EAST COAST SHELLFISH GROWERS ASSOCIATION

Quiet Power on the Water: Blue Stream Shellfish Debuts All-Electric Work Skiff

by Dale Leavitt, PhD. Blue Stream Shellfish, Fairhaven, Massachusetts

It was one of those quiet, windless mornings as the Blue Stream Shellfish crew cruised out to the oyster farm in our new work skiff to pull the first of the day's orders for processing. They were having a quiet conversation at the console to plan out the day's work schedule. Wait—did I say they were having a quiet conversation? On a work skiff that was running at 23 knots across the water? If that work skiff was powered by a conventional outboard, even a four-stroke, the conversation would have been a shouting match between the speakers. Instead, the new skiff (F/V Jolt) is powered by an electric outboard from Flux Marine, located in Bristol, Rhode Island.

The 26-foot, aluminum-hull skiff was designed and constructed by Atlantic Marine Boats of Scarborough, Maine, and was adapted for electrification from a concept developed by The Boat Yard/Shred Electric of Yarmouth and New Gloucester, Maine. The entire package was funded by a grant



DALE LEAVITT/BLUE STREAM SHELLFISH

The F/V Jolt's marine-grade aluminum hull measures 25.5 feet long by 8 feet wide. The modified Garvey hull has a slight V-bow flattening out to a flat bottom towards the stern to allow for running in shallow waters. Weight seems to have little impact on skiff performance—it easily transported 23 adults during its maiden voyage at the launching party, making it a prime candidate for farm tours, with a reduced-carbon twist!



DALE LEAVITT/BLUE STREAM SHELLFISH

The Flux outboard delivers instant torque for heavy loads—in fact, you'd better hold on under full acceleration or you're going over the transom. The power is derived from 56 kWh of batteries operating at 400 V. The Jolt has capacity for three battery packs located below deck behind the console (Blue Stream installed only two), thus leaving a flat work deck over the length of the hull.

to our farm from the Division of Marine Fisheries through the Massachusetts Environmental Economic Innovation and Resiliency in Marine Fisheries Grant Program.

While we are still learning and working out the kinks in operating our new vessel, the benefits of an all-electric work skiff were immediately evident. But first, here are some technical details:

- The hull is constructed of marine-grade aluminum and is 25.5 feet long and 8 feet wide. It is a modified Garvey hull with a slight V-bow flattening out to a flat bottom towards the stern to allow for running in shallow waters. It has capacity for three battery packs (we installed two) that are located below deck behind the console, thus leaving a flat work deck the length of the hull.
- ☐ Weight seems to have little impact on skiff performance. We haven't filled it with oyster bags yet, but we easily transported 23 adults during its maiden voyage at the launching party. A prime candidate for farm tours with a reduced-carbon twist!
- ☐ The electric outboard is rated as equivalent to a 100-hp gasoline outboard, although that power rating can jump to around 175 hp under heavy acceleration. The power is derived

—Continued on page 2

Newsletter of the East Coast Shellfish Growers Association — Issue 3 — October 2025

OTS TASA9 US POSTAGE PAID PORTLAND ME PSH TIMAB9



The East Coast Shellfish
Growers Association
represents more than 2,000
shellfish farmers from Maine
to Florida and the Gulf states.
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.

111 Myrtle St. New Bedford, MA 02740 admin@ecsga.org

> Executive Director Robert B. Rheault (401) 783-3360 bob@ecsga.org

> > President Jeff Auger

Vice-President Chris Matteo Secretary

> Alex Hay Treasurer Ben Lloyd

Connecticut Brian Yarmosh
Delaware Mark Casey
FloridaAdrianne Johnson
Gulf Coast Terry Boyd
Maine Dan Devereaux
Maryland Stephan Abel
Massachusetts Mark Begley
New Hampshire Brian Gennaco
New Jersey Bill Avery
New York Matt Ketcham
N. Carolina Katherine McGlade
Rhode Island ... Matt Griffin
South Carolina Trey McMillian
Virginia Chad Ballard

Equipment Dealer Heather Ketcham

Shellfish Dealer Chris Sherman

Ex Officio Gef Flimlin, Ed Rhodes, Leslie Sturmer

Editor: Ann Kane Rheault

—Continued from page 1

All-Electric Work Boat

from 56 kWh of batteries operating at 400 V. The torque is unbelievable and you have to hold on under full acceleration or you're going over the transom.

