

Report to the Northeast Consortium

July 1, 2011

1. Project title and contract number

Environmental Management System Training for Fishermen

Contract number: 10-074

2. PI contact Information

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3. List of project participants with contact information

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4. Major accomplishments and milestones

On February 16 and 17, 2011, GMRI hosted the first-ever Environmental Management Systems (EMS) workshop at the Wylie Conference Center in Beverly, MA. The agenda (attached as Appendix 1) included a series of presentations and interactive, hands-on activities. Critical to the success of this workshop was the ability to secure content experts who could present important information. Because of the breadth of the content, several entities were necessary to executing the content.

We secured participation by a fabulous group of content experts (biographies of presenters are attached as Appendix 2). While the process of developing an EMS plan was the theme of the workshop and was presented by Steve Eayrs, each partner provided important content on various components of the EMS plan, including quality handling, selective gear, and financing investments to the fishing enterprise.

Our target audience was groundfish fishermen from the Northeast. To recruit participants, we sent postcards (attached as Appendix 3) to approximately 300 people from throughout the region. We also followed up by phone with several fishermen to ensure they were aware of the opportunity. Even those who were not able to make the workshop did remember the post card, and many expressed regret that they were not able to attend.

Ultimately, we recruited 16 participants from throughout the region primarily made up of fishermen and sector managers (the participant list is attached as Appendix 4).

The participants completed pre- and post-training evaluations (the results are included as Appendix 5 and Appendix 6). The results of the evaluations indicate that participants increased their belief that they have control over the profitability of their businesses. Specifically, the surveys show elevated participant awareness of financing options, strong belief that they can make more money for their product, and increased belief that they have influence over the quality of the product at the point of sale.

5. Unexpected difficulties and project alterations

Recruiting participation for the workshop proved to be difficult, which was particularly frustrating because this effort was a free opportunity for fishermen to learn how they might be more profitable. We learned a lot in this process.

There were several groundfishermen who expressed keen interest in participating, but could not attend at the offered date because it was the middle of shrimp season. Not only is shrimp an important source of income that they could not give up, the 2010/11 season was projected to be closed early, so fishermen needed to take full advantage of every possible fishing day. This resulted in a greater number of lobstermen attending. Even though we were clear that the content would be more focused on groundfish, lobstermen were still interested in the concepts, particularly around quality handling and marketing, and showed interest in how they might apply EMS to their businesses.

We also received feedback from both fishermen and non-fishermen invitees that they didn't believe that they would learn much from us about how to be more profitable. As one fisherman who did participate put it:

“It was an interesting exercise. I did not think I would like this part or get much out of it but was wrong. What this class has done is given us a vehicle to work through some of the issues facing the industry – issues that we have some control over. Your (GMRI) role as an enabler has been extremely helpful. Every single fisherman I spoke to is full of ideas that have never been brought to fruition. Maybe we now have access to the tools to work on some of these ideas. Thanks for giving me the opportunity to attend!”

This experience tells us that it will likely take several early adopters and proofs of concept that we can communicate to the fishing community before comparable subsequent trainings will be in high demand.

6. Next steps, tasks for next 6 months

We plan to follow up with participants to see what they have implemented or done since the training in February. Follow up questions will seek to understand what they recall from the training, what they have done since the training, and what recommendations participants have for future efforts to enable technology transfer and adoption of the EMS process.

We hope to redesign the training to incorporate additional out-of-classroom experiences, additional hands on exercises, and increased long-term mentoring with a focus on creating thought leaders who can help communicate the potential of EMS to other fishermen and who might ultimately provide actual content for the training as presenters. Future training sessions could utilize participants' data from their vessels to give additional applicability. We are actively seeking funding opportunities to enable future work.

Feedback indicated that there is particular interest in learning more about marketing opportunities. Developing or harnessing resources and tools that help fishermen understand how to better market their product could be a follow up activity.

7. Impacts of the project to fishermen/fishing community and scientist/science community

The initial pre- and post-surveys already indicate changing perspectives and greater understanding of what participants might do to improve profitability of their fishing businesses, while simultaneously decreasing environmental impacts of their practices. The follow up survey will provide additional feedback regarding the impact of this training on its participants.

Regardless of the direct outcomes of this initial training on the participants, the workshop has served as a foundation for future efforts. Ultimately, the potential lies in EMS positively impacting the future survivability of fishing enterprises in the region, while also improving the reputation of the seafood industry nationally and even globally as forward-looking and innovative.

