

# EAST COAST SHELLFISH GROWERS ASSOCIATION



The East Coast Shellfish Growers Association represents over 1,000 shellfish farmers from Maine to Florida. These proud stewards of the marine environment produce sustainable, farmed shellfish while providing thousands of jobs in rural coastal towns.

The ECSGA informs policy makers and regulators to protect a way of life.

## The Mouth of the Bay In This Issue



Executive Director  
Bob Rheault

As we enter an early spring after the warmest winter ever recorded, in the middle of the strongest El Nino ever, I try to forget that this time last year we were just starting to thaw out after a succession of blizzards. Looking at NOAA's three-month forecast, it looks as if warmer than normal temperatures are in the cards as far as the eye can see. This might be a good year to get your seed in early to take advantage.

With this first edition of 2016 we have pulled together all the shellfish-related news we can pack in,

## Walk on the Hill: 11<sup>th</sup> Annual Trek to D.C. Highlights Growers' Concerns

by Robert Rheault,  
ECSGA Executive Director

This year's expedition to our nation's capital was extraordinary in several ways. I got the impression that staffers were more attentive than usual, and many were eager to hear our message. In several offices we were greeted by senators and House representatives who sat down with us and listened closely as we told them how they could help. The dozen of us ECSGA members who made the journey were joined by about 20 growers from the Pacific Coast Shellfish Growers Association (PCSGA) who flew east to meet with their own members of Congress.

At all our visits we passed out copies of our glossy, special-edition newsletter highlighting the growth in jobs and production that many states have been experiencing over the past decade. This makes for a great story and a sure-fire way to grab the attention of politicians. After briefing them on our

which we hope you find informative. Much of this issue is devoted to recapping the work we did on our annual trek to Washington, D.C. If you have never joined us in D.C. you are missing out on a big chunk of what we as an association do to keep the regulators from putting you out of business. We have a great story to tell, and our elected representatives need to hear it.

Our *Member Profile* on page 2 features James Knott's Riverdale Mills and their game-changing product: Aquamesh®, a galvanized, vinyl-coated wire. Durable and versatile, this product has been an incredible boon to the development of shellfish culture.

On page 14 I try to sort out what the projected impacts of climate change will mean for the next generation of shellfish farmers. We know we are in for rising temperatures, more intense storms, rising

sea levels and ocean acidification. But what we can't be sure of is how these changes will impact our ability to grow shellfish.

If you are looking for new and lucrative markets, check out the article on page 6 by John Belmont, Communications Manager of Food Export-Northeast, describing government programs designed to help you export your products. We appear to be on the cusp of resolving the trade barriers that keep us from selling our products in Europe, so you might want to take a look.

And for your entertainment pleasure, take a few minutes to read Bob Ketcham's oyster recipe excerpts from the 1881 *Cyclopedia of Household Information*. Bob notes that oyster consumption back in those days was about 50 times what it is today. It had my mouth watering, but I had no idea Bob was anywhere near that old.



A dozen or so ECSGA members took time out of their busy schedules to travel to Washington, D.C., meeting with members of Congress and federal agency staff. Shown here, l to r, Jeff Auger, Bob Rheault, R.I. Senator Jack Reed, Steve Plant, Mike Osinski and Ben Goetsch.

message of sustainable seafood, jobs and ecosystem services, we explained the top issues we were hoping to get some help with. As in past years we were there to discuss the EU trade embargo; permitting challenges in certain Army Corps districts; and funding support for aquaculture research, genetics and ocean acidification. We were also asking for help with the U.S. Fish and Wildlife Service, which has been pushing unworkable Red Knot-related restrictions on farms in Delaware Bay.

As is our custom, we spent a day meeting with agency leadership, a day meeting with House representatives and a day meeting with sen-

ators. USDA aquaculture leaders Gene Kim of the agency's National Institute of Food and Agriculture (NIFA) and Caird Rexroad of the Agricultural Research Service (ARS) told us that the new buzzword at USDA is "food security." The agency sees shellfish culture as a key component in combatting the nation's leading public health problems of diabetes, obesity and heart disease with nutritious, high-omega-3 seafood produced right here in the U.S.

Representatives of USDA's Foreign Agricultural Service (FAS) met with us to discuss potential marketing assistance programs for

— Continued on page 12

1623 Whitesville Rd.  
Toms River, NJ 08755  
[www.ecsga.org](http://www.ecsga.org)

Executive Director  
Bob Rheault  
(401) 783-3360  
[bob@ecsga.org](mailto:bob@ecsga.org)

President  
Daniel J. Grosse

Vice-President  
Tom Kehoe

Secretary  
Ed Rhodes

Treasurer  
Gef Flimlin

Connecticut .... Steve Plant  
Maine ..... Jeff Auger  
Maryland ..... Johnny Shockley  
Massachusetts John Brawley  
New Jersey ..... Bill Avery  
New York ..... Karen Rivara  
North Carolina Jay Styron  
Rhode Island ... Jeff Gardner  
South Carolina Julie Davis  
Virginia ..... Chad Ballard

Equipment Dealers  
Bob Ketcham

Shellfish Dealers  
Alex Hay

Ex-Officio  
Rick Karney, Leslie Sturmer

**Member Profile:**  
**Riverdale Mills**  
*"Quality Starts Here"*

by Robert Rheault,  
 ECSGA Executive Director

Back in 1983 when I first started working on an oyster farm, I was tasked with dipping chicken wire and galvanized hardware cloth in Flexibar dip, trying to get two years out of the wire before it rusted through. A few years later when I started my own farm, I was happy to see that vinyl-coated pot wire was readily available. The development of vinyl-coated wire and extruded-plastic mesh bags and netting ushered in an explosion of oyster aquaculture that continues to this day.



— Photo courtesy Riverdale Mills  
 Aquamesh® wire racks holding bags of oysters.



— Photo courtesy Riverdale Mills

The 391,000-sq. ft. production plant in Northbridge, Mass., has computer-controlled welders and drawing machines, proprietary hot-dipped galvanizing and automated PVC-coating lines.

Here in the U.S. the top producer of vinyl-coated, marine-grade wire has always been Riverdale Mills. James Knott, Sr., founded the company in 1979 in Northbridge, Mass., not far from the borders of Connecticut and Rhode Island. He delivered his first load of Aquamesh® to a lobster-pot maker in Maine in 1980. Today the Knott family employs more than 150 people, selling Aquamesh® to clients all over the world.

Aquamesh® has always had a great reputation for quality and durability – their process of galvanizing the wire after welding, and then vinyl-coating the wire makes all the difference. Some wire makers weld pre-galvanized wire to make their mesh, but this burns off the zinc at the weld, making it susceptible to corrosion. Riverdale has always welded the wire first, then



— Photo by Craig Pennypacker, Riverdale Mills  
 Bob Wallace of Billingsgate Shellfish in Wellfleet, Mass., with a sorter made from Aquamesh®. Bob is still using trays made of Riverdale wire mesh that are more than 25 years old.

# Let Allen-Bailey Tag & Label help with all of your Shellfish Tag needs

We will make it easy for you to comply with regulations while maintaining an efficient operation by providing you with your tag, label and fastener needs.

- 4 ½ x 3 Tyvek® Lobster Crate Tags
- Gangs of Tyvek® Tags
- Laser Imprintable, Pinfed, Single, and Thermal Transfer Tags
- Pressure Sensitive Labels
- Diamond Deadlocks
- Recommendations for Compliance with the Food Safety Act



they hot-dip-zinc galvanize the mesh before coating it with a PVC formulation designed for marine use. Knott is proud of how well Aquamesh® stands up in seawater, whether it is used on a lobster pot or an oyster cage.

Back in the 1980s we had few choices of mesh size, mostly just what was being used by the lobster fishery. Now Riverdale produces a wide variety of mesh sizes with different wire gauges and even different PVC colors.

Durable and versatile, I have seen Aquamesh® used in seed sorters, grow-out trays, OysterGro® floats and a wide variety of bottom cages. Just about anything growers can dream up has been made from Aquamesh®. You can buy fabricated cages or baskets from several of the gear distributors advertising in this issue. It's also possible to purchase rolls of wire or precut flat wire panels and fabricate your own gear using cutters, benders and clip guns – all readily available from gear dealers. Aquamesh® is available from distributors across North America. Visit [riverdale.com/distributors](http://riverdale.com/distributors) or call (800) 762-6374 for more info.

