



PEI Atlantic Shrimp Corp. Inc. Processing Sector Projects Summary 2000 - 2012

The following projects from the processing sector have been funded by the PEI Atlantic Shrimp Corp Inc.:

1. Crab Asthma Research
2. Line Worker Training Project
3. QMP Implementation
4. United States Mussel Market Research
5. QMP Implementation - Phase II
6. Crab Workers Asthma
7. Utilization of Fish Processing By-Products in Agriculture
8. Lobster Sensory Testing
9. Lobster Mechanization
10. Chitin Feasibility Study
11. Co-operative Quality Management Project
12. Marketing PEI Lobster
13. Mussel Crusher Pilot Project
14. Lobster Handling Pilot Project for Plant Workers and Fishermen
15. Lobster Sensory Kit Development Project
16. Buoy Scraping Machine Project
17. Seafood Marketing Project - Phase I
18. Development of a Seafood Waste Strategy
19. C-TPAT Project **WITHDRAWN**
20. Mussel Meat Fullness Factor
21. Contract Processing for New Product Development
22. Seafood Marketing Initiative - Phase II
23. Bar Clam Processing
24. Assistance to Processors to Meet Marketplace Requirements for General and Nutritional Labeling
25. Assistance to Processors to Meet Marketplace Requirements for Electronic Data Exchange **WITHDRAWN**
26. Establishing a Scientific Baseline for the Presence of Histamine in Mackerel and Herring under Normal Handling Conditions **WITHDRAWN**
27. Seafood Marketing Initiative - Year II
28. Establishing a Scientific Baseline for the Presence of Histamine in Mackerel and Herring under Normal Handling Conditions (Amended)
29. Development of Control Strategies for the Spread of *Styela clava* in PEI: an epidemiologic study of processing plants
30. Development and Implementation of a Restructuring and Operational Strategy

(Next...)

31. Analytical Search for Pharmaceutical, Cosmeceutical and Nutraceutical Compounds in Tunicates
32. Proposal Promoting the Structured and Managed Phase-Out of the PEISPA Quality Management Project
33. Seafood Marketing Initiative - 2006
34. Identification of effective waste water treatment systems for the PEI mussel processing industry
35. Project to Determine Lobster Meat Yields Utilizing Pressurized Cooking Technology
Withdrawn
36. Global Seafood Market Analysis for the PEI Seafood Processing Sector
37. Identification and Characterization of Bio-Active Compounds in PEI Mussels
38. A Project to Address the Challenges of Recruiting Production Line Workers for the PEI Seafood Processing Industry
39. Funding Support for the PEI Seafood Processors Association
40. Development of a Human Resources Sector Council for the Seafood Processing Industry
41. Evaluation of Blue Mussel Shells as an Alternative Dietary Source of Calcium for Laying Hens
42. Seafood Processing Employment Office: helping to address HR issues for PEI's seafood processors.
43. Charting a New PEI Marketing Strategy Using Lobster Industry Consultations to Create a New Seafood Marketing Approach for Lobster, Mussel and Oyster Processors.
44. Initiate the Development of Promotional Videos for the Seafood Processing Industry.
45. Design and Deliver a Training Needs Analysis for the Seafood Processing Industry.
46. Develop and Maintain an Accommodations Database for Production Workers in the Seafood Processing Industry.
47. Develop and Deliver an Introductory Quality Manager Certificate Program for the Seafood Processing Industry.
48. Sourcing Energy Efficiency Diagnostic Services.
49. Continued Funding Support for the PEI Seafood Processors Association.
50. Training Materials for Production Workers: on-line and traditional formats.
51. Develop a Product Inventory and Traceability Program.
52. Discovery of Bio-Products from Tunicates - Phase I of III.
53. Introductory Supervisory Management Training Program for the Seafood Processing Industry.
54. Develop a Recruitment Video for the Prince Edward Island Seafood Processing Industry

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55. A Research Project to Provide Ready-to-Eat Seafood Processing Facilities with Better Data and Prevention Strategies in the Control of Listeria .
56. A Proposal to Assist in the Management Transition Process at the Prince Edward Island Seafood Processors Association
57. A Proposal for the Design, Development and Delivery of an Internal Auditing Seminar for Federally Registered Seafood Plants
58. Development of a Whole Frozen Lobster Products Marketing Strategy
59. A Proposal for the Organization and Delivery of a Seminar by a Certified BRC Trainer on the British Retail Consortium (BRC) Food Standard
60. A Proposal to Organize Molluscan Shellfish Plants to Facilitate Quality Management Program Responses for the Risks Associated with Waste Water Treatment Plants in PEI
61. A Proposal to Establish a Seafood Industry Noise Control and Hearing Conservation Project to Help Plants Meet the New Occupational Health and Safety Program Regulations
62. A Proposal to Provide Marketing for Promotional Materials at the PEI Seafood Processors Association Offices **ACTIVE**
63. A Project to Establish a Product Development and Marketing Strategy and Develop a Funding Proposal for the PEI Seafood Industry
64. A Research Project to Provide PEI Processing Plants with Low Temperature Alternatives for Pasteurization of “Ready to Eat” Seafood Products
65. Noise Management - Phase II: A Project to Provide Seafood Plants with Qualified In-House Noise Level Testing and Baseline Hearing Test Results for Their Employees
66. A Project to Assess the Potential Marketplace Effects of Carapace Size Increases in Lobster in the PEI Lobster Industry
67. A Project to Provide Skill Development Opportunities in Welding to Maintenance Personnel in Seafood Processing Plants
68. A Research Project to Provide Lobster Processing Plants with a Semi-Automatic Batch Pasteurizer with Approved Thermal Processing Protocols for the Low-Temperature Pasteurization of its “Ready to Eat” Lobster Products
69. A Project to Develop a Human Resources Center for the Seafood Processing Industry
70. A Project to Deliver Nationally Recognized Training for Human Resource Managers in the Seafood Industry
71. A Product Innovation Project for the Lobster Processing Industry
72. A Process Innovation Project for the Lobster Processing Industry **ACTIVE**
73. One Year Interim Funding Support for the PEI Seafood Processors Association
74. Supplementary Funding Noise Management Phase II

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75. A Review and Analysis of the 2011 Workers Compensation Board Rate Changes
76. A Project to Introduce New, Innovative Oxygen Infusion Equipment that will Significantly Improve the Holding Water used for Storing Mussels **ACTIVE**
77. A Proposal Requesting an Extension of Core Funding Support for the PEI Seafood Processors Association for the First Three Months of 2012 **ACTIVE**
78. Request to Amend a Project to Develop a Human Resources Center for the Seafood Processing Industry **ACTIVE**

Updated on May 9, 2012

1. Crab Asthma Research

Proponent: PEI Seafood Processors Association

Project Number: 00-PRO-01

Project Status: Complete

Project Start/Completion Date: 2000 - 2004

Project Objective:

The project was initiated at the request of industry and Workers Compensation Board. The goal of this project was to bring together all of the parties who were involved in the issue of crab workers asthma. Through the project we also wanted to provide better information to workers and physicians across PEI. To this end a brochure was developed for workers and information sessions were held across PEI for physicians.

Summary of Outcome:

This project brought together industry stakeholders, which included employees, management, Workers Compensation Board, lead medical researchers and specialists. The team developed an information brochure for plant workers and an outreach plan assist with awareness and understanding in the medical community on PEI which has been implemented and completed.

Total Project Cost: \$9777.07

Funding provided by PEIASCI: \$9777.07

Other Funding Partners: In kind contributions from Workers Compensation Board, Occupational Health and Safety, PEI Physicians

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

2. Line Worker Training Project

Proponent: PEI Seafood Processors Association

Project Number: 00-PRO-03

Project Status: Complete

Project Start/Completion Date: 2001 - 2002

Project Objective:

The project was initiated at the request of industry to address the constant requirement for introductory training of new workers. The objective was to develop and deliver a training course for "in plant" trainers if new line workers

Summary of Outcome:

Three key sets of materials were developed: An instructor's manual with overheads, a workers information booklet and a training video. A schedule was developed which ensured the training of a person in every plant who would then deliver this course to new line workers in their respective plants when they begin work. All of the materials were developed in plain language with engaging and informative support materials. The worker booklet ensures that key information is available to all new line workers. This material is supported by a two hour presentation, which include a 15 minute video, specifically developed to illustrate in a visual way, the key messages of the course.

Total Project Cost: \$58,000.00

Funding provided by PEIASCI: \$58,000.00

Other Funding Partners: The PEI Food Technology Centre provided the main location for the shoot of the video. The Delta Prince Edward Hotel assisted with food preparation and also provided a shoot location for the video.

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

3. QMP Implementation

Proponent: PEI Seafood Processors Association

Project Number: 00-PRO-07

Project Status: Complete

Project Start/Completion Date: November 2000 - July 2001

Project Objective:

This project was initiated to address the ongoing challenges faced by industry in dealing with implementation of their Quality Management Plans.

Summary of Outcome:

This project consisted of seminars, in plant training on each individual plant system, ongoing editing of plans and development work with quality managers. As well, a key focus was to ensure implementation of plans developed in earlier project. Many of the smaller processing plants do not have the resources to engage full time quality managers. This project was designed to assist those with the responsibility for quality control in editing and maintaining their QMP and preparation for annual audits by CFIA.

Total Project Cost: \$96,000.00

Funding provided by PEIASCI: \$64,000.00

Other Funding Partners: PEI Department of Fisheries - \$32,000.00

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

4. United States Mussel Market Research

Proponent: PEI Aquaculture Alliance & PEI Food and Beverage Processors Association

Project Number: 00-PRO-010

Project Status: Complete

Project Start/Completion Date: February 23, 2001 - October 31, 2001

Project Objective:

The key objective of this project was to complete a US Market Research Study, using primary and secondary research methods to detail: the international competition's production capability predictions for then next three to four years; PEI's strengths in the US marketplace; the competition's strengths in the US marketplace; PEI's challenges in the US marketplace; and geographic opportunities for PEI in the various regions of the US market.

The secondary objective was to facilitate discussion between Island mussel processors and interested government representatives regarding the results and possible marketing strategies as well as to communicate the research results to PEI mussel producers.

Summary of Outcome:

HM Johnson & Associates prepared a report entitled "United States Mussel Market Supply and Market Trends" in July of 2001. This research was disseminated to the Island mussel processing industry on July 12, 2001 and in 2002 was quoted by a US competitor as one of several reasons for dropping the antidumping charges they had brought against the PEI mussel industry in the Spring of 2001. The PEI Aquaculture Alliance has continued to refer to the research results on an on-going, as required basis.

Total Project Cost: \$32,201.00

Funding provided by PEIASCI: \$17,374.00

Other Funding Partners: PEI Business Development ; PEI Aquaculture Alliance; PEI Food & Beverage Processors Association

Project Contact: Crystal MacDonald - Executive Director - PEI Aquaculture Alliance
Tel: (902) 368-2757

5. QMP Implementation II

Proponent: PEI Seafood Processors Association

Project Number: 01-PRO-07b

Project Status: Complete

Project Start/Completion Date: March 2001 - August 2001

Project Objective:

This project was a continuation of the QMP Implementation project (01-PRO-07).

Summary of Outcome:

During this project, the PEISPA reached out to virtually every plant on PEI. Through seminars in plant training and editing there has been significant progress made both from the human perspective and on the issue of food safety. Ken Cashin and Jason Coughlin edited plans for a number of plants, prepared four seminars and provided in-plant training to over 700 workers. Sessions were also prepared for quality managers and senior management.

Total Project Cost: n/a

Funding provided by PEIASCI: \$32,000

Other Funding Partners: PEI Department of Fisheries, Aquaculture and Environment; ACOA

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

6. Crab Workers Asthma

Proponent: PEI Seafood Processors Association

Project Number: 01-PRO-011

Project Status: Complete

Project Start/Completion Date: September 2000 - June 2004

Project Objective:

The project was initiated at the request of the steering committee on Crab Asthma. A research project which would focus on the root cause of the asthma-like symptoms experienced by some workers when processing crab.

Summary of Outcome:

Researchers at the Atlantic Veterinary College conducted a number of tests focusing on identifying the protein, which when atomized, triggers an asthma-like reaction. Researchers were successful in identifying the antigens which were involved in allergic reactions. However, due to the unavailability of a graduate student to continue the project research, the project was closed and the balance of funds returned to the PEIASCI.

Total Project Cost: \$58,000.00

Funding provided by PEIASCI: \$29,000.00 (\$58,000.00 originally approved)

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

7. Utilization of Fish Processing By-Products in Agriculture

Proponent: PEI Seafood Processors Association

Project Number: 01-PRO-012

Project Status: Complete (4 years)

Project Start/Completion Date: May 2001 - March 2006

Project Objective:

The project was initiated in May of 2001 to conduct research on the best methodologies for disposing of or reuse for waste from seafood plants.

Summary of Outcome:

Update: Traditionally waste has been direct applied to fields or returned to the ocean. In year one of this four year project, we focused on best practice, assisting plants and farmers with current practices, development of compost methodology, production of lobster and crab compost for use in field trials, selection of crops for year I of research work. A protocol was developed so that we could compare results with standard fertilizers and growth yields, and different rates of applications of seafood compost. The field trials provided very positive results from application of seafood compost.

Final: The conclusion was that in general, seafood processing wastes contain adequate plant nutrients to be of use in crop production.

Lobster and Crab processing wastes:

Lobster waste if carefully applied was generally a good source of nutrients and comparable to commercial fertilizer. Lobster/crab waste was found to be a good nutrient source for potato production which is acceptable in "organic" production systems. The lobster/crab waste decreased the severity of some soil borne potato diseases in addition to the nutrient benefits.

Mussel Processing Waste:

Mussel processing waste was more difficult to apply directly due to offensive odours. Crop damage was sometimes encountered from direct application of mussel waste. Crushing of the mussel shells at the processing facility was beneficial for composting and accelerated the decomposition process, there was less time before the odours became very offensive. Until more information is available, use of uncomposted mussel waste on pH sensitive crops should be avoided. Mussel wastes could be used in pasture and other forage crops but care needs to be taken to odour problems.

In general, higher application rates of seafood processing waste materials should be avoided and heavy metal levels should be monitored. Stabilization of wastes either through composting or lime treatment may be necessary to avoid odour and crop damage associated

with direct application of the wastes under some conditions.

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Total Project Cost: \$490,000.00 (over four years)

Funding provided by PEIASCI: \$70,000 - Year I; \$60,000.00 - Year II; \$60,000.00 - Year III;
\$60,000.00 - Year IV

Other Funding Partners: Agriculture Canada - \$60,000 (Year I)

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

8. Lobster Sensory Testing

Proponent: PEI Seafood Processors Association

Project Number: 01-PRO-013

Project Status: Complete

Project Start/Completion Date: April 2001 - August 2002

Project Objective:

The project was initiated in response to a lack of consistent sensory standards for the lobster industry. The goal of the project was to develop a sensory standard and provide sensory training to quality managers and staff. The training provided key "calibration" of industry personnel and CFIA inspectors.

Summary of Outcome:

Three 4-day workshops were conducted with a team of CFIA inspectors in co-operation with JR Laboratories. The steering committee met on several occasions to develop parameters for the workshop and to followup after each session. 36 quality managers were provided with intensive sensory training. This has been critical project for the lobster processing facilities. This project has provided "calibration" and created a much better understanding of what CFIA perceives as spoiled product and the conditions and/or qualities if the odours that indicate a tainted product. As well, CFIA learned a great deal about the odours associated with lobster from specific areas as well as the differences in odours related to the season in which the lobster is harvested.

Total Project Cost: \$250,000.00

Funding provided by PEIASCI: \$80,000.00

Other Funding Partners: MII Fund (CFIA) - \$125,000; Industry (In Kind) - \$45,000.

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

9. Lobster Mechanization

Proponent: PEI Seafood Processors Association

Project Number: 01-PRO-014

Project Status: Complete

Project Start/Completion Date: 2001

Project Objective:

The project was initiated in response to concerns with the available skilled labour pool. The Seafood Processing Sector has an aging workforce with fewer and fewer new entrants. In this project it is our intent to identify which specific process would be the most cost effective to mechanize. This would then allow the most skilled workers to process in areas that return greater value.

Summary of Outcome:

Attempts were made to facilitate the development of equipment to automate the lobster processing process. However, this area proved to be much more complex and expensive than originally thought and very little success was attained. This is an area requiring much more research and development.

Total Project Cost: \$15,000.00

Funding provided by PEIASCI: \$15,000.00

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

10. Chitin Feasibility Study

Proponent: PEI Seafood Processors Association

Project Number: 01-PRO-015

Project Status: Complete

Project Start/Completion Date: 2001 - April 2006

Project Objective:

The project rose out of discussions that have been on-going for a number of years. As the processing season has extended, the available shell waste has increased. This project would determine if that is so and to what level chitin processing should take place on PEI.