8. Signed and dated

Jennifer Levin

Date

Appendix 1: Agenda

IMPROVING THE PROFITABILITY OF YOUR FISHING BUSINESS

February 16-17, 2011

DAY 1

8:30 Continental Breakfast

9:00 Start

Welcome and Introductions

Input and Output model; introduction to Environmental Management Systems (EMS)

1. Introduction to input and output model; options for improving operational profitability
2. How do the inputs & outputs of a fishing operation change during the fishing season?
3. Defining operational efficiency, including catching, fuel, and time efficiency
4. Where/how can fishermen improve operational efficiency and catch value?
5. Introduction to EMS, a tool to systematically bring about improvements in operational efficiency
6. Setting goals and objectives; keeping records to better understand the fishing business and inform decisions

11:45 – 12:30 Lunch

Increasing profitability by improving selectivity of fishing

1. Strategies to reduce discards and habitat impacts, including case studies.
2. Exploring the link between reduced impacts and profitability
3. What can fishermen do tomorrow to decrease bycatch and habitat impacts? What types of strategies might they invest in? Why?

Reducing fuel consumption to improve profitability

1. Changes in operational practice and fishing gear to reduce fuel consumption
2. Tracking fuel consumption; fuel flow meters, case study
3. Payback periods
4. Planning an energy audit using sample data

Innovative marketing and promotion of catch

1. Defining Marketing/Branding
2. Marketing Strategies
3. Market Research

5:00 Adjourn

6:30 Group Dinner

DAY 2

8:00 Breakfast

8:30 Welcome Second Day

Quality handling of product

1. How is seafood regulated for consumer safety?
2. Why does food spoil...fish in particular?
3. What is HACCP and how can you use it to improve your business?
4. The fish-buyers perspective
5. Landing and Sorting; Washing and Chilling; Refrigerated Storage

Financing changes in operational efficiency

1. Overview of financing opportunities and how to apply.

11:45 – 12:30 Lunch

Applying an EMS approach to tackle problems

1. Applying the EMS approach to improving profitability

Wrap up and Finish

3:00 Depart

Appendix 2: Speaker Biographies

IMPROVING THE PROFITABILITY OF YOUR FISHING BUSINESS

February 16-17, 2011

SPEAKER BIOS

Steve Eayrs is an Australian scientist who began his career as a fisherman in Australia, the Middle East, and S. E. Asia, before moving into research. Prior to joining GMRI, Steve worked at the Australian Maritime College, during which time he played a key role in the development of selective fishing gears in a variety of fisheries in Australia and other countries. Steve joined our staff in January 2007 to lead our efforts to develop environmentally-friendly fishing gear, working collaboratively with fishermen and other stakeholders. His primary research interests include fishing gear design and operation, energy optimization and fuel conservation, fishing gear selectivity and seabed impacts,

Chris Glass is Director of the Northeast Consortium and Research Professor in the Ocean Process Analysis Laboratory of EOS. A specialist in animal behavior and marine biology, Dr. Glass has a long record of conservation gear research in New England's Fisheries. Prior to joining The Northeast Consortium, Chris served for 9 years as Director of Marine Conservation at Manomet Center for Conservation Sciences where he specialized in the study of fish behavior and applying knowledge of this subject to develop more selective fishing gears directed at reducing bycatch and discard in commercial fisheries. Previously, Chris worked for 14 years at the Marine Laboratory in Aberdeen, Scotland and has worked extensively on bycatch reduction and conservation engineering programs throughout Europe and North America. Chris has been a featured lecturer on sustainable fisheries topics at numerous international conferences and has published extensively in scientific journals. His education includes a B.Sc. in Zoology (Marine Biology and Animal Behavior) from The Queens University, Belfast and a Ph.D. from The University of Glasgow.

Dr. Ken La Valley is an Assistant Extension Professor and the Director of Extension for NH Sea Grant. He coordinates the fisheries and aquaculture programs for both Sea Grant and UNH Cooperative Extension. Currently fisheries programs are focused on connecting consumers with the fishing industry, facilitating direct marketing efforts by the fishing community (NH Fresh and Local Brand, Community Supported Fisheries, Farmer's markets and "off the boat" sales) as well as developing and transferring fishing technologies that reduce bycatch and are more selective. In addition, the UNH fisheries program partners with the regional fishing industry on projects that reduce marine debris or "ghost gear" and that promote collaboration between fishermen, scientists and managers. La Valley also works to identify and transfer aquaculture technologies to the fishing industry that may be used to supplement their current business operations. To date these have included offshore mussel and inshore oyster aquaculture and most recently steelhead trout farming.

fish behavior and response to gear stimuli, catchability and catching efficiency, role of fishing technology in fisheries management, electronic logbooks, and environmental management systems.