## Remember the Year '81?

*(Hint: Not the Year USDA Counted Ketchup as a Vegetable in the School Lunch Program)*

by Bob Ketcham,  
Ketcham Supply Corp., New Bedford, Mass.

While attending the North Carolina Aquaculture Development Conference in New Bern this past February, I had an epiphany: I had never known that 100 years ago our forebears consumed 50 times more oysters per capita than we do today. What are we missing (besides the 50-fold increase in production) that would allow us to grow our market to support that level of consumption? They weren't all devoured on the half-shell or in a recipe named after an oil magnate, so let's take a look at the *Household Cyclopedia of General Information*, compiled in 1881.

*I expect that everyone who peruses this article has whiled away an afternoon bellied up to the bar with a few cold brews, munching on a pickled egg or two. Let's trash the eggs and try this one:*

### To Pickle Oysters

Drain off the liquor from one hundred oysters, wash them and put to them a tablespoonful of salt and a tea-cup of vinegar; let them simmer over the fire about ten minutes, taking off the scum as it rises; then take out the oysters and put to their own liquor a tablespoonful of whole black pepper and a teaspoonful of mace and cloves; let it boil five minutes, skim and pour it over the oysters in a jar.

*Or consider the shrewd innkeeper looking to stimulate his customers' thirst:*

### To Spice Oysters.

One hundred oysters, one dozen cloves, two dozen allspice, mace, cayenne pepper, and salt to taste. Strain the liquor through a sieve, put it in a saucepan, and add the oysters, spice, pepper, salt, and half a pint of cider vinegar. Place them over a slow fire, and as soon as they boil take them off. Pour them into a large bowl and set them away to cool. When cold cover them close.

*1881, while not so long ago, had — OMG — no texting, but we can still soothe the frantic tykes with a nice stew:*

### To Stew Oysters.

Put your oysters with all their liquor into a saucepan, no water; to every dozen add a lump of butter size of a walnut, salt, black pepper, a blade of mace, two bay leaves; bubble for five minutes, add a little cream, shake all well together, and turn them out, grating a little nutmeg on each oyster as it lies in the sauce.



— Photo from [www.oysters.us/belle-epoque.html](http://www.oysters.us/belle-epoque.html)

This postcard comes from a late-19<sup>th</sup> century series titled, *Joyeux Réveillon (Joyous Midnight Repast)*. A hundred years ago people consumed 50 times more oysters than we do today.

### Stewed Oysters.

One hundred oysters, 1/2 a pint of cream, 2 ounces of butter, beat the butter smooth with a little flour. Put the oysters in a pan over the fire; when they become hot, stir in the cream, butter, and flour. Season to your taste with salt, mace, and pepper. They should be served as soon as they are taken off the fire.



Tripliod Technology for the Oyster Industry

*We had three presidents in '81; Garfield, the guy in the middle, got shot after only four months in office. I expect some of the mourners soothed their grief with the following:*

### Oysters Roasted.

Roast your oysters over a quick fire till they are done dry, but not scorched; turn them out on the plate of a brazier, without any of their liquor; add a large lump of butter. Set the plate over the lamp, when the butter is melted, add a gill of Madeira, a little salt and Cayenne.

### Another Mode.

Put the oysters alive in the shell upon a good fire and leave them till their shells

— Continued on page 9

**Howe Rapid Freeze Ice Flakers. Your Solution to Keeping Shellfish Cool from Harvest to Retail**

- Providing Industry solutions since 1912
- Models from 1,000 - 40,000 pounds per day
- Units designed for freshwater, seawater, land based and shipboard
- Howe ice cools faster, and outlasts ice from commercial ice machines

Contact Howe today. 1650 N. Elston Ave  
Chicago, IL 60642  
T. 773.235.0200  
howeinfo@howecorp.com  
www.howecorp.com

Proven. Best Choice.

Associate Member  
NATIONAL FISH PROCESSOR ASSOCIATION  
East Coast Shellfish Association

**BROOKS TRAP MILL & MARINE SUPPLIES**

GET HAULIN' 1- 800- 426- 4526

Portland, ME ~ Thomaston, ME ~ West Bath, ME

[brookstrapmill.com](http://brookstrapmill.com)



# AQUAMESH®

## The Brand You Can Trust

Riverdale Mills has been the industry leader in welded wire mesh solutions for the aquaculture industry since 1980 and continues to deliver products of unsurpassed quality to clients around the world.



1.800.762.6374 • 1.508.234.8715  
info@riverdale.com • www.riverdale.com

Eat Like A New Yorker.

GRAND CENTRAL  
**OYSTER**  
BAR & RESTAURANT.



www.oysterbarny.com  
212-490-6650

At Seafood Expo North America  
Boston – March 6-8, 2016



— Photo by Bob Rheault

ECSGA member James Hammeke, general manager at JD Associates, displaying his line of plastic totes, pallets and harvesting containers. The company also sells used items, and recycles scrap plastic totes that would otherwise end up in landfills



CONVEYORS  
SORTERS  
COUNTERS  
WIRE MESH  
SEED



THE OYSTER IS OUR WORLD®

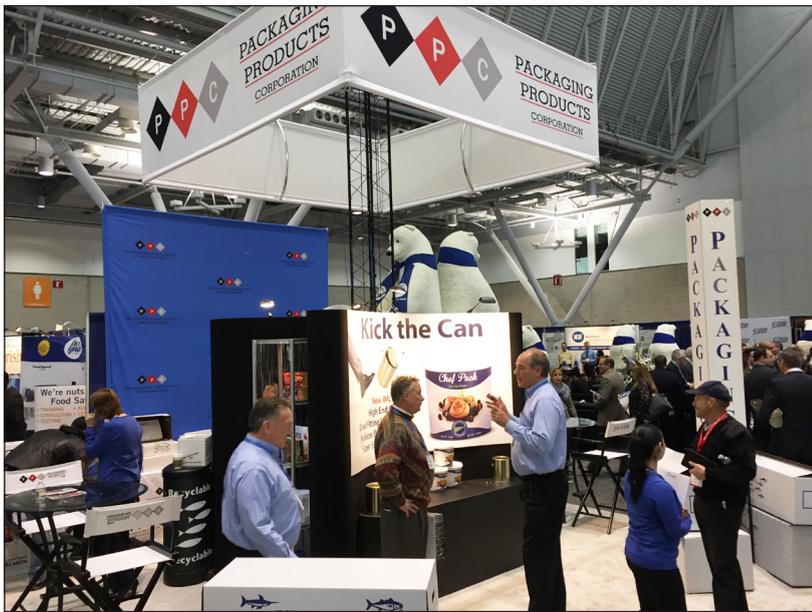
GRADING TABLES  
TOOLS  
UPWELLERS  
HOPPERS  
BAGS



804-338-6530

INFO@BAYOYSTER.COM

BAYOYSTER.COM



— Photo by Bob Rheault

ECSGA advertiser Packaging Products Corporation displayed some of the specialized fish and shellfish packaging they offer. The company also has a full line of temperature-control packaging.



— Photo by Bob Rheault

Sales Manager Lori Budlong and Owner Ben Lloyd of Pangea Shellfish Company stole the show with their beautiful shellfish display. Ben started the company in 2001; Pangea is a wholesaler of oysters and other shellfish, as well as shucking knives and plates.

