish products.

Implementing a food safety program in small businesses requires a strategy that provides:

- information in a simple and quickly digestible form
- face-to-face practical technical assistance for businesses – less theory, more practice, continuous reassurance,
- financial incentives ie the possibility of more business
- acknowledgement of effort when it is above legislative requirements e.g certificate of recognition, publicity in newspapers etc

- self regulation by industry to overcome government's inability to penalise poor operators
- a framework for industry to work with major suppliers encouraging them to only purchase from businesses with food safety programs (this could be part of product branding)
- an incentive for major suppliers to include in their own food safety programs that they only purchase food from businesses with food safety programs
- emphasis that the food safety program is the businesses' story of what happens in the business. In the food safety program every form must earn its keep, reporting must be honest (ie blanks completed with 'forgot' as opposed to making up entries to please auditors) and the program must be light, manageable and simple to follow.
- local auditors who have knowledge of the fishing industry and practical food safety auditing experience (quality auditors are used to the rigors of a quality system and may require a rigid format for procedures etc)
- a system that aligns with Food Safety Standard 3.2.1 which is based on HACCP principles and is not full blown HACCP. For example a business can use flow charts for functional operations eg cooking and not have separate flow charts for each product e.g. steamed fish, grilled fish, fried fish, microwaved fish, boiled fish etc.

Although currently one of the simplest HACCP based food safety program models available, FoodSafe Plus would require considerable amendment to be a suitable model for the fishing industry sector. The consultants experience from this project found that participants were isolated, easily confused and intimidated by the size of the manual. They also had difficulty relating to the examples used and lacked the confidence and knowledge to modify forms for their own businesses without help.

APPENDIX 1 : INITIAL SEMINAR DOCUMENTATION

Appendix 1.1 : Leaflets

Introduction to the program

Australian Food Safety Legislation

Food Standards Code

Chapter 1 General Food Standards

- Generic Labelling
- Food additives
- Maximum Residue Limits
- Microbiological Limits

Chapter 2 Food Product Standards

- Fish and Fish products

Chapter 3 Food Safety Standards

- Definition. & Application - Food Business or Primary Producer?
- Notification
- Recall
- Training
- Model Food Safety Program standard

Chapter 4 Primary Production and Processing Standards

- Currently being developed
- Australian Seafood Standard – voluntary standard that is industry developed, requires a risk based approach to food safety
- Expected completion by June 2004

Western Australian Food and Related Matters Bill

- Currently nearing completion of first draft
- Unclear when to go before parliament however likely to be before end 2003

International

- EU moving toward greater traceability to producers.
- US Food and Drug Administration likely to require traceability by end of 2003.

Wallis Lake Oyster experience

*No matter what you say you did, if it isn't documented
- it never happened*

Introduction to FoodSafe® Plus

FoodSafe Plus is a do-it-yourself manual to develop a food safety program, developed by the Australian Institute of Environmental Health. It is the next step up from good manufacturing practice (GMP) and is based on hazard analysis critical control point (HACCP) and quality assurance (QA) principles. FoodSafe Plus bridges the gap between GMP and an internationally accredited program. It provides the basis to produce safe food, consistently.

There are five modules in the FoodSafe Plus manual. They cover training, taking stock of your resources, developing procedures and worksheets, hazard analysis and implementing appropriate document controls.

FoodSafe Plus lets you slowly consolidate your information and put it in one place. You may be surprised how much you already have!

You will be able to develop procedures and worksheets so that all staff

- Know how to do a job
- When to do a job
- What to do if something goes wrong

Every piece of paper has to earn its keep! Your project mentors will be able to keep you on track and provide practical advice and support.

Your FoodSafe Plus program will be audited by people not associated with your business, as a new pair of eyes is needed to check that:

- All forms have been completed and are up-to-date
- HACCP forms include all stages of processing
- What is written down is really happening...

If the auditor confirms your program meets the FoodSafe Plus standard, your Quality Policy Statement may be endorsed by the Australian Institute of Environmental Health.

FoodSafe Plus brings many benefits to your business. It:

- Improves your knowledge of your own processes and food safety
- Is self paced and inexpensive
- Develops a HACCP approach to managing food safety risks
- Applies QA principles
- Provides the basis for a future internationally accredited system.

Why is FoodSafe Plus® good for your business?

1. Western Australian Fishing Industry Council, the Department of Fisheries and Seafood Services Australia are subsidising this project to see if FoodSafe Plus is suitable for those who do not need internationally recognised systems such as ISO 9000 & SQF 2000.
2. The project is about building on existing good manufacturing practices (GMP). By using FoodSafe Plus to manage risks, you will be able to implement practices and generate documents that will satisfy an independent person (an auditor), who can certify that your food handling system is appropriate.
3. FoodSafe Plus
 - a) Meets your obligations under legislation
 - b) Assists in meeting increasing commercial requirements to access supply chains
 - c) Demonstrates that you exercise due diligence, which is a legitimate legal defence if you are sued for negligence.
 - d) Reduces waste – improve efficiency
 - e) Improves customer confidence, which keeps you in business.
4. People with FoodSafe Plus have stated that it is not nearly as difficult to put in place as it sometimes first appears. When staff get used to it, they actually use it to improve their own performance.
5. This project also gives you help, in the form of mentorship and support, which ordinarily you would not have as this system is generally self-taught.

We do, however, want critical feedback on where FoodSafe Plus can be improved to suit our industry.

Appendix 1.2 : Participant sign off template

_____ confirms it will participate in the Foodsafe Plus Pilot Project

The person as a direct contact is

The Project Co-Ordinator's preferred means of contact is e-mail

Business Contact details

Tel. _____

Mob _____

Email _____

Fax _____

I am aware that I will incur a cost of \$400.00, payable prior to commencement of the project.

This payment and the involvement in the project entitles this business to:

One Foodsafe Plus Kit.

Access to technical advice from a facilitator.

One on site visit by facilitator.

Helpline access to the facilitator or project co-ordinator as required for support throughout the implementation process and technical advice.

Staff training session.

One desk audit, and

One accreditation audit

One remediation visit if required.

I am aware that Foodsafe Plus is a HACCP based Food Safety Program and is designed to be self-paced. As this project is to be externally funded there is a requirement for this business to have completed implementation prior to September 30, 2003.

I understand that in order for my business to get the maximum benefit from this program, I (or a person as selected) should develop this program with the support of the facilitator.

I will undertake to keep records of any expenditure in terms of time and money that are incurred as a result of the Foodsafe Plus implementation.

I am prepared to complete a readiness survey prior to implementation, and a post implementation survey.

I am aware that information that is not of a confidential nature may be published regarding the cost and benefits of Foodsafe Plus implementation.

Signed by

Date:

Appendix 1.3 : Readiness Survey

QA Readiness

How ready is the business to adopt a quality system?

1. To what extent are the hazards of the business recognised and managed?

	No	Developing	Yes
All potential hazards are known	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records are maintained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control procedures are in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traceability exists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crisis management exists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. To what extent are the requirements of buyers / customers an integral part of the business?

	No	Developing	Yes
Customers requirements are well known	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Procedures match customer requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Customer feedback is continuous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records are available to customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Product information is readily available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. To what extent are suppliers and the supply of raw materials / consumables organised with quality management practices?

	No	Developing	Yes
Suppliers are certified / QA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suppliers supply to specifications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supplier audits are undertaken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Goods received are randomly checked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We fix problems as soon as we find them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Materials are stored appropriately	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. To what extent is quality a whole-of-business approach?

	No	Developing	Yes
All staff are committed to quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The business is customer-driven	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality variations are quickly noticed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supplier performance is monitored	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Business procedures are monitored	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality compliance is a priority	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. To what extent are the business systems ready for Foodsafe Plus?

	No	Developing	Yes
There is a policy statement for quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A quality manager has been appointed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
People are trained in food handling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Training records & systems in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchasing systems are documented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Raw materials specification are documented & inspected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspection & testing is practiced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub-standard product is managed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Briefly describe the practices and or standards currently used to manage quality ?

Raw materials _____

Handling procedures _____

Temperature(s) _____
Packaging _____

Shelf life _____

Physical Condition _____

Transport _____

Other _____

Other _____

Key:
N = no
D = developing
Y = yes

1 = Broomehill Barramundi
2 = Burswood Seafood
3 = Fremantle Octopus
4 = Fremantle Sardines
5 = Leonard Sgherza
6 = Seafresh
7 = West Coast Seafood
8 = Zensea

Appendix 1.4 QA Readiness Survey – Collated responses

How ready is the business to adopt a quality system?