☐ The anticipated battery life supports roughly 25 miles of cruising or multiple days of working on the farm between charges. The battery uses a conventional Combined Charging System that can accommodate Levels 1 through 3 charging stations, identical to charging an electric car.

Along with the prospect of reducing carbon emissions, there are many reasons why an all-electric work skiff should be on the wish list of all oyster farms. No more schlepping gasoline down the dock, routinely changing



SHREDELECTRIC.COM

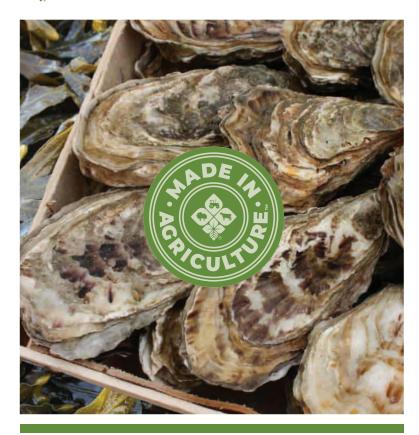
The fully electric Flux outboard is equivalent to a 100-hp gas motor, although that power rating can jump to around 175 hp without the noise, fumes, or maintenance of traditional gas engines. The battery uses a conventional Combined Charging System that can accommodate Levels 1 through 3 charging stations, identical to charging an electric car. A single charge gets roughly 25 miles of cruising or multiple days of working on the farm.

fuel filters or oil, replacing cooling-system impellers, or coddling lower units. Instead, you enjoy a significant reduction in background noise under operation, and you can completely shut down the power plant while tending to gear on the farm.

If you want to check out the F/V Jolt, come down to our farm in Fairhaven, Massachusetts, and we'll take you for a ride.

Shred Electric will be exhibiting at the Northeast Aquaculture Conference and Expo in Portland, Maine, January 7-9, 2026, where they are slated to run an electrification workshop. You can also see their products at Oyster South in Houston, Texas, January 29-31, 2026. Visit www.shredelectric.com to learn about their lines of electrified coolers, solar oyster barges, batteries, motors, and electric boats.

FARM CREDIT EAST



Loans and Leases
Tax Services
Payroll Services
Business Consulting
Record-keeping
Country Home Loans
Crop Insurance
FarmStart for
New Businesses
Real Estate and
Equipment Appraisals

Nobody finances the shellfish aquaculture industry like Farm Credit East. Like traditional farmers, shellfish farmers have their own unique credit needs. And we're proud to serve them both. So if you're looking for financing or business services for your operation – of any size or type – look to Farm Credit East. **Our mission is to grow your success.**

FARMCREDITEAST.COM 800.562.2235





Conference & Exposition and the

Northeast Aquaculture

Milford Aquaculture
Seminar

will return to

Portland, Maine Holiday Inn by the Bay

Visit our website to learn more: northeastaquaculture.org



From the President

Some of the Work We Do for You



President Jeff Auger

As the season changes and we all begin to transition our farms for the fall and winter seasons, we thought it would be a good time to highlight some of the work the ECSGA has been doing over the last few months.

As states begin to develop aquaculture programs, they often

are unaware of the rules and regulations that govern our industry, or they may be enforcing antiquated regulations that no longer apply. No better example of this can be seen than the regulatory headaches that beset an ECSGA member down in Alabama. Bureaucratic delays (six months to process a permit application) along with outdated regulations (operating on the 2018 version of the Model Ordinance, not the current version we helped develop in 2023) led to a hatchery operator being forced to destroy a marketable crop just before its sale. Fortunately, we (i.e., Bob Rheault), were able to jump on a conference call with the state authorities and explain how the current Interstate Shellfish Sanitation Conference (ISSC) regulations address hatcheries rearing seed in uncertified waters. The grower now has a permit in hand and expects things to go much more smoothly next season.

As a member of the association. remember that you have us in your corner: It can be difficult to challenge a regulator who controls your business, so let us do it for you. Bob regularly fights new rules or unfair practices that are bad for our businesses, and because he's no longer actively farming, he can do it without worrying about blowback. Just last month, he was helping us in Maine try to modify unnecessarily restrictive language for a proposed new Army Corps of Engineers rule governing lease restrictions.

Most of our successes have come by collaborating with other groups. The National Aquaculture Association has been a staunch ally, and we have always worked closely with the Pacific Coast Shellfish Growers Association (PCSGA). We also work with state associations, which we count on to help us identify issues, and maintain ties with agency and state regulators.