Summary of Outcome:

Update: Phase I has now been completed and we are well into Phase II of the project. Through the initial feasibility study, opportunities in the agricultural sector were clearly identified as having great potential for PEI, both on the environmental side and the development of new products. As well, we have explored the transfer of chitin product production related technologies from the US to PEI. To this end, a work-plan has been developed by Enterprise Management Consultants to steer the course of development over the next three years. This will see the creation of a separate entity which will investigate, promote and conduct further research in to chitin based business opportunities. (August 2004)

Final: Phase 1 was a study to look into the feasibility of the development of a chitin based business here on PEI. This study concluded that in order to capitalize on the value and opportunities from shell waste the industry should recognize this material not as a waste problem, but a bio-resource that has value added potential. Phase 2 was to incorporate much of what was learned through Phase 1 in the development of a Chitin/Chitosan based business strategy plan. In the development of this business strategy the Association incorporated a legal entity entitled AgraGenesis Inc. which the Association is the sole shareholder and, in time may be used as a vehicle for the Association or its individual members to carry forward Chitin-based business activities and/or R & D type initiatives.

Total Project Cost: \$50,000.00

Funding provided by PEIASCI: Phase I - \$15,000; Phase II - \$35,000

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

11. Co-operative Quality Management Project

Proponent: PEI Seafood Processors Association

Project Number: 01-PRO-016 (2001 - 2005)

Project Status: Complete

Project Start/Completion Date: 2001- March 2006

Project Objective:

This project addresses the ongoing need for maintenance, upgrade, editing and training in relation to the quality systems of our seafood plants. This project ensures, on an ongoing basis, that assistance is available to all plants on PEI for their Quality Programs.

Summary of Outcome:

Interim Report: This project ensures, that on an ongoing basis, assistance is available to all seafood plants on PEI for their Quality Programs. Overall, this project is five years in length. Through our Kensington office, seafood plants across PEI, have access to the services of Innovative Quality Solutions. Training seminars, weight verification, editing and development of quality plans for new or updated products, preparation for CFIA audits, participation in exit surveys, assistance with development of corrective action plans, are some of the services which are provided to the seafood industry through this project.

Final Report: Supplementary funding was approved to extend the life of the QMP Project for an additional 2 years so that the most financially sustainable long-term course of action to address Food Safety and Quality Control in the seafood industry could be developed. The project has not proven capable of meeting this ultimate goal. This project has seen complete QMP Program development for three Island processors and major revisions for six processors. It has assisted in the development and amendments to fifteen Corrective Action Plans. Performed Check weight and Thermometer Verifications, and provided QMP Training Sessions for QMP Manager and staff. Seminars and courses were delivered to the industry in Nutritional Labeling and Thermal Processing. Initiatives have been identified that in the near future may evolve to help address QMP requirements within the industry.

Total Project Cost: \$785,000.00

Funding provided by PEIASCI: Total Approved Funds: \$448,150 - \$128,800.00 (2001); \$103,040.00 (2002); \$ 77,280.00 (2003); \$ 51,520.00 (2004); \$25,760.00 (2005) - An additional \$61,750 was approved on April 20, 2005 as a supplement to the 2005 funds.

Other Funding Partners: Industry - \$241,610.00 (2001 - 2005); PEI Department of Fisheries

- \$157,000.00 (2001 - 2005)

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

12. Marketing PEI Lobster

Proponent: PEI Seafood Processors Association

Project Number: 02-PRO-018

Project Status: Complete

Project Start/Completion Date: June 2002 - June 2003

Project Objective:

The project was initiated at the request of industry to investigate new markets and lobster product opportunities. The project includes the development of promotional materials, the development of a marketing strategy and attendance at several seafood shows.

Summary of Outcome:

Through this project we attended, on behalf of Atlantic Processed Lobster Processors, and the PEI Seafood Processors, a number of International and Canadian trade shows and food promotion events. These included: the European Seafood Show - Brussels, the Boston Seafood Show, Americas Food & Beverage Show - Miami, West Coast Seafood Show - Los Angeles, Slow Food promotion - Boston, Canadian Food and Beverage Show - Toronto. We also explored market opportunities in the United Kingdom, London, Edinburgh and Inverness.

At contacts made at these events, a number of potential new value added products have been identified as well as new market opportunities. As part of this project we developed a three year export market strategy. We then prepared an application to CAFÉ/AIMS program for 2003-2004 with which we were successful for year II assistance. For the AIMS portion of the project, we partnered with the Fisheries Council of Canada and delivered the project on their behalf.

Total Project Cost: \$214,000.00

Funding provided by PEIASCI: \$145,000.00

Other Funding Partners: HRDC - \$15,000.00; PEI Business Development - \$4,000.00;
AIMS - \$50,000.00

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

13. Mussel Crusher Pilot Project

Proponent: PEI Seafood Processors Association

Project Number: 02-PRO-019

Project Status: Complete

Project Start/Completion Date: 2002 - May 2005

Project Objective:

The project was initiated at the request of industry to address the issue of volume of shell waste. The objective was to determine if there were benefits to crushing the shell waste from mussel processing plants. This project assisted with a pilot project with mussel shell crushers in PEI Aqua Farms and Confederation Cove. By crushing shell waste, volumes for transport have been significantly reduced.

Summary of Outcome:

A present obstacle for this industry is waster management, dealing with as much as 40,000 tonnes per year in organic and non-organic waste. Past waste management practices have been agricultural and Waste Watch, at a prohibitive cost. Given the restriction on direct burial, huge increase in disposal fees and refusal by many in the agricultural community to accept the untreated organic waste, the industry has been looking for alternatives.

This project has found that crushing has resulted in a 50% or better reduction in the volune of the waste. We have also discovered that, as such, crushed shells have been more accepted by the agricultural community but more work is required to further reduce the size of shell pieces. Some of the crushed waste is now going for composting locally with the resultant compost being applied to the land of the composter.

Agriculture Canada is doing extensive testing when composted mussel waste is applied to field crops and to see if there is any heavy metal uptake by the plants grown in the soil to which mussel waste was applied. Some of the shell waste is presently being piled for up to two years on open ground and then added to oyster beds. Although crushing of mussel shells has resulted in reduced waste volumes and a potentially more useful by-product, it is recommended that more work be carried out to:

- refine the crushing process
- identify new uses for the crushed end product
- identify other reasonable alternatives

Total Project Cost: \$52,600.00

Funding provided by PEIASCI: \$11,000.00

Other Funding Partners: Industry (crushers) - \$41,600.00

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

14. Lobster Handling Pilot Project for Plant Workers and Fishermen

Proponent: PEI Seafood Processors Association

Project Number: 02-PRO-020

Project Status: Complete

Project Start/Completion Date: Spring 2003

Project Objective:

This project was initiated in 2003 at the request of industry and the PEIFA. The key objective was to address the issue of retaining maximum value and quality of the live lobster. A set of training materials will be developed in cooperation with PEIFA and the Department of Fisheries. The training sessions will be delivered by fishermen in several locations across the island.

Summary of Outcome:

The set of training materials and a companion video on lobster handling were developed and distributed throughout the industry. The funding partner on this project was the HRDC and the development of the materials and video was overseen by a steering committee of fishermen, processors and the Nova Scotia Sector Council.

Fishermen from PEI appeared on this video with insight into the best handling techniques for lobster. While training sessions were delivered in Nova Scotia, those did not occur in PEI.

Total Project Cost: \$80,000.00

Funding provided by PEIASCI: \$8,625

Other Funding Partners: Nova Scotia Sector Council; HRDC

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

15. Lobster Sensory Kit Development Project

Proponent: PEI Seafood Processors Association

Project Number: 02-PRO-021

Project Status: Complete

Project Start/Completion Date: 2002 - 2004

Project Objective:

The project will complement and complete the work done to date on Lobster Sensory. The development of the kit will enhance operational efficiencies through aligning CFIA inspectors with Quality Managers in terms of acceptable odours related to the quality of the lobster being processed.

Summary of Outcome:

This workshop was critical for quality managers as it clearly demonstrated the wide variance of odours, some of which are linked to the season and location of harvest, rather than decomposition. The project also allowed each workshop participant to plot their results and assessments against CFIA inspectors. Generally, the results indicated a great consistency with fresh lobster and product that was clearly in some state of decomposition. However, there is a “grey” area between the “just pass” and “just fail” grades. The project also found that lobster harvested from different areas of the province also have distinctive odours which must not be confused with taint or decomposition. A clear difference between spring and fall lobster, both with fresh and tainted product, was also noted. This project clearly identified the need for extensive sensory work with lobster. It has been of tremendous assistance to both CFIA and our quality managers as it provided a forum for discussion and comparison of methods, and has brought the industry closer to a “sensory standard”, which will in turn lead to the development of an actual sensory kit.

Total Project Cost: \$58,000.00

Funding provided by PEIASCI: \$29,000.00

Other Funding Partners: CFIA - \$29,000.00

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

16. Buoy Scraping Machine Project

Proponent: PEI Seafood Processors Association

Project Number: 03-PRO-022

Project Status: complete

Project Start/Completion Date: 2003 -

Project Objective:

The mussel industry seeks a solution to find a method to more effectively clean buoys. At the present time this is a very labour intensive process. Due to tunicate, every buoy must be scraped and sanitized by hand, before going back in the water. This measure is in place to slow the spread of tunicate. The technology developed from this project will be shared with all mussel processors on PEI.

Summary of Outcome:

This project was initiated in 2003 to help the mussel industry find solutions to more effectively clean buoys. The methodology that was being used involved a very labour intensive process. Due to the preventative measures employed to control tunicate, every buoy was being scraped and sanitized by hand, before going back in the water. While labour intensive, this measure was in place to slow the spread of tunicate.

Initial project implementation involved discussions with the PEI Aquaculture Alliance, Department of Fisheries and the Department of Environment. The intent was to review all development work to date, further consultation with industry, select a prototype concept, and then meet with IRAP/NRC.

Total Project Cost: \$20,000.00

Funding provided by PEIASCI: \$20,000.00

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

17. Seafood Marketing Project

Proponent: PEI Seafood Processors Association

Project Number: 03-PRO-023

Project Status: Complete

Project Start/Completion Date: June 2003 - November 2004

Project Objective:

This project is the "next step" from the pilot project which was conducted this past year. This new project allows us to move forward with initiatives in new markets with the materials and contacts that have been developed from our pilot project. The pilot project focused on processed lobster. We have also had great success at trade shows with other shellfish and seafood products, specifically, oysters, mussels and smoked salmon, which will be incorporated this year's project.

Summary of Outcome:

Year I (2003): A number of international trade shows including the European Seafood Exposition (Brussels), the West Coast Seafood Show (Long Beach, California), and the Americas Food and Beverage Show (Miami) were attended. At each of these shows PEI seafood products were demonstrated and sampled. Attendance at these shows have provided insight into potential new value added products, provided the opportunity to make key contacts and developed relationships with consulate staff and trade commissionaires.

Year II (2004): Representatives of the PEI Seafood Processing sector participated in international events including the Trade Mission to China, South Korea and Japan and the Boston Seafood Show. PEI seafood products were also promoted during visits from an international (UK) buyer and through a German journalist with EuroFish magazine.

Total Project Cost: \$258,935.00

Funding provided by PEIASCI: \$108,750.00

Other Funding Partners: AIMS - \$108,750.00; PEIBD - \$25,635.00; Agrifood Canada - \$3,000.00; PEI Fisheries - \$1,300.00; Culinary Institute - \$1,500.00

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

18. Development of a Seafood Waste Strategy

Proponent: PEI Seafood Processors Association

Project Number: 03-PRO-024

Project Status: complete

Project Start/Completion Date: 2003 -

Project Objective:

With this project we seek to develop a clear strategy, which will address the variety of waste, identify solutions, potential locations as well as methodologies for dealing with the waste products. In short, what is the best solution for each seafood waste material at a specific time of year?

Summary of Outcome:

This project was initiated in 2003 with an objective of seeking an effective provincial strategy of addressing the growing issue of seafood waste. This would primarily look at the mussel waste but would also focus on other types of waste such as herring offal. The strategy would look at selecting the best technology, methodologies, partnerships and potential locations for dealing with the waste products.

This project involved a very complicated problem and the eventual solution will also be a complicated one. This project moved the issue along a great deal by facilitating dialogue among the key government and industry officials. Potential solutions included such approaches as dedicated seafood landfills, partnerships with existing landfills, trucking off Island to landfills and incorporating various existing technologies in a business partnership relationship.

While this problem has not been solved, this project provided great value by ensuring that it has been effectively addressed by all stakeholders. The challenge is a complex one that will require more work in the future but the groundwork has been established for a viable solution.

Total Project Cost: \$76,600.00

Funding provided by PEIASCI: \$28,600.00

Other Funding Partners: AFRI - \$48,000.00

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

19. C-TPAT Project

Proponent: PEI Seafood Processors Association

Project Number: 03-PRO-025

Project Status: WITHDRAWN

Project Objective:

The project was initiated at the request of industry to assist Seafood Processors with their C-TPAT (Customs- Trade Partnership Against Terrorism) applications and preparations.

Summary of Outcome:

n/a

Total Project Cost: \$113,000.00

Funding provided by PEIASCI: \$68,090.00*

** Following the withdrawal of this project, these funds were returned to the Processor's allocation of funds available for project funding.*

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

20. Mussel Meat Fullness Factor

Proponent: Atlantic Aqua Farms

Project Number: 03-PRO-026

Project Status:

Project Start/Completion Date: October 14, 2003 -

Project Objective:

To develop a vision driven computerized quality analysis system for the mussel industry utilizing digital cameras, vision software, and computer programming. The end result will be a system which will be able to determine from a digital photos of a steamed mussels on the half shell: %fill, meat yield, shell density, shell strength, and size distribution of the sample.

Summary of Outcome:

n/a

Total Project Cost: \$14,195.00

Funding provided by PEIASCI: \$2500.00

Other Funding Partners: Provincial Department of Fisheries, Aquaculture and Environment - \$2500.00; Canadian Center for Fisheries Innovation - \$5645.00

Project Contact: Robert MacDonald

Tel: (902) 651-2563

21. Contract Processing for New Product Development

Proponent: PEI Seafood Processors Association

Project Number: 03-PRO-027

Project Status: Complete

Project Start/Completion Date: June 2003 -

Project Objective:

The project was initiated at the request of industry to assist Seafood Processors with their capacity to develop and do small production runs of new value-added products. The focus of the project will be to assist with training related to the new equipment, technologies and training being introduced to this facility.

Summary of Outcome:

Initiatives were undertaken to provide prototype pieces of equipment for value added processing at a couple of plants. Results were proven to be ineffective in facilitating the product development process and commercial success.

Total Project Cost: \$82,000.00

Funding provided by PEIASCI: \$82,000.00

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

22. Seafood Marketing Initiative - Phase II

Proponent: PEI Seafood Processors Association

Project Number: 04-PRO-028

Project Status: Complete

Project Start/Completion Date: April 2004 - May 2005

Project Objective:

This project is a continuation of 03-PRO-023 (Seafood Marketing Initiative) and will involve attendance at a number of trade shows throughout Europe, the US and China, the production of a lobster website and video, translation of promotional materials into a variety of languages. This project will also involve in-bound activities including a buyers/journalist tour, and International Chef Challenge at the PEI Shellfish Festival and a food media tour of PEI and Atlantic Canada. All activities are in support of further enhancing awareness of PEI and Atlantic Canadian seafood products throughout the world.

Summary of Outcome:

Participation in trade shows and trade missions, as well as meeting with incoming buyers and chefs, provided useful market information that was shared with the membership. During the year, approximately 100 business cards of contacts and leads seeking particular products were shared with the membership. As well, direct inquiries from buyers in Italy, France, Holland, Belgium, China, Dubai, the US (Boston, New York, Florida, Seattle, and Atlanta), and Brazil were received and forwarded to members. The number and quality of promotional materials and educational information available to buyers, chefs and consumers about lobster was increased through the development of a video and website. In addition to these activities, several articles featuring the Atlantic Canadian lobster and seafood industry were written in international seafood magazines including *Eurofish*, *European Seafood*, *Enhibition Daily*, *Visaktua*, and *SeaFood Business*.

Total Project Cost: \$312,000.00*

* *Project Cost revised in September 2004 - reduction from original forecast*

Funding provided by PEIASCI: \$135,306.00

Other Funding Partners: Canadian Agriculture and Food International Program - \$135,306.00; PEI Business Development - \$24,000.00; Culinary Institute - \$3000.00; Processing Sector (unspecified) - \$3000.00 in product donations

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

23. Bar Clam Processing

Proponent: PEI Seafood Processors Association and PEI Fishermen's Association*

Project Number: 04-PRO-029

Project Status: Complete

Project Start/Completion Date: October 2004 - November 2005

** This is a joint project between the Harvesting and Processing sectors. The project will be administered by the PEI Seafood Processors Association, on behalf of both sectors. To reflect the joint nature of the project, one half of the approved PEIASCI funding will be transferred from the Harvester's 2004 allocation to the Processor's 2004 allocation.*

Project Objective:

The objectives of this project are to:

- Identify a model to facilitate a working bar clam processing plant on PEI
- Build a sustainable processing industry for bar clams
- Generate wealth from this resource for harvesters and processors

Summary of Outcome:

On behalf of the PEI Seafood Processors the services of Harland Associates of Charlottetown were retained for the review of the bar clam resource, harvesting strategies and equipment that may be available to mechanically shuck bar clam meat. Several areas were investigated and are available in the final report including a model to facilitate a working bar clam processing plant on PEI or to alternatively incorporate new technology in an existing operation.