	1	2	3	4	5	6	7	8	Totals		
									Y	N	D
1. To what extent are the hazards of the business recognised and managed?											
All potential hazards are known	N	N	D	Y	Y	D	Y	N	3	3	2
Records are maintained	D	N	N	N	N	N	N	N	0	7	1
Control procedures are in place	N	N	D	N	Y	D	D	N	1	4	3
Traceability exists	Y	N	Y	D	Y	N	D	N	3	3	2
Crisis management exists	N	N	N	N	Y	N	N	N	1	7	0
2. To what extent are the requirements of buyers / customers an integral part of the business?											
Customers requirements are well known	Y	Y	Y	Y	Y	Y	Y	Y	8	0	0
Procedures match customer requirements	Y	N	N	N	Y	Y	N	N	3	5	0
Customer feedback is continuous	Y	Y	Y	Y	Y	Y	Y	Y	8	0	0
Records are available to customers	N	N	N	N	N	N	N	N	0	8	0
Product information is readily available	N	D	N	N	Y	Y	D	N	2	4	2
3. To what extent are suppliers and the supply of raw materials / consumables organised with quality management practices?											
Suppliers are certified / QA	N	N	N	N	Y	N	N	N	1	7	0
Suppliers supply to specifications	N	N	N	N	Y	N	N	N	1	7	0
Supplier audits are undertaken	N	N	N	N	N	N	N	N	0	8	0
Goods received are randomly checked	N	N	D	Y	Y	Y	Y	D	4	2	2
We fix problems as soon as we find them	D	D	D	Y	Y	D	Y	D	3	0	5
Materials are stored appropriately	Y	Y	D	D	Y	D	Y	N	4	1	3
4. To what extent is quality a whole-of-business approach?											
All staff are committed to quality	Y	Y	Y	Y	Y	D	Y	D	6	0	2
The business is customer-driven	Y	Y	Y	Y	Y	Y	Y	Y	8	0	0
Quality variations are quickly noticed	Y	Y	D	Y	Y	D	Y	N	5	1	2
Supplier performance is monitored	N	N	N	N	Y	N	D	N	1	6	1
Business procedures are monitored	N	N	N	N	N	N	D	N	0	7	1
Quality compliance is a priority	N	N	D	D	Y	D	D	D	1	2	5
5. To what extent are the business systems ready for Foodsafe Plus?											
There is a policy statement for quality	N	N	N	N	N	N	N	N	0	8	0
A quality manager has been appointed	N	N	N	N	N	N	N	N	0	8	0
People are trained in food handling	N	N	D	D	Y	Y	D	N	2	3	3
Training records & systems in place	N	N	N	N	N	N	N	N	0	8	0
Purchasing systems are documented	N	N	N	N	N	N	N	N	0	8	0
Raw materials specification are documented & inspected	N	N	N	D	N	N	N	N	0	7	1

Inspection & testing is practiced	N	N	Y	N	N	N	N	N	1	7	0
Sub-standard product is managed	Y	Y	D	Y	Y	Y	Y	D	6	0	2

6. Briefly describe the practices and or standards currently used to manage quality ?

Business	1. Broomehill	2. Burswood	3. Fremantle Octopus	4. Fremantle Sardines
Raw materials	Purchase fingerlings from SA supplier. Supplier asks for feedback after each delivery.	Purchase mostly frozen products. Check deliveries but nothing documented.	Catch own octopus. Purchase after checking. Dry goods from reputable suppliers.	Owner personally supervises fresh sardine purchases and records. Catches most of own sardines.
Handling procedures	None documented, but great emphasis on care and quality of product.	Separate food processing area. Staff good uniforms and experienced.	Generally good. Good separation.	Good. Personal hygiene of some staff could be improved e.g hats not covering hair and jewellery worn.
Temperature(s)	None recorded.	Good temperature control but not recorded.	Controlled but not recorded. Reefer unit has dial recorder.	Recorded on reefers. No other records.
Packaging	Pack in eskies and new plastic.	New plastic bags used to package product. Minimal labelling.	New jars used.	Clean materials used. Labelling needs to be updated.
Shelf life	Delivered within 4 hours of preparation to local restaurants for immediate consumption	Frozen product. Good stock rotation.	Micro testing trials done indicating product lasts longer than shelf life given on product.	Available for most products from old food safety program done in 1994.
Physical Condition	Premises good. Colourbond processing area on back of tank shed.	Shop and processing area good. Back warehouse doesn't look pretty but is very functional as houses built in freezers.	Premises generally good. Dry storage could be better. Handwashing facility inadequate in processing room, but updating. Non food grade hoses used in processing area.	Premises poor but moving to purpose built premises soon.
Transport	Transport in car in eskies.	Frozen food in boxes to external cold storage or freight company.	Octopus killed on board boat and transported in ice slurry. Finished chilled and frozen product transported in eskies.	Fresh product to Sydney in polystyrene crates
Other	Small family business, well managed. A big order is 100 fish per week.	Small family business with high turnover of product.	Makes octopus traps on site. Have control over most product from ocean to jar. Have dogs in yard, but	Old export food safety program not used in current operation. Does not understand old program. Very

			they do not go into processing areas.	busy but committed. Will delegate to quality manager.
--	--	--	---------------------------------------	---

6. Briefly describe the practices and or standards currently used to manage quality ?				
Business	5. Leonard Sgherza	6. Seafresh	7. West Coast Seafood	8. Zensea
Raw materials	Frozen bait purchased daily, defrosted on boat in box to prevent contamination.	Purchased from a range of suppliers – has fresh seafood, sauces etc.	All product is frozen and purchased from Burswood Seafood.	No procedures.
Handling procedures	Good. Gets a lower price if product is damaged.	Generally good, no documented procedures to follow and some foods displayed present contamination risk.	West Coast staff pick orders in Burswood Seafood premises. Winton trains staff on vans.	Room for improvement e.g. use of tea towels, wash hand basins used for food etc.
Temperature(s)	No applicable. Live product.	Not recorded. Product stored on ice or in chillers.	Not recorded but monitored.	No recorded
Packaging	Matting in crates to minimize damage of live crays.	New packing materials used.	All packaged food. Polystyrene eskies for transporting.	New materials used. Packed in presence of customer
Shelf life	Live product delivered immediately from boat to processor.	Food is mostly fresh. Small amount of shelf stable sauces displayed.	Frozen food. Small supplies on vans, order weekly. 70% of stock sold on each run.	Fresh product only – some cooked and eaten on site.
Physical Condition	Vessel in good condition	Product well protected by display units. Premises modern, good condition, well maintained.	Vans – food kept in freezers. Freezer at Burswood in good condition.	Shop is new and kitchen is cramped.
Transport	Crates on trolley, wheeled to processor from boat. Short time and short distance.	N/A.	Uses polystyrene eskies to transport frozen food to freight company. No control over freight company. Vans have chest freezers.	N/A
Other	FoodSafe Plus not suited to this operation as product is live and there are no identified CCPs in the process.	Recipe cards for customers noted outside shop. Commitment is there but paperwork perceived as a barrier.		Difficult to contact owner, does not return calls.

APPENDIX 2 : FEEDBACK FORMS

Appendix 2.1 : Modules 1 and 2

Stage	FoodSafe Plus requirements (tick boxes as completed)	Time taken	Rating 1 = easy 2 = fairly easy 3 = fairly hard 4 = hard	Comments/questions for facilitators
Introduction	Overview of FoodSafe Plus requirements			
	<i>Written Commitment</i>			
	<input type="checkbox"/> Implement FoodSafe Plus program			
	<input type="checkbox"/> FoodSafe Plus manual on site			
	<input type="checkbox"/> Comply with legislative requirements			
Module 1 – FoodSafe	<i>Worksheets</i>			
	<input type="checkbox"/> Training – minimum FoodSafe and staff aware of legal responsibilities			
	<input type="checkbox"/> Checked delivery receipts (keep for 12 months)			
	<input type="checkbox"/> Unsatisfactory goods			
	<input type="checkbox"/> Cleaning and sanitation			
	<input type="checkbox"/> Temperature monitoring of appliances			
	<i>Written commitment</i>			
	<input type="checkbox"/> Training			
	<i>FoodSafe documentation (optional)</i>			
	<input type="checkbox"/> Hygiene audit sheets			
	<input type="checkbox"/> Certificate and sticker			
	Module 2 – Inventory	<i>Management documentation</i>		
<input type="checkbox"/> Organisational chart showing staff responsibilities				
<input type="checkbox"/> Suppliers list				
<input type="checkbox"/> Schedule of products				
<input type="checkbox"/> Recall procedure				
<i>Written commitments</i>				
<input type="checkbox"/> Purchasing from registered suppliers				

Stage	FoodSafe Plus requirements (tick boxes as completed)	Time taken	Rating 1 = easy 2 = fairly easy 3 = fairly hard 4 = hard	Comments/questions for facilitators
	<input type="checkbox"/> Food products comply with Food Standards Code			

Comments continued:

Fisheries Food Safety Program Initiative

FoodSafe[®] Plus Project

Feedback Sheet for Modules 1 and 2

Name:.....