But our advocacy goes beyond direct conversations with regu-

lators. We sit on several ISSC committees, which meet monthly. Bob works hard at those meetings to try and inject some common sense into the rationales used by the people crafting the rules for our industry. We are typically outnumbered by regulators and Food and Drug Administration (FDA) officials on these calls, so having more grower input would help.

We also are constantly writing letters of support and submitting comments on federal rulemaking affecting our industry. Presenting the industry's perspective is critical—we can often change problematic regulations well before they are enacted.

ANGELO DEPAOLA, CONSULTANT, LLC
LEAD SEAFOOD MICROBIOLOGIST RETIRED FDA

I KNOW BECAUSE
I GROW!

251-455-3035
ANDYDEPAOLA@GMAIL.COM



But it's not simply about opposing or fixing proposed legislation. We try to inform funding agencies on which research priorities should be funded and write letters of support for projects that meet our goals (but only if researchers give us enough lead time!)

If you have a concern, please let us know! And if you have time to help out we would love to have growers step up to work on ISSC committees. We welcome all the support we can get as we continue to provide a voice for growers across agencies and all along the East and Gulf Coasts.







Atlantic City, New Jersey

30-50 Million Clam Seed Produced Annually

20+ Years of Consistent Production

Excellent Water Quality

Turn-Key Operation

Real Estate Included

Asking \$1,300,000

(609) 618-3517 jczodl@comcast.net

*Clam seed available for 2025



Catching Up to Clam Cancer: New Early Detection Method

by Mason Bailey, ECSGA Executive Assistant

Little is known about the origin or mechanisms behind the spread of hemocytic neoplasia ("clam cancer") in marine bivalves. The transmissible disease has been observed in numerous species, perhaps most notably the hard-shell clam (*Mercenaria mercenaria*) aka the quahog. Second only to oysters in the ranks of marine aquaculture production, these clams are staples of livelihoods and dinner tables all along the East Coast.

In recent years, growers have faced outbreaks of the mysterious contagion on Cape Cod, Massachusetts, where mortality rates have reached 30%–60%. What's more, the disease's progression is highly variable, and infected stock can succumb in mere days or weeks. While this cancer is completely harm-

less to humans and does not affect the taste of infected clams, the ability of growers to identify and manage outbreaks is limited.

The traditional diagnostic method for clam cancer involves histologic analysis, wherein clam tissues are processed and carefully examined under a microscope. Obviously, this type of testing can only be done by qualified pathologists in certain specialized laboratories and may take two to six weeks to complete.

Thankfully, a new detection method has recently been developed by the Aquatic Diagnostic Laboratory (ADL) at Roger Williams University's Center for Economic and Environmental Development (CEED), in collaboration with The University of Rhode Island (URI) and the Woods Hole Oceanographic Institution (WHOI). The new, non-lethal test aims to speed up the diagnostic process and reduce costs, resulting in better outcomes for shellfish growers.

I was able to meet with the ADL's director, Dr. Galit Sharon, to discuss what this advancement means for shellfisheries.

ROGER WILLIAMS UNIVERSITY
Clams that show signs of hemocytic neoplasia
(clam cancer) will gape and no longer be buried.
While not harmful to humans, the contagious
disease is found in both soft-shell and hard-shell
clams in New England.
The newly developed testing method uses

The newly developed testing method uses reverse transcriptase quantitative polymerase chain reaction (RT-qPCR) to evaluate the expression of genes associated with the presence of neoplastic cells from an individual clam's hemolymph (a clam's blood-like fluid). Moreover, these target genes showed the ability to distinguish between the different levels of neoplasia severities.

"This RT-qPCR is very sensitive, so it can easily detect cancers at different stages separating negative, low and high....The analysis can be performed and read by a molecular lab technician, not just someone with a specialization in pathology," Sharon said. This means that growers won't have to wait as long for answers, and costs per sample will likely be cheaper.

Clammers may be familiar with QPX (quahog parasite unknown), a reoccurring pathogen affecting Northeast clam beds for many

years. More grower resources are readily available for this disease, but it too has mysterious aspects. Sharon explained that, from her experience in the last years, "There have been few reports of clams being infected with both concurrently."

That said, more surveillance is needed, and occurrences in other locations are unknown. Recent cuts to USDA funding mean no surveillance will be done for the rest of the year, and it is unclear at this point if these funds will be renewed in the future. This is why supporting the ECSGA is crucial to advance legislative priorities and allow us to fight the good fight for shellfish research.