An Instant Algae® Product

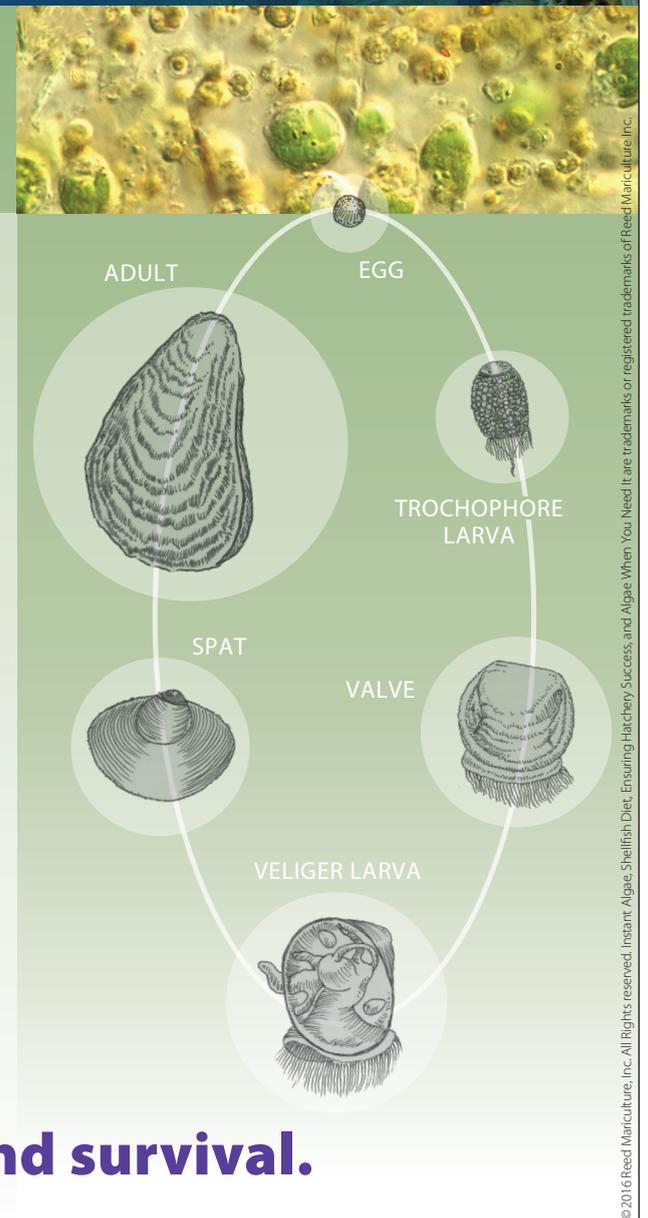
# Shellfish Diet®

## Algae When You Need It™

Concentrated, liquid feed that is a unique blend of 6 essential microalgae for shellfish: *Isochrysis*, *Pavlova*, *Tetraselmis*, *Chaetoceros*, *Thalassiosira weissflogii* and *Thalassiosira pseudonana*.

- For first-feeding larvae through broodstock
- Nutritionally diverse and pathogen free
- Cell size range of 4–12 µm
- Healthy balance of omegas, lipids and proteins
- Whole cell of the microalgae is preserved through a proprietary process, encapsulating all nutrients
- Cleaner tank, less waste, and greater value
- Easy to use

**Order Shellfish Diet and ensure growth and survival.**



TOLL-FREE: 1-877-732-3276 | VOICE: +1-408-377-1065 | FAX: +1-408-884-2322 | [www.ReedMariculture.com](http://www.ReedMariculture.com)

**Reed Mariculture**  
ENSURING HATCHERY SUCCESS™

From California, USA

Learn more about  
Shellfish Diet at  
[bit.ly/SD1800AD2](http://bit.ly/SD1800AD2)



## Exporting Is Within Reach

### USDA-Funded Agencies Help Small U.S. Companies Build Demand and Sales Worldwide

by John Belmont, Communications Manager  
Food Export-Midwest, Food Export-Northeast

With international market opportunities opening up and a strong demand for U.S. products worldwide, the time is right to consider exporting. While domestic sales may be strong for U.S. shellfish, cultivating consumer demand for fish and shellfish in foreign markets, and finding opportunities to meet foreign buyers, is essential to sustaining the economies of many coastal communities.

Further, small seafood companies are often at a considerable exporting advantage due to their unique products and nimble business approach. Markets throughout the world are looking for U.S. seafood products because of our reputation for quality, safety and consistency.

If that's not enough to get you to consider exporting, there are a number of resources and



— Photo by Bob Rheault

programs to help small shellfish and seafood companies become export-ready and attain export success. Many firms shy away from exporting because they don't know how or where to get started. Fortunately, help is available!

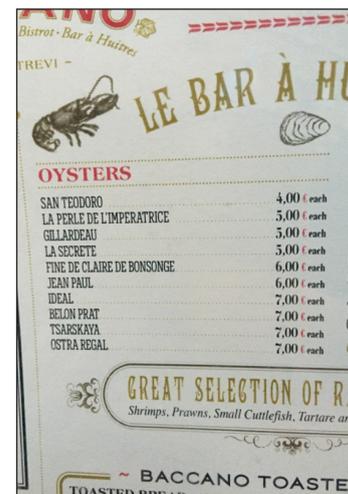
Two agencies can assist members of the EC-SGA who would like to explore exporting, providing a wide range of export assistance.

Food Export USA–Northeast and the South-

Left: Several varieties of oysters on display in the front window of an oyster bar in Rome in December.

Right: Menu showing per-oyster prices ranging from €4 - €7 (around \$4.50- \$8).

Once the trade embargo is lifted, expanding into European markets could prove to be lucrative.



— Photo by Bob Rheault

ern United States Trade Association (SUSTA) are private, non-profit, State Regional Trade Groups, funded by the Market Access Program (MAP) of the Foreign Agricultural Service of the United States Department of Agriculture. These agencies work closely with state Departments of Agriculture and offer a number of programs and services to help small U.S. companies succeed in exporting. Food Export USA–Northeast assists companies from Maine to Delaware, while SUSTA works with companies from Maryland to Florida.

For over a decade both organizations have administered MAP-funded export promotion programs for the seafood industry. Seafood companies in the regions have already benefited from the flexibility to pick and choose from a diverse range of markets and activities that these State Regional Trade Groups offer. Participating seafood companies have realized billions of dollars in export sales. U.S. sea-

food companies have successfully exported to Europe and China, with new opportunities continuing to open in other Asian markets in retail and the food-service sectors. These agencies offer highly specialized programs specific to the seafood industry and provide services focused on exporter education, buyer/seller interaction and market promotion.

Food Export USA–Northeast and SUSTA provide free or low-cost seminars and webinars, online learning resources, and newsletter and counseling services. When companies are export-ready they provide opportunities to meet buyers here in the U.S., conduct outbound trade missions around the world, generate trade leads, provide specific and custom market research and offer international trade show assistance.

Market promotion services provide cost-share assistance to qualifying companies and can provide 50-percent reimburse-

**R. MURPHY KNIVES** SINCE 1850  
HANDCRAFTED IN AYER, MA



CUSTOMIZE KNIVES WITH YOUR LOGO

CALL 978-772-3481  
MENTION THIS AD FOR HALF OFF YOUR STENCIL FEE

www.rmurphyknives.com

**THE INDUSTRY'S BEST OYSTER AND MUSSEL FARMING EQUIPMENT**

**Go Deep** Shellfish Aqua [WWW.GODEEPAQUACULTURE.COM](http://WWW.GODEEPAQUACULTURE.COM)



## Shellfish Grower Insurance

Every state on the East Coast, and more.

- General Liability
- Workers' Comp
- Marine/Boat
- Business Auto/Truck
- Jones Act
- All Others

 **McCALEB-METZLER**  
A BANKERS INSURANCE COMPANY



(800) 442-6187 ● [www.easternshoreinsurance.com](http://www.easternshoreinsurance.com)

— Continued on page 7

— Continued from page 6  
**Exporting Is Within Reach**

ment of eligible export marketing expenses. These international marketing expenses include advertising and publications, international trade show participation, promotions and demonstrations, package and label changes, freight costs for samples and international websites. Activities must be approved in advance and the shellfish company incurs all expenses up front. To take advantage of the program companies must apply and be approved and have fewer than 500 employees.

For more info visit [SUSTA.org](http://SUSTA.org) or call the New Orleans headquarters, (504) 568-5986; and for companies in the Northeast, visit [www.foodexport.org](http://www.foodexport.org) or call the Philadelphia headquarters, (215) 829-9111.



— Photo by Bob Rheault

Seafood Export U.S.A – Northeast garnered plenty of interest with their booth at Seafood Expo North America in Boston in March. Along with its southern counterpart, Southern United States Trade Association (SUSTA) the non-profit trade group offers free or low-cost seminars and webinars, online learning resources, and newsletter and counseling services to U.S. companies hoping to expand into overseas markets.

## We Need Your Help!

Please lend a hand and volunteer to help at the **Milford Oyster Festival**

Friday and Saturday  
 Aug. 19 – 20, 2016

The income provides vital funds for ECSGA's operating budget.