Total Project Cost: \$29,000.00

Funding provided by PEIASCI: \$14,500.00

Other Funding Partners: PEI Business Development - \$14,500.00

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

24. Assistance to Processors to Meet Marketplace Requirements for General and Nutritional Labeling

Proponent: PEI Seafood Processors Association

Project Number: 04-PRO-030

Project Status: Complete

Project Start/Completion Date: December 2004 - October 2005

Project Objective:

The current and changing food labeling requirements for seafood are a significant challenge for seafood processors. At a time of numerous challenges such as HACCP, biosecurity issues and country-of-origin labeling, new nutritional labeling requirements are on the horizon. The Seafood Processors Association will deliver a two day seminar to educate its membership on the current and changing labeling requirements for seafood products. Following this, each plant requiring further assistance will have access to consulting services.

Summary of Outcome:

As of December 12, 2005, packaged food produced by larger manufacturers will require the new "Nutrition Facts" panel. Smaller manufacturers or those with less than \$1,000,000 annual gross revenue in Canada will have until December 12, 2007 to comply. The Seafood Processors Association of PEI developed and delivered 2 one day seminars in the spring to educate its membership on the current and changing labelling requirements for seafood products. The General Labelling seminar was offered March 9 and had 25 participants take part while the Nutritional Labelling was offered April 6 with 23 participants taking part. Both seminars had excellent feedback with interest in further training.

Total Project Cost: \$16,100.00

Funding provided by PEIASCI: \$16,100.00

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

25. Assistance to Processors to Meet Marketplace Requirements for Electronic Data Exchange

Proponent: PEI Seafood Processors Association

Project Number: 04-PRO-031

Project Status: WITHDRAWN

Project Start/Completion Date: December 2004 -

Project Objective:

Electronic data exchange is an evolving technology that will most likely be forced onto seafood processors by the large retailers. The marketplace will eventually require processors to have a system in place that allows them to exchange product information in a very cost effective, electronic format. This project will focus on automated data entry at the plant level and will develop a “user-friendly” information manual on electronic data exchange for the plants followed by a seminar on electronic data exchange to the plants using the manual as an information and training guide.

Project Summary:

This project was withdrawn by the PEI Seafood Processors Association on November 22, 2005.

Total Project Cost: \$65,163.00

Funding provided by PEIASCI: \$65,163.00

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

26. Establishing a Scientific Baseline for the Presence of Histamine in Mackerel and Herring under Normal Handling Conditions

Proponent: PEI Seafood Processors Association

Project Number: 04-PRO-032

Project Status: WITHDRAWN (Resubmitted as an Amended Project) - See Page 31.

Project Start/Completion Date: n/a

Project Objective:

The chemical histamine has been recognized by CFIA as a hazard with mackerel and definitely of significance with herring. When certain fish, especially scombroid fish, start to decompose, histamine is formed, leading to Scromboid poisoning, which may trigger severe allergic reactions if consumed in high doses. This project will establish some baseline data on the development of histamine in herring and mackerel relative to specific handling practices, evaluate the effectiveness of slush icing and normal icing techniques in lowering temperature, and evaluate the current icing performance achieved in the industry.

Summary of Outcome:

n/a

Total Project Cost: \$19,600.00

Funding provided by PEIASCI: \$19,600.00

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

27. Seafood Marketing Initiative - Year II

Proponent: PEI Seafood Processors Association

Project Number: 04-PRO-033

Project Status: Complete

Project Start/Completion Date: April 2005 - April 2006

Project Objective:

This project is a continuation of 04-PRO-028 (Seafood Marketing Initiative - Phase II) and supports the PEI/Atlantic Canada seafood industry by building long-term international marketing strategies that will ensure the industry is well positioned to succeed in key markets, and to respond to increasing consumer demands and global competition. This project will involve promotional activities, market development, and network-building in selected markets throughout the US, Europe and Asia.

Summary of Outcome:

A number of activities were conducted from April 2005 to April 2006. The European Seafood Exposition, Brussels saw a demand for PEI frozen lobster, mussels and mackerel in Europe. Following the show in Brussels, contact was made with a company in Korea. Two representatives arrived on the Island in June, toured a processing plant and were impressed by the quality of product produced.

In September a US/Europe Export Seminar was well attended during the PEI Shellfish Festival. PEI seafood processors had an opportunity to meet one-on-one with representatives from The Netherlands, Belgium and France. Visiting chefs and food writers visited during the Festival.

A delegation of Breton companies visited the Island in September. Conference and Seafood Tasting Event Lausanne, Switzerland, March 2006 saw a gala dinner featuring Canadian foods and seafood. The event was a big success. It was also an opportunity to introduce local suppliers of Canadian seafood in Switzerland to the chef-instructors working at the Culinary School in Lausanne.

The Association attended the International Boston Seafood Show in March. Posters and brochures were distributed at the show and we have since had numerous requests from restaurant owners in Canada, the USA and Asia who would like to display our promotional materials in their businesses.

We have finished the English version of the Luscious Lobster brochure that we believe will help increase the profile of Atlantic Canada/PEI processed lobster products in the food service industry and within major international markets. The www.tastelobster.ca website was fully translated into French and Italian with information sheets in Mandarin, Japanese and Korean. We have developed and printed promotional "Luscious Lobster" posters. Chefs are an important player when it comes to the decision-making process of what will appear on a restaurant menu, and we have designed promotional "Luscious Atlantic Canada Lobster" aprons that will be available to chefs.

Total Project Cost: \$200,000

Funding provided by PEIASCI: \$101,000

Project Contact: Michael MacInnis - Executive Director, PEISPA; Tel: 902-629-1555

28. A Project to Establish Baseline Data for the Presence of Histamine in Mackerel and Herring under Normal Handling (Amended)

Proponent: PEI Seafood Processors Association

Project Number: 04-PRO-034

Project Status: complete

Project Start/Completion Date: May 2005 - March 2007

Project Objective:

The chemical histamine has been recognized by CFIA as a hazard with mackerel and definitely of significance with herring. When certain fish, especially scombroid fish, start to decompose, histamine is formed, leading to Scromboid poisoning, which may trigger severe allergic reactions if consumed in high doses. This project will establish some baseline data on the development of histamine in herring and mackerel relative to specific handling practices, evaluate the effectiveness of slush icing and normal icing techniques in lowering temperature, and evaluate the current icing performance achieved in the industry.

Summary of Outcome:

Histamine is a recognized hazard in scrombroids such as mackerel. It is difficult to manage and assess because of the accumulative effects of time and temperature abuse. Quality Management staff cannot inspect product and determine the presence of histamine. The only method of detection is to rely on laboratory testing. The generally accepted criteria for controlling histamine in mackerel is to lower and maintain the temperature to 4 degrees C or less as soon as possible. The final report of this project provides a body of testing results that indicate that the systems used at Royal Star Foods for processing mackerel keep histamine well within CFIA limits. It also supports the opportunity for companies to validate their own systems.

Each company has to design, monitor and verify a system that controls any hazards associated with their products. They must also be prepared to implement a vigorous monitoring and verification system that proves not only that the critical limits within the system are being met but that the system works and the product meets the accepted levels for histamine.

Total Project Cost: \$22,350.00

Funding provided by PEIASCI: \$22,350.00

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

29. Development of Control Strategies for the Spread of *Styela clava* in PEI: an epidemiologic study of processing plants

Proponent: PEI Seafood Processors Association

Project Number: 04-PRO-035 (3 years)

Project Status: Complete

Project Start/Completion Date: September 2005 - 2009

Project Objective:

The clubbed tunicate, *Styela clava*, a recent invader to Prince Edward Island waters was first identified in 1998 on cultured mussels (*Mytilus edulis*). *S. clava* has had a devastating effect on mussel culture in Murray River and Brudenell River, attaching in high densities to mussel socks and equipment, competing for food resources and fouling equipment. Since the introduction of *S. clava*, 3 more exotic species of tunicates have been identified on cultured mussels in Prince Edward Island waters.

Tunicates can be introduced into a non-infested area during the two main stages of its life cycle; first, through its planktonic stage and secondly through its sessile stage. During the planktonic stage, tunicates are free floating in the water column as fertilized eggs or as larvae.

Restrictions placed on processing plants have been put in place to practically eliminate any possibility of introducing *S. clava* to non-infested areas, although these restrictions have never been thoroughly evaluated. There is an urgent need to understand the risk of dispersal of aquatic invasive species (AIS) through processing facilities to avoid any further spread or undue restrictions leading to economical impacts.

This research project will help create a better understanding of risk potential of the spread of future aquatic invasive species including tunicates through processing activities. This increased understanding will in turn help ensure that the further spread of invasive species and the subsequent negative economic impact are both minimized.

Summary of Outcome:

The clubbed tunicate, *Styela clava*, an invader to Prince Edward Island waters was first identified in 1998 on cultured mussels (*Mytilus edulis*). *S. clava* has had a devastating effect on mussel culture in Murray River and Brudenell River, attaching in high densities to mussel socks and equipment, competing for food resources and fouling equipment. Mussel productivity and farm husbandry has been adversely affected by this infestation which has posed important challenges for the shellfish aquaculture and processing industries.

The first objective of this study was to assess the risk of spread of *S. clava* associated to husbandry practices and environmental conditions within processing plants. This included describing and identifying processing stages that present a high risk of introducing *S. clava* into a new environment. **The second objective** was to develop control strategies to minimize the potential for release. Laboratory trials evaluated the impact of water parameters (e.g. salinity) found in the processing plants on the viability of the early life stages.

Recommendations

There were seven recommendations identified to help minimize the risk of introducing tunicates to a new

body of water through processing activities. They are:

1. Minimize the occurrence of tunicates within the plant when possible. Abundance is also a factor to take into consideration when processing. The higher the tunicate abundance the greater the inoculation pressure (higher risk).
2. Isolation of tunicates when possible to one area of the processing plant. It is much easier to focus on one area versus several thus reducing the need for multiple control methods.
3. Increase removal efficiency of tunicates in the early processing stages ideally eliminating tunicates from holding and final processing stages.
4. Keep floors and equipment as tunicate free as possible to avoid crushing and tearing.
5. Minimize the water used during processing. Smaller volume of water is easier to treat than large ones. Treat all effluent water which comes into contact with tunicates.
6. The use of filtration drums should be used on all effluent before exiting the plant.
7. The use of reduced salinity to reduce viability of tunicates. Ideally fresh water should be used. Even with water at 0‰ the salinity increase to 5‰ after coming into contact with the product (mussels). Use longest contact time possible, 6 hours minimum ideally.

This Research Project was conducted by Daniel Bourque of Fisheries and Oceans Canada with project partners; Angeline LeBlanc of Fisheries and Oceans Canada; Dr. Gilles Miron of Université de Moncton; Thomas Landry of Fisheries and Oceans Canada; Dr. Jeffrey Davidson of the Atlantic Veterinary College; and Chris Mills of the PEI Department of Fisheries, Aquaculture and Rural Development

Total Project Cost: \$589,550.00

Funding provided by PEIASCI: \$40,761.75 (over three years)

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

30. Development and Implementation of a Restructuring and Operational Strategy

Proponent: PEI Seafood Processors Association

Project Number: 05-PRO-036

Project Status: Complete

Project Start/Completion Date: December 2005 - April 2007

Project Objective:

The goal of this project is to carry out a comprehensive six month restructuring project and develop a long-term operating strategy to help ensure the sustainability of the Association and the value it can bring to the industry. The Association's aim is to work closely with its members within industry to help address concerns that affect their ability to run a profitable business in a world of ever increasing roadblocks and hurdles. The industry is an invaluable contributor to the Island economy and the Association can help to secure its future by bringing industry players together to join forces at tackling a rapidly evolving series of issues.

Summary of Outcome:

The PEI Seafood Processors Association is dedicated to supporting the business and operating endeavors of the PEI Seafood Processing industry. As with many non-profit industry associations, we continue to face numerous challenges in terms of funding, administration and providing value for our members. Specific challenges were identified within this project and since it's approval we have worked extensively at closing out outstanding projects. We have incorporated new accounting practices and evaluation measures and developed new year-end reporting and internal financial management practices.

We have created a manageable pipeline of potential projects and are working on establishing a growing list of potential projects and proposals in order to secure a steady flow of projects in a manageable fashion.

With our next steps and initiatives, the PEISPA is now in a position to move forward with major restructuring initiatives in terms of revenues, membership structure and operations.

Total Project Cost: \$ 49,500.00

Funding provided by PEIASCI: \$

Project Contact: Michael MacInnis - Executive Director, PEISPA Tel: 902-629-1555

31. Analytical Search for Pharmaceutical, Cosmeceutical and Nutraceutical Compounds in Tunicates

Proponent: PEI Seafood Processors Association

Project Number: 05-PRO-037

Project Status: Complete

Project Start/Completion Date: December 2005 - April 2007

Project Objective:

Recent international research has found that exciting new medical uses may exist in the compounds found within many of the invasive species hindering our fishing and aquaculture industries. This proposed research project aims to examine the four existing invasive tunicate species now present in the waters surrounding Prince Edward Island in the hopes of identifying valuable compound extractions. The project will also examine varying extraction techniques to identify the most appropriate tunicate processing methods.

Summary of Outcome:

The report produced by the Marine Biotechnology Research Centre (MBRC) for the PEI Seafood Processors highlights various orientations aiming to valorize these invasive tunicates. These strategies could lead to the completion of R& D projects for the development of new products from invasive tunicates. Based upon the analysis of data compiled from a survey of the technological and scientific literature and from the basic chemical characterization of invasive tunicate samples, four valorization strategies were identified as key orientations to perform R&D projects.

1. Screening of native bioactive raw extracts for the discovery of high value-added extracts or compounds for health (pharmaceutical and nutraceutical) and for cosmetic markets.
2. Production of dry tunicate biomass to obtain high quality formulated fertilizers for organic agriculture or for high-end market horticultural products and premium ingredients for aquaculture feed.
3. Production of high-value hydrolyzed tunicate compounds for pet food markets, minerals and peptides formulations for natural health product markets and to obtain small peptide fractions from enzymatic treatments of purified proteins for natural health product and cosmeceutical products.
4. Processing of fresh or frozen tunicates such as the non-colonial species of *Ciona intestinalis* and *Styela clava* as bait for sport fishing and as seafood, mainly for the Asian market. Based upon contaminants analysis of samples of the tunicates species, significant heavy metals (cadmium and lead) and polycyclic aromatic hydrocarbons have been detected. Because of the possible presence of contaminants, a strict quality control process would have to be implemented to verify the safe production of any valorized products.

Total Project Cost: \$55,209.00

Funding provided by PEIASCI: \$33,409.00

Project Contact: Michael MacInnis - Executive Director, PEISPA Tel: 902-629-1555

32. Proposal Promoting the Structured and Managed Phase-Out of the PEISPA Quality Management Project

Proponent: PEI Seafood Processors Association

Project Number: 06-PRO-038

Project Status: Complete

Project Start/Completion Date: January 2006 - November 2006

Project Objective:

The Quality Management Project has been very successful in assisting Island processing operations to upgrade their quality systems documentation and train their staff. The QMP performance of the federally registered processing plants has improved dramatically. Every seafood processing plant in PEI has taken part in the project in some manner.

Contrary to the original funding agreement the required level of plant financial contributions for the project to continue towards self sufficiency will not be met. Therefore, this phase-out period will assist the smaller operations to take possession and ownership of their QMP systems. This transition period will lessen the impact of a sudden change that many plants will not be prepared to handle.

Summary of Outcome:

The Phase Out for the QMP Project saw a carefully coordinated end to this important six-year project. The QMP Project was initiated to help PEI plants understand, work with and meet federal guidelines for food safety and quality. It was a timely project that aided the PEI seafood industry to enter this era of increased diligence and integrity in the international food processing industry.

The final year involved two distinct types of industry assistance. Typical individual plant QMP system maintenance support and phase-out / shutdown activities. The following deliverables have been achieved:

1. Three QMP phase-out seminars were offered to PEI seafood plants.
2. All QMP plans were amended to reflect the shutdown of the program.
3. All participating Quality Managers were trained on the amended plans.
4. All QMP plans were provided Annual Verifications
5. Electronic Versions of QMP were delivered to Quality Managers
6. Consulting service was offered to plants in September and October 2006.