A joint initiative between
Western Australian Fishing Industry Council
Department of Fisheries
Seafood Services Australia

For more information contact your project facilitators:

Tel/Fax: (08) 9312 1120

Ian Doughty
Mob: 0417 312 600
Email: laister@nw.com.au

Carole Theobald
Mob: 0438 088 060
Email: theobald@nw.com.au

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***Please use this feedback sheet to record your progress
and comments and fax to 9312 1120.***

Agreed completion date for modules 1 and 2:

Actual completion date for modules 1 and 2:

Total time taken for modules 1 and 2:

***The feedback sheet for Module 3 will be sent out to you when
feedback sheet for Modules 1 and 2 has been completed.***

Appendix 2.2 Module 3

Stage	FoodSafe Plus requirements <i>(tick boxes as completed)</i>	Time taken	Rating 1 = easy 2 = fairly easy 3 = fairly hard 4 = hard	Comments/questions for facilitators
Module 3 – Procedures and worksheets	<i>Procedures</i>			
	<input type="checkbox"/> Receiving food			
	<input type="checkbox"/> Cleaning and sanitation of walls/floors/ceilings			
	<input type="checkbox"/> Cleaning and sanitation of food equipment and utensils			
	<input type="checkbox"/> Calibration of thermometers			
	<input type="checkbox"/> Pest Control			
	<input type="checkbox"/> Facility maintenance			
	<input type="checkbox"/> Staff training			
	<i>Worksheets</i>			
	<input type="checkbox"/> Pest Control			
	<input type="checkbox"/> Facility maintenance			
	<input type="checkbox"/> Calibration of thermometers (may be included in facility maintenance)			

Comments continued:

Fisheries Food Safety Program Initiative

FoodSafe[®] Plus Project

Feedback Sheet for Module 3

Name:.....

A joint initiative between
Western Australian Fishing Industry Council
Department of Fisheries
Seafood Services Australia

For more information contact your project facilitators:

Tel/Fax: (08) 9312 1120

Ian Doughty
Mob: 0417 312 600
Email: laister@nw.com.au

Carole Theobald
Mob: 0438 088 060
Email: theobald@nw.com.au

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***Please use this feedback sheet to record your progress and
comments and fax to 9312 1120.***

Agreed completion date for module 3:

Actual completion date for module 3:

Total time taken for module 3:

***The feedback sheet for Module 4 will be sent out to you when feedback
sheet for Module 3 has been completed.***

Appendix 2.3 Module 4

Stage	FoodSafe Plus requirements (tick boxes as completed)	Time taken	Rating 1 = easy 2 = fairly easy 3 = fairly hard 4 = hard	Comments/questions for facilitators
Module 4 – HACCP	<i>Written commitment</i>			
	<input type="checkbox"/> Food safety legislation on site			
	<i>HACCP steps/documentation</i>			
	<input type="checkbox"/> Process flow chart			
	<input type="checkbox"/> Hazard analysis			
	<input type="checkbox"/> CCP determination			
	<input type="checkbox"/> Process flow chart with CCPS identified			
	<input type="checkbox"/> Monitoring limits and corrective action			
	<input type="checkbox"/> Hazard audit table			
	<i>Worksheets</i>			
	<input type="checkbox"/> Food temperature monitoring of any identified CCPs			

Comments continued:

Fisheries Food Safety Program Initiative

FoodSafe[®] Plus Project

Feedback Sheet for Module 4

Name:.....

A joint initiative between
Western Australian Fishing Industry Council
Department of Fisheries
Seafood Services Australia

For more information contact your project facilitators:

Tel/Fax: (08) 9312 1120

Ian Doughty
Mob: 0417 312 600
Email: laister@nw.com.au

Carole Theobald
Mob: 0438 088 060
Email: theobald@nw.com.au

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***Please use this feedback sheet to record your progress and
comments and fax to 9312 1120.***

Agreed completion date for module 4:

Actual completion date for module 4:

Total time taken for module 4:

***The feedback sheet for Module 5 will be sent out to you when feedback
sheet for Module 4 has been completed.***

Appendix 2.4 Module 5

Stage	FoodSafe Plus requirements (tick boxes as completed)	Time taken	Rating 1 = easy 2 = fairly easy 3 = fairly hard 4 = hard	Comments/questions for facilitators
Module 5 – commitment and control	Management documentation			
	<input type="checkbox"/> Scope for food safety program			
	<input type="checkbox"/> Develop quality policy statement			
	<input type="checkbox"/> Develop index to food safety manual			
	Written commitments * may be included in quality policy statement			
	<input type="checkbox"/> Food safety*			
	<input type="checkbox"/> Compliance with legislation*			
	<input type="checkbox"/> Customer requirements and specifications*			
	<input type="checkbox"/> Developing and maintaining procedures and worksheets*			
	<input type="checkbox"/> Implement management review of program at least annually*			
	<input type="checkbox"/> Control documents and data (form identification, checking and authorising documents)			
	<input type="checkbox"/> Implement product recall if required (wholesalers, importers and manufacturers)			
	Worksheets			
	<input type="checkbox"/> Program review			
<input type="checkbox"/> Amendment and authorisation				

More space for comments is available on the back of the form

Comments continued:

Fisheries Food Safety Program Initiative

FoodSafe® Plus Project

Feedback Sheet for Module 5

Name:.....

A joint initiative between
Western Australian Fishing Industry Council
Department of Fisheries
Seafood Services Australia

For more information contact your project facilitators:

Tel/Fax: (08) 9312 1120

Ian Doughty
Mob: 0417 312 600
Email: laister@nw.com.au

Carole Theobald
Mob: 0438 088 060
Email: theobald@nw.com.au

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***Please use this feedback sheet to record your progress and
comments and fax to 9312 1120.***

Agreed completion date for module 5:

Actual completion date for module 5:

Total time taken for module 5:

***When the feedback sheet for Module 5 has been returned we will call you
to arrange a suitable time for your internal audit.***

Appendix 2.5 Audits

Stage	FoodSafe Plus requirements <i>(tick boxes as completed)</i>	Time taken	Rating 1 = easy 2 = fairly easy 3 = fairly hard 4 = hard	Comments/questions for facilitators
Internal audit	Person responsible for program uses this checklist to see that			
	<input type="checkbox"/> All paperwork is up to date			
	<input type="checkbox"/> Practices identified are being followed			
	<input type="checkbox"/> Changes are itemised in Program Review			
External desktop audit	<input type="checkbox"/> Auditor checks that paperwork contains all FoodSafe Plus requirements			
	<input type="checkbox"/> Auditor prepares checklist to use during on-site audit			
External on-site audit	<input type="checkbox"/> Auditor checks that paperwork and practices match			
	<input type="checkbox"/> Auditor identifies any non conformities to program			
	<input type="checkbox"/> Auditor and business agree a date by which non conformities will be rectified			
	<input type="checkbox"/> Auditor re-visits to check all non conformities have been rectified			
	<input type="checkbox"/> When there are no non-conformities, business is eligible to receive FoodSafe Plus certificate			
	<input type="checkbox"/> Auditor may make advisory findings to suggest ways program may be improved			

More space for comments is available on the back of the form

Comments continued:

Fisheries Food Safety Program Initiative

FoodSafe® Plus Project

Feedback Sheet for Audits

Name:.....

A joint initiative between
Western Australian Fishing Industry Council
Department of Fisheries
Seafood Services Australia

For more information contact your project facilitators:

Tel/Fax: (08) 9312 1120

Ian Doughty
Mob: 0417 312 600
Email: laister@nw.com.au

Carole Theobald
Mob: 0438 088 060
Email: theobald@nw.com.au

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Please use this feedback sheet to record audit dates.

Agreed date for internal audit:

Actual date for internal audit:

Agreed date for close out of NCRS

Actual date for close out of NCRs

Agreed date for FoodSafe Plus audit

Actual date for FoodSafe Plus audit

Date complied with FoodSafe Plus

APPENDIX 3 WORKSHEETS DEVELOPED TO SUPPORT THE PROJECT

Name: _____

Appendix 3.1 How Well Do You Know The Seafood Retailer's Handbook?

Date: _____

Use the checklist to see how much you remembered! Just tick the 'yes' or 'no' box depending on your answer. There is no pass or fail – your supervisor will explain the correct answer,!