Contact Trisha Kozloski,  
[trisha.gilbert@yahoo.com](mailto:trisha.gilbert@yahoo.com)



# Serving the Seafood Industry for Over 50 Years

Specializing in heavy waxed boxes and insulated shippers for live Oysters and Clams.



**PACKAGING PRODUCTS CORPORATION**

**FISH AND SHELLFISH PACKAGING SPECIALISTS**

198 Herman Melville Boulevard, New Bedford, MA 02740 USA

Ph 1-508-997-5150 • Fax: 1-508-993-9807

USA & Canada Toll Free 1-800-225-0484

Email: [sales@pkgprod.com](mailto:sales@pkgprod.com) • Website: [www.pkgprod.com](http://www.pkgprod.com)



# Ketcham Supply



**111 Myrtle St New Bedford, Mass 02740**  
**(508) 997-4787 www.Lobstering.com Fax (508) 992-5220**



**The Finest Oyster Bags**  
Square or Diamond  
Sealed or Open end  
Thousands in Stock

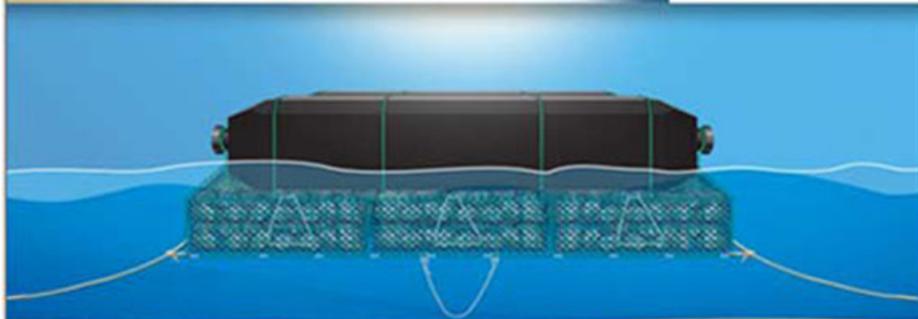


Quantity Discounts

**Closing options**  
PVC Slide Sealers  
Stainless Hog Rings  
Shock Cord  
Stainless Hooks  
SS Diaper Pins



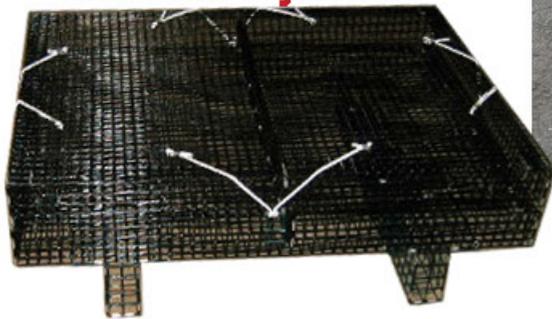
Optimum Growth 



Maintains level, steady submerged position at the ideal feeding depth.  
Minimizes shifting to maintain ideal distribution for feeding.

## Stacking Trays

1/2" 3/4" or 1" Mesh  
Interlocking Design  
Deployment Ready  
Best Water flow  
Promotes Deep  
Cupped Superior  
Market Oysters



**Grow Cages**  
Custom Built Any Style  
Finished or Kits



Six bay bottom growing cage with shock cord retainers and reinforcing end caps on the feet. Cage 4 1/2" 8 gauge Aqua-Marine mesh, Feet 1 1/2" HD Lobster trap wire

## Tools to Build and Maintain Your Gear



Clip Gun  
Nile Cutters  
Sunburst Hog Ring Tools in 1/2" 16 gauge and 3/4" 15 gauge  
Brand New Industrial Grade

**Rope, Buoys, Boots, Anchors, Clothing, Gloves, Hardware and More for the Pro Grower**

— Continued from page 3

## Recipes from The Household Cyclopedia

open a little; then take them off, open them on a plate, and season with salt and pepper only. Thus they are excellent for delicate stomachs.

### Fried Oysters.

Take fine large oysters, free them from all the small particles of shell, then place them on a clean towel and dry them. Have ready some crackers made very fine, which season with a little salt, black and cayenne pepper of equal proportions.

Beat as many eggs and cream mixed, as will moisten all the oysters required, then with a fork dip each one in the egg and lay them on the cracker, and with the back of a spoon pat the cracker close to the oyster; lay them in a dish, and so continue until are done. Put in a frying-pan an equal portion of butter and lard or sweet oil boiling hot, then put in as many oysters as the pan will hold without allowing them to touch, and fry quickly a light brown on both sides. A few minutes will cook them. Send to table hot.

*Besides Garfield, '81 was a bad year for Billy because Pat Garrett shot the Kid dead in Lincoln County. However the Earp brothers and Doc John Henry Holliday did OK at the Tombstone corral. Maybe they enjoyed this for supper that October night:*

### Panned Oysters.

Take fifty large oysters, remove every particle of shell which may adhere to them, put them in to a colander and pour over a little water to rinse them. After letting them drain, put them into a stewpan with a quarter pound of butter, salt, black and red pepper to taste. Put them over a clear fire, and stir while cooking. As soon as they commence to shrink remove them from the fire, and send to table hot in a well (covered) heated dish.

*For all our dotting and beloved Jewish mothers who can't get a chicken in the pot, perhaps here is the new international cure-all:*

### Oyster Soup.

To 1 quart of oysters add 1 quart of water. Pour the water on the oysters and stir them. Then take them out one at a time, so that no small particles

of shell may adhere to them. Strain the liquor through a sieve, put it in a stew-pan over the fire with a little mace, and season with red pepper and salt to your taste. When this boils put in your oysters. Let them boil again; then add 1/2 pint of cream and serve hot.

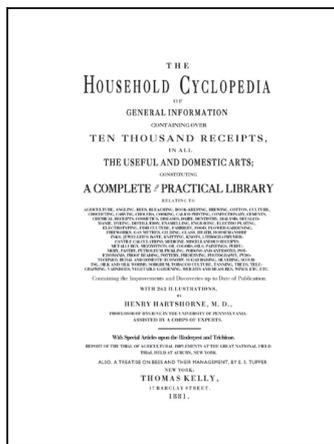
*And here's a blast from the past I never imagined even existed:*

### Scalloped Oysters.

One hundred oysters, a baker's loaf crumbed, four eggs boiled hard; salt and cayenne pepper to taste. Chop the eggs very fine and mix with the crumbs, which season highly with cayenne and salt. Cover the bottom of a deep pie-dish with the eggs and crumbs; then with a fork, place a layer of oysters with two or three small pieces of butter, and so continue until all are in, reserving sufficient crumbs for the cover. For those who like it, a little mace may be added. Bake in a quick oven three-quarters of an hour. Serve hot.

### To Keep Water Pure in Iron Kettles.

Keep an oyster-shell in the bottom of the kettle, this will prevent the iron from rusting and keep the water clear.



Every year we grow more oysters and we need to look at expanded ways for customers to enjoy our product. Many growers are targeting the half-shell market, but please realize that many consumers can't or won't ever eat any shellfish raw. But stewed, fried or even scalloped shellfish

might work for them. Smart business dictates that we find ways to help consumers enjoy our shellfish in different ways. Consider passing new ideas on to a local chef, or getting recipes published on a cu-

linary blog or in a local paper. If you have a website, don't just sell the shellfish and show pretty photos of the sunrise on the bay. Put some sizzle out there and teach your customers new ways to enjoy more of the fruits of your labors. Expanded production requires expanding your market, which will only enhance your profits.

*Author's Note: Recipes were cut and pasted from a scan of the Cyclopedia and are in their native 1881 speak. Visit [archive.org/details/Household\\_Cyclopedia](http://archive.org/details/Household_Cyclopedia). You never know when it will come in handy knowing how to shoe a horse, cook up a terrapin or mix up a batch of gunpowder fer shootin at some food.*



Starting color



Ending color

### Vitsab's Smart Shellstock TTI-Labels

were developed with the help of federal and state regulators. Designed to mirror *Vibrio* growth according to the dynamic relationship between time and temperature, these cost-effective tools can monitor shellstock from harvest to plate. Working on "Stop Light" technology, the round window turns green when activated and remains green for 90% of its life.

If time/temperature exposure occurs, the window turns yellow, then red. These labels are about the size of a postage stamp, completely food-safe, and can be attached to your harvesting container, shellfish tag, or other packaging.