Jen Levin started with GMRI in early 2009 as manager of the Sustainable Seafood Program, which was established to catalyze and support the evolution of economically and ecologically sustainable fisheries in New England through the creation of market incentives. Working with all parts of the supply chain, from fishermen to processors to retailers, Jen's focus is on discovering systems that enable and motivate the sustainable seafood marketplace. With a career focus on sustainable use of renewable resources, Jen is driven by the fundamental belief that good environmental and business practices go hand in hand. Jen has previous experience promoting hunting and trapping and advocating sustainable forestry initiatives. Through her work at the Northwest Atlantic Marine Alliance, Jen gained an appreciation of the complexity of New England fisheries and seafood supply chains. Jen gained experience with a national cooperative marketing campaign, managing the market research and education programs for the Recreational Boating and Fishing Foundation. She earned her undergraduate degree in Wildlife Ecology from the University of Wisconsin and a Masters in Business Administration from the University of Southern Maine.

Allen H. Moroney is a senior loan officer at Coastal Enterprises, Inc. Allen has a B.A. in Economics from the University of Maine and an MBA from the University of Maine. At CEI, Allen performs all aspects of lending, including business development, financial analysis, closing, technical assistance, and loan monitoring. He was previously employed for over 18 years as a Senior Commercial Lender with several Maine Community Banks, and most recently employed as a Senior Commercial Lender/AVP with The First National Bank of Damariscotta.

Appendix 3: Postcard Outreach



350 Commercial Street
Portland, Maine 04101



IMPROVING THE PROFITABILITY OF YOUR FISHING BUSINESS

- Would you like to improve profitability through fuel savings and improved catch value?
- Do you want to apply an environmental management system (EMS) to systematically reduce environment impacts and improve your bottom line?
- Do you need financing for improvements to your business?
- Are you interested in learning how to promote and market your seafood?

GMRI is hosting a two-day workshop on how to decrease the costs of fishing while simultaneously improving the marketability and profitability of your catch.

The workshop will present a variety of case studies to answer these questions and additionally provide you an opportunity to develop the knowledge and tools needed to apply the EMS approach.

Space is limited. To apply, or for more information, please call Patty Collins at 207-228-1625 or email patty@gmri.org.

Workshop is free of charge and travel assistance is available.

Appendix 4: Workshop Participants





Improving the Profitability of Your Fishing Business Participants List February 16-17, 2010

- | | | |
|----------------------|----------------------|-------------------|
| • Michael Ball | Fisherman | So. Thomaston ME |
| • Bill Ganske | Fisherman | Harpswell ME |
| • Steffan Ganske | Fisherman | Harpswell ME |
| • Jason Jarvis | Fisherman | Westerly RI |
| • Larry Knapp | Fisherman | Boothbay ME |
| • Mark Leach | Fisherman | Harwich MA |
| • Richard Nelson | Fisherman | Friendship ME |
| • John Northup | Fisherman | Wakefield RI |
| • Stephen Parente | Fisherman | Little Compton RI |
| • Rodman Sykes | Fisherman | Peace Dale RI |
| • Michael Theiler | Fisherman | Waterford CT |
| • Jim White | Fisherman | Coventry RI |
| • Libby Etrie | NESSON | Gloucester MA |
| • Jim Reardon | Sector Manager | Dorchester MA |
| • Dan Salerno | Sector Manager | Wells ME |
| • Cindy Smith | Sector Manager | Brunswick ME |
| • Hugh Cowperthwaite | Presenter, CEI | Wiscasset ME |
| • Steve Eayrs | Presenter, GMRI | Portland ME |
| • Chris Glass | Presenter, NEC | Manomet MA |
| • Ken LaValley | Presenter, Sea Grant | Durham NH |
| • Jen Levin | Presenter, GMRI | Portland ME |
| • Allen Moroney | Presenter, CEI | Wiscasset ME |
| • Patty Collins | Staff, GMRI | Portland ME |
| • Sam Grimley | Staff, GMRI | Portland ME |

Appendix 5: Pre-Evaluation

Pre-Training Evaluation

1. How would you categorize yourself?

		Response Percent	Response Count
Groundfisherman		20.0%	3
Lobsterman		60.0%	9
Recreational Fisherman		13.3%	2
Fishing Representative		26.7%	4
Shoreside Seafood Industry		0.0%	0