Total Project Cost: \$123,765.00

Funding provided by PEIASCI: \$57,765.00

Project Contact: Michael MacInnis - Executive Director, PEISPA; Tel: 902-629-1555

33. Seafood Marketing Initiative - 2006

Proponent: PEI Seafood Processors Association

Project Number: 06-PRO-039

Project Status: Complete

Project Start/Completion Date: April 2006 - April 2007

Project Objective:

This project supports the further development and maintenance of the processing and seafood manufacturing sector on Prince Edward Island by implementing generic marketing programs designed to increase the global reach, penetration and price of PEI lobster and other seafood products such as oysters and mussels in wholesale, retail and food service markets internationally. Maintaining and strengthening actual relationships and contact networks, and maintaining PEI's reputation of providing lobster and other shellfish of the highest quality.

Summary of Outcome:

Our objectives were to conduct promotion, research and market intelligence activities in the USA, Japan, China, South Korea and Europe. We participated in major seafood trade events, the Boston International Seafood Show 2006, European Seafood Show, Frozen Seafood Show in Spain and the China Seafood Exposition.

Journalists and a photographer from Japan visited PEI in June 2006, they were escorted to Ocean Choice and received a detailed tour of the facilities and demonstrations of products processed. They then toured PEI Mussel King and were given an overview of the process for cultivating mussels here on PEI.

Incoming buyers and journalists made a visit to the Shellfish Festival in September of 2006. We were again associated with the Chef Challenge. The visiting chefs were introduced to the exceptional quality of PEI Shellfish and returned home to introduce the projects in their restaurants.

Our promotional material (Recipe booklet, posters, rack cards, placemats and aprons) has seen an increasing demand.

Total Project Cost: \$202,000.00

Funding provided by PEIASCI: 100,000.00

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

34. Identification of effective waste water treatment systems for the PEI mussel processing industry

Proponent: PEI Seafood Processors Association

Project Number: 06-PRO-040

Project Status: complete

Project Start/Completion Date: April 2006 - October 2007

Project Objective:

The mussel industry currently is being challenged as a result of the introduction of four tunicate species within provincial waters since 1997. Tunicates are contributing to added costs to both growers and processors, the reproductive nature of the tunicate species is dictating when and where mussels from infested waters can be processed to provide a level of protection to receiving waters. To compete and remain sustainable, processing plants have to be able to process mussels at any time of year and from any water within the province. This project is lead by industry for industry, providing plant owners with engineering options to modify their plants to provide the measure of protection being sought.

Summary of Outcome:

n/a

Total Project Cost: \$31,000.00

Funding provided by PEIASCI: Maximum of \$30,000.00 (\$20,000 if funding is received from PEI Department of Agriculture, Fisheries and Aquaculture's *Aquaculture Environmental Practices Program* in the amount of \$10,000.00).

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

35. Project to Determine Lobster Meat Yields Utilizing Pressurized Cooking Technology

Proponent: PEI Seafood Processors Association

Project Number: 06-PRO-041

Project Status: Withdrawn

Project Start/Completion Date: July 2006 -

Project Objective:

The profitability of the processing component of the lobster industry relies heavily on maximizing production rates and meat yields because of the high raw material costs. The capability to introduce new, innovative processing techniques will become even more important for continued growth in this industry.

News technologies have the potential to cook and/or pasteurize lobster in a pressure environment without the costly moisture loss experienced in traditional systems. It may also provide an opportunity to pressure treat lobsters live and then cook them afterwards with attractive results.

New technology might change the manner in which lobsters are processed with benefits to the entire industry. It also involves a large capital investment which requires further due diligence steps to evaluate this new technology and compare it to processing systems presently in use here on Prince Edward Island.

This project would involve the following activities:

1. Conducting a controlled processing experiment on a sample of lobsters at Mariner Seafoods to establish a benchmark meat yield using existing processing techniques.
2. Conducting a controlled processing experiment on a similar sample of lobsters using high pressure technology to determine the comparative lobster meat yield.
3. Sharing the results with the PEI lobster processing community.

Summary of Outcome:

withdrawn

Total Project Cost: \$12,900.00

Funding provided by PEIASCI: \$8,800.00

Project Contact: Michael MacInnis - Executive Director, PEISPA; Tel: 902-629-1555

36. Global Seafood Market Analysis for the PEI Seafood Processing Sector

Proponent: PEI Seafood Processors Association

Project Number: 06-PRO-042

Project Status: Active

Project Start/Completion Date: July 2006 -

Project Objective:

Rising prices for raw product, fluctuating or declining fish stocks, steadily increasing valuation of the Canadian dollar, and increased operational costs are making it increasingly more difficult for PEI seafood processors to compete overseas. Currently the leading markets for Canadian seafood exports are the United States, European Union, Japan and China. Each of these markets is undergoing significant change both in market dynamics and product preferences. The PEI Seafood Processors Association believe it is now more important than ever to understand changes underway in international target markets, the opportunities therein as well as the opportunities available domestically and how best to turn these opportunities into revenues.

This project will gather market intelligence on export and domestic markets and subsequent consumer needs, awareness, and perceptions. This information will better enable the PEI Seafood processing industry to make more informed decisions on production, product development, sales & marketing strategies, etc.

Summary of Outcome:

This research analyzed markets and documented industry performance in Canada, the U.S., Asia, and Europe with a special emphasis on lobsters and mussels.

The United States will continue to be the most important seafood market for PEI. The market is large, growing, and diverse. The PEI Seafood Processors Association needs to continue efforts to create more awareness of PEI seafood as a distinct “brand,” offering features and benefits different from similar products from other provinces.

While it is unlikely PEI can single-handedly increase domestic demand for seafood, there are two areas that may drive higher consumption. The first area is in consumer research to clearly determine the obstacles to greater seafood utilization by Canadians. A well executed research program could provide useful guidance to PEI processors in the development and marketing of current and new products to Canadian consumers. The second area of opportunity is to promote even greater awareness of the health benefits of seafood consumption. There is now ample evidence that, on balance, greater seafood consumption leads to better health in a wide variety of areas.

China likely represents a long term opportunity for PEI if for no other reason than the size of the market and potential future demand for a wide variety of seafood including upscale items such as lobster and lower cost material such as pelagic species.

Europe represents a growth opportunity for PEI seafood. Lobster and mussels line up well with

seafood demand in Europe. Currently Canada and PEI's share of the European market is relatively small. This represents both a problem and an opportunity. The opportunity is for growth while the problem is one of product identity. PEI should continue efforts to increase their awareness in the EU market through the Brussels seafood show and perhaps some additional marketing efforts such as trade publication advertising and other initiatives targeted at wholesalers and distributors.

Total Project Cost: \$50,225.00

Funding provided by PEIASCI: \$50,225.00

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

37. Identification and Characterization of Bio-Active Compounds in PEI Mussels

Proponent: PEI Seafood Processors Association

Project Number: 06-PRO-043

Project Status: Complete

Project Start/Completion Date: July 2006 - 2009

Project Objective:

Mussels and oysters play a significant role in PEI's aquaculture and seafood processing industries. However, a significant portion of potentially valuable mussel meat goes to waste. As well, lower grade commercial oysters are often not harvested due to their lower value.

With this project, we will spearhead local research into the use of mussels and oysters in the development of valuable products that will go to help increase revenue streams and hedge industry risks for our processors.

It is hoped that this will be the first of a series of projects done in conjunction with the National Research Council of Canada - Institute of Nutrisciences and Health that will look for untapped values in various species of fish and marine organisms processed in PEI or potentially harvested in our waters.

The Key Objectives are:

1. Analyze, determine, and quantify the chemical composition of extracts derived from PEI mussels and oysters.
2. Compare and contrast the chemical composition and determine the anti-inflammatory effect of PEI mussel and oyster extracts.
3. Determine the beneficial effects of PEI mussel and oyster extracts for potential positive health effects through a series of in vitro neuronal-based cell culture and functional-based assays and physiological testing methods.

Summary of Outcome:

The project was to analyze the fatty acid composition and content of PEI blue mussels and oysters, and to evaluate, through a series of cell-based assays, the effects of PEI mussel and oyster fatty acids on inflammation, which is a central factor linked to many illness or disorders, typically the metabolic disorder (syndrome). The anti-inflammatory tests have shown that PEI mussel fatty acids have a strong anti-inflammatory property in general. Oyster fatty acids showed similar anti-inflammatory effects. The results have demonstrated that PEI mussels and oysters are an excellent source of omega-3 fatty acids and are potent to inhibit peripheral inflammation and neuro-inflammation.

Total Project Cost: \$228,575.00

Funding provided by PEIASCI: \$52,875.00 (over two years)

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

38. A Project to Address the Challenges of Recruiting Production Line Workers for the PEI Seafood Processing Industry

Proponent: PEI Seafood Processors Association

Project Number: 06-PRO-044

Project Status: Active

Project Start/Completion Date: July 2006 -

Project Objective:

A major human resource issue for the Prince Edward Island seafood processing sector is the difficulty associated with recruiting and retaining production workers. This project will address this issue by providing several economic benefits including:

- a. data that will allow industry to make informed human resource decisions;
- b. a consistent supply of production workers that will help ensure the growth of the sector and maximize production in the plants;
- c. the removal of transportation barriers that will enable the movement of production line workers around the province;
- d. reduction in the level of unemployment in the unskilled labor sector.

The seafood processing industry in Prince Edward Island involves more than 40 federally registered plants and employs thousands of Islanders. Statistics Canada data indicates it is an industry with a value of approximately 250 million dollars. The PEI fishery is an important element of the PEI economy providing critical employment to thousands of skilled and unskilled workers in the rural parts of the province.

Summary of Outcome:

n/a

Total Project Cost: \$55,000.00

Funding provided by PEIASCI: \$44,500

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

39. Funding Support for the PEI Seafood Processors Association

Proponent: PEI Seafood Processors Association

Project Number: 07-PRO-045

Project Status: Complete

Project Start/Completion Date: May 2007 - May 2008

Project Objective:

The PEI seafood processing sector requires a healthy and active organization to represent the industry. The PEI Seafood Processors Association (PEISPA) spends a great deal of its time and resources reacting to specific and complicated industry issues on behalf of the entire industry.

When difficult issues occur, all plants expect someone to take a lead role in addressing them. The PEISPA has consistently responded to that challenge. However, the PEISPA's financial or staffing resources are such that its overall effectiveness is diminished and it is sometimes unable to address issues in a timely and effective fashion.

This project will benefit from significant PEI Atlantic Shrimp Corp. funding in order to focus more deeply on addressing industry issues and managing pertinent projects.

Summary of Outcome:

The Prince Edward Island Seafood Processors Association is a not-for-profit entity that works tirelessly at addressing issues that most affect the province's third largest industry. Seafood processing accounts for close to 20% of PEI's international exports and creates over 2,500 jobs for Islanders in rural communities. The industry is a critical part of the province's economic and social core and requires a capable and financially secure entity to work at insuring its sustainability.

In April of 2007 the PEI Seafood Processors Association applied for and received core funding support for one year beginning in April 2007 from the PEI Atlantic Shrimp Corporation. This funding enabled the association to operate in a much more effective manner, allotting more time to addressing industry issues in cooperation with both the private and public sector.

Total Project Cost: \$ 183,920.00

Funding provided by PEIASC: \$130,000.00

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

40. Development of a Human Resources Sector Council for the Seafood Processing Industry

Proponent: PEI Seafood Processors Association

Project Number: 07-PRO-046

Project Status: Complete

Project Start/Completion Date: May 2007 - September 2008

Project Objective:

The focus of a sector council is to provide a neutral forum for industry stakeholders to identify and address human resource issues and create workforce development strategies specific to their sector on PEI. The Seafood Processing sector faces many human resource challenges ranging from a shortage of workers to challenges with new technologies. A Seafood Processing Human Resources Development Sector Council can provide the vehicle required to address these issues through a common vision.

This project will work towards the development of a seafood sector council for the seafood processing sector. The PEISPA will organize the committees required, work with the PEI Association of Sector Councils to gain insight into the process, prepare the draft documentation and respond to the requests of Service Canada.

Summary of Outcome:

The seafood processing sector faces many human resources challenges ranging from a shortage of workers to challenges with new technologies. A Human Resources Development Sector Council can provide the vehicle required to address these issues through a common vision. It can provide the resources and the mechanisms to design an industry human resource plan. This project had an overall objective of facilitating the development of a Human Resources Development Sector Council for the PEI Seafood Processing Industry .

Project Accomplishments

1. To provide input, an industry HR working group was established through the Prince Edward Island Seafood Processors Association (PEISPA) with eight plants involved.
2. Meetings were held with the PEI Association of Sector Councils (PEIASC) relative to the protocols associated with establishing a Seafood Processing Industry Sector Council. PEIASC is funded by Service Canada and is the umbrella group for all PEI sector councils. The objective of these sessions was to determine the stakeholders that should be involved, the relationship to the Fishers sector, the formal application process and the costs.
3. The Prince Edward Island Seafood Processors Association (PEISPA) and the Project Consultant, Ken Cashin, met with Service Canada to determine the application and funding process to start the Seafood Sector Council. At that point, the PEISPA was informed that there had recently been a moratorium placed on PEI Sector Councils. This was due to the number of existing Sector Councils and upcoming changes in the mechanisms by which Federal-Provincial Labour Market Agreements would be delivered. Service Canada was of the opinion that the moratorium would stay in effect for a year while the transition took place.

4. Based on the advice of both Service Canada and PEIASC, it was decided to take a new strategy away from forming a Sector Council and instead towards forming a Seafood Processing Industry Human Resources Committee that would be a sub-committee of the PEISPA. This new strategic direction would focus on establishing an industry organization to address human resource issues.

5. The PEISPA Human Resources Committee has key representation from nine seafood plants on PEI and has held eight meetings since its startup. The committee has been a very active and enthusiastic group in addressing industry issues.

6. The PEISPA strategy at this time is to continue supporting the PEISPA Human Resources Committee to have it prepared to deal with HR issues in a similar fashion to a Sector Council. The committee has identified several timely projects that have benefitted the industry as a whole. The full project report lists the significant projects that the HR Committee has been involved in either the organization or delivery.

7. The PEISPA HR Committee will continue to address issues relative to its industry and will be prepared to address the need and process for a Sector Council if and when the moratorium is lifted.

Total Project Cost: \$13,200.00

Funding provided by PEIASCI: \$11,500.00

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

41. Evaluation of Blue Mussel Shells as an Alternative Dietary Source of Calcium for Laying Hens

Proponent: PEI Seafood Processors Association

Project Number: 07-PRO-047

Project Status: Complete

Project Start/Completion Date: September 2007 - 2009

Project Objective:

The province of PEI is a Canadian leader in blue mussel aquaculture production. The mussel industry provides economic benefits to PEI, but in doing so the industry must deal with a complicated waste issue. Current large volumes of organic waste are disposed of in a number of ways with varying degrees of cost. The current methods of disposal include bulk storage and off-Island transporting for compost. Bulk storage generates little expense but may be viewed as wasteful in terms of nutrient use. Transported off-Island material is costing producers an average of \$45 to \$50 per metric tonne.

St. Laurent Gulf Products Limited is a fishery waste processing company located in north eastern New Brunswick who specializes in the processing of pelagic fish and crustacean processing waste into value added products. Recently the company has been investigating the potential high end uses and associated value of products obtained from properly processed mussel waste. Through an initial internal investigation, the company has identified a number of potential products that may be obtained from this waste. During a short eight week trial with poultry layers, birds fed mussel shell as a calcium source did not differ in production from those fed other sources of calcium (oyster shell, clam shell and commercial shell mix) but appeared to have a higher calcium retention and calcium balance.

The objectives of this project will be to determine the effect of replacing the traditional oyster shell and ground limestone with large and fine ground blue mussel shell on productive performance, egg shell quality and calcium utilization throughout a complete egg production cycle and to determine the potential savings of using blue mussel shells both as large and ground sized particles as a dietary source of calcium.

Summary of Outcome:

The purpose of the project was to investigate the potential of using mussel shells as a feed ingredient for laying hens. Oyster shell is an expensive feed ingredient. A reduction in cost of production by using a local feed ingredient source with optimal physical characteristics would greatly benefit the poultry industry. Reduced cost of production is required for regional poultry producers to remain viable within an increasingly competitive marketplace. The specific objectives of this project were to determine the effect of replacing the traditional, commercial, oyster shell with locally harvested blue mussel shells on full-cycle productive performance, egg quality, bone quality, and calcium utilization.

Mussel shell is a major component of current mussel processing waste streams and is extremely costly to dispose of at Island waste facilities under current waste tipping fees - as much as \$100 per Metric Tonne. The identification of a productive use for the shell would

greatly lessen the burden currently placed on the industry, provide a potential added income stream for processors, and leave mussel processors more time and money to reinvest in their operations. If the use of mussel shell for laying hens is as effective as oyster shell, feeding the lower costing mussel shell should reduce feed cost for local poultry operations. In addition, if the feeding of mussel shell to layers strengthens shell and reduces losses associated to cracked shells, the percent of marketable eggs could be increased.

Results from this project indicated that blue mussels either in a combination of large and small particle sizes or fed as a finely ground material have produced comparable production performance to hens fed a mixture of commercial oyster shell and ground limestone, a mixture of large particle ground limestone and ground limestone as well ground limestone. The data collected from this project needs to be presented to the local egg producers associations as well as local feed industries to determine if blue mussel shells can be used to provide least-cost diets for local egg producers.