Jeff Desrosiers - Director  
+1 (207) 210-1753  
[jeff.desrosiers@vitsab.com](mailto:jeff.desrosiers@vitsab.com)  
[www.vitsab.com](http://www.vitsab.com)

# HOT AQUACULTURE NEWS!!



*Fish Farming News* is the aquaculture industry's national newspaper, devoted exclusively to coverage and the betterment of domestic aquaculture.

Content is geared toward active commercial fish and shellfish farmers, covering all major commercially cultured species, in freshwater and saltwater, warmwater and coolwater, and both open and closed production systems.

*Fish Farming News* is published bi-monthly. Subscriptions are just \$14.95 per year in the US.

Subscribe to  
**Aquaculture's National Newspaper**

GO DIGITAL - sign up at:

[www.fish-news.com/ffn](http://www.fish-news.com/ffn)



© Fish Farming News  
Compass Publications Inc. - Fisheries Division



**Hoopers Island**  
*Oyster Aquaculture Co.*

**2500 Old House Point Road  
Fishing Creek, MD 21634**

**You Tube 410-397-3664**  

**www.cgoysters.com**

**johnny@cgoysters.com cell 443-521-1635**

# OYSTER FARMING EQUIPMENT

Warming trends are upon us and the algae in the Chesapeake Bay have started to multiply. Growing season is here and orders are coming in steady. Don't hesitate to place your order with us. We build it all... from your oyster nursery to custom boats



**PREMIUM SELECTED MATERIALS FOR ALL OF OUR COMPONENTS  
MATERIALS IN STOCK FOR QUICK ASSEMBLY AND SHIPPING**



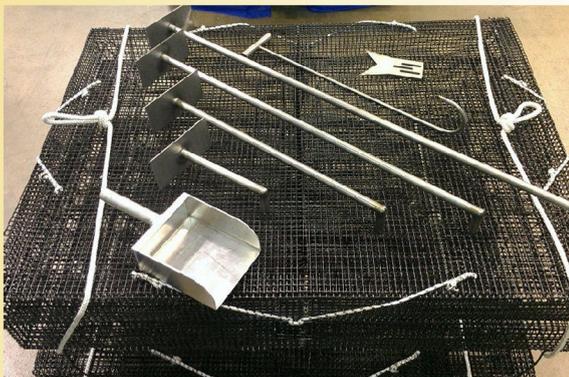
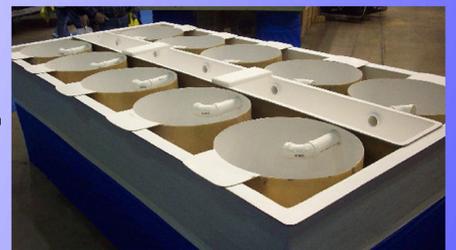
**EQUIPMENT UTILIZES THE LATEST TECHNOLOGY AND AS A RESULT  
INCREASES YIELDS AND QUALITY OF YOUR OYSTER**

**COMBINING EXPERIENCE AND RESEARCH, ALL OF OUR EQUIPMENT  
HAS BEEN TESTED IN THE FIELD AND ENDURES VIGOROUS DAILY  
USE WITH GREAT RESULTS**

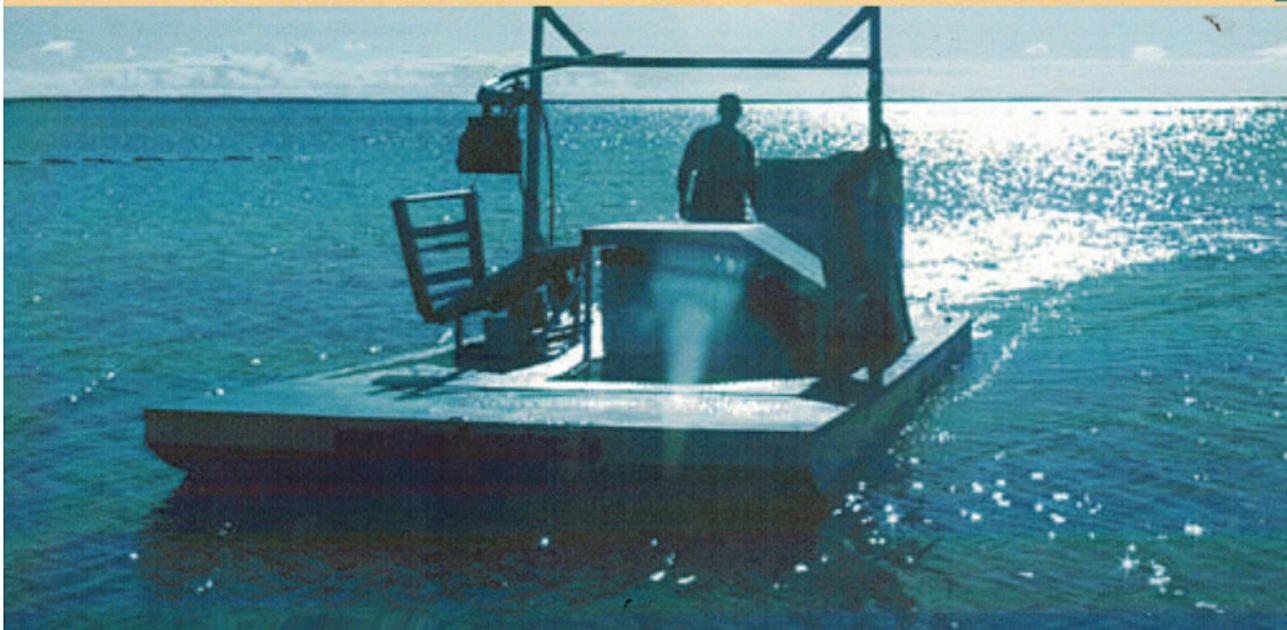
**ALL EQUIPMENT IS ALSO AVAILABLE FOR PICK-UP**

**BY UTILIZING OUR SEED AND OUR EQUIPMENT YOUR COMPANY  
WILL HAVE THE ABILITY TO HARVEST A DEEP SHELLLED OYSTER.**

**OUR EQUIPMENT CREATES AND PROMOTES AN OYSTER PRIME  
FOR THE HALF SHELL MARKET**



## PROFESSIONAL GRADE EQUIPMENT

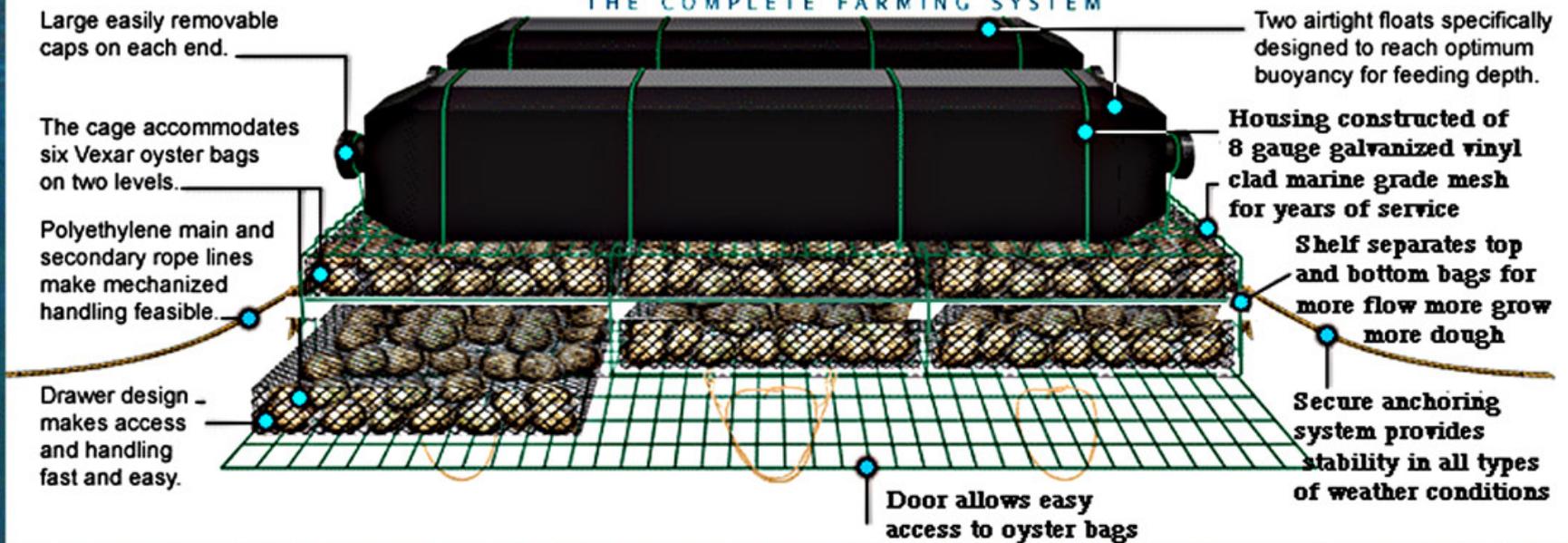


**WHAT**



OysterGro® consists of a compact housing with floats that provide the versatility, efficiency, and effectiveness on which business success depends. Every component is designed for strength, durability, and convenience.