The ADL team is still waiting on USDA approval for the new test, but predicts that official reports will be released by the year's end. "I hope when this comes out that farmers will take advantage of it and researchers may be able to use this tool to give farmers more answers on this disease," Sharon said.

—Continued on page 7



Oyster farm spots for lease near Montegut, Louisiana. \$350 per acre. Zach Lea, 985-272-3681, jdzlea@hotmail.com.

Eat Oysters. Love Longer.



Industrial Plankton*

Algae Bioreactors

www.industrialplankton.com

Bills Supporting Maine's Aquaculture Industry Signed Into Law

Three measures sponsored by Maine state Rep. Morgan Rielly (D-Westbrook) that will develop and fund a Working Waterfront Infrastructure Engineer Corps, address working waterfront nuisance complaints, and streamline aquaculture leases were recently signed into law.

LD 1595 will provide the same protections to the aquaculture sector that commercial fishermen have under current Maine statute regarding nuisance complaints.

"I have heard time and again that coastal landowners who don't want to hear, see or smell aquaculture operations unfairly file nuisance complaints against our aquaculture workers, which can put a halt to the work and food production Mainers rely on," said Rielly. "They deserve the same protections as our commercial fishermen, and I am glad that they will soon have those protections."

One of the most pressing issues facing Maine's growers and commercial fishermen who have aquaculture leases revolves around the leasing process. The two acts dealing with leasing procedures are:

LD 1596, as amended, which directs the Maine Department of Marine Resources to submit a report to the Legislature's Marine Resources Committee by Jan. 1, 2026, with recommended changes to aquaculture leases.

LD 1722, which passed as emergency legislation and went into effect June 20, 2025, will make it easier for people who work in aquaculture to renew their leases, reducing serious burdens and instability within the industry. The bill changes the existing lease renewal process with language that requires the Commissioner of Marine Resources to renew the lease as soon as possible upon receipt of a complete application and directs the Department of Marine Resources to update its rules and forms consistent with this legislation.

"The current renewal process for leases is uniquely burdensome," said Rielly. "LD 1596 and LD 1722 are thoughtful, targeted

bills that support both innovation and regulation. These measures help ensure that our leasing process is responsive, efficient and fair, while maintaining the high environmental and public trust standards Maine is known for."

"Rep. Rielly has accomplished more for Maine's working waterfront in one legislative session than has been achieved in many years," said Sebastian Belle of the Maine Aquaculture Association. "The men and women who rely on the ocean to support their families and coastal communities owe him a great debt for his hard work and determined efforts to support and protect working waterfronts."

Rielly, who is serving his third term in the Maine House of Representatives and is a member of the Joint Standing Committee on Marine Resources and the Joint Standing Committee on Environment and Natural Resources, is the only Maine representative currently working as a farmhand on an oyster farm. In 2023, he shared his knowledge and experience growing oysters when he testified before the Joint Standing Committee on Marine Resources to oppose a bill that would have banned the sale of diploid oyster seed and allowed only triploid seed to be sold in the state.

He said that bill, "would have a chilling effect on oyster farms across the state." He pointed out that nearly all Maine farms relied on diploid seed, and that the higher cost and scarcity of triploid seed (only one Maine hatchery was producing triploids at the time) meant that if the bill was passed into law, it "could be the final nail in the coffin for many farms. Taking away diploid seed would put an incredible strain on our farmers and make Maine's oysters less competitive in the marketplace."

That bill was never passed.

To get in touch with Rep. Rielly's office, contact Brian Lee 305-965-2744 or brian.lee@ legislature.maine.gov.

Rep. Rielly can be reached directly at Morgan. Rielly@ legislature.maine.gov.

Mark Winowich (206) 962-0437



mark.winowich @vitsab.com

Temperature Monitoring Made Simple™



For Perishable **Catering Products**



Validates Caviar Freshness and Quality







Engineered to C-bot Toxin for ROP/MAP



- Meets Food Safety Regulation Builds Consumer Confidence
- Reduces Shrink and Food Waste Strengthens Customer Loyalty

Freshtag.com

BUSINESS

Sept. 6, 2023 | INSIDER Freshtag® by Vitsab announces IAFP Food Safety Innovation Award for proprietary

Time Temperature Indicator (TTI) labels

Sept. 18, 2023 **Bloomberg** Vitsab International, the creators of Freshtag® temperature monitoring technology, celebrate 33 years in business

Sept. 8, 2023

How Vitsab by Freshtag® is replacing outdated best