Total Project Cost: \$96,855.00

Funding provided by PEIASCI: \$17,125.00

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

42. Seafood Processing Employment Office: helping to address HR issues for PEI's seafood processors.

Proponent: PEI Seafood Processors Association

Project Number: 07-PRO-048

Project Status: Active

Project Start/Completion Date: September 2007 -

Project Objective:

This project provided the seafood industry with a central resource to focus on Human Resource issues.

Summary of Outcome:

The Seafood Processing Industry Employment Office opened in January, 2008 and it proved to be very successful in meeting its goals and objectives. This project provided the seafood industry with a central resource to focus on Human Resource issues. The Employment Office manager and the central location proved to be very successful. While the labor challenges in the seafood industry may have even increased over that time frame, the Employment Office

became a central and first point of contact for both employees and employers in the PEI seafood processing industry. Aside from its targeted objectives, there are ten general achievements worth noting for this project.

The Employment Office:

1. Established a highly visible, centrally located employment service with a dedicated and competent Employment Office Manager.
2. Provided operational support to the PEISPA Human Resources Committee.
3. Established and maintained an interactive data base system of potential production employees and an interactive data base system of accommodations for potential production employees.
4. Conducted extensive career awareness and employee recruiting campaigns.
5. Established a system to facilitate interview sessions between employees and employers.
6. Conducted information sessions with prospective employees to assist them in formulating accurate and realistic expectations of employment in the seafood processing industry.
7. Assisted in the development and production of a worker recruitment video and several training videos.
8. Established a system of car pooling and travel assistance for workers.
9. Generated labor force statistics and analysis for future planning.
10. Established and maintained working partnerships with employment agencies and community groups both provincially and in the region.

Total Project Cost: \$146,500.00

Funding provided by PEIASCI: \$65,750.00 (over two years)

Project Contact: Michael MacInnis - Executive Director, PEISPA

Tel: 902-629-1555

43. Charting a New PEI Marketing Strategy Using Lobster Industry Consultations to Create a New Seafood Marketing Approach for Lobster, Mussel and Oyster Processors.

Proponent: PEI Seafood Processors Association

Project Number: 07-PRO-049

Project Status: Complete

Project Start/Completion Date: January 2008 -

Project Objective:

The PEI seafood processing industry accounts for nearly 20% of the total value of all PEI export sales and provides employment for almost 2,500 Islanders. The industry has a large spin-off effect with each plant contributing tremendously to the rural economy of this province. The PEI industry, with the leadership and support of the provincial and federal governments, has the potential of becoming a major player in the growing billion dollar global seafood processing industry.

The rise in value of the Canadian dollar over the past several years and its current eclipse of the U.S. dollar have proven to most that the industry must hedge its interests in other markets outside of the U.S. and work together to increase the value of our products in all markets.

The PEI Seafood Processors Association is proposing to facilitate three industry focus group sessions involving lobster, mussel and oyster processors. These sessions will be facilitated by a highly skilled consultant, with the intention to explore new marketing opportunities moving away from commodity based marketing towards product differentiation and increased value. The end goal of each meeting will be to explore how best to increase the value of products and expand PEI's presence in new and emerging markets.

Summary of Outcome:

This project was initiated as a result of concerns presented by leaders of the PEI Oyster Industry at a meeting with government officials in December, 2007. As a result the PEISPA organized a project to assist the industry to address the issues and develop strategies to deal with it. The firm of Gardiner Pinfold was recruited, a firm with both marketing and facilitation expertise. The industry was organized into Lobster Processing, Mussel Processing and Oyster Processing.

While each industry sector session was very different, there was also a great deal of common ground.

Shortly after the third sector session with the mussel industry, the global economy went into a tailspin. These sessions were quite valuable in initiating the type of dialogue that has to occur for the industry to move forward in dealing with these issues. As a result of the economic slowdown, the industry stakeholders have continued to meet and work on strategies to improve the profitability of the industry.

Total Project Cost: \$13,575.00

Funding provided by PEIASCI: \$5,125.00 (over one year)

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

44. Initiate the Development of Promotional Videos for the Seafood Processing Industry.

Proponent: PEI Seafood Processors Association

Project Number: 07-PRO-050

Project Status: complete

Project Start/Completion Date: January 2008 -

Project Objective:

This project is Phase I of the development of two 6-8 minute promotional videos highlighting the seafood processing industry's products and job opportunities. This first phase would involve some background work to establish basic content, determine approximate costs, establish project parameters and identify a suitable video production company to work with. The second and final phase would involve the development of the videos. The first video would focus on the great seafood products that are produced in Prince Edward Island. It would be produced in a generic fashion providing an attractive overview of the entire seafood processing industry. The video would be made available to all plants and could become a valuable tool in their marketing activities including seafood trade shows.

The second video would be designed to be used as a recruiting tool for production workers and would project the positive elements of the seafood industry. It would illustrate the type of work that occurs in the lobster, mussel and oyster processing plants and the products they create in an upbeat and interesting fashion.

Summary of Outcome:

The Objectives and Accomplishments of Phase I of this project include:

1. Establish Clear Objectives and Parameters for Each Video

The PEISPA Human Resources Committee acted as an expert resource in the design of the parameters for the promotional videos. The committee members represent the HR Departments of various plants and are actively involved in the recruitment and development of staff. The framework of the video outlines came from the feedback of the committee.

2. Develop a Working Draft Outline for Each Video

A draft working outline or Story-Board has been established for the industry recruitment video. It went through several drafts and is a very good starting point for Phase II. A basic outline has been developed for the Marketing Video but it requires more feedback from industry. The Executive Director and Project Consultant will continue that process in the fall.

3. Identify Suitable Local Video Production Companies

The initial objective of the project was to find a local video production company with a good track record for video development. The PEI Association of Sector Councils and the PEI Arts Guild were very helpful in providing insight into which video production companies have

successful track records.

4. Determine Approximate Production Costs

Feedback has been secured from video production companies as to the base costs to develop these videos.

5. Establish Groundwork for Phase II of the Project

The groundwork has been established for Phase II to move forward.

Total Project Cost: \$8,350.00

Funding provided by PEIASCI: \$4,350.00 (over one year)

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

45. Design and Deliver a Training Needs Analysis for the Seafood Processing Industry.

Proponent: PEI Seafood Processors Association

Project Number: 07-PRO-051

Project Status: Complete

Project Start/Completion Date: January 2008

Project Objective:

In order to better meet the Human Resource needs of the Seafood Processing Sector, the Prince Edward Island Seafood Processors Association (PEISPA) is conducting a training needs analysis. There has been much anecdotal feedback provided by association members and many more assumptions made relative to training, but it is important to gather a clearer picture of what the long term industry training needs are.

Much of the training that has been delivered in the seafood processing industry has been reactive in nature as a result of regulatory requirements or industry requests. The findings from this project will enable the PEISPA to focus on a long term plan that would ensure that all key positions within the industry are included.

A private consulting firm will be recruited to conduct an industry wide survey, analyze results and develop a final report that can be used in the development of a long-term training plan.

Summary of Outcome:

All seafood plant operators and managers interviewed acknowledged the value and importance of training in the workplace. Given the rapidly changing dynamics within the industry, there is perhaps more need than ever before to take steps to provide the local industry access to opportunities to better train and develop the workforce. There is support from everyone interviewed for a more strategic approach to training within the industry on PEI.

Plant operators and managers noted a number of key areas in which ongoing training would be beneficial; these areas include; Quality Assurance management, food safety and workplace safety, and the integration of migrant/immigrant workers into the workplace. Potential and logical next steps for the Human Resources Committee of the PEI Seafood Processors Association might include:

Short Term - Deliver Training

In the short term establish training programs to respond to identified industry needs such as Quality Assurance, Supervisory Management and Traceability.

Long Term - Influence Training Infrastructure and Programs

Further inform the PEISPA membership of the nature and scope of the training needs identified by processors. Use of the report's findings as a basis for developing a more planned, strategic approach to training and workforce development with the industry.

Total Project Cost: \$15,800.00

Funding provided by PEIASCI: \$10,350.00 (over one year)

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

46. Develop and Maintain an Accommodations Database for Production Workers in the Seafood Processing Industry.

Proponent: PEI Seafood Processors Association

Project Number: 07-PRO-052

Project Status: complete

Project Start/Completion Date: January 2008 -

Project Objective:

One of the significant challenges for workers in the PEI seafood processing plants is finding suitable accommodations. Part of this challenge is due to the fact that many of the plants are located in the rural parts of the province. The PEISPA would like to establish a PEI accommodations database that would be attached to the PEISPA website. Prospective workers could simply go to the website and find potential housing units in their work area. The work would involve promoting and recruiting housing units, providing brief background checks and facilitating changes to the web site to accommodate the database.

This proposal originated through discussions over the past year with several of the plants in the rural parts of the province and the Human Resource Committee of the Prince Edward Island Seafood Processors Association.

Summary of Outcome:

The challenge in finding accommodations for workers still exists. However, the Accommodations Data Base has become a valuable tool in dealing with the issue. The Data Base has become a first destination point for workers looking for accommodations. Since these locations are available, many seasonal employees return back to work in early spring and stay longer until the season closes. The promotional brochures that were sent out to thousands of mailboxes this year were a great success and captured the public's attention. The Accommodations Data Base is up and running and has proven to be a valuable tool for both employers and employees alike. The data base currently holds information on more than 60 rental units and more than 50 of these tend to be filled at any one time.

Total Project Cost: \$26,350

Funding provided by PEIASCI: \$14,350.00 (over one year)

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

47. Develop and Deliver an Introductory Quality Manager Certificate Program for the Seafood Processing Industry.

Proponent: PEI Seafood Processors Association

Project Number: 07-PRO-53

Project Status: complete

Project Start/Completion Date: January 2008 - August 2008

Project Objective:

To meet the requirements of the Canadian Fish Inspection Regulations, all federally registered seafood processing operations must implement a food safety system called the Quality Management Program. The Fish Inspection Regulations require that each plant have a trained Quality Manager with the necessary skill sets required to operate their quality system. The PEISPA had received feedback from several plants regarding the need for introductory training in this area.

Summary of Outcome:

Ken Cashin of Innovative Quality Solutions was contracted to deliver the project. IQS established a committee consisting of two post secondary trained Quality Managers and two Seafood Inspectors from the Canadian Food Inspection Agency to identify and validate curriculum. The consultant took several months to develop and refine the resource materials and learning activities for the program.

Once the curriculum was produced in a standard format, the logistics of delivery were addressed. This included course promotion, development of certificates and organizing a delivery location.

All of the targeted objectives associated with the project were met. The training curriculum was identified and validated by a credible industry group. The course was designed in a modular fashion and can be offered in several formats.

The first delivery of the course was planned for the spring of 2008 and the response was very strong. Registration for the course was stopped at thirty with thirteen different PEI seafood companies represented. The course was presented during the week of April 7, 2008 at the Rodd Royalty Inn in Charlottetown with twenty three of those registered showing up and completing the course and its exams. It was very well received as documented by summarized course feedback. For most of the participants, this was their first formal training in Quality Management.

The course has been organized and saved in a modular format that can be offered many times into the future. It will be stored at the PEISPA offices in Stratford.. As a result of this project, this type of training is now available to be offered to PEI seafood processing plants on a yearly basis.

Total Project Cost: \$25,450.00

Funding provided by PEIASCI: \$13,950.00 (over one year)

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

48. Sourcing Energy Efficiency Diagnostic Services

Proponent: PEI Seafood Processors Association

Project Number: 08-PRO-054

Project Status: Complete

Project Start/Completion Date: April 2008 - 2010

Project Objective:

The very nature of seafood processing with activities such as lobster cooking, boiler operation and cold storage operation consume large amounts of energy. Processing operations are under increasing pressure to manage and reduce their energy consumption to remain competitive and meet the new demands of a green economy.

This project is an opportunity for processors to access consulting expertise to provide a systematic review of their processes to evaluate their energy usage patterns and efficiency. The project will provide processing operations with an incentive to evaluate their energy efficiency. Each plant would receive funding assistance to hire an energy consulting firm to conduct an energy analysis for their operation. The outcome would be a series of recommendations for each plant on how to reduce energy consumption. Phase I of the project would involve: Identifying and selecting the best firm to provide the services, surveying and identifying which seafood plants will pay to participate and establishing an assessment schedule and proposal for Phase 2.

Summary of Outcome:

Seafood processing have been traditionally high users of energy in the forms of both electrical and fuel consumption. The very nature of seafood processing with activities such as lobster cooking, boiler operation and cold storage operation consume large amounts of energy. Processing operations are under increasing pressure to manage and reduce their energy consumption to remain competitive and meet the new demands of a green economy. This project provided an excellent opportunity for seafood processors to access consulting expertise to provide a systematic review of their processes to evaluate their energy usage patterns and efficiency.

The monthly costs of energy consumption provided opportunities to identify areas of energy loss and areas for energy improvement. With this type of consulting expertise being quite expensive and beyond the means of many small plants, the project was meant to provide processing operations with an incentive to evaluate their energy efficiency.

Ken Cashin of Innovative Quality Solutions was hired to investigate the best options to assess energy efficiency within the seafood plants with a focus on options for improvement. The greatest interest from the seafood plants were from the highest energy consumers - the lobster processing plants. Several consulting firms were reviewed for work in this area including companies from Newfoundland and New Brunswick that specialize in this type of work. The project was pursued with a Charlottetown company, IB Storey, which specializes in energy audits and solutions. Meetings were held with IB Storey to discuss and establish project parameters and timelines that could be used in formulating a project for Island seafood processing plants. The points of highest energy consumption and the methods used to review

and identify improvements were discussed in detail.

Two methodologies were considered to deliver the project. Since these meetings were held in the late fall of 2008, the option was there to conduct a review using past historical data of energy consumption for specific plant areas. The second approach was to wait until the spring and conduct the assessment using on-site visits during peak production. It was agreed that the best option was to wait until the spring to gain better data and insight into the process. Since that time, the lobster marketing crisis has taken center-stage and the project has not been re-visited for the potential of Phase II.

Total Project Cost: \$4,000.00

Funding provided by PEIASC: \$2,000.00 (over one year)

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

49. Continued Funding Support for the PEI Seafood Processors Association

Proponent: PEI Seafood Processors Association

Project Number: 08-PRO-055

Project Status: Complete

Project Start/Completion Date: May 2008 - 2010

Project Objective:

The PEI seafood processing sector requires a healthy and active organization to represent the industry. The PEI Seafood Processors Association (PEISPA) spends a great deal of its time and resources reacting to specific and complicated industry issues on behalf of the entire industry.

When difficult issues occur, all plants expect someone to take a lead role in addressing them. The PEISPA has consistently responded to that challenge. However, the PEISPA's financial or staffing resources are such that its overall effectiveness is diminished and it is sometimes unable to address issues in a timely and effective fashion.

This project will benefit from significant PEI Atlantic Shrimp Corp. funding in order to focus more deeply on addressing industry issues and managing pertinent projects.

Summary of Outcome

The PEISPA has worked on many important issues and challenges. Some of the key ones include:

1. Leadership Role in the Lobster Industry Crisis
2. Development of the Lobster Council of Canada
3. Traceability Task Force Meetings
4. Four City Canadian Marketing Tour
5. Process Innovation Project
6. Product Development Project
7. Human Resources Centre

Key Findings and Conclusions

1. The Core Funding Project for the PEISPA was extremely important for the association at a time that it was critically needed. The seafood sector has been hit by many challenges and having an association and Executive Director to address these issues has been very important.
2. It is a foregone conclusion that an industry the size of the seafood processing sector, with its many political complexities, requires an active and healthy association to represent it. The PEISPA helped deal with numerous issues over the past two years that only an industry association can deal with.
3. The challenge of generating revenues for the PEISPA has not been solved and will continue to be an issue moving forward. The PEI seafood processing industry simply does not have the quantity of larger plants that can contribute the funds required to run a viable industry organization. Finding creative solutions will continue to be a challenge in the future.

Total Project Cost: \$165,900.00 per year

Funding provided by PEIASCI: \$108,900 (year 1) and 105,900.00 (year 2)

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

50. Training Materials for Production Workers: on-line and traditional formats.

Proponent: PEI Seafood Processors Association

Project Number: 08-PRO-056

Project Status: Complete

Project Start/Completion Date: May 2008 - 2010

Project Objective:

The turnover of trainers in the plants and the availability of new delivery approaches currently provides a challenge and an opportunity to update the materials of the “Train the Trainers Program” of 2001, and provide new methods of delivery.

The project will focus on an updating of the “Train the Trainers” package to make it more current and flexible. Delivery of a new series of “Train the Trainers” sessions to provide accreditation to those personnel wishing to use the materials and delivery of new innovative approaches that would make the training materials available on the PEISPA web site. This would provide the lowest delivery cost since it could be delivered in an online training format in a group or one-on-one setting at any computer whenever the plant requires it.

