

Proactive Shellfish Farm Management

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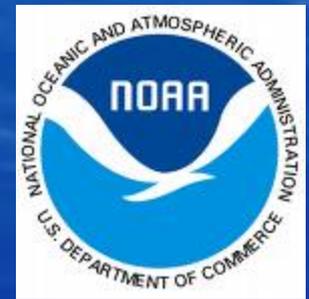
Gef Flimlin

Kathy Rhodes



EAST COAST SHELLFISH BEST MANAGEMENT PRACTICES

East Coast Shellfish Growers Association
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Ed Rhodes and Kathy Rhodes

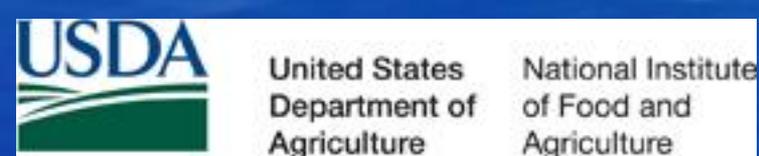


PROACTIVE MANAGEMENT TO MAKE SHELLFISH BMPS WORK FOR YOU

GEF FLIMLIN

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The Industry

- \$100 Million
- 1000 Farms
- Most with less than 10 employees
- All states except Delaware

The Industry

- Most states: Leased public bottom and/or water
- A few states: Deeded rights/ownership

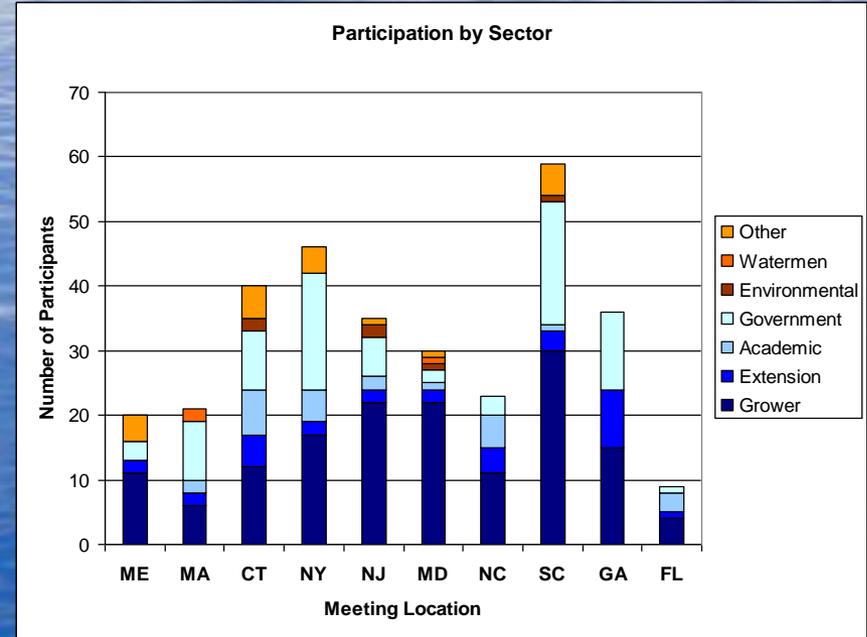
The Industry

- Oysters
- Clams (Hard)
- Clams (Soft shell)
- Mussels
- Scallops



The Process

- 20 Workshops
- 11 States
- Over 300 Participants
 - 206 in the first
 - 112 in the second



The Process

- Four main topic areas
 - Gear operation/maintenance
 - User Conflicts
 - Permitting / Siting
 - Environmental



Results

- Code of Conduct
 - Obey all laws; obtain all permits
 - Produce high quality product; ensure product safety
 - Communicate openly with neighbors
 - Contribute to local economy; patronize local businesses
 - Minimize environmental impacts

Results

- Code of Conduct
 - Ensure economic and social sustainability
 - Avoid/contain disease; report quickly
 - Dispose of culture waste and chemicals responsibly
 - Consult/collaborate with government authorities and universities/extension
 - Encourage growers to adopt Code of Conduct

What Does The BMP Manual Contain?

- Description of methods



BMP Manual

- Siting
 - Biological
 - Social



BMP Manual

- Good Neighbor Policy
 - Noise/Smell
 - Recreational/Commercial Fishing/Boating Activities
 - NIMBY



BMP Manual

- Seed Sourcing and Genetics
 - Seed Selection
 - Source – where seed is purchased
 - Genetics – genetic makeup/genetically improved stocks

BMP Manual

Operation/maintenance issues

- Hatcheries
- On-shore Nurseries
- In-Water nurseries

BMP Manual

- Nurseries/grow-out areas
 - Fouling control
 - Air Drying
 - Fresh water/Brine Dips
 - Power Washing
 - Siltation
 - Gear Disposal/recycling
 - Fuel handling/fuel spill contingencies

BMP Manual

- Reporting and handling disease
- Protected species and habitats
- Shellfish sanitation
- Record Keeping