#	Question	Yes	No
Spoilage and contamination (page 2-3)			
1	To maximise the shelf life of fresh seafood, should it be stored between 5°C and 10°C?		✓
2	Are the three types of contamination: bacterial, chemical and physical?	✓	
Cross contamination (page 3)			
3	Will raw seafood contaminate ready-to-eat seafood if the same utensils are used to handle them both?	✓	
4	Will fish spoil more quickly at lower temperatures?		✓
Personal hygiene (page 5-6)			
5	Should food handlers wash their hands after going to the toilet?	✓	
6	Should food handlers wear protective clothing when handling food?	✓	
Premises hygiene (page 6-7)			
7	Must surfaces that contact food be cleaned and sanitised?	✓	
8	Do detergents kill bacteria?		✓
Cleaning (page 8)			
9	Is the best way to keep on top of cleaning jobs to "clean as you go"?	✓	
10	Should the cleaning schedule list all items that require cleaning?	✓	
Pest control (page 9)			
11	Are pests free of bacteria?		✓
12	Can pests be controlled by preventing their entry into the premises?	✓	
Purchasing (page 9-10)			
13	Should incoming food be checked to make sure it is safe and of good quality?	✓	
14	Is it OK to accept food beyond its use by date?		✓
Storage (page 11-13)			
15	Can fresh seafood be stored safely all day at room temperature?		✓
16	Should seafood be covered, separated and well drained during storage and display?	✓	
Handling (page 14)			
17	Is it OK to prepare large amounts of seafood at one time?		✓
18	Must you prevent unnecessary contact with seafood?	✓	
Display (15-17)			
19	Must fresh seafood display cabinets be kept between 5° and 10°C?		✓
20	Should food on display be kept clean, kept cold and kept moving?	✓	

Summary of main points:

Handle food safely by protecting it from contamination.

If you have vomiting, diarrhoea or fever – stay at home.

If you are sick at work tell your supervisor.

If you have a skin condition that could contaminate food – tell your supervisor and put a barrier between you and the food e.g. wear clean gloves and/or use utensils.

Make sure that your hair, clothing and jewellery does not touch food or food contact surfaces e.g. when handling food wear a hat, apron and remove jewellery.

Don't eat over food or work surfaces.

Wash hands

- Before handling any ready to eat food
- After handling raw food
- After using the toilet
- After touching hair or body, sneezing, eating or drinking
- When they are dirty or sticky

Wash hands in the hand basin (not the sink)

- Use soap and warm running water
- Dry hands thoroughly on a single use towel

Do not use the hand basin to wash food or utensils.

HEALTH AND HYGIENE RESPONSIBILITIES

of

Food Handlers

To keep food safe all food handlers must comply with these requirements from national Food Safety Standard 3.3.2.

For more information about the Food Safety Standards,

- Ask your supervisor or
- Contact your local council Environmental Health Officer or
- Visit the Food Standards Australia New Zealand web page on www.foodstandards.gov.au

*Information provided by Carole Theobald
Cormorant Technical Services P/L, 2003
Tel/Fax: (08) 9354 9639*

APPENDIX 3.2 : HEALTH AND HYGIENE RESPONSIBILITIES OF FOOD HANDLERS

Division 4 — Health and Hygiene Requirements

Subdivision 1 — Requirements for food handlers

13 General requirement

A food handler must take all reasonable measures not to handle food or surfaces likely to come into contact with food in a way that is likely to compromise the safety and suitability of food.

14 Health of food handlers

(1) A food handler who has a symptom that indicates the handler may be suffering from a food-borne disease, or knows he or she is suffering from a food-borne disease, or is a carrier of a food-borne disease, must, if at work:

(a) report that he or she is or may be suffering from the disease, or knows that he or she is carrying the disease, to his or her supervisor, as the case may be;

(b) not engage in any handling of food where there is a reasonable likelihood of food contamination as a result of the disease; and

(c) if continuing to engage in other work on the food premises – take all practicable measures to prevent food from being contaminated as a result of the disease.

(2) A food handler who suffers from a condition must, if at work:

(a) if there is a reasonable likelihood of food contamination as a result of suffering the condition – report that he or she is suffering from the condition to his or her supervisor; and

(b) if continuing to engage in the handling of food or other work – take all practicable measures to prevent food being contaminated as a result of the condition.

(3) A food handler must notify his or her supervisor if the food handler knows or suspects that he or she may have contaminated food whilst handling food.

15 Hygiene of food handlers

(1) A food handler must, when engaging in any food handling operation:

(a) take all practicable measures to ensure his or her body, anything from his or her body, and anything he or she is wearing does not contaminate food or surfaces likely to come into contact with food;

(b) take all practicable measures to prevent unnecessary contact with ready-to-eat food;

(c) ensure outer clothing is of a level of cleanliness that is appropriate for the handling of food that is being conducted.

(d) only use on exposed parts of his or her body bandages and dressings that are completely covered with a waterproofed covering;

(e) not eat over unprotected food or surfaces likely to come into contact with food;

(f) not sneeze, blow or cough over unprotected food or surfaces likely to come into contact with food;

(g) not spit, smoke or use tobacco or similar preparations in areas in which food is handled; and

(h) not urinate or defecate except in a toilet.

(2) A food handler must wash his or her hands in accordance with subclause (4):

- (a) whenever his or her hands are likely to be a source of contamination of food;
- (b) immediately before working with ready-to-eat food after handling raw food; and
- (c) immediately after using the toilet.

(3) A food handler must, when engaging in a food handling operation that involves unprotected food or surfaces likely to come into contact with food, wash his or her hands in accordance with subclause (4):

- (a) before commencing or re-commencing handling food;
- (b) immediately after smoking, coughing, sneezing, using a handkerchief or disposable tissue, eating, drinking or using tobacco or similar substances; and
- (c) after touching his or her hair, scalp or a body opening.

(4) A food handler must, whenever washing his or her hands:

- (a) use the hand washing facilities provided;
- (b) thoroughly clean his or her hands using soap or other effective means, and warm running water; and
- (c) thoroughly dry his or her hands on a single use towel or in another way that is not likely to transfer pathogenic micro-organisms to the hands.

(5) A food handler who handles food at temporary food premises does not have to clean his or her hands with warm running water, or comply with paragraph (4)(c), if the appropriate enforcement agency has provided the food business operating from the temporary food premises with approval in writing for this purpose.

Note: Maximum penalty for knowingly handling food unsafely is \$100,000 plus 2 years in prison. (\$500,000 for a corporation).

Maximum penalty for unknowingly handling food unsafely is \$50,000 (\$250,000 for a corporation).

Appendix 3.3 : Written Commitments

This business makes the following commitments to the production of safe food:

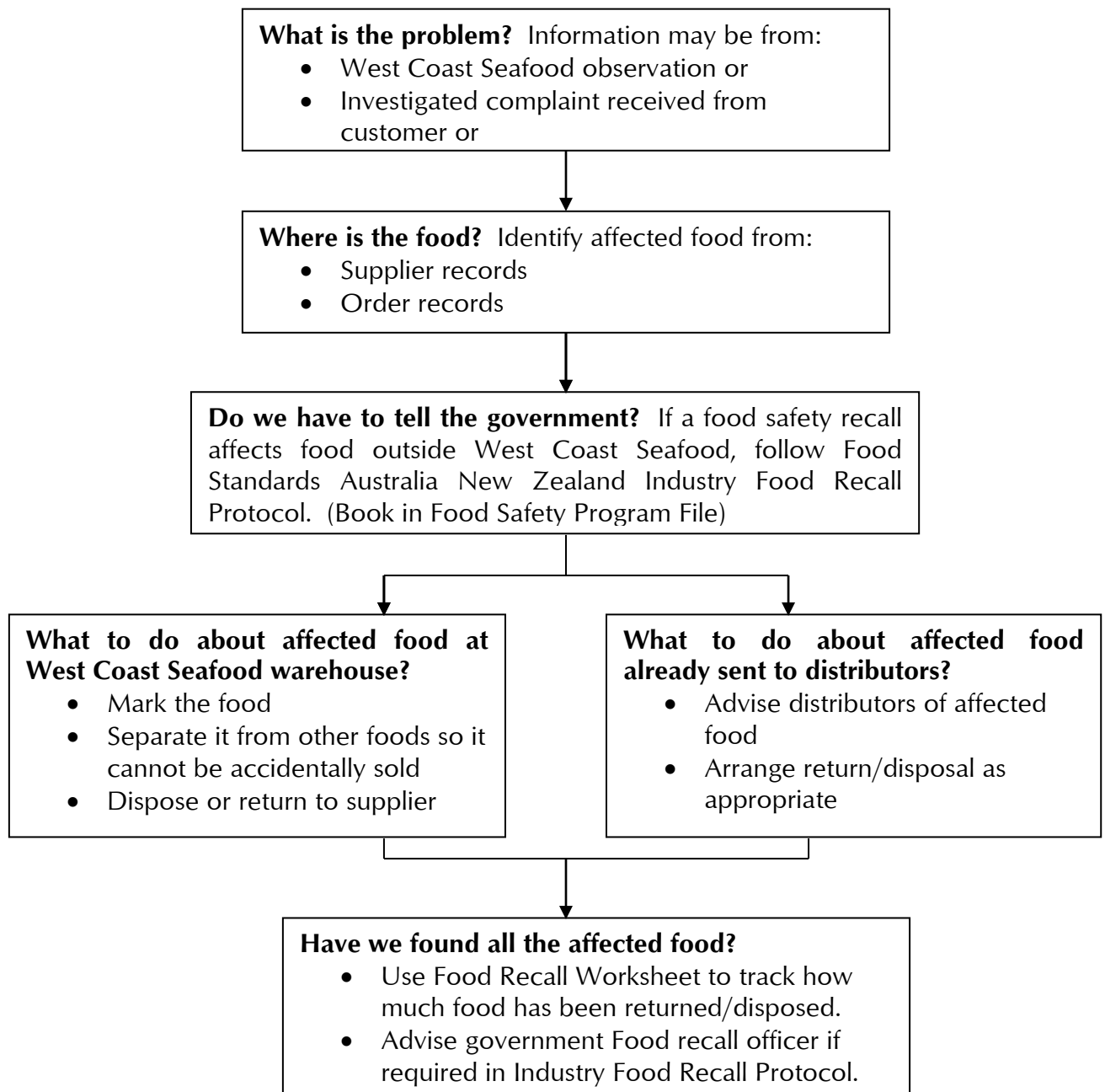
- The business will implement the FoodSafe Plus Food Safety Program of the Australian Institute of Environmental Health
- A copy of the FoodSafe Plus manual will be kept on site
- All staff will undertake at least basic food hygiene training
- All food will be purchased from reputable suppliers
- All food produced will comply with the compositional and labelling requirements of the Australian Food Standards Code of Food Standards Australia New Zealand
- The business will handle food safely at all times
- All food hygiene legislation will be complied with and a copy kept on the premises for easy reference
- Customer requirements will be met when producing food
- Procedures and worksheets for food handling activities will be maintained
- Documents in the food safety manual will be reviewed at least annually
- Documents will be identified to ensure they are controlled and the most up-to-date version is used by all staff at all times
- Food recalls will be undertaken as required to ensure the safety of food.