Summary of Outcome:

This project addressed production worker training issues in the seafood processing plants. Individuals responsible for training in the plants were surveyed as to the best approaches to be taken in delivering production line worker training and focus on digital training materials. Four Power Point presentations were produced on the following topics:

Personal Hygiene Requirements of the Seafood Production Worker
The Fish Inspection Requirements and the Seafood Production Worker
Food Safety and the Seafood Production Worker
Understanding the Requirements of Ready to Eat Products

The training materials were placed on the web site for use by the membership of the PEISPA. Fourteen industry people took part in a seminar on the standardized delivery of the training materials.

Total Project Cost: \$24,600.00

Funding provided by PEIASC: \$13,600 over 1 year

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

51. Develop a Product Inventory and Traceability Program

Proponent: PEI Seafood Processors Association

Project Number: 08-PRO-057

Project Status: Complete

Project Start/Completion Date: May 2008 - August 2008

Project Objective:

All food and seafood processors are under increasing pressure to implement information management systems that allow them to identify, capture and manage large amounts of data on their products. These challenges are felt directly in the plant by various departments. Recently it has been noted by plant management, quality managers and production staff that there is a need to develop practical solutions to managing inventory and traceability.

Phase I of this project will involve conducting the research required to establish the framework and parameters of the inventory and traceability system. Work will be conducted in a lobster and mussel processing facility over the summer to determine the specific challenges of tracking inventory and traceability. The focus will be on practical data input and management.

Summary of Outcome:

All food and seafood processors are under increasing pressure to implement information management systems that allow them to identify, capture and manage large amounts of data on their products. While the accounting based systems that most use will meet the requirements for overall traceability, there is a need to develop practical solutions to managing inventory and traceability. This project focused on conducting the background research required to establish a project to enhance current traceability systems used in the PEI seafood processing industry.

Conclusions:

1. The feedback from both the plants, regulators and the marketplace is that the ability to quickly, accurately and efficiently track products will only become more important. The current driver is the marketplace where third party certification audits require fast tracking systems and customers are looking for electronic transfer of codes associated with shipments.
2. Plants must be capable of identifying and segregating a production lot that might be questioned. Seafood plants must be capable of summarizing the production in a lot and determining where it is currently located. The real challenge for the PEISPA is to ensure that a generic system is designed for both lobster and mussels that incorporates the many intricacies of each of the plants involved.
3. While there are many companies providing products in this area, there were none encountered that could be used off the shelf. Another issue to be determined is the complexity of the system to be developed. If Phase II goes forward, the PEISPA will need to determine if they wish to design a very basic tracking model for Quality Managers that would cost \$30-40,000 or a much more comprehensive system in the range of \$200,000+.
4. While there are many very capable IT firms in the region, excellent feedback was received on Skyridge Systems Inc of Moncton. They are a small software company that has specialized in this area and came highly recommended by DFO.
5. Based on the above findings, Phase II of this project will be offered to the membership. The

consultant in consultation with the Executive Director of the PEISPA will gain feedback from PEISPA members as to whether to continue and what type of system to pursue.

Total Project Cost: \$11,350.00

Funding provided by PEIASC: \$5,350.00 over 1 year

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

52. Discovery of Bio-products from Tunicates - Phase II of III

Proponent: PEI Seafood Processors Association

Project Number: 08-PRO-058

Project Status: Active

Project Start/Completion Date: May 2008 -

Project Objective:

Since 1997, four different tunicate species have been discovered in PEI. Although the prevention and management of tunicate-associated threats to the shellfish industry has been the priority to date, it is also very important to develop alternative approaches to dealing with the problem, for example, using tunicates as a marine source of natural compounds for health promotion.

In other parts of the world, different species of tunicates have been proven to be a rich source of bioactive compounds that may have a number of health benefits. Preliminary research conducted by the PEISPA in 2005 has revealed that PEI tunicates also contain many bioactive compounds with commercial potential.

As such, in cooperation with the NRC-Institute for Nutrisciences and Health, this project will perform a series of prediscovery studies to look at the potential health-promoting activities of the bioactive compounds in PEI tunicates. Cell-based and enzymatic screening tests will be conducted by different research groups within the NRC-INH to discover any potential activities of tunicate extracts and subfractions for anti-inflammation, anti-diabetes, anti-hyperlipidemia, enhancing wound healing, and weight loss.

Summary of Outcome:

n/a

Total Project Cost: \$141,945.00

Funding provided by PEIASC: \$20,000.00 over 1 year

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

53. An Introductory Supervisory Management Training Program for the Seafood Processing Industry

Proponent: PEI Seafood Processors Association

Project Number: 08-PRO-059

Project Status: Complete

Project Start/Completion Date: May 2008 - July 2009

Project Objective:

The supervisor is one of the most important positions in any seafood processing operation. They must be capable of dealing with complex people issues, determining and managing costs, facilitating productivity improvement and ensuring a safe work environment. There have been a significant number of requests by both small and large plants to provide more effective training in this area. The feedback indicates that to effectively develop skills in these areas the PEISPA will need to develop a course designed for seafood supervisors.

The project will deliver training through a series of five modules:

- Human Relations Skills
- Production Costing Skills
- Plant Safety Skills
- QMP, Continuous Improvement and Lean Manufacturing
- Operations Management

A team of industry supervisors will form a curriculum development committee and will provide assistance in identifying the skill sets to be developed. The materials would be developed between June and December and will be delivered in Summerside and Charlottetown in early 2009.

Summary of Outcome:

The general objective of this project was to develop a customized supervisory training program that could be delivered in PEI to meet the needs of PEI seafood processing plants.

These supervisors have to be capable of dealing with complex people issues, determining and managing costs, facilitating productivity improvement and ensuring a safe work environment.

There has been a significant number of requests by both small and large plants over the last number of years to provide more effective training in this area. The seminar was delivered for one day a week over a five week period. This program helped train new supervisors and it provided a refresher for experienced supervisors.

Total Project Cost: \$33,350.00

Funding provided by PEIASC: \$16,350.00 over 1 year

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

54. Develop a Recruitment Video for the Seafood Processing Industry

Proponent: PEI Seafood Processors Association

Project Number: 08-PRO-060

Project Status: complete

Project Start/Completion Date: September 2008 -

Project Objective:

The PEI Seafood Processors Association recently completed Phase I of a project investigating the potential of developing a worker recruitment video. Phase I was designed to establish production requirements and parameters and to determine local capacity for video development. Phase II of this project will focus on developing a 5 - 7 minute video which would be designed to be used as a recruitment tool for production workers and would project the positive elements of the seafood industry. It would illustrate the type of work that occurs in the lobster, mussel and oyster processing plants and the products they create in an upbeat and interesting fashion. Individual plants and the PEISPA Employment Office could then use this video as an important tool in their recruitment efforts.

Summary of Outcome:

This project represents Phase II of a project to develop a customized video that could be used for recruitment purposes in PEI, in the region and potentially for foreign worker recruitment purposes. Phase I focused on determining what the industry needs were, establishing a basic outline to meet individual plant needs and identifying local capacity to produce the product.

Phase II was the video production, presentation and distribution to industry stakeholders. The recruiting video has already been used in several career days, used in a foreign worker recruiting trip, sent to employment agencies in the province and in the region and placed on the PEISPA Web site.

Total Project Cost: \$37,350.00

Funding provided by PEIASC: \$19,350.00 over 1 year

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

55. A Research Project to Provide Ready-to-Eat Seafood Processing Facilities with Better Data and Prevention Strategies in the Control of Listeria

Proponent: PEI Seafood Processors Association

Project Number: 08-PRO-061

Project Status: complete

Project Start/Completion Date: October 2008 -

Project Objective:

PEI Seafood plants have taken a very proactive approach in managing Listeria since it was first addressed as a potential issue in lobster meat in the mid nineties. A combination of environmental sampling in the plants, education of quality managers and rigid sanitation systems have been very successful in ensuring that Listeria has not been an issue with PEI seafood products. The recent Listeria scare and emerging third party testing has placed a greater emphasis on a plant's ability to demonstrate that it can prevent and/or eliminate Listeria in the processing environment.

The PEISPA has been contacted in the past year by Quality Managers with concerns relative to Listeria. The general consensus on what is needed at this point is accurate data on the logistics of Listeria followed by education of plant personnel. As a first step in this project we would like to offer a subsidy for Quality Managers and support staff to attend the Food Technology Center Listeria Workshops. The second element of this project would involve a comprehensive sampling of three lobster plants. The third element would focus on the development and delivery of a custom designed Listeria seminar for the seafood sector.

Summary of Outcome:

PEI seafood plants have taken a very proactive approach in managing Listeria since it was first addressed as a potential issue in lobster meat in the mid nineties. The general consensus on what was needed is accurate data on Listeria followed by education. The first element of this project involved the PEISPA partnering with the Food Technology Centre to conduct much needed applied research. The second component focused on the development and delivery of a custom designed Listeria seminar for the seafood sector. The seminar was offered in Charlottetown and Summerside. Many of the participants felt that while these seminars were a very good exercise, the challenge may require the design of a customized low temperature pasteurization process and equipment for the seafood processing industry.

Total Project Cost: \$29,762.50

Funding provided by PEIASC: \$21,512.50 over 1 year

Project Contact: Michael MacInnis - Executive Director, PEISPA
Tel: 902-629-1555

56. A Proposal to Assist in the Management Transition Process at the Prince Edward Island Seafood Processors Association

Proponent: PEI Seafood Processors Association

Project Number: 08-PRO-062

Project Status: Complete

Project Start/Completion Date: January 2009 - October 2009

Project Objective:

The PEI Seafood Processors Association has undergone a management change as Michael MacInnis leaves to take on a new position with the federal government.

This change will be difficult as this is a tumultuous time for all manufacturing and exporting industries and the PEISPA is currently coordinating several complex projects. The seafood sector is experiencing unprecedented challenges in the marketplace as a result of the global financial crisis and must be prepared to react quickly and effectively.

As such, this proposal will have funds made available to retain consultant, Ken Cashin for approximately two days per week for a month following the departure of Michael MacInnis.

This would allow a healthy and effective transition period for the PEISPA by ensuring linkages to past projects and adequate resources to deal with the complex sets of projects required to move forward.

Summary of Outcome:

The PEISPA underwent a management change at the start of 2009. The change came at a time when the association was coordinating several complex projects. The project was designed to retain a consultant for a two month period to assist the new Executive Director in the transition process to ensure linkages to past projects and adequate resources to deal with the projects to move forward.

Total Project Cost: \$5,950

Funding provided by PEIASC: \$3,850

Project Contact: PEISPA
Tel: 902-629-1555

57. A Proposal for the Design, Development and Delivery of an Internal Auditing Seminar for Federally Registered Seafood Plants

Proponent: PEI Seafood Processors Association

Project Number: 08-PRO-063

Project Status: Complete

Project Start/Completion Date: January 2009 - March 2010

Project Objective:

New marketplace quality systems requirements such as the ISO 9000 Quality Series and the BRC Food Standard require that plants have the capacity to conduct effective internal audits or employ outside consulting services.

The need to develop Internal Auditing expertise in the plants presents a challenge to the seafood plants in terms of convenience and costs. There is no institution offering this type of course in Prince Edward Island and it is costly to attend off-Island courses.

The primary objective of this project is to custom design a course that can be offered in Prince Edward Island at a time and location that works for local processors. The course materials would be custom designed to meet local needs and, once developed, could be offered at a much reduced cost in the future.

Summary of Outcome:

The primary objective of this project was to custom design a course that can be offered in Prince Edward Island. The course materials were custom designed to meet local needs and can be offered at a much reduced cost in the future. Information was gathered from CFIA to determine the minimum Annual Verification or auditing requirements. An assessment was conducted to determine the most effective mechanisms that could be used to ensure effective internal auditing. Specific training materials were developed for the training session. The WWTP seminar was delivered on March 4, 2009 with more than 20 industry personnel attending. The course has provided industry with a significant supply of employees that are trained in the internal auditing process.

Total Project Cost: \$12,000

Funding provided by PEIASC: \$7,000

Project Contact: PEISPA
Tel: 902-629-1555

58. Development of a Whole Frozen Lobster Products Marketing Strategy

Proponent: PEI Seafood Processors Association

Project Number: 08-PRO-064

Project Status: Complete

Project Start/Completion Date: January 2009 - October 2009

Project Objective:

A majority of PEI's 20 million lbs of lobster is harvested during a three-to-four-week period early in the spring season. This results in a rapid outflow of precious live lobster into processing plants. Both factors lead to insufficient time and money needed to invest in high-value product development, processing and marketing. This year, the economic recession and the depleted purchasing power of key consumers in the US market place have magnified the issue. This has resulted in higher than normal inventories and lower cash flows that can be invested into marketing and sales. There are two initiatives that must be facilitated before the lobster processing industry can regain and sustain profitability. The first goal is short-term and involves facilitating the movement of the current inventory of whole lobster before the 2009 spring season begins. The second initiative is long-term and involves making the operating and structural changes that will ensure a profitable business model.

Summary of Outcome:

The global financial crisis experienced over the last year resulted in market conditions never experienced before by current industry stakeholders. Frozen lobster product produced at high 2008 prices was sitting in cold storage while 2009 lobster was moving at much cheaper prices. Two specific factors, one the dependence on brokers to market product and second the need of processing plants to deal with a large percentage of the total lobster catch in the first 3 weeks of the season, promotes the processing of lobster into packs of volume convenience rather than into packs that are in demand. This results in a surplus of commodity styled, institutional packs such as whole frozen lobster and popsicle packs. Early discussions clearly identified that an approach had to be found to facilitate the movement of existing inventory and the second centers around making changes that will help the industry change the positioning of its products in the marketplace. From these initiatives there is a new sense of industry cooperation and it has had a very positive outcome.

Total Project Cost: \$17,650

Funding provided by PEIASC: \$17,650

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

59. A Proposal for the Organization and Delivery of a Seminar by a Certified BRC Trainer on the British Retail Consortium (BRC) Food Standard

Proponent: PEI Seafood Processors Association

Project Number: 08-PRO-065

Project Status: Active

Project Start/Completion Date: February 2009 -

Project Objective:

The strong Canadian dollar experienced over the last two years and the current economic crisis in the US has provided PEI seafood plants with incentive to pursue new markets. This has resulted in plants focusing on markets such as the European Union.

Certification to the very difficult BRC standard has become vital to successfully participate in the EU market. One of the many BRC requirements is the need for Quality Managers and key staff to be trained on the BRC standard by a certified BRC trainer. The costs involved in attending a course off Island make the training prohibitive for most plants, especially in this difficult financial climate.

This project is designed to provide the support mechanisms required to organize and offer the training here in PEI. This would ensure the development of our human resources at a time where food safety and market development is becoming even more important.

Summary of Outcome:

n/a

Total Project Cost: \$16,950

Funding provided by PEIASC: \$9,950

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

60. A Proposal to Organize Molluscan Shellfish Plants to Facilitate Quality Management Program Responses for the Risks Associated with Waste Water Treatment Plants in PEI

Proponent: PEI Seafood Processors Association

Project Number: 08-PRO-066

Project Status: Complete

Project Start/Completion Date: February 2009 - August 2009

Project Objective:

This project originated from the requests of approximately ten shellfish plants for assistance in dealing with the new Waste Water Treatment Plant requirements as a result of USFDA audits of the C SSP. Negotiations are still on going at the national level between USFDA and CFIA. All shellfish plants that harvest shellfish adjacent to a WWTP must respond with amendments to their HACCP plans immediately.

The next USFDA audit will come about in the spring of 2009. To ensure deadlines are met, Innovative Quality Solutions has already developed HACCP materials and the objective is to meet as a group in an educational setting and then provide individual consulting to each plant. This two step solution will provide all molluscan shellfish plants with the opportunity to meet the demands of CFIA and the USFDA.

Summary of Outcome:

This project offered a two step solution, to organize and deliver a PEISPA led seminar session to address the Waste Water Treatment Plant Failure requirements and individual plant assistance with design and implementation of their QMP system controls.

Specific training materials were developed for the WWTP training session. This included assessing CFIA training materials and developing customized materials for these plants, plus 3 - 4 days of HACCP Analysis and HACCP Plan development work.

Total Project Cost: \$11,800

Funding provided by PEIASC: \$6,800

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

61. A Proposal to Establish a Seafood Industry Noise Control and Hearing Conservation Project to Help Plants Meet the New Occupational Health and Safety Program Regulations

Proponent: PEI Seafood Processors Association

Project Number: 09-PRO-067

Project Status: Active

Project Start/Completion Date: May 2009 -

Project Objective:

The project will deliver a one-time comprehensive analysis of the noise associated with the various sectors of seafood processing. The PEISPA will manage and optimize the project resources to organize and deliver comprehensive testing of all plants that wish to participate. The project would ensure credibility with the Workman's Compensation Board by gaining certification for noise testing.

The challenges to seafood processing plants relative to noise management was brought to the attention of the PEI Seafood Processors Association by members of the PEISPA Human Resources Committee.