THE COMPLETE FARMING SYSTEM



**WHY**

**A Proven Business Model**

- Proven by oystermen
- Predictable investment
- Profitable results
- Simplifies every aspect of the business from setting out equipment to tending and harvesting

**Cost/Time/Labour/Savings**

- Efficient, effective, and economical
- Drastic labor savings
- Minimizes labor costs
- Time savings: flip and sink convenience

**Higher Quality & Yield**

- Quality
- OysterGro™ consistently produces a higher quality oyster that gets top dollar
- Desirable size and shape
- Consistent growth
- Appealing look
- High-value harvest

**Yield**

- Maximizes & improves yield
- Reduced mortality losses
- Faster growth



www.oystergro.com

**Bouctouche Bay Industries Ltd.**

P.O. Box 2162

Bouctouche, NB E4S 2J2

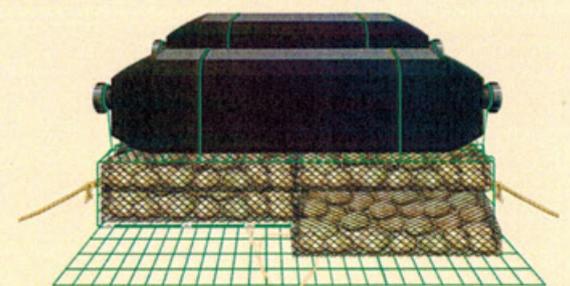
T 506 743-5455 F 506 743-6729

info@oystergro.com



Local dealer Ketcham Traps

Also Available in  
**OysterGro®  
Mini**



— Continued from page 1  
**Walk on the Hill Wrap-Up**

producers and dealers interested in developing overseas markets. They recommended we look into FAS state and regional Market Access Programs, which can reimburse up to 50 percent of a firm's costs towards overseas travel or the cost of a booth at an international trade show. (See *Exporting is Within Reach*, page 6)

In our audience with top NOAA leadership the agency heaped great praise upon our industry, but the feeling wasn't exactly mutual. Industry members from both coasts expressed frustration that funding for aquaculture remains stuck below one percent of NOAA's total annual budget for the National Marine Fisheries Service (NMFS), even as the agency's support for the Milford Lab (other than lip service) continues to shrink.

Before leaving town we also briefed staffers of the House Natural Resources Committee on the Red Knot issue in Cape May, N.J.

All told we met with representatives of 18 House and 14 Senate offices (not counting those at the Congressional Shellfish Caucus Reception) as well as a bevy of agency leaders. Since our association covers 14 states it is never possible to meet with all of them, so we try to focus on members of Congress who represent ECSGA members and who are on committees with jurisdiction over issues important to us.

### FDA and the EU Trade Embargo

Recently we have seen some movement towards a potential resolution of the six-year trade embargo blocking us from selling shellfish in the EU – our top legislative concern for many years. You may recall that in 2009 FDA inspectors decided that shellfish from the EU didn't meet U.S. sanitary standards. Not surprisingly, the EU retaliated by blocking the importation of U.S. products, claiming a variety of problems with our shellfish.

Two years ago we asked the FDA to audit pristine waters in EU nations in the hopes that if we cracked the door open to some trade we

might end the impasse. In August the FDA conducted two audits, in Spain and the Netherlands, and deemed shellfish from their Class A waters acceptable under U.S standards. Then in December EU representatives flew here and audited the harmful-algal-bloom monitoring programs of Massachusetts and Washington. Presumably, if everything goes smoothly we might see a resumption of trade, maybe as soon as early 2017 – at least for shellfish from approved waters in those two states.

But for the time being, the tit-for-tat continues. We hope that if we negotiate these baby steps, we can move more rapidly on clearing the remaining hurdles in a more adult fashion and see more countries and all our states eventually cleared. The FDA claims it was too difficult to negotiate the removal of all barriers at once. Each of the many EU nations has its own shellfish program and will have to be evaluated and audited for approval separately. EU regulators may continue to be difficult about this as well.

— Continued on page 13



# GLOBAL SOLUTIONS FOR THE FUTURE OF AQUACULTURE

Pentair Aquatic Eco-Systems offers solutions and expertise to improve growing conditions in any environment from recirculating aquaculture systems to improving water conditions in pens. Pentair AES can help you improve results in any part of the growing cycle.

Pentair AES employs experts in coldwater aquaculture—pioneers in the industry who earned their knowledge by running operations of their own—to provide the best possible solutions for cold-water aquaculture facilities, from hatcheries to grow-out and everything in between.

From new builds, retrofits or even troubleshooting, Pentair AES has expertise and solutions to help your cold-water operation.

In an industry with small margins for error, the importance of quality and reliability can't be overstated. You'll find every solution you need, including:

- Biofiltration
- Effluent Management
- Disinfection
- Oxygenation
- Monitoring & Control
- Influent Treatment
- Gas Balancing
- Solids Removal
- Water Quality & Movement



## AQUATIC ECO-SYSTEMS®

Online Orders: [PentairAES.com](http://PentairAES.com) • Email: [PAES.Ponics@Pentair.com](mailto:PAES.Ponics@Pentair.com)  
Phone Orders and Tech Advice: 877-347-4788 • 2395 Apopka Blvd., Apopka, Florida 32703

© 2016 Pentair Aquatic Eco-Systems, Inc. All Rights Reserved.



PLEASE VISIT [PENTAIRAES.COM](http://PENTAIRAES.COM) FOR FUTURE WORKSHOPS AND NEW PRODUCTS

— Continued from page 12

## Walk on the Hill Wrap-Up

With so much left to resolve and so many questions unanswered there are still plenty of chances for this to derail. Unfortunately, our industry wields little power over the FDA, and even less over the EU regulators.

Personally, I am torn. Although I'm happy to see that a baby step has been taken and the door has opened a crack for an adult conversation that may result in the resumption of trade, I'm angry that this impasse has gone on for far too long. I am also very concerned that this decision will divide our industry.

All our states – not just Massachusetts and Washington – do a good job monitoring for harmful algal blooms and red tides. As far as I know, the U.S. has had no HAB-related illnesses from commercially harvested shellfish in years. I see no reason why *every* state should not be able to trade with the EU. But I would hate to see other states rise up in protest and stop the process before it gets started. As board member Chad Ballard said, “If I oppose this deal it will disadvantage growers in Massachusetts and Washington, and I wouldn't want to do that to my friends in those states.”

I understand why so many are so frustrated. This has been a long process. But please don't hate me just because you are not from Massachusetts. I didn't get a vote. I know that some folks are fixated on this injustice and are threatening action, but I remain hopeful that once the door has been cracked open, all states will be allowed entry to EU markets in short order.

### FDA Pushing Changes Addressing *C. botulinum*

At the last meeting of the Interstate Shellfish Sanitation Conference (ISSC) the FDA proposed new regulations to address a potential food hazard related to the bacterium *Clostridium botulinum* – the causative agent for botulism. *C. bot* lives without oxygen and can reproduce in what is called “reduced-oxygen packaging.” It could grow in vac-packed bags of shucked



The Congressional Shellfish Caucus Reception is always a big hit. This year we served 25 members of Congress and 140 of their senior staffers 1200 oysters, steamed littlenecks and 10 cases of wine.

meats or in sealed tubs or jars unless they are kept below 38°F. All this would be really scary except for one thing: we are unaware of a single case of *C. bot* illness related to shellfish since the invention of refrigeration.