Manager's signature: _____

Page No: _____

Date of authorisation: _____

Appendix 3.4 : Food Recall Procedure



Proprietor's signature: _____
1 of 1

Page no: B/6/page

Food Recall Worksheet

Type of food recall: Quality <input type="checkbox"/> Safety <input type="checkbox"/> <i>(If recall is for safety reason, contact local EHO for advice)</i> Description of reason for food recall: 	
pack sizes)	(A) How much food needs to be recalled? (Total weight or packets)

Insert details of returned food here

Date	Food returned from: (Name of distributor)	How much food was returned?	Follow up action (e.g. food returned, destroyed or re-processed etc)	Signed
(B) Total food recovered			(A) – (B) = total amount of food left in the marketplace	

Proprietor's signature: _____

Page no: D/7/1

Date of authorisation: 17th November 2003

Appendix 3.5 : Health Record

Record details of food handlers reporting illnesses and conditions at work. Keep information confidential and stored in a private area. It may only be shared with the proprietor and EHO.

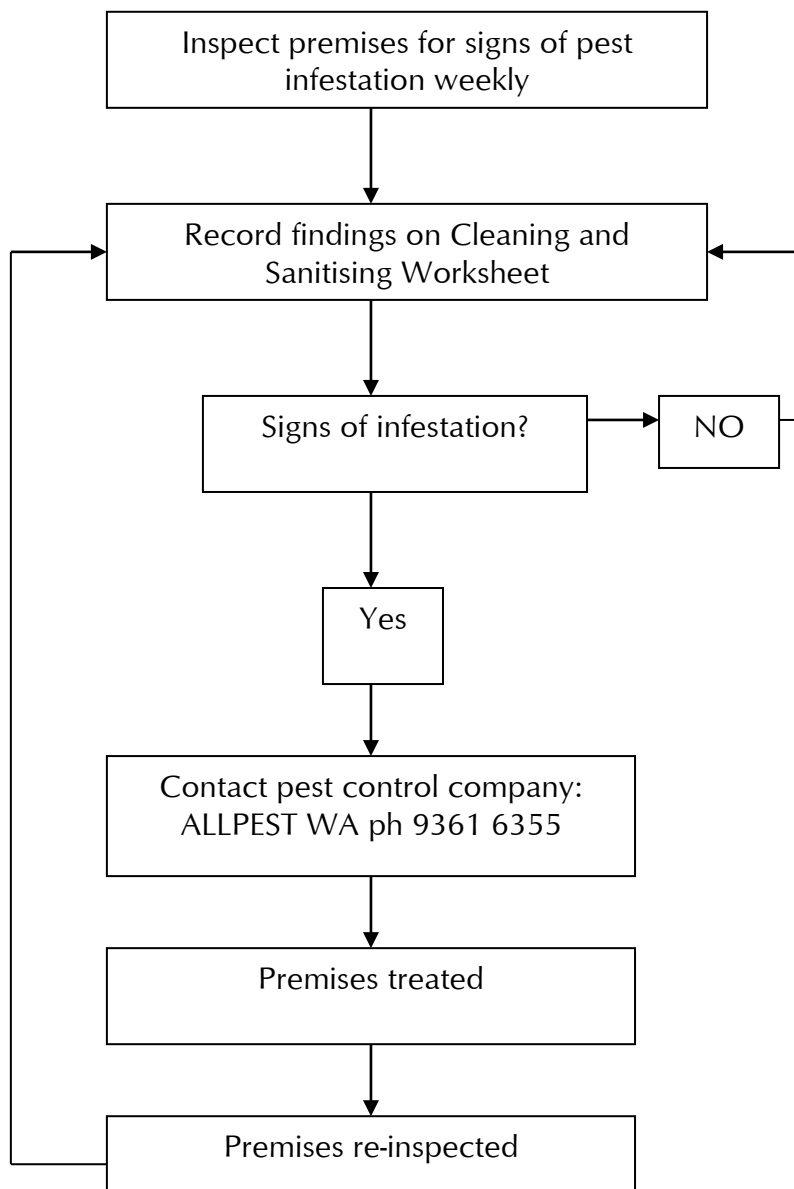
Year:

Date reported	Name of employee afflicted	Details of condition – duration and symptoms	Action taken	Supervisor determining action

Proprietor's signature: _____

Page no: W/9

Appendix 3.6 : Pest Control Procedure



Proprietor's signature: _____
1 of 1

Page no: P/11 page

Appendix 3.7 : CCP Determination Guide.

Appendix C7

Critical Control Point Determination Guide

PROCESS STEP	Hazards Biological (B) Chemical (C) Physical (P) Include hazard description	Q1 Do preventive measures exist for the identified hazards? NO= not CCP, identify how and where hazard will be controlled YES = go to next question	Q 2 Is the identified hazard or product contamination from staff, equipment or processing environment? NO = move to next question YES = not a CCP (these hazards are controlled by procedures)	Q3 Is the step specifically designed to eliminate or reduce the hazard to an acceptable level? NO = go to next question YES = CCP	Q4 Could the hazard occur or increase to an unacceptable level? NO = not a CCP YES = go to next question	Q5 Will a Subsequent step eliminate the hazard or reduce the likely occurrence to an acceptable level? NO = CCP YES = not a CCP	CCP ?
1. Product receipt	Growth of bacteria Contamination	Yes. Make sure all goods are frozen hard upon delivery. Yes. Check packaging is not damaged.	No No	Yes Yes			Yes Yes
2. Cold storage	Growth of bacteria Contamination	Yes. Maintain food at or below -15°C. Rotate stock. Yes. Cleaning procedure	No Yes. See <i>Cleaning Procedure.</i>	Yes			Yes No
3. Contracted re-packaging	Growth of bacteria and contamination	Yes. Make sure packers have audited food safety program to pack product safely, maintain cleaning and sanitising etc.	Yes (controlled through contractors procedures in their food safety program.)				No
4. Picking orders	Growth of bacteria/contamination	Yes. Picking done in freezer and all product wrapped	Yes. See <i>Distribution Procedure.</i>				No
5. Packing/loading orders	Growth of bacteria/contamination	Yes. Don't keep product out too long during loading and clean eskies as per schedule.	Yes. See <i>Distribution Procedure.</i>				No
6. Delivery	Growth of bacteria/contamination	Yes. Frozen food hard, not damaged, no broken bags etc.	Yes. See <i>Distribution Procedure.</i>				No

Proprietor's signature: _____

Page no: C/3/page 1 of 1

Date of authorisation: 17th November 2003

Appendix 3.8: Procedure for cleaning and sanitising food contact surfaces

- *Remove as much food products and dirt as possible*
- Direct liquid waste to drains
- Direct solid waste to bins
- Rinse / wet all surfaces with clean water
- Apply detergent to surfaces to be cleaned
- Scrub surfaces to remove all dirt
- Rinse all surfaces with clean water
- Direct further waste to drain
- Empty drain trap to bin
- Spray disinfectant solution onto food contact surfaces
- Allow to air dry

Proprietor's signature: _____

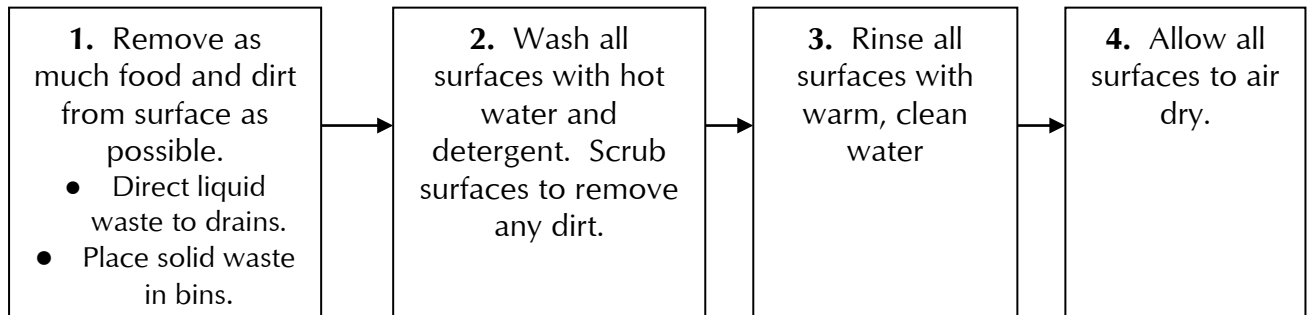
Page no:P/8 page 1 of 1

Date of authorisation: 17th November 2003

Appendix 3.9 : Cleaning and Sanitising non-food contact surfaces.