Summary of Outcome:

Newly implemented amendments to the Occupational Health and Safety regulations place additional

responsibilities on employers relative to protecting their employees from the accumulative hearing damage

caused by workplace noise associated with seafood processing.

Section 8 of the regulations require several new elements from employers including:

- Assessment and testing of the workplace for noise level readings
- Where required, implementation of a noise reduction program
- Assessment and testing of employees for accumulated noise exposure
- Where required, testing of all workers in noise challenged areas for benchmark readings

These regulations will place significant challenges on the human and financial resources of plants at a time when they are least capable to deal with it. Aside from other requirements, seafood processing plants will need to recruit and hire a certified audiologist to conduct assessments of their operations.

Key Project Accomplishments

1. Calibrated Noise Measurement Dosimeters and Sound Meters were purchased for the project.

2.. The following companies had noise testing sampling and comprehensive noise analysis conducted:

Acadian Fisherman's Coop
Five Star Shellfish
L&C Fisheries
Ocean Pride Seafoods

Belle River Enterprises
Key Brand Foods
Leslie Hardy and Sons
PEI Aqua Farms

Confederation Cove Mussels
Howards Cove Shellfish
Mariner Seafoods
PEI Mussel King

Key Project Findings and Conclusions

1. The new noise regulations will have a significant future impact on seafood processing operations. Plants will have to deal with a lot of new responsibility relative to managing noise in the workplace.
2. This new impact includes several cost factors which are very significant for larger operations. Aside from the noise testing and reduction requirements of a Noise Conservation Program, employers have to ensure annual hearing tests for workers exposed to high levels of noise.
3. One of the clear findings was that many seafood plants, like other manufacturing industries, have noise challenges that have to be managed. Processing area noise levels can range from a low of 75 Decibels to more than 100 Decibels .
4. This project represents another example of the seafood industry saving money by conducting a cooperative, industry wide strategy to address a new challenge

Total Project Cost: \$69,450.00

Funding provided by PEIASC: \$31,450.00 over 1 year

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

62. A Proposal to Provide Marketing for Promotional Materials at the PEI Seafood Processors Association Offices

Proponent: PEI Seafood Processors Association

Project Number: 09-PRO-068

Project Status: Active

Project Start/Completion Date: May 2009 -

Project Objective:

This project originated from marketing sessions ideas with the provincial lobster processors. The PEI Seafood Processors Association has taken a leadership role in organizing PEI Seafood processors in establishing responses the current global economic situation.

One of the issues that has been clearly identified is our need to improve our lobster marketing techniques. The PEISPA office in Stratford has become a focal point for processor meetings and a major resource for the industry. The membership of the PEISPA would like to establish an attractive and functional presence at the PEISPA offices. The objective would be to establish an attractive environment and materials that would be beneficial in the overall marketing strategy. This improvement to the presentation format of the PEISPA offices would provide the association with a better marketing presence. It will be part of a comprehensive marketing strategy.

Summary of Outcome:

n/a

Total Project Cost: \$21,050.00

Funding provided by PEIASC: \$18,050 over 1 year

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

63. A Project to Establish a Product Development and Marketing Strategy and Develop a Funding Proposal for the PEI Seafood Industry

Proponent: PEI Seafood Processors Association

Project Number: 09-PRO-069

Project Status: Complete

Project Start/Completion Date: May 2009 - August 2009

Project Objective:

This project originated from strategy and brainstorming sessions involving the major lobster processors in PEI over the past 15 months. The challenge facing stakeholders at this point is to establish a strategy that will re-position the industry back to a sustainable and profitable position. The lobster industry has been a major net contributor to the PEI economy for many decades. The participants in the industry have reached a benchmark point and major changes are going to occur as a result of the current economic situation. The opportunity is there to influence those changes. The PEI Seafood Processors Association would like to take a leadership role in the current climate to initiate the type of changes that are positive for the PEI lobster industry. There are many areas where initiatives can provide immediate positive impact. These initiatives to create change fall into five categories.

They are:

Moving current inventory to establish cash flow for the spring season.

Addressing operating and structural issues that limit profitability

Conducting fundamental research into lobster consumers and markets

Establishing innovative approaches to generate new lobster products

Establishing an aggressive generic lobster marketing campaign

The overall objective of this proposal is to establish a strategy and funding proposal to move forward.

Summary of Outcome:

This project focused on providing the resources needed for the lobster processing industry to formulate and develop a proposal for a project to deal with the underlying issues of the current market crisis.

After a great deal of research, it was decided to pursue a project to generate new products and a project to generate new pieces of automated equipment. The outcome of this project was the approval of two separate projects to help re-position the Atlantic Canada Lobster Industry. The first project Product Innovation or Development is up and running, the Process Innovation or Development is in it's beginning stages.

Total Project Cost: \$14,350

Funding provided by PEIASC: \$10,350 over 1 year

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

64. A Research Project to Provide PEI Processing Plants with Low Temperature Alternatives for Pasteurization of “Ready to Eat” Seafood Products

Proponent: PEI Seafood Processors Association

Project Number: 09-PRO-070

Project Status: Complete

Project Start/Completion Date: August 2009 - 2011

Project Objective:

PEI seafood processing plants that produce "Ready to Eat" or RTE products must meet considerable regulatory and marketplace standards to ensure food safety for the general public. The industry has implemented very stringent standards to control pathogenic bacteria such as *Staphylococcus aureus* and *Listeria monocytogenes*.

PEI seafood plants have taken a very proactive approach in managing *Listeria* since it was first addressed. This project is designed to provide industry with the capacity to deliver low temperature pasteurization of RTE lobster products.

Summary of Outcome:

Project Background and Objectives

Prince Edward Island seafood processing plants that produce “Ready to Eat” or RTE products must meet considerable regulatory and marketplace standards to ensure food safety for the general public. One bacteria of concern is *Listeria*. The tolerance in PEI’s biggest lobster market, the United States, is zero bacteria so any incidence has unacceptable results. This project was designed to provide seafood processing plants with a process technology that will ensure *Listeria* free products. The objective was to design both equipment and process protocols that will provide industry with the best results in dealing with this complicated problem.

Project Milestones and Deliverables

Early in 2010, the Executive Director of the PEISPA organized and facilitated a startup meeting with Atlantic Systems Manufacturing (ASM), Innovative Quality Solutions (IQS) and key lobster industry processing representatives. The intent was to initiate industry input into the design and operating requirements of a low temperature pasteurizer. During the early months of 2010, Innovative Quality Solutions solicited input from industry representatives on design issues and communicated those to ASM. They then conducted extensive research into the best techniques and methodologies of accelerated water based heat transfer and into the initial design concepts that would provide the most effective results. ASM designed a first prototype and had it ready for early August, 2010. Ken Cashin of IQS organized a meeting in October with industry personnel and the Food Technology Center staff to conduct a review of the equipment before testing. The unit was moved to the Food Technology Center in November to prepare for Temperature Distribution testing. Initial testing determined that there were design and process controller issues so the equipment was moved back to Atlantic Systems Manufacturing for modifications. The final component of the preliminary Temperature Distribution work was completed at the Food Technology Center in late November and the piece of equipment was then moved to the Acadian Fisherman’s Coop for on-site Temperature Distribution work. Preliminary on-site work conducted on November 29

encountered additional equipment problems that had to be addressed by ASM. The final Temperature Distribution work and preliminary Heat Penetration work was carried out in December. The Heat Penetration testing was conducted on December 14 and 15 and the results provided the data that was needed to ensure effective pasteurization. The Food Technology Center staff have compiled the Thermal Process Report which has been presented to the Canadian Food Inspection Agency for approval.

Total Project Cost: \$41,700

Funding provided by PEIASC: \$29,700 over 1 year

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

65. Noise Management - Phase II: A Project to Provide Seafood Plants with Qualified In-House Noise Level Testing and Baseline Hearing Test Results for Their Employees

Proponent: PEI Seafood Processors Association

Project Number: 09-PRO-071

Project Status: Complete

Project Start/Completion Date: October 2009 - 2011

Project Objective:

The PEI Seafood Processors Association will address two issues that are of significance relative to noise management in the seafood plants.

In-House Testing Capacity

The PEISPA has recently acquired two calibrated dosimeters for noise analysis and two sound pressure meters for noise level testing. With this equipment there is an opportunity to design a seminar to train people in each plant on noise level testing to the CAN/CSA - Z107.56-06 standard so they will be independent for ongoing noise level testing.

Benchmark Employee Testing

The PEISPA will establish a project to provide seafood plants with benchmark level testing for employees to get the testing program off the ground. Once this is in place, plants can maintain the testing going forward.

Summary of Outcome:

The seafood processing industry, similar to other manufacturing industries, has to manage its noise levels to protect its employees. With the new OH&S regulations, yearly testing of the hearing of employees will become a routine cost of doing business. There are a significant number of employees currently working in plants that have experienced hearing loss at previous areas of employment or because of their life experiences. This makes yearly and benchmark testing even more significant.

Key project deliverables include:

1. A One Day Noise Management Testing workshop was designed and delivered to local seafood plant personnel. It was delivered in both Summerside and Charlottetown.
2. A Tremetrics - RA300 - Audiometer was purchased for conducting hearing tests on seafood plant employees.
3. The employees of nine processing plants that have excessive sound levels participated in the testing process.

Total Project Cost: \$53,750

Funding provided by PEIASC: \$36,750 over one year

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

66. A Project to Assess the Potential Marketplace Effects of Carapace Size Increases in Lobster in the PEI Lobster Industry

Proponent: PEI Seafood Processors Association

Project Number: 09-PRO-072

Project Status: Complete

Project Start/Completion Date: January - February 2010

Project Objective:

In this project the PEI Seafood Processors Association in partnership with the PEI Fishermen's Association plan to facilitate an evaluation by a recognized seafood market place expert on the potential effects of increasing the carapace size and determine the marketplace effects of these regulatory decisions.

Summary of Outcome:

Project Overview

The Prince Edward Island Seafood Processors Association and the Prince Edward Island Fishermen's Association, the two key players in the PEI lobster industry, were and remain concerned relative to the effects of the Department of Fisheries and Oceans increasing the minimum carapace size of lobster in the LFA's surrounding Pei waters. The current minimum carapace size for lobster in PEI is 70 mm which is referred to as a canner lobster with a market lobster represented by those 81 mm and greater. The canner lobster has been a core component of the PEI industry providing thousands of processing jobs and providing a specific niche in the global marketplace for smaller lobsters.

The objectives of the project were focused on determining the potential effect in the marketplace of increasing the lobster carapace size. All stakeholders involved in the PEI Lobster Management Plan must answer the following two questions based on the available science and industry performance and history. What is the minimum lobster carapace size that will ensure the sustainability of the stock? What minimum lobster carapace size will provide the greatest economic return and stability of the PEI economy? Processors indicate that certain markets, such as lobster buffets, are very price sensitive and will not purchase the larger lobster. This could have considerable implications on the returns to the industry and the economy of PEI. It could also have negative effects on a processing facility that provides critically important jobs in the rural economy.

Project Deliverables

The Prince Edward Island Seafood Processors Association in partnership with the Prince Edward Island Fishermen's Association contracted John Sackton, a recognized seafood market place expert, to provide a report on the potential effects of increasing the carapace size. Mr. Sackton, President of Seafood.com and Seafood Datasearch, presented his findings at the Annual Meeting of the Prince Edward Island Fishermen's Association on Feb 27, 2010.

Total Project Cost:

Funding provided by PEIASC: \$30,300

This is a joint project between the Harvesting and Processing sectors. The project will be administered by the PEI Seafood Processors Association, on behalf of both sectors. To reflect the joint nature of the project, one half of the approved funding will be transferred from the Harvester's allocation to the Processor's allocation.

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

67. A Project to Provide Skill Development Opportunities in Welding to Maintenance Personnel in Seafood Processing Plants

Proponent: PEI Seafood Processors Association

Project Number: 09-PRO-073

Project Status: Complete

Project Start/Completion Date: January 2010 - 2011

Project Objective:

Maintenance personnel in the seafood processing plants often have the task of keeping the operation going or getting it back in operation. Quite often, small problems can be fixed on the spot by maintenance personnel if they have the basic skills to do so.

This project will offer a 30-hour “Basic Welding” course at the Holland College Slemon Park Campus. It would be available to all maintenance personnel in the seafood sector in March 2010. The training costs would be covered through this project.

Summary of Outcome:

Members of the Human Resource Committee of the Prince Edward Island Seafood Processors Association identified skill upgrading for Maintenance Personnel as an issue of importance for the industry. Maintenance personnel are often charged with the task of either keeping the operation going or getting it back in operation. Quite often, small problems can be fixed on the spot by maintenance personnel if they have the basic skills to do so. The objective of the project was to offer a 30 hour “Basic Welding” course at the Holland College Slemon Park Campus. It was made available to all maintenance personnel in the seafood sector in March, 2010. The seafood plants were responsible for wages and travel incurred during the course while the training costs would be covered through the project.

The training was conducted at the Holland College Aerospace Centre at Slemon Park. The College provided a welding room and related equipment and all of the materials and supplies required including: tips, acetylene, oxygen, wire, electrodes, steel, and safety weld shields, gloves and jackets. Each industry person was also provided with tinted and clear safety glasses. As part of the training experience, Holland College provided seasoned trainers; the practical activities to support the learning objectives; lecture material, powerpoint presentations, handouts and other support materials.

This course was promoted to all Island seafood processing plants with a good response from the industry. It was delivered as a five day or 30 hour course during the week of February 22, 2010 and attracted 14 participants. Holland College was very cooperative in providing their organizational resources and training facilities in making the project work. The PEI Department of Occupational Health and Safety was consulted to ensure that all safety issues were addressed.

Total Project Cost: \$12,900

Funding provided by PEIASC: \$9,400

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

68. A Research Project to Provide Lobster Processing Plants with a Semi-Automatic Batch Pasteurizer with Approved Thermal Processing Protocols for the Low-Temperature Pasteurization of its “Ready to Eat” Lobster Products

Proponent: PEI Seafood Processors Association

Project Number: 09-PRO-074

Project Status: complete

Project Start/Completion Date: January 2010 - 2011

Project Objective:

This project relates specifically to the processing sector and the broad objective of "Support the further development and maintenance of the processing and seafood manufacturing sector". More specifically, it relates to the objective of improving quality of existing products by introducing new food safety and processing techniques.

This project will help plants by providing the equipment and technology required to deliver low temperature pasteurization. This will enhance their ability to meet the very rigid and stringent requirements for food safety in the marketplace.

This project originated through discussions over the past several months with Plant Managers and Quality Managers in lobster and crab plants in PEI. Plants are concerned with the new Health Canada policy and the need to have acceptable pasteurization procedures in place should they be needed.

Summary of Outcome:

This project was an excellent research and development exercise in determining a methodology to provide low temperature pasteurization of lobster meat. The process involved selecting an existing piece of equipment that could be tested for delivering a low temperature pasteurization process for lobster.

Acadian Fisherman's Coop provided their facility and equipment to prepare for and deliver the project. Their staff identified two potential pieces of equipment that could be used to pasteurize the product and the piece of equipment that was selected was a continuous cooker that would be converted into a batch cooker for the process.

Cans were loaded into baskets that were then placed into the cooker and circulating water, heated by steam, then slowly pasteurized the product. Staff from the PEI Food Technology Center then conducted a Temperature Distribution Test on the unit. The results were disappointing indicating variations in temperature throughout the cooker when at operating temperature. A Heat Penetration Test was then conducted on 11.3 oz cans of lobster at several temperatures and then analyzed to determine the heat penetration rate and time to reach pasteurization. The analysis of data indicated that the temperature variation in the cooker prevented the unit from delivering a satisfactory process that would be considered consistent and safe.

The conclusion of the project was that a piece of equipment would have to be custom-designed to ensure the consistency in temperature distribution required. Such a project was designed and is underway.

Total Project Cost: \$149,700

Funding provided by PEIASC: \$57,350

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

69. A Project to Develop a Human Resources Center for the Seafood Processing Industry

Proponent: PEI Seafood Processors Association

Project Number: 09-PRO-075

Project Status: Complete

Project Start/Completion Date: January 2010 - 2012

Project Objective:

Through this project the PEI Seafood Processors Association Human Resources Center can help prepare the industry for the challenges that are on the horizon and be proactive in the areas of recruiting and training. It can also be reactive in responding to industry needs that occur during each processing season. The seafood sector has accomplished a great deal through their Human Resource Committee and this would provide a manner to continue that process. The PEISPA has established a good reputation with our Employment Office and this project will be an expansion and continuation in that direction.

Summary of Outcome:

The Human Resources Center continued the employment of the Manager of the former Seafood Employment Office Project. During the period of January, 2010 until May, 2010 the following work activities were conducted:

1. Meetings with seafood industry Human Resource Committee.
2. Documentation of input on potential training and HR projects.
3. Maintenance of the PEISPA data base for plant employees.
4. Maintenance of the PEISPA data base for employee accommodations.
5. Consultant to design survey tools to gather labor force data from the industry.
6. Conducted an advertising campaign to recruit new workers to the industry.
7. BRC Training Seminar was organized and delivered.
8. Welding Course for Maintenance Workers was organized and delivered.
9. HR Committee organized a project to "Provide Certification Training for HR Personnel in the Seafood Sector".
10. A Recruitment Plan was developed for the 2010 season.