2. What are you hoping to get out of this training?

- a. Better profitability
- b. Information!
- c. Develop a marketing strategy.
- d. Info on reducing costs
- e. Ideas on how to improve profitability.
- f. Efficiency
- g. Marketing ideas.
- h. Improve profitability
- i. Information to pass to my membership.
- j. My groundfish allocation is very small. I need to run my boat more efficiently and get more for my fish.
- k. Efficiency
- l. Improved marketing of product.
- m. Ways to improve profitability.
- n. Information I can take to my fishermen
- o. Analytical tools
- p. Lower expenses
- q. New ideas
- r. Dropping expenses
- s. Consideration at diverse variable
- t. Other options for increasing efficiency.
- u. Promote and international market.
- v. Info on financing

- w. Increase profit margin
 - x. Cost effectiveness
 - y. Improving profits
 - z. Info to share with co-workers/other fishermen.
 - aa. Ecosystem integration
3. **What types of things have you tried to improve the profitability of your fishing business?**
- a. More traps.
 - b. Diversification
 - c. Started a retail/wholesale market.
 - d. Limiting and combining trips to save fuel
 - e. Marketing
 - f. Changing bait
 - g. Use to change fisheries with the seasons until reg overwhelmed.
 - h. Cut costs - bait, fuel, help.
 - i. Engine efficiency for fuel savings
 - j. Fish closer to the port when possible
 - k. Downsizing hp of match engine
 - l. Gear types
 - m. The guys in Port Clyde have tried different gears but not realized a better price.
I've been told that the smaller catch translates into smaller bottom line.
 - n. More diversity.
 - o. Direct marketing of product
 - p. Extending sets to save bait
 - q. Changing heads
 - r. Market products on a smaller scale.
 - s. More efficient nets
 - t. Make do with existing gear
 - u. Joining co-op
 - v. Flexibility
 - w. Better gear and electronics.
 - x. Cutting costs - sharing expenses
 - y. More conservative purchases
 - z. Changing fishing locations
 - aa. Minimise number of crew
 - bb. Pin Point fishing
4. **What strategies do you believe would be most effective in improving profitability?**
- a. Lower costs.
 - b. If we are only allowed to harvest less product, we need to increase prices. The problem is that the consumer does not want to pay anything over a certain threshold for product.
 - c. International connections.
 - d. Not sure on most
 - e. Moving with catch

- f. Quality control.
 - g. More money for product.
 - h. Less pulse fishing/consistent supply to dealers; more stable price
 - i. Better marketing.
 - j. Look for new fisheries possibilities
 - k. Marketing
 - l. ITQ
 - m. I am not confident that my fishermen know their fuel consumption on a regular basis.
 - n. Knowing exact costs
 - o. Higher price for products.
 - p. Improve fuel efficiency!
 - q. Better control of fishing
 - r. Fresh bait
 - s. Promotion.
 - t. Planning of harvest share by all members.
 - u. Better financing.
 - v. Watch fuel consumption
 - w. Closed season
 - x. Tracking mechanisms/Data collection
 - y. Removed from Red Sector
 - z. Upkept gear
 - aa. Fuel savings.
 - bb. Increase hours when possible.
 - cc. Finding cheaper bait
 - dd. Comparative analysis - Prioritization/decision making
5. **Have you ever participated in collaborative research? (If yes, what kind of research was it?)**
- a. No.
 - b. Yes. Several CT Sea Grant projects. Most of the research funding excludes Long Island Sound and SNE.
 - c. Hook and line research.
 - d. Lobster tracking with Diane Cowen; 1-day trial current and tide tracking with Jen Atkinson.
 - e. No, but would like to.
 - f. No
 - g. Yes - Crabs - Sampling.
 - h. North Cape oil spill; V-notch program; tagging lobsters for URI; Lobster surveys for URI.
 - i. Yes, gear, surveys.
 - j. Study fleet; retention studies with URI; Shark tagging with NMFS; Archipelago cameras
 - k. Yes, cod tagging with SMAST; Monkfish tagging project/live monks for research; purchase of monk research quota
 - l. Yes, scalloping

- m. Gillnetting with NOAA and Private observers.
- n. Some of my guys have.
- o. Participate presently in Gearworks and Brat/Spatial planning