But apparently the FDA has detected *C. bot* in shellfish. They say this is a “hazard that is reasonably likely to occur” and therefore (according to HACCP) we need to develop controls. I would argue that the apparent absence of any known illnesses suggests that this is a hazard not likely to occur, and therefore we should move on and focus our limited resources on a real health hazard. Unfortunately, the FDA has not asked for my opinion.

Industry managed to reject the FDA's proposed controls at the ISSC, but the FDA resurrected the issue at the General Assembly so we will continue to expend precious resources tilting at this windmill at the next ISSC meeting.

### NOAA Budget Priorities

At every D.C. office we visited, we showed off eye-popping graphs of production trends. Even though our industry continues to create jobs and grow production at a tremendous

pace, NOAA refuses to invest in aquaculture research. Less than one percent of the NMFS budget goes to fund aquaculture, while stock assessments and fisheries management continue to consume the lion's share of available dollars. NOAA support for the Milford Lab continues to shrink, with a 25-percent reduction in the number of aquaculture scientists and a 33-percent cut in the aquaculture budget hobbling operations at the lab since 2010. Things are looking bleak for the FY2017 budget, but we will continue to educate our elected representatives about the value of our industry and the rationale for supporting sustainable, domestic seafood production.

### Congressional Shellfish Caucus Reception

Each year we team up with the PCSGA and the Wine Caucus to throw a reception for members of Congress and their senior staffers. This is always an enjoyable event and a golden opportunity to tell our elected representatives about our industry. Thanks to JD Blackwell, Steve Plant, Nancy Follini, Ben Goetsch and Tal Petty for bringing oysters and helping to shuck. Chad Ballard donated a bunch of littlenecks for steaming, and the West Coast folks brought their oysters as well. We served 1200 oysters and ten cases of wine to about 25 members of Congress and 140 senior staffers.

### Thanks to our Hill Walkers

I want to thank everyone who took time out from their busy lives to come join us in D.C. for this important work. It's an educational exercise we need to repeat year after year. Our core team included Jeff Auger of Mook Sea Farms, Chris Sherman of Island Creek, Steve Plant of the Noank Coop., Ben Goetsch of Briarpatch Ent., Mike Osinski of Widow's Hole Oyster Co., Gef Flimlin of Rutgers Cooperative Extension, JD Blackwell of 38 North Oysters, Tal Petty of Hollywood Oysters, Dan Grosse of Toby Island Bay Oysters, Johnny Shockley of Hooper's Island Oyster Aquaculture, Ryan and Travis Croxton of Rappahannock Oyster Co. We also had invaluable help from around 20 PCSGA folks. Consider joining us next year.



# MOOK SEA FARM

*Our world is your oyster!*

**HIGH QUALITY OYSTER SEED STRAIGHT FROM OUR HATCHERY**

Retention screens: 1.0, 1.4, 1.6 & 2.0 mm

Triploid or Diploid, Disease Free

Visit our website at [www.mookseafarm.com](http://www.mookseafarm.com)

Or Call us at 855-563-1456

# The Billion Oyster Party

May 19th, 2016 Red Hook, Brooklyn

## CALLING ALL OYSTER FARMERS

On Thursday, May 19th, over six hundred New Yorkers from the worlds of finance, media, technology, maritime and philanthropy will gather for the Billion Oyster Party to benefit the Billion Oyster Project as it aims to restore one billion live oysters to NY Harbor by 2035 and in the process, educate hundreds of thousands of young people.

We hope you will join us and 40 oyster farms in celebrating oyster education, diversity, and restoration. Please come represent your farm and share your oysters with our guests.

## JOIN THE SHUCK OFF

During the event we will hold a shucking competition. Throughout the night, heats will be held outside in the garden and the competition will culminate with the 5 best shuckers facing off in front of a big audience of onlookers for the grand prize. To enter into the shuck off email the name of the shucker you would like to enter into the competition to [Mwachtel@nyharbor.org](mailto:Mwachtel@nyharbor.org). Grand Prize information will be released closer to the day.



An initiative of the  
NEW YORK HARBOR FOUNDATION

### WHEN & WHERE

Thursday, May 19, 2016,  
5:30pm-10:00pm

Pioneer Works, Red Hook  
Load-in time: 2pm

### QUANTITIES & PREP DETAILS

#### Oyster Farms to provide:

- 500 oysters
- 2 team members to shuck and serve oysters
- Service & shucking supplies
- Lemons, mignonettes, etc
- Any desired branding or signage for service table
- Certificate of Insurance listing New York Harbor Foundation as additional insured

#### BOP to Provide:

- Serveware/Ice
- A bay that includes a food prep table and a 4x3 ft serving table

### SPONSOR BENEFITS

- Two (2) tickets to the the Billion Oyster Party
- Sponsor logo featured on station signage
- Sponsor logo featured on billionoyster party website
- Sponsor mention/tag in Facebook and Twitter posts
- Sponsor name included in general media outreach
- Opportunity to offer a silent auction experience

### SHIPPING YOUR OYSTERS

- You can ship your oysters directly to K & B Seafood and they will greet you at Pioneer Works. More details to come.

## What Does Climate Change Mean for Shellfish Farmers?

After the warmest year (and the warmest winter) on record, coupled with the strongest El Nino ever recorded, even the most ardent climate-change doubters are starting to come around. Whether or not you buy the connection with fossil fuel emissions, it is becoming more obvious that our planet is warming. What does that mean for the future of our industry? Will our kids be farming shellfish in 2100?

In the 2013 *Fifth Assessment Report* of the Intergovernmental Panel on Climate Change (IPCC) more than 600 authors from 32 countries reviewed 9200 scientific publications. Their analyses tell us we can expect significant increases in temperature, sea level, storm energy and the CO<sub>2</sub> concentration in sea water in coming decades.

The IPCC projects that by the end of this century we will see global average temperatures increase by at least 2°C, and that sea levels will rise by three to six feet. Planetary warming also causes more water to evaporate, meaning storms on average will carry more energy. We are already seeing more frequent significant-rain events.

So what does this all mean for shellfish farmers? If Connecticut is going to feel like Virginia, most farmers are optimistic that they can adapt, although it's likely they will be contending with different pests, predators and diseases than they're used to. With increasing atmospheric concentration of CO<sub>2</sub> we are also seeing a decline in oceanic pH. The last time CO<sub>2</sub> levels on earth were as high as we expect them to be in 2100 was 56 million years ago, at the end of the Paleocene Epoch, when mass extinctions occurred in the marine environment. It is incredibly frustrating that we still can't predict with confidence how ocean acidification will impact shellfish and other marine organisms.

It is easy to see how increased storm intensity and rainfall will impact shellfish farmers, especially in growing areas that are closed to harvesting when rainfall thresholds are exceeded. Most of us have already noticed that 100-year floods and "superstorms" seem to be happening with disturbing regularity. Since our farms are at the mercy of Mother Nature the prospect of increasing storm intensity and/or frequency will surely impact every farmer's bottom line.

But the impact that I see as most daunting of all is the prospect of a

three-to-six-foot sea-level rise. IPCC modelers now believe that their earlier projections were too conservative, and that we are seeing an unprecedented acceleration in the rate of sea-level rise. Coastlines will move, homes will be swept away, and entire communities will need to adapt. Governmental planners and insurers will need to make bold changes.

Many of the hundreds of sewage treatment plants, marinas and power plants that dot our coastline will be severely impacted. Even if they are not inundated during high tides, they will certainly be at greater risk during storm surges. The challenge of armoring or moving these massive infrastructure investments will test the resilience of coastal communities around the world. We cannot harvest shellfish if our sewage treatment plants have been flooded or damaged.

We may not feel the pain in our lifetimes, but I wonder what sort of world we are leaving to our children and grandchildren.