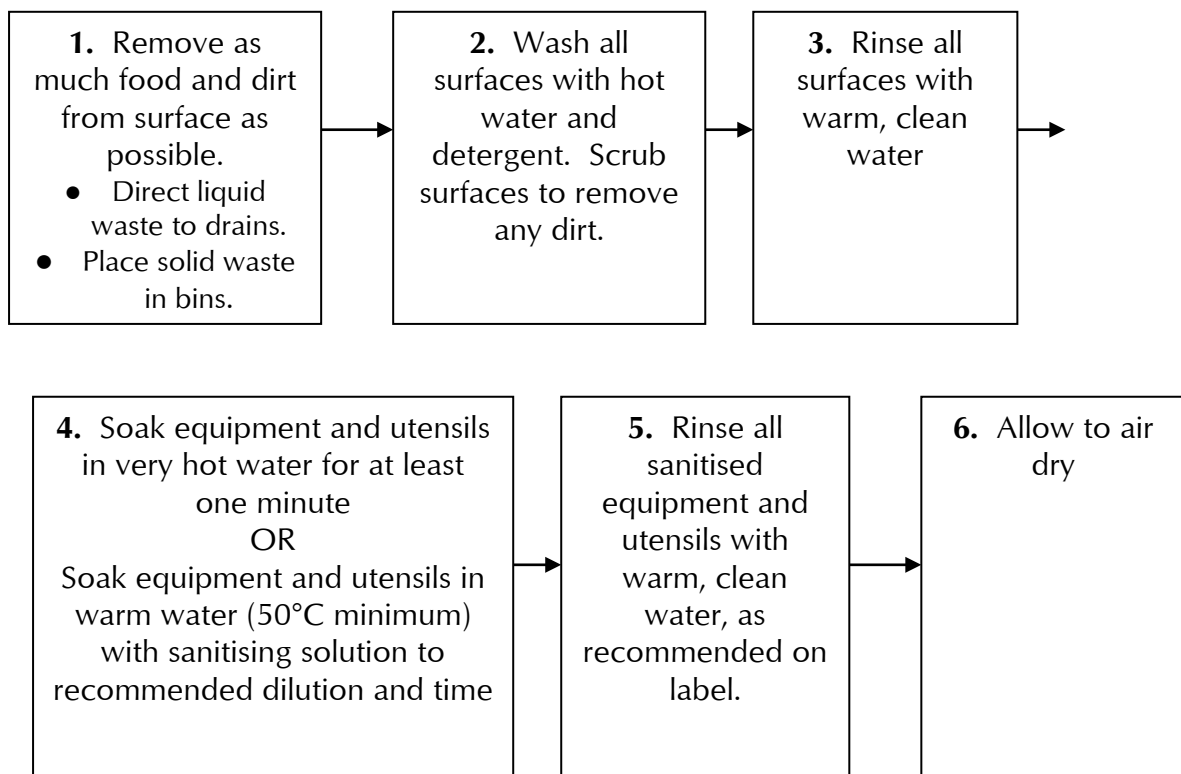
Non food contact surfaces

Cleaned to removed dirt and grease using detergent.



2. Food contact surfaces

Cleaned with detergent to remove dirt and grease, then sanitised to kill bacteria.



Proprietor's signature: _____

Page no: P/7

Date of authorisation: 19th November 2003

Procedure for cleaning non food contact surfaces

- **Chest freezers** - wipe front and sides using spray and wipe and clean cleaning cloth or sponge
- Glass lid- wipe clean with chamois
- **Chillers** - internal, external wipe with spray and wipe and clean sponge
- **Floor** - mop thoroughly with clean hot water mixed with approx. 100ml of Ajax lemon floor cleaner
- **Front counter** - regular wipe with clean damp cleaning cloth with Ajax lemon floor cleaner applied
- **Carpark**- daily sweep or clean up rubbish

Proprietor's signature: _____
of 1

Page no:P/9 page 1

APPENDIX 4 : FOODSAFE PLUS FOOD SAFETY PROGRAM INITIATIVE, WA ROCK LOBSTER REPORT

Situation:

Carole Theobald and Ian Doughty met Mr Sgherza's boat on its return to Fremantle Fishing Boat Harbour, to assess the operation for its suitability for the FoodSafe Plus program.

Process on boat

Pots are set with bait. Bait is sourced from an approved supplier, with certain types of bait made illegal for use.. Frozen boxes of bait are defrosted on deck for use the following day. Bait boxes are checked before use. Bait boxes are kept closed to protect them from tampering.

Pots are retrieved using a hydraulic winch to lift the pots. Lobsters are emptied into box for sorting. Lobsters of adequate size are put into crates in a seawater holding tank through which water is circulated and overflows. Water is from the deck hose, with a pick up from underneath the boat on the side opposite discharge pipes for waste. Mats are used in the bottom of the crates to reduce leg damage.

Pots are re-baited and returned to the ocean.

When boat docks the crates are removed from the holding tanks, lidded (solid plastic lids held on with elastic bands) and put on a trolley and wheeled to the packers approximately 50m from where the boat docked.

Process at packers

At the packer, the crates are weighed and lobsters transferred to the holding tanks for purging.

After spending 2-3 days in the purging tank, the lobsters will be transferred to a chilled water tank before being packed in foam eskies with fresh damp wood chips. Live products are air-freighted to overseas markets. Further processed lobster is frozen and shipped in a variety of forms.

Notes

Mr Sgherza is paid a premium for high quality lobsters ie those with no broken legs. Deckhands are trained on the job by Mr Sgherza and are supervised closely until he considers them competent in both boat handling and lobster handling.

Discussion

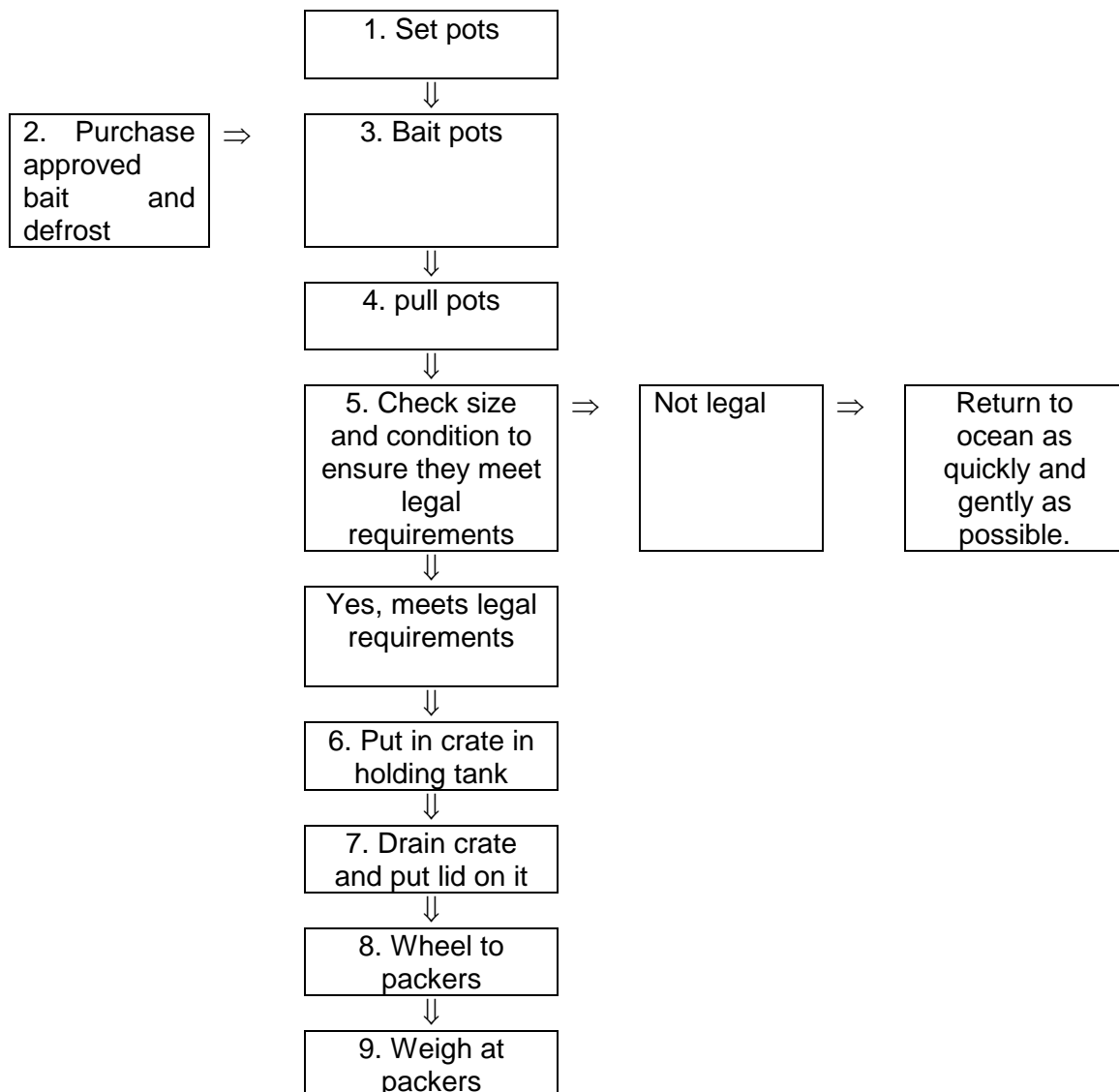
The FoodSafe Plus program does not fit well with this type of operation as:

- It is not a food business by definition of the Food Safety Standards eg it fits the definition of primary food production in Standard 3.1.1 clause 1 which excludes it as a food business.
- No critical control points could be identified as food safety is controlled through good handling practices. (See HACCP process)

- High quality lobsters are already encouraged and supported by financial incentives (ie the industry is already getting money for producing high quality goods, so does not need the recognition of a food safety program system)
- Traceability issues are addressed through the licensing of boats, processors payment systems and limitations on areas where lobsters may be caught.

HACCP process

1. Process Flow Chart



2. Hazard analysis

Process step	Hazard	Significance	Preventative action
1. Set traps	C: poisoned trap	L	Smell trap e.g. no unusual smell indicating contamination
	M: virus in ocean	L	Fish in legally open areas
	P: wires/badly shaped traps	M	Visual inspection. Routine maintenance program.
2. Purchase approved bait and defrost	C: poisoned bait	L	Smell
	M: rotting fish	L	None – lobster like rotting fish
	P: glass etc	L	Lobsters choose their food
3. Bait traps	C: poisoned bait	L	Smell
	M: rotting fish	L	None – lobster like rotting fish
	P: glass etc	L	Lobsters choose their food
4. Haul out traps	C: chemicals	L	Store chemicals off deck
	P: physical damage	M	Handle with care ie keep out of sun, wind and don't throw
5. Check size	C: chemical	L	Shore chemicals away from lobsters.
	M: dirty hands/gloves	L	Use clean gloves and hands
	P: physical damage	M	Handle gently. Rinse gloves and aprons frequently in fresh water.
6. Hold in tanks	C: chemicals in water	M	Store chemicals away from recirculating water.
	M: microbes in water	M	Use clean gloves and clean hose
	P: overcrowding	M	Don't overcrowd. Keep large ones away from small ones so they don't eat each other. This is more an issue in holding tanks at the processors than on board vessels.
7. Drain crates and lid	P: damage limbs	M	Handle gently.
8. Wheel to packers	P: Sun, rain and wind damage	M	Keep time to minimum in elements.
9. Weigh at packers	P: damage limbs	M	Handle gently.

3. Critical Control point determination

The CCP Determination Guide was used to see if any of the major steps could be identified as a critical control point (CCP). A CCP must be monitorable and records must be able to be kept to demonstrate how the CCP is being controlled.

As can be seen from the chart below, all hazards related to processes that can be controlled through good handling of the lobsters. Information relating to this is contained in the video and handbook called "Fifteen Minutes."

PROCESS STEP	Hazards Biological (B) Chemical (C) Physical (P) Include hazard description	Q1 Do preventive measures exist for the identified hazards? NO= not CCP, identify how and where hazard will be controlled YES = go to next question	Q 2 Is the identified hazard or product contamination from staff, equipment or processing environment? NO = move to next question YES = not a CCP (these hazards are controlled by procedures)	Q3 Is the step specifically designed to eliminate or reduce the hazard to an acceptable level? NO = go to next question YES = CCP	Q4 Could the hazard occur or increase to an unacceptable level? NO = not a CCP YES = go to next question	Q5 Will a Subsequent step eliminate the hazard or reduce the likely occurrence to an acceptable level? NO = CCP YES = not a CCP	CCP?
1. Set traps	C: poisoned trap	Y: Smell trap e.g. no kero smell	Y				N
	M: virus in ocean	Y: Fish in legally open areas	Y				N
	P: wires/badly shaped traps	Y: Visual inspection	Y				N
2. Purchase bait and defrost	C: poisoned bait	Y: Smell	Y				N
	M: rotting fish	Y: None – lobster like rotting fish	Y				N
	P: glass etc	Y: Lobsters choose their food	Y				N
3. Bait traps	C: poisoned bait	Y: Smell	Y				N
	M: rotting fish	Y: None – lobster like rotting fish	Y				N
	P: glass etc	Y: Lobsters choose their food	Y				N
4. Haul out traps	C: chemicals	Y: Store chemicals off deck	Y				N
	P physical damage	Y: Handle with care ie keep out of sun, wind and don't thrown	Y				N
							N
5. Check size	C: chemical	Y: Shore chemicals away from lobsters.	Y				N
	M: dirty hands/gloves	Y: Use clean gloves and hands	Y				N
	P: physical damage	Y: Handle gently	Y				N
6. Hold in tanks	C: chemicals in water	Y: Store chemicals away from recirculating water.	Y				N
	M: microbes in water	Y: Use clean gloves and clean hose	Y				N
	P: overcrowding	Y: Don't overcrowd. Keep large ones away from small ones so they don't eat each other.	Y				N
7. Drain crates and lid	P: damage limbs	Y: Handle gently.	Y				N
							N
							N
8. Wheel to packers	P: Sun, rain and wind damage	Y: Keep time to minimum in elements.	Y				N
							N
							N
9. Weigh at packers	P: damage limbs	Y: Handle gently.	Y				N
							N
							N

Procedures and worksheets

Could any records be kept that could enhance the business? The following may be considered useful in some circumstances:

Procedures:

- How to handle lobsters e.g. where to hold, moving gently, glove usage, preventing overcrowding
- Cleaning and sanitising e.g. what, when and how
- Chemical handling e.g. where to store fuel
- Recirculating tanks

Worksheets:

- Training e.g. showing when deckhands have been trained in procedures.
- Maintenance e.g. When boat has been cleaned, repaired, pots inspected/replaced
- Conditions in holding tanks on long runs e.g. temperature and dissolved oxygen.

All the procedures and worksheets relate to GMP issues except perhaps the conditions in the holding tanks, which on long runs e.g. over a day, may be a CCP.

Fifteen Minutes – A Code of Practice for handling live rock lobster

This video and handbook resource was developed in 1995 by WAFIC in association with a number of other agencies.

The video focused on why it is important to produce high quality lobster but took ten minutes to get into an area where it was talking about looking after the lobsters.

In places, the vision did not match words e.g. talking about handling lobsters gently, but the footage showed person throwing lobsters quite heavily into tanks. Similarly, lobsters were also shown being returned to the ocean by throwing and by gently placing over the side of the boat. It was not obvious which practices were good or bad.

The handbook contained loads of information that was not in the video. If funds permit in the future, it may be worth editing existing footage and superimposing some graphics to illustrate practices identified in the handbook. It may also be possible to develop posters/stickers for the boat as an on site reinforcement.

In places the handbook information appeared contradictory and required further explanation. For example on page 8 it states that if there are delays the baskets should be sprayed but then on page 13 it says that lobsters get stressed if exposed to rainfall.

Overall, the Code of Practice was very informative and it may be due for review so the information may be re-presented to the industry.

Recommendations:

- FoodSafe Plus is not suitable for the type of operation used by Mr Sgherza. The paperwork required would not result in a better quality product. The product is sold live and there is a financial benefit if the product is complete ie has all its legs – so it is easy to see if the lobster is in good condition.