6. How do you expect to use what you learn at this training?

- a. Increase profitability.
- b. As an industry "rep," I hope to convey any information to my peers at home. I'd also like to improve my business plan in hopes of increasing my "bottom line."
- c. Day to day fishing and business planning.
- d. Use information in planning our sector pilot fluke program.
- e. Immediately
- f. Improve profit.
- g. Relay useful and appropriate info to sector membership.
- h. Apply concepts to my fisheries where they apply.
- i. Any education is vital.
- j. Increase crew and captain's knowledge.
- k. I will use it to teach my guys since they can't be here.
- l. For assisting fishermen who may request help - menu of options



7. What recommendations do you have for the planners of this training?

- a. None yet.
- b. Set up a group to explore international trade.
- c. Begin to recognize the for-hire sector as different entity from recreational anglers.
- d. Funding for new ideas and support.
- e. Expand your reach and get out into the ports.
- f. Advertise event earlier to give more people time to plan.
- g. Well, nice hotel, good food, keep stipends, definitely gets people to participate when they need to earn every week. Interesting subject matter.
- h. Better advertising to get more fishermen to participate.
- i. More cooperative training.
- j. Keep the process of integration in motion - sustainable movements are critical



1. How much control do you have over the profitability of your fishing business? (Circle One)

		Response Percent	Response Count
No Control		6.7%	1
A little control		46.7%	7
A lot of control		46.7%	7
Total control		0.0%	0





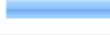
2. Please rate the importance of fuel efficiency in your business. (Circle One)

		Response Percent	Response Count
Very important		73.3%	11
Somewhat important		26.7%	4
Not at all important		0.0%	0


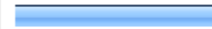

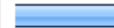
3. Are you aware of low-interest financing opportunities for modifications to your business that will improve energy efficiency or increase gear selectivity? (Circle One)

		Response Percent	Response Count
Yes		20.0%	3
No		80.0%	12




4. How much more do you believe you could get for your product through improved handling? (Circle One)

		Response Percent	Response Count
50%		0.0%	0
40%		6.7%	1
30%		20.0%	3
20%		26.7%	4
10%		26.7%	4
0%		20.0%	3

5. How much influence do you have over the ultimate quality of the product at the point of sale? (Circle One)

		Response Percent	Response Count
Total influence		6.7%	1
Some influence		40.0%	6
Very little influence		33.3%	5
No influence		20.0%	3

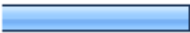
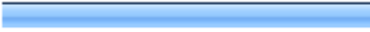



6. Do you think the HACCP process can improve the return to your business? (Circle One)

		Response Percent	Response Count
Yes		13.3%	2
No		20.0%	3
Don't know		66.7%	10

Appendix 6: Post-Training Evaluation

Post-Training Evaluation

1. How would you categorize yourself?

		Response Percent	Response Count
Groundfisherman		30.8%	4
Lobsterman		61.5%	8
Recreational Fisherman		15.4%	2
Fishing Representative		7.7%	1
Shoreside Seafood Industry		7.7%	1
		answered question	13
		skipped question	0

2. What are the three biggest things you got out of this training?

- Feeling that I'm not the only one reeling with adversity in industry.
- Awareness.
- Meeting really interesting people.
- Efficiency.
- A new way of reviewing business models.
- Need to market product better.
- Ideas for gear and hardware changes.
- Make fishing gear more efficient.
- Fuel economy can be helped
- New ideas
- Ideas on finance
- Reinforcement of existing ideas - Improved techniques and tact
- Information
- Really enjoyed fish handling and cake section.
- Information.
- Start of a plan for increasing profits.
- Reducing fuel efficiency.
- A general understanding of other fishermen's problems.
- Key operational inputs and outputs of the business.
- Methods for thinking through changes; EMS.

- Be conscious of engine operation.
- Extra quality can help bottom line
- New strategies
- Ideas on mobile gear
- Exchange of ideas and points of view perspectives shared
- Contacts/networking
- Learned some ideas on how to save money and reduce overhead. Ex: Cayenne pepper in bottom paint.
- Contacts.
- Limiting expenses.
- Contacts.
- Some marketing strategies.
- Need to look into ways to increase fuel economy.
- Marketing ideas.
- How to work together
- Discussions on market approach, quality control measure and CEI presentation on financing are invaluable
- Wider perspective