The PEISPA Executive have identified that the Human Resource component of the PEISPA should focus on the key industry human resource issues rather than the recruiting of workers for processing plants. Although recruitment of workers by the Human Resource Center assists the plants in the short-term, the Center has little time to address the much larger issues that have larger effects on the industry for the long-term.

This project has been discontinued one year earlier than anticipated in order to refocus our limited resources toward dealing with the long-term issues of human resources in the seafood industry on PEI. There is a future need to compile data regarding the labour market, future training needs, and potential retention strategies. The PEISPA will continue Human Resource

Center initiatives focused on better educating and assisting industry to build a human resource strategy that is sustainable into the future.

Total Project Cost: \$354,750

Funding provided by PEIASC: \$114,637.50 over three years

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

70. A Project to Deliver Nationally Recognized Training for Human Resource Managers in the Seafood Industry

Proponent: PEI Seafood Processors Association

Project Number: 09-PRO-076

Project Status: Complete

Project Start/Completion Date: January 2010 - 2011

Project Objective:

The role of Human Resource Management in any business has become extremely important in maximizing the potential of the workforce. This is an area that requires people with the skill sets to protect the interests of the business. To respond to skill development and training requirements, the Canadian Council of Human Resources Associations has developed the Certified Human Resources Professional designation. This has become a nationally recognized level of achievement with the field of human resources.

The Canadian Council of Human Resources Associations provides on-line training courses and exams to achieve the Certified Human Resources Professional designation. This project will assist the Human Resource Managers in the seafood sector in enhancing their skill sets and gain national certification to the Certified Human Resources Professional designation.

Summary of Outcome:

The Need for Human Resource Management Training and Certification

The role of Human Resource Management in any business has become extremely important in maximizing the potential of the workforce. This is an area that requires people with the skill sets to protect the interests of the business. It has also become much more important from an external perception. Companies that are dealing with government agencies are expected to have a Human Resource Management Capability and skilled people to implement it.

The demand for skill development in this area has led to the growth of the Canadian Council of Human Resources Associations (CCHRA). This organization is a collaborative effort of human resources associations from across Canada, which represent more than 39,000 professionals. The CCHRA's mission is to be the national voice on the enhancement and promotion of the human resources profession across Canada and internationally through established and credible designations.

National Certification of Local Human Resource Managers

This project was about providing a nurturing and creative approach to enhancing the skill sets for human resource managers in the seafood processing industry. The Canadian Council of Human Resources Associations provides on-line training courses and exams to achieve the Certified Human Resources Professional designation. The time commitment and cost has always been a barrier for participants. This project was designed to assist the Human Resource Managers in the seafood sector enhance their skills sets and gain national certification to the Certified Human Resources Professional designation

Project Deliverables and Conclusions.

While this project had excellent intentions and did deliver some benefits, it did not experience the success that was expected for two reasons. The first issue had to do with the degree of difficulty that

participants encountered with the sheer amount of curriculum with the course. Employees working full time found it very difficult to meet the time requirements of the on-line training. For this reason, only two of the participants qualified to continue to the second level of training. The second issue had to do with staffing challenges that occurred at the PEISPA over the summer of 2010. The turnover in staffing at the PEISPA offices during the transition between the first and second level of on-line training resulted in a vacuum of leadership with the project. As a result of losing key personnel from the group, the project was not completed.

Total Project Cost: \$51,010

Funding provided by PEIASC: \$16,510 over one year

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

71. A Product Innovation Project for the Lobster Processing Industry

Proponent: PEI Seafood Processors Association

Project Number: 09-PRO-077

Project Status: Active

Project Start/Completion Date: January 2010 - 2011

Project Objective:

This project represents a cooperative and strategic approach by industry leaders to implement proactive measures that will help create a more sustainable and profitable business model for the lobster processing industry. The primary focus of this project is to facilitate an injection of resources into product innovation. These new products that will be produced will provide immediate benefits in the marketplace and create a more profitable industry by increasing overall demand.

The PEI lobster processing industry is perfectly positioned to facilitate the type of product development that must occur. The local area provides a core set of resources required to facilitate food product development including the Food Technology Center, the Holland College Smart Kitchen, a reputable equipment manufacturing company and several food packaging companies. New products that are introduced through this project will deliver benefits to the entire industry.

Summary of Outcome:

The project was designed to provide industry with access to a diverse group of talented industry professionals using a systematic process that would hopefully deliver product development success. It is the hope of all participants that new products that are introduced through this project will create a domino effect in the marketplace increasing overall demand and delivering benefits to the entire industry. New products and any resulting technology will naturally flow quickly into the Atlantic Canada lobster industry.

Project Deliverables

Possibly the greatest impact of this project has been the education and increased awareness of all lobster processors regarding both the importance and the process involved in new product development. The lobster processing industry has evolved over the decades into a very efficient mechanism by which large volumes of lobster are processed into similar products and moved into the general marketplace. With the increase in lobster landings and downturn in the economy, the supply has exceeded demand. This project has highlighted the need for innovation in both lobster processing techniques and new products. The project has resulted in new partnerships between the processors and technical institutions in the product development process. While some information is confidential, there are five new potential products that the industry is attempting to develop commercially.

Project Conclusions

The product development process presents so many barriers that it becomes somewhat insurmountable for our smaller lobster processing plants. Very expensive development costs, the low success rate, the difficult process of moving new products into the marketplace and the extreme competition from established competition prevent small plants from venturing into this process alone. This project has clearly identified the potential of plants working together to pool resources. This project was designed to identify and develop new lobster products. That has occurred and the plants involved must now pursue the commercial opportunities. The next challenge is developing a business model for production and marketing for small lobster processors that works. The nature of the marketing structure and elements of the lobster industry lends itself to extreme competition and low profit margins. Lobster is a high priced raw material that does not lend itself well to the product development exercise. To be successful, development activities need to be clearly focused on the intended market, volume and margin. This project identified the best opportunity as coming from the lower priced components such as the body meat.

Total Project Cost: \$648,500

Funding provided by PEIASC: \$31,500 over one year

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

72. A Process Innovation Project for the Lobster Processing Industry

Proponent: PEI Seafood Processors Association

Project Number: 10-PRO-078

Project Status: Active

Project Start/Completion Date: February 2010 -

Project Objective:

This project represents a cooperative and strategic approach by industry leaders to implement proactive measures that will help create a more sustainable and profitable business model for the lobster processing industry, it is the result of hundreds of hours of meetings and consultations that were used to assess and analyze the current industry conditions and create a strategic response.

The primary focus of this proposal is to facilitate an injection of resources into process or equipment innovation that will both assist in lowering production costs and reducing labor requirements to a level that can be adequately filled by the local labor force.

Summary of Outcome:

n/a

Total Project Cost: \$1,737,000

Funding provided by PEIASC: \$65,000 over two years (\$35,000 in year 1 and \$30,000 in year 2)

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

73. One Year Interim Funding Support for the PEI Seafood Processors Association

Proponent: PEI Seafood Processors Association

Project Number: 10-PRO-079

Project Status: Complete

Project Start/Completion Date: April 2010 - 2011

Project Objective:

The PEISPA Operational Funding Support Project relates to the establishing of support funding that will allow the PEISPA to focus on its delivery of key services to the industry. These include:

- acting as an industry advocate and spokesperson on all pertinent issues
- representing industry with both provincial and federal governments
- enhancing communications between industry and government departments
- facilitating and leveraging applied research projects
- helping implement best practices in both processing and marketing sectors
- dealing with industry challenges as they occur

The PEISPA also spends a great deal of its time and resources reacting to specific and complicated industry issues on behalf of the entire industry. Many of these issues are quite significant and require a skilled organization to aggressively address them.

Specific Project Goals and Objectives

Particular initiatives that will be explored for the benefit of all members and the industry include:

- A Members Only area of the PEISPA website: employee database; updates on issues/markets; PDF Project Reports; market data; etc.
- Membership Group purchasing discounts on various products and services
- Re-structuring of the Human Resources Center
- Potential Development of a Seafood Sector Council
- Developing greater awareness of and strategies to address international trade barriers: i.e. EU Tariffs on Canadian seafood
- Continued investigation into Eco initiatives such as MSC
- Development of Government Lobby strategies
- A Winter Training Program for the Seafood Processing Industry
- Provide leadership into large industry projects such as the Product Development Project fostering product development and the Process Development Project fostering equipment development
- Nurture the development of the PEISPA Human Resources Committee
- Enhance the engagement and participation by all membership in the PEISPA

Summary of Outcome:

Core Funding Project Overview

The PEI Seafood Processors Association (PEISPA) has partnered with the PEI Atlantic Shrimp Corporation (PEIASC) on several core funding projects over the last number of years. This

funding has been critical in helping the PEISPA to meet its revenue requirements and be truly effective in addressing challenges within the industry. Core funding projects have received significant debate at the PEIASC and have become recognized as a key element in assisting industry organizations source operational funding and respond to the issues of the day. The PEI Seafood Processors Association has delivered significant value to the processing sector for many years and has been particularly active in the last decade. Its general mandate includes:

- acting as an industry advocate and spokesperson on all pertinent issues
- representing industry with both provincial and federal governments
- enhancing communications between industry and government departments
- facilitating and leveraging applied research projects
- helping implement best practices in both processing and marketing sectors
- dealing with industry challenges as they occur

Key Project Deliverables

1. Continued Advocacy and Lobbying on Behalf of Industry
2. Management and Completion of the Lobster Product Development Project
3. Management and Completion of the CMP Lobster Equipment Development Project
4. Management and Completion of the Lizotte Consultants Equipment Development Project
5. Development and Delivery of the Workers Compensation Project
6. Completion of the Hearing Testing Phase of the Noise Management Project
7. Continued Participation in the Fisheries Council of Canada
8. Continued Participation in the Lobster Council of Canada
9. Participation in the Boston Seafood Show
10. Development of a Business Plan for the Association

Total Project Cost:

Funding provided by PEIASC: \$105,000 over one year

Project Contact: Olin Gregan, Executive Director
Tel: 902-629-1555

74. Supplementary Funding Request Noise Management Phase II

Proponent: PEI Seafood Processors Association

Project Number: 10-PRO-080

Project Status: Complete

Project Start/Completion Date: September 2010 - 2011

Project Objective:

The Prince Edward Island Seafood Processors Association (PEISPA) is just in the process of completing Phase II of the Noise Management Project.

The key objectives of this project are to address two issues that are of significance relative to noise management in the seafood plants. They are:

1. In-House Testing Capacity

Ken Cashin of Innovative Quality Solutions has delivered seminars in both Summerside and Charlottetown with nearly 40 industry personnel taking part. These individuals have been validated to be capable to use the noise testing equipment for their own plant testing needs as their individual operations change. The second noise related issue involves the delivery of employee hearing tests:

2. Benchmark Employee Testing

As per the new requirements of the Occupational Health and Safety Program, plants must test employees in high noise exposure areas within 6 months of their being hired and then every year thereafter. The PEISPA would like to establish a project to provide seafood plants with benchmark level testing for employees to get the testing program off the ground.

This project has been very successful to date and specifically because of that the project will not have the resources to reach completion. The preliminary assessment of the number of workers to be tested and the time to test them ended up being a low approximation. Testing experience indicates that the delivery system averages four workers per hour. The time to gather the required regulatory information was underestimated. Also, the uptake on testing has been greater than first expected with as many as 400-600 looking to be tested.

In summary, the key objective of this project is to ensure that enough resources are in place to provide hearing testing for all workers that require it.

Summary of Outcome:

All seafood processing plants on PEI with noise related challenges were given an opportunity to participate in the activities associated with this project. A One Day Noise Management Testing workshop was designed and delivered to local personnel at two locations on different dates. Management personnel at each participating plant were introduced to the concepts and regulations associated with noise management. Several pieces of equipment were purchased including a Tremetrics - RA300 - Audiometer for conducting hearing tests on seafood plant employees, a Fisher Scientific Noise Level Meter was purchased for conducting noise level measurements, and two Casella Cel-320 Dosimeters were purchased for conducting accumulated noise level testing.

Nine processing plants that have their employees exposed to excessive sound levels

participated in the testing process. The seafood processing industry, similar to other manufacturing industries, has to manage its noise levels to protect its employees. Yearly testing of the hearing of employees will become a routine cost of doing business. There are a significant number of employees currently working in plants that have experienced hearing loss at previous areas of employment or because of their life experiences. This makes yearly and benchmark testing even more significant.

Total Project Cost: \$11,500

Funding provided by PEIASC: \$11,500 over one year

Project Contact: Barry Ansems, Executive Director
Tel: 902-629-1555

75. A Review and Analysis of the 2011 Workers Compensation Board Rate Changes

Proponent: PEI Seafood Processors Association

Project Number: 10-PRO-081

Project Status: complete

Project Start/Completion Date: December 2010 - 2011

Project Objective:

The Prince Edward Island Seafood Processors Association (PEISPA) are very concerned relative to the rate changes being implemented by the PEI Workers Compensation Board. These increases in payroll deductions occur at a time when the plants can least afford them. This project is designed to provide member plants with an overview of the logic behind the payroll increase and a strategy in which to deal with it.

The PEISPA will do this by:

1. Establish Dialogue with the WCB to Gain Understanding of Their Rate Structure
2. Gain an Understanding of Comparative Industry Rate Structures
3. Gain an Understanding of Regional Rate Structures
4. Gain an Understanding of Individual Plant Experiences
5. Provide the Seafood Industry With a Strategy and the Data to Deal With WCB

Summary of Outcome:

The primary objective of this project was to identify strategies that can be employed to deal with the WCB rate increases. A review of the facts indicate several realities that should be acknowledged. They include:

- (1) mandatory participation in the Worker's Compensation Program
- (2) expensive compensation benefits due to workplace injuries
- (3) WCB's new classification, "user-pay" system
- (4) higher than average compensation costs associated with the seafood processing industry
- (5) effects on the competitiveness of the industry

The PEISPA strategy should focus on achieving three objectives to address this situation:

- (1) Implement proactive measures that help increase the general understanding and involvement of the seafood industry in the Workers Compensation Program.
- (2) Participate in and help facilitate improvements in the Workers Compensation Program.
- (3) Implement proactive measures that help improve safety performance in the seafood industry.

Total Project Cost: \$17, 500

Funding provided by PEIASC: \$17,500 over one year

Project Contact: Barry Ansems, Executive Director
Tel: 902-629-1555

76. A Project to Introduce New, Innovative Oxygen Infusion Equipment that will Significantly Improve the Holding Water used for Storing Mussels

Proponent: PEI Seafood Processors Association

Project Number: 11-PRO-082

Project Status: Active

Project Start/Completion Date: October 2011 -

Project Objective:

The objective is to realize an expanded live shellfish holding facility through enhanced dissolved oxygen in the water supply at suitable temperatures for the improved quality and shelf life of product when it is necessary to hold it in wet storage for extended periods of time. These periods of time could occur during rainfall events, seasonal ice in-ice out harvest limitation, or any other time where volumes of product must be held.

Summary of Outcome:

n/a

Total Project Cost: \$95,250

Funding provided by PEIASC: \$10,396 over one year

Project Contact: Barry Ansems, President
Tel: 902-629-1555

77. A Proposal Requesting an Extension of Core Funding Support for the PEI Seafood Processors Association for the First Three Months of 2012

Proponent: PEI Seafood Processors Association

Project Number: 12-PRO-083

Project Status: Active

Project Start/Completion Date: January 2012 -

Project Objective:

The PEISPA Core Funding Support Project relates to the continuation of core funding that will allow the PEISPA to focus on its delivery of key services to the industry. These include:

- acting as an industry advocate and spokesperson on all pertinent issues
- representing industry with both provincial and federal governments
- enhancing communications between industry and government departments
- facilitating and leveraging applied research projects
- helping implement best practices in both processing and marketing sectors
- dealing with industry challenges as they occur

Summary of Outcome:

n/a

Total Project Cost: \$50,000

Funding provided by PEIASC: \$30,000 over one year

Project Contact: Barry Ansems, Executive Director
Tel: 902-629-1555

78. Request to Amend a Project to Develop a Human Resources Center for the Seafood Processing Industry

Proponent: PEI Seafood Processors Association

Project Number: 12-PRO-084

Project Status: Active

Project Start/Completion Date: January 2012 -

Project Objective:

Through redirection of this project the PEI Seafood Processors Association Human Resource Enhancement Center can help prepare the industry for the challenges that are on the horizon and be proactive in the areas of labour market analysis and training. It can also be reactive in responding to industry needs that occur during each processing season. The seafood sector has accomplished a great deal through their Human Resource Committee and this would provide a manner to continue that process.

Summary of Outcome:

n/a

Total Project Cost: \$63,975

Funding provided by PEIASC: \$37,875 over one year

Project Contact: Barry Ansems, Executive Director
Tel: 902-629-1555