However, if product was packed or processed on board the vessel, a food safety program could be beneficial as the handling involved could involve CCPs e.g. temperatures and dissolved oxygen levels of holding tanks and cooking, chilling and storage temperatures for cooked products.

- The video and handbook “Fifteen Minutes” is a very useful aid to facilitate the introduction of good handling practices in the live rock lobster industry. Consideration could be given to extending this useful resource to include the procedures and worksheets identified above. It may be possible to develop posters/stickers to reinforce the good handling practices.

APPENDIX 5: REVIEW OF RESOURCES

a) Seafood Training the first Steps – a training resource for basic skills and knowledge in the seafood industry

Impression:

This CD-ROM training resource provides basic skills and knowledge in the seafood industry. The EHP's worked through this CD and found it logical, clear and easy to follow. It was evident that a lot of time and thought had gone into creating this CD and every attempt made to keep it varied and interesting for the learner. It contained a good mix of text, graphics, photographs and video clips. The voiceover idea is good, especially for those who may not read English well. The interactive question and answer sessions would help learners review information as they progressed through each stage. Exercises could be printed from the CD to help guide the learning process e.g. by gathering information for assessment as necessary from the workplace.

The package is aligned to the Seafood Industry Training Package so brings together food safety, communication and other work skills. The CD provided training for the aquaculture, catching, distribution, processing and wholesale/retail sectors. Learners follow the learning pathway for their own industry sector and also learn the core modules which apply to all sectors. The core modules are:

- Food handling
- Health and Safety
- Working effectively in the seafood industry
- Communication

Although the CD contains information on how to use the mouse and program, the learner will still need to have some computer literacy. For example, the EHPs found that the program stuck in a loop on a couple of occasions and this could only be released by removing the CD from the drive and starting again. This is not covered in the instructions and could severely unsettle a learner working on his/her own.

Technical comments:

From a technical point of view there were a few shortcomings:

- Cleaning and sanitising were not covered well. In some places, cleaning was referred to when cleaning and sanitising would have been more appropriate. The food safety standards require food contact surfaces to be cleaned and sanitised. This is a fundamental food safety issue, and at this level needs to be emphasised.
- It was implied that the only hazard from bacteria was their ability to produce toxins. This is not correct – the ingestion of whole bacteria causes more food poisoning than toxin related incidents.
- The coverage of food safety programs was woeful. Basically learners were advised to go and find the food safety program in their workplace.
- There was no reference to the Food Safety Standards by name. It is now possible to refer to these standards as they are national legislation.
- As the standards require all food handlers to be aware of their food handling responsibilities it would have been good to have seen these included on the CD.
- The CD is not specific to food safety – it is one of many issues covered – but the food safety area does not provide enough detail on the basics to be a stand alone resource to help a business train staff to support the implementation of a food safety program.

- The examples seemed to be geared to bigger operations – larger than those businesses participating in the FoodSafe Plus project.
- The worksheets printed out in a non logical order. The pages had no numbers on them so they had to be sorted against the master “index” sheet for the particular industry. The index sheet did not print out first. There was no stop button to halt printing and the program had to be exited to halt printing.
- The EHPs found that the voiceover was very clear but monotonous after a while. They were reading faster than the voice was speaking, which became frustrating as they were not sure if the voiceover was going to contain important information extra to that on the screen. Eventually they realised that the voiceover just verbalised the written material so they turned the sound off to aid concentration. For those who cannot read or do not read English well, the voiceover is a good option. It would have been better had a number of voices been used.
- Even with the varied styles used in the presentation, the EHPs found that it was best watched in 10-15 minute bursts at the most. After this, the information washed over them and was not absorbed. (The EHPs found this when they were learning new information on the CD ie they had their learners’ hat on.)

Usability:

We think that you would need to be confident using computers to use the CDROM. The instructions for using the mouse etc are good but if something happens when you are using the CDROM you need to have someone nearby to get you out of trouble. For example there were a couple of occasions when we used the CDROM and we got stuck in a loop – we had to remove the CDROM from the drive and start again. This instruction is not included on the CD. If someone was not computer literate, this could be a big barrier and may destroy confidence as the learner may think they’ve done something wrong.

The CD would be great used in a small training group as part of induction training for a large company, ie a few computers together with a trainer to facilitate, as the resource would let each person work in their own time. The CD could be interspersed with class activities so participants could ‘do’ physical things as part of the session – this would overcome the ‘washing over you’ problem of prolonged computer based learning.

The package may be useful if used in short bursts ie 10 -15 minutes at a time. To be honest, it put us to sleep after this time and washed over us, even though considerable effort had been made to make it appear interactive and interesting.

From a food safety point of view it is a little laboured – you have to work through lots of menus before you get to the information. You can find food safety information in the Seafood Retailers Handbook far more quickly and easily.

None of the businesses in the pilot have computers readily available to all staff to use for training. However, most of the participants in the project are older and not comfortable using computers – the younger ones are most comfortable, but there are not many of them.

b) Managing Seafood Safety Step-by-Step

Impression

- Excellent resource to help businesses develop their own food safety program
- Logical and orderly presentation
- Good, clear graphics
- Printing of templates was a bit problematic

Technical comments:

- Mostly excellent. The examples used for each industry sector were very good.
- The printed templates provided insufficient guidance for a business proprietor to complete them easily, as there was no model to follow. We can see that it has been done this way so businesses develop their own resources without being influenced by a model – but at this level proprietors need all the help they can get. It may be the difference between a business implementing a program or not bothering. It may not be ideal to follow the completed template model, but it will produce an auditable program which can be continuously reviewed and improved. From our experience businesses learn most from their first audit.
- We were impressed with the logical approach to the development of the food safety program – ie the foundation of GMP, SOPs, pre-HACCP and HACCP. This aligns with our own thinking and it was pleasing to see the separate stages strongly emphasised.
- The HACCP steps were not broken down into small enough steps for our liking – the hazard audit table was very heavy compared to the rest of the materials – this is an area the learner would need more support with.
- The term ‘food safety program’ is used in the Food Safety Standards, not ‘food safety plan’, so a comment is needed just to explain that the two are the same.
- We are comfortable with the terminology – so to us it was well laid out, concise, informative, logical etc – however, learners would have to go to the glossary for information which may interrupt their learning rhythm.

Usability:

What surprises us, is that this resource is so good, yet it is not being used throughout the industry.

We think the following factors may contribute to this:

- This resource would be very difficult for a non computer literate person to use on their own. Computer and personal food safety technical support is required to overcome barriers to learning. The personal contact cannot be underestimated – in small business the proprietors do everything by personal contact ie phone or face-to-face. The computers are generally limited to accounts staff.
- We use computers all the time and had problems with the printing out of the templates. We had created a folder as instructed but this was not necessary – only the document was required on the desktop. We had a Word document open in the background which also locked the system. We could not look behind the CD screens because there was not a “minimise screen” function – this meant we had to quit and re-start during our troubleshooting. This would be enough to make computer illiterate learners give up before they began!
- We believe that learners need to see a completed food safety program before they begin ie forms in a file, well thumbled with forms filled in by hand and possibly an audit report of the program. Learners could then see what it was

they were trying to achieve. It would be very difficult to follow a recipe to make a cake when you have never seen a cake or touched one or tasted one. Yet, this is what we are asking learners to do when they create their food safety program.

General comments:

The experience gained from the FoodSafe Plus project so far indicates that most participants are not comfortable with computers. Very few use email, they do not like looking at books and prefer to learn by doing and talking. Most of the businesses either did not have computers in the workplace or had computers that were not available for staff training.

There are two distinct audiences in a small business: the proprietor/managers and other food handlers.

The small business proprietors are time poor and yet committed to implementing a food safety program. They do not know how to make the time to start as the day-to-day business is so demanding of their time. They are unwilling to delegate. Food safety training would have to be at the top of the urgent pile to get a look in.

Most of the proprietors would not be able to effectively use the CD resource as they:

- a) do not have the time to set up the computer and be tied to it to learn. They are constantly on the move or on the phone.
- b) would not be able to concentrate due to constant interruptions
- c) are not comfortable with computers as many have not grown up with them and shy away from using them.

Many food handlers observed in the small businesses are very experienced but lack motivation to learn about basic food safety as they have successfully done their job for years. This group were generally older, were not computer literate, English was not their first language but they worked well in a team. A resource that brought something new to their learning experience ie focussed on the introduction of food safety programs in the business and how it would affect them may have more impact than ab initio food hygiene training resources.

However, the CDs would be very useful in large businesses or in colleges that can provide a workshop setting with a facilitator. If the facilitator broke the session up with face-to-face activities and discussion, the resource would be used to its best effect.

The CD resources, if provided with telephone support, may be useful in remote businesses where the proprietors are very motivated to learn but have limited access to formal training courses e.g. Di Holly's operation. To be successful at distance learning the learner must be highly motivated and have strong support on the end of the phone to overcome learning barriers e.g. computer fear and business distractions. Telephone coaching will help to keep the learners motivated to learn.