3. What do you expect to do within the next year as a result of this training?

- Work on fuel consumption.
- Work on collaborative research opportunities.
- Marketing.
- Recording/evaluating my data.
- Not sure yet.
- Going to look at where cost cutting would do the most good.
- Thinking through what we've talked about.
- Reduce fuel consumption.
- Improve quality
- Cut fuel costs
- Discuss forming a co-op
- Share what I have learned with SEctor fishermen and others in the industry
- Push marketing locally
- Increase effort to improve catch quality.
- Look into marketing strategies.
- Fuel savings.
- Establishing a plan.
- I plan to keep better track of my fuel use.
- Perhaps changes to boat and fishing methods.
- Cut expenses
- Improve marketing
- Point out the value of ozone wash down process
- Continue participating in council process
- Try to initiate more favorable markets.
- Bring the lessons back to my industry groups.

- Possible finance.
- Implementing changes.
- Would like to get a fuel flow meter.
- Manage time better
- Apply principles in business planning
- Improve vessel operations overall



4. What additional tools/information would you like to see provided?

- Perhaps a meeting about acquiring grants for various business needs.
- Marketing! Marketing! Marketing! Possibly bring in some wholesalers or end users to have them speak on what they want or expect. Would also like to see program focused on lobsters! Import/export?
- More about lobstering.
- Species specific (i.e., lobster and groundfish)
- More marketing research.
- More lobster related, mechanical and technical information. Ecological connection.
- Individually targeted to species (i.e., lobster, groundfish, etc.)
- Research opportunities.
- Spatial planning tools; dealer reporting improved; strategies to streamline NMFS/NOAA management systems.
- Grant info; cooperative research info

5. What recommendations do you have for the planners of this training?

- I honestly think you're on the right track. Keep looking for and employing the intelligent, well-informed, interesting speakers that you have had this far. Also I like the give & take conversational format that we've had at this meeting.
- The speakers and agenda were informative and engaging. Food and facilities were enjoyable. The only other thing I would've liked to experience in both of the GMRI programs I've attended is a short visit to the port.
- More breaks. Try to get more fishermen to attend.
- More beach photos. Explain class to further regions of New England.
- More attention to marketing fish products. Develop more international trade avenues.
- I really think organizing as a whole group (all fishermen) would be a big help to us all.
- You did a good job.
- More of them and concentration on specific topics.
- Somehow get greater participation from stakeholders in the groundfish industry and aquaculturalists participation.
- Continue the process. MREP Rocks. - Apply for more cooperative research funding



1. How much control do you have over the profitability of your fishing business? (Circle One)

		Response Percent	Response Count
No Control		0.0%	0
A little control		46.2%	6
A lot of control		53.8%	7
Total control		0.0%	0






2. Please rate the importance of fuel efficiency in your business. (Circle One)

		Response Percent	Response Count
Very important		84.6%	11
Somewhat important		15.4%	2
Not at all important		0.0%	0




3. Are you aware of low-interest financing opportunities for modifications to your business that will improve energy efficiency or increase gear selectivity? (Circle One)

		Response Percent	Response Count
Yes		53.8%	7
No		46.2%	6




4. How much more do you believe you could get for your product through improved handling? (Circle One)

		Response Percent	Response Count
50%		0.0%	0
40%		8.3%	1
30%		50.0%	6
20%		16.7%	2
10%		16.7%	2
0%		8.3%	1

5. How much influence do you have over the ultimate quality of the product at the point of sale? (Circle One)

		Response Percent	Response Count
Total influence		38.5%	5
Some influence		38.5%	5
Very little influence		23.1%	3
No influence		0.0%	0

6. Do you think the HACCP process can improve the return to your business? (Circle One)

		Response Percent	Response Count
Yes		58.3%	7
No		8.3%	1
Don't know		33.3%	4

Evaluation of Modules

Module 1: Input and Output model and introduction to EMS – Steve Eayrs

	Excellent	Good	Average	Poor	Useless	Rating Average	Response Count
Content	33.3% (4)	66.7% (8)	0.0% (0)	0.0% (0)	0.0% (0)	1.67	12
Presentation	66.7% (8)	25.0% (3)	8.3% (1)	0.0% (0)	0.0% (0)	1.42	12

Why did you rate this module the way you did? What did you like and what suggestions do you have?