Best Management Practices for the East Coast Shellfish Aquaculture Industry



United States
Department of
Agriculture

National Institute
of Food and
Agriculture





**ENVIRONMENTAL MANAGEMENT
SYSTEM FOR INDIVIDUAL FARMS**

Applying BMPs for Farmers

- Individual Farm Management Plan
 - Company contact information
 - Location of farm
 - Permits obtained
 - Species and amount cultured
 - Methods used

Individual Farm Management Plan Examples

CROP SELECTION

- Species cultured

BMPs

- Disease free stock
- Locally adapted broodstock
- Use local hatcheries when possible
- Cohort tracking
- Selection of fast growers for future spawns

Individual Farm Management Plan Examples

GEAR MAINTENANCE

- Rack and bag

BMPs

- Bags are securely attached to rack
- Bags are flipped bi-weekly or monthly to discourage fouling depending on severity
- When air drying is not feasible, gear is brushed to remove fouling; fouling organisms collected and disposed of properly when possible
- Gear checked regularly to ensure integrity netting
- Storm-tossed gear promptly repaired

Individual Farm Management Examples

Management Action

- Motorboat Use

BMP

- E-paint bottom paint
- Environmentally efficient engines
- Oil-sorbent materials standard equipment on-board

Flexibility Of Plan

- Plan should be changed as needed
 - Permit renewals
 - Operations changes
 - Gear changes

SHELLFISH AQUACULTURE AS A RISKY BUSINESS

- Risk management: what is it?
 - Federal programs through USDA to help farmers assess and manage risk
 - Risk Management Education
 - Funding for extension programs to assist farmer address and minimize risks
 - This effort is funded by a USDA/NIFA Northeast Risk Management Education Grant

How Do Bmps Demonstrate Environmental Protection?

- Grower pays attention to crop and to how growing shellfish impacts others
- Grower needs clean water to operate safely and for public health – following BMPs helps accomplish goals



What Are Some Risks In Shellfish Aquaculture?

- Weather
- Multiple uses of waterways and boating accidents
- Disease outbreaks
- Threats to Public Health
- Mortalities for non-obvious reasons
- Nimby (Not In My Back Yard) attitudes and lawsuits

How Does Using Bmps Reduce Risk?



Risk Mitigation

- Example #1: predation is a serious problem that leads to loss of stock
- BMPs say:
 - The cages we use keep most predators away
 - When predators are found within cages or under nets, we remove them immediately
 - We inspect gear often to detect rips, tears or damaged equipment

Risk Mitigation

- Example #2: public health protection – vibrio, red tides or sewage can shut down production unannounced
- BMPs show:
 - We comply with all applicable state regulations
 - We get our shellfish refrigerated immediately after harvest
 - We report any suspicious incidents to authorities

Risk Management According To Usda

- Production risk
 - Storm damage to gear
 - Predation from storm damaged gear
 - Disease outbreak
- Price risk
 - Sudden market changes
 - Seasonal fluctuations
- Financial risk
 - Inability to finance gear purchase
- Legal risk
 - Unanticipated legal challenges for ability to operate business in public waters



Business Risk: Lost Shellstock

- Loss of shellstock is a risk to your business
- The BMP is a tool to use to avoid that risk
- Predator control, cleaning of gear, etc.

With All That, Why Isn't It Enough?

- A BMP Manual is just a general document that can sit on a shelf once completed
- BMPs need to be incorporated in a company's operations to be effective
- Expensive third-party certification on the horizon
- Is there a better way?



A Farm Management Plan

- What is it?
 - An operations manual that documents how you run your farm
- Why have a plan?
 - To ensure your employees follow your lead
 - To prove your intentions to potential lenders
 - To show your customers your level of responsibility
- How will a written plan help?
 - By incorporating BMPs into an operations manual, it will help to minimize risk
 - By minimizing risk, you will be in a better position to receive funds through loans or crop insurance

Farm Management Plan

- Template
- Excel File
- Easy to Navigate
- Incorporates BMPs Customized For Particular Farm Operations

Why Do This?

- Sets Good Example for Local Industry
- Allows grower to use Code of Practice and Individual Management System as marketing tool to improve sales
 - May Not Increase Price
 - But May Increase Volume
 - Allow Access to More Markets
- Enhances Product Branding
- Separates Your Product from Others but Allows for Cooperative Marketing

Why Do This Individually?

- Someone else or another entity is not forcing their protocol on you.
- Proves to NGO, Regulators, Dealers and Customers that you are farming in an environmentally responsible manner.
- You Take Your Destiny and Success Into Your Own Hands.

Putting It All Together

- Code of Conduct
- Best Management Practices
- Risk Mitigation
- Farm Management Plan
- Increased Awareness For Dealers
- Increased Awareness For Consumers
- No Need For Third Party Certification
- Potentially Increased Sales

Stay Tuned

Risk Management Education Workshops For The
Southeast Region

THANK YOU!!

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