— RBR



Facilitating creation of premier oyster larvae and seed

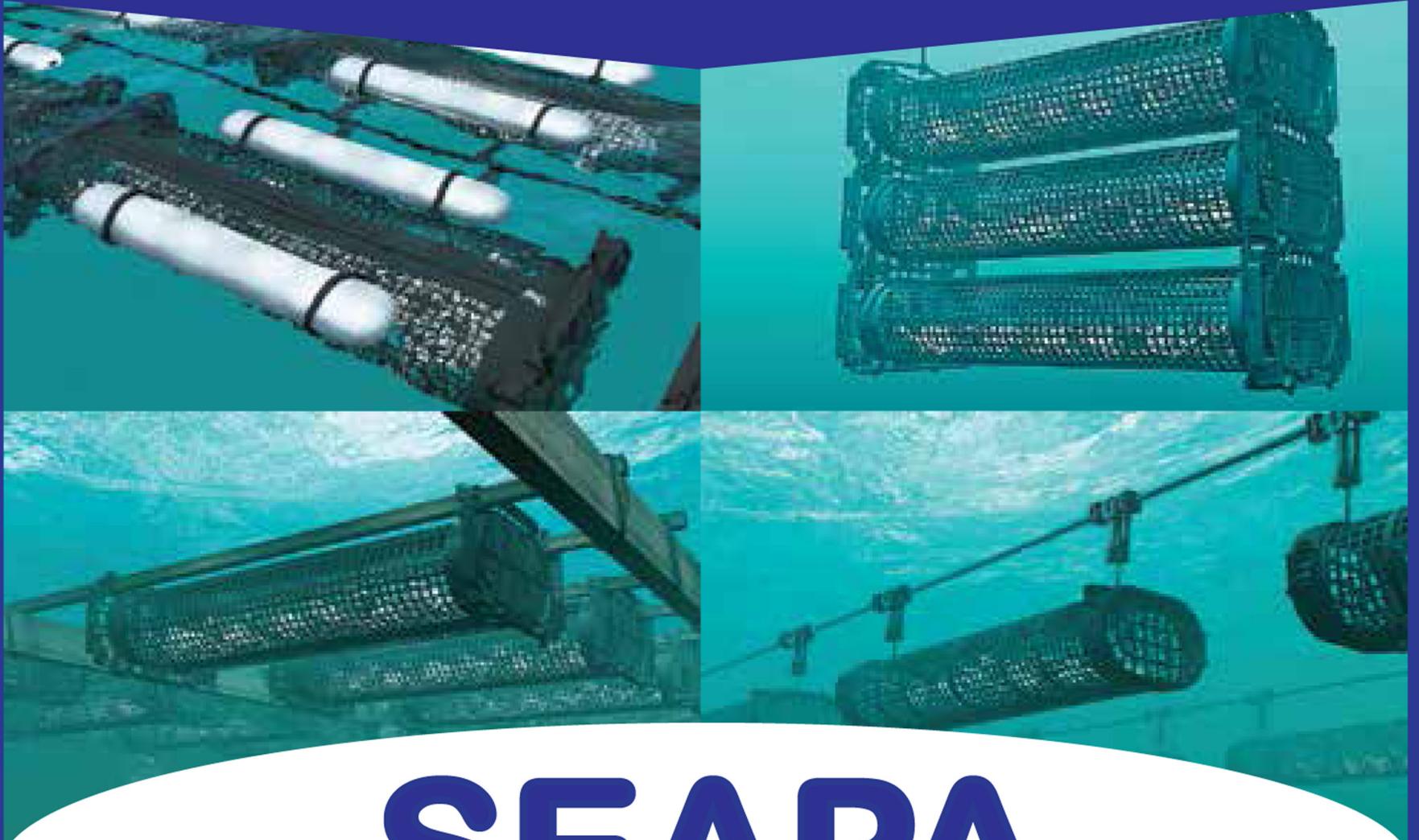
[oshoyster.com](http://oshoyster.com)

[info@oysterseedholdings.com](mailto:info@oysterseedholdings.com)

804-725-3046



# Subtidal, intertidal and floating oyster farming systems



# SEAPA



Superior Oysters  
Superior Farming Solutions

**Andy Will: +1-214-238-4640 • [awill@seapausa.com](mailto:awill@seapausa.com)**  
**Find out more at: [www.seapausa.com](http://www.seapausa.com)**

## Oyster Markets Continue to Evolve

by Robert Rheault,  
ECSCGA Executive Director

I had a couple of fascinating conversations with folks at the recent Seafood Expo North America in Boston. I was retelling a story about how when I first got into the oyster market back in the early 1990s, if I had gone to markets in Boston or Chicago or D.C. with an oyster less than 4 inches long I would have been laughed out of the marketplace.

Today you will often hear a well-dressed customer step up to a rawbar and say the words I never dreamed I would hear, "What's the smallest oyster you have?" In the old days you would have had a hard time selling a hundred-count bag that weighed less than 25 pounds. Nowadays, especially as markets get tight in the spring, you often see hundred counts that weigh 13 pounds or even less.

Prices for quality, raw-bar singles are up, while the mean size is way down. For growers this is all good news. We can get a 2.5- to 3-inch oyster to market a full year faster than a 4-inch oyster, meaning less labor, less gear, less mortality and higher profit margins.

Back in the 1990s we used to joke that the customer base for raw oysters consisted of a dying demographic of affluent old men. Now we are seeing raw bars springing up everywhere, and customers of almost every demographic are lining up for oysters. Joe Lasprogata of Samuels and Son Seafood in Philly said he was happy to finally find a seafood category that millennials would come to a restaurant to eat.

At a Seafood Expo panel discussion titled *#Millennials: What will it take to sell seafood to generations Y & Z?* panelists suggested that young consumers consider it a status symbol to know where their food comes from. Young people love to share everything, online and in person, and they want to know more about the source

and the story behind their food. Millennials are also more mindful of sustainability issues than their parents.

The shellfish industry is well positioned to take advantage of these foodie trends. We have hundreds of small farms with exciting and interesting backstories. We grow the ultimate in sustainable seafood, and we have a safe product that carries just a hint of risk. We are not just selling a center-of-the-plate protein option – we are selling an experience, a flavor that brings your mind back to dipping your toes in the water at the sunny beach, while you sip your fine wine or your craft beer and impress your friends with your knowledge of the merroir and provenance of your appetizer.

Studies have shown that the more information a customer has about a product – where it was produced and how – the more that customer is willing to pay for it. This is why we now have menus that read like short stories, describing each element of a dish in exquisite detail, and why the farm-to-fork movement has gotten such traction.

Many of the older growers I was talking to at the Seafood Expo were speculating when (or if) the trend was going to end. We were asking each other if the gold-rush mentality of new farmers is going to usher in a collapse in prices. Production has been expanding at an amazing pace for years. Farmed oyster production on the East Coast has more than tripled since 2009. I have been warning for years that over-production could lead to a price collapse as we saw with salmon, catfish, tilapia and clams.

Yet, so far at least, we have not seen any signs of over-production. In fact, in recent years we



— Photo courtesy Matunuck Oyster Bar

In today's market, smaller is better at oyster raw bars, where customers can be heard asking, "What's the smallest oyster you have?"

have experienced a nationwide shortage of oysters each spring. While oyster prices have continued to climb modestly, some believe there is a limit to what the consumer is willing to pay. As long as we continue to put out a quality product and continue to do a good job with food safety, I think we still have room for growth. After all, as a nation our oyster consump-

tion is still a tiny fraction of what it was a hundred years ago.

Ironically, at the same time we were talking about oyster markets, we were also discussing how clam prices had jumped this year. Clam prices have almost rebounded to levels enjoyed in the 1980s. Superstorm Sandy and the harsh winter of 2015 put a crimp in supply; demand (especially for the larger sizes) is exceeding supply right now. This would be great news if growers had product to sell, but most are trying to keep their best customers happy with a limited supply, and none are in a position to take advantage of the demand. Even though clams and oysters are marketed quite differently, it would be a welcome development if the recent bump in clam prices were here to stay.



**southern label company**

**supplier of shellfish tags**

**laser, thermal, dot matrix & pressure sensitive**

**contact carolyn bailey today!**

**888.829.8080**

**www.shellfishtagslc.com**

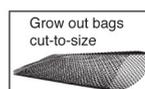
## Netting Protection



Above  
and  
Below  
Water

**Predator Exclusion • Pens & Cages**

- UV resistant plastic • Easy to fabricate
- Rolls, sheets and tubes custom cut-to-size in 24 hours



Grow out bags cut-to-size

**INDUSTRIAL NETTING**



Standpipe filters

1-800-328-8456 [www.industrialnetting.com](http://www.industrialnetting.com)