- Well, the subject is a little dry (facts & figures) not as exciting as say marketing in my view. But, presentation was excellent, well informed and interesting.
- All of your presenters did a good job. The fishermen in the group will benefit from the awareness of efficiency (i.e., fuel). This module kind of ties everything together.
- Steve did a very good job. I would like to see more about lobstering!
- It stimulates creative problem solving and business responsibility.
- I thought Steve's presentation got the information across and the information was useful.
- Hard to understand but very well explained.
- Great interactive style. Gets everyone involved and gets their questions and concerns.
- Some excellent suggestions on how to save money.
- Steve did a great job presenting the concept. Increase the number of examples of application in NE fisheries.
- Great presenter. Used humor. Continue the program. Expand, diversify.

Module 2: Increasing profitability by reducing the environmental impacts of fishing – Chris Glass

	Excellent	Good	Average	Poor	Useless	Rating Average	Response Count
Content	46.2% (6)	46.2% (6)	7.7% (1)	0.0% (0)	0.0% (0)	1.62	13
Presentation	66.7% (8)	25.0% (3)	8.3% (1)	0.0% (0)	0.0% (0)	1.42	12

Why did you rate this module the way you did? What did you like and what suggestions do you have?

- Chris is an expert on trawl dynamics. He gave real life examples of attempt to reduce environmental impact from fishing activity.
- Would've liked to spend more time with this topic. I felt we were kind of rushed through this. Much of the information was not pertinent to lobster fishing but had applications that could be valuable.
- Chris again did a very good job. More lobstering.
- Great intuitive solutions for trawling. Useless for other fields. Most fishermen have many monetary avenues.

- Chris' information was well presented. Content was very good, but didn't pertain to my fisheries.
- Well presented. We'll have to pay more attention to this in the future.
- I learned some good ways to make my nets more efficient.
- Very thorough on trawling and options. Basic ideas can be extrapolated but would be better if more specific suggestions for efficiency and cost savings. Personally, trawl door efficiency doesn't help me.
- Only because it didn't pertain to my particular fishery.
- Seemed outdated - present & real current applications.
- Great all around; wealth of information.

Module 3: Reducing fuel consumption to improve profitability – Steve Eayrs

	Excellent	Good	Average	Poor	Useless	Rating Average	Response Count
Content	69.2% (9)	30.8% (4)	0.0% (0)	0.0% (0)	0.0% (0)	1.31	13
Presentation	76.9% (10)	23.1% (3)	0.0% (0)	0.0% (0)	0.0% (0)	1.23	13

Why did you rate this module the way you did? What did you like and what suggestions do you have?

- Good format, presented multiple methods and ways to improve fuel use.
- Fuel economy will be one of the most important issues in the next four seasons. Very important.
- Very good job.
- Simple breakdown to establish best efficiency and it was explained in a way that made clear sense.
- Need more attention on the lobster fishery.
- I think Steve showed me that keeping track of my fuel use will show where I can cut fuel use and save some money.
- Better flow than morning session. Some good points.
- My most important goal is to make my engines more efficient. This presentation helped to start me in the right direction.
- Again excellent source
- Steve opens avenues of consideration and perspective - Options to consider.
- Great presenter. Continue and expand the program.

Module 4: Innovative marketing and promotion of catch – Jen Levin

	Excellent	Good	Average	Poor	Useless	Rating Average	Response Count
Content	76.9% (10)	23.1% (3)	0.0% (0)	0.0% (0)	0.0% (0)	1.23	13
Presentation	84.6% (11)	15.4% (2)	0.0% (0)	0.0% (0)	0.0% (0)	1.15	13

Why did you rate this module the way you did? What did you like and what suggestions do you have?

- This was the most interesting segment for me. I think marketing is possibly the most important aspect in regards to increasing profits. If we can start a successful marketing campaign to reach the American people/market we can achieve increased prices to the harvesters.
- From the "lobstermen's" standpoint, this was the most important module. I would've preferred to spend much more (maybe all day) on marketing and promotion. There was more room for the social experts of marketing (i.e., involving family members in marketing "champions"). I'd also like to hear from chefs, wholesalers, and other end users to learn what they really want or are looking for.
- I loved it. Good job!
- Great ideas but commercial fishermen want to be fishermen. They'd be changing careers if they convert to all marketing which could take all the time. Also fishermen work very hard and their energy levels wouldn't support the marketing. What about fishermen converting to a dealer status to mark up profit?
- Just need more time devoted to this.
- Jen had a very good presentation. I think fishermen in general need more good press. I think we need to have the perception that we are not environmentally friendly and don't care about fish stocks being sustainable proven otherwise.
- Good scope of ideas. Well presented.
- Explained very well the opportunities that are within reach.
- Very relaxed, great style. Knows her topic and presents it well.
- Excellent ideas; excellent presentation. If anything, not long enough.
- Inject presentation from those who have already set a new tact. Stakeholder Action Plan and comparison on results. Jen has a great grasp of principles. We must work collaboratively to put principles into practice.
- RI needs to address this ASAP. It fits the needs of our states. Lack of participating in marketing our local fishery.

Module 5: Quality handling of product – Ken LaValley

	Excellent	Good	Average	Poor	Useless	Rating Average	Response Count
Content	69.2% (9)	30.8% (4)	0.0% (0)	0.0% (0)	0.0% (0)	1.31	13
Presentation	76.9% (10)	23.1% (3)	0.0% (0)	0.0% (0)	0.0% (0)	1.23	13

Why did you rate this module the way you did? What did you like and what suggestions do you have?

- I don't think there can be too much communication with fishermen about the importance of high quality product. I think this is the answer and solution to marketing and acceptance of seafood as a staple food source for our country.
- This module raised the awareness of having a process to produce a quality product. I thought he should've brought some fish or shrimp samples in to show us what quality handling could do versus poor handling.
- Very good. More about shellfish.
- Stimulated thought on potential hazard points that can be modified to improve quality. Useless for lobstermen, almost. Let's have one for lobsters.
- Great presentation. Lots of good common sense ideas!
- I liked the idea of ozone. It has applicability to my fisheries.
- A lot of material covered well, for a short talk.
- Excellent presentation. Most of the methods are obvious but usually ignored in the industry. Starting to be more aware of top quality is the way to improved marketing.
- Great style of teaching. Got quite overly involved in areas of little to do with me.
- Good ideas.
- Great job presenting on a complex subject.
- New info. Ozone - Who knew?

Module 6: Financing changes in operational efficiency – Al Moroney

	Excellent	Good	Average	Poor	Useless	Rating Average	Response Count
Content	46.2% (6)	23.1% (3)	23.1% (3)	7.7% (1)	0.0% (0)	1.92	13
Presentation	53.8% (7)	23.1% (3)	15.4% (2)	7.7% (1)	0.0% (0)	1.77	13

Why did you rate this module the way you did? What did you like and what suggestions do you have?

- These points that Al and his associate presented are important to all fishermen who wish to grow their business. Also the info pertaining to preservation of working waterfront was excellent.

- I personally did not care for this module. It might have been helpful for the Maine guys but I did not get a lot out of this presentation. I don't borrow money. Maybe a fisheries economist would be a nice additional speaker. Perhaps someone that would help the fishermen to form a successful business plan. Most fishermen are very good at catching but fail at the business side. Software programs for fishing business?
- Glad we have it.
- It's great to know financing options that banks can't cover geared for high risk industries such as fishing and farming.
- Nice to know about the different avenues for money.
- Good presentation. Most of the information didn't pertain to me.
- Not much of a choice, as far as interest rates and institutions.
- A complicated system well explained. I didn't realize that these opportunities existed.
- Did a very good job, but the info was only moderate.
- Would like to see more on government grants, research opportunities, etc.
- Straightforward, direct and informative with action plans.
- Not something I'm interested in.

Module 7: Applying an EMS approach to tackle problems

	Excellent	Good	Average	Poor	Useless	Rating Average	Response Count
Content	50.0% (6)	50.0% (6)	0.0% (0)	0.0% (0)	0.0% (0)	1.50	12
Presentation	66.7% (8)	33.3% (4)	0.0% (0)	0.0% (0)	0.0% (0)	1.33	12

Why did you rate this module the way you did? What did you like and what suggestions do you have?

- Gave us tools and methods to use in our businesses.
- It was an interesting exercise. I did not think I would like this part or get much out of it but was wrong. What this class has done is given us a vehicle to work through some of the issues facing the industry = issues that we have some control over. Your (GMRI) role as an enabler has been extremely helpful. Every single fisherman I spoke to is full of ideas that have never been brought to fruition. Maybe we now have access to the tools to work on some of these ideas. Thanks for giving me the opportunity to attend!
- I think that it's the future.
- This module contains the best info and tools to impact my business the most.
- There is a lot of determinates in diagnosing industry problems and solutions. Obviously one size does not fit all.
- Made me think about different aspect of my business and how to improve.
- I will try to use these methods to improve my business.
- Like people working together.
- Helped to line up and solve problems in a logical order.

- The sustainability matrix has been consistently reinforced.
- Cooperative - Working with multi species; different organizers and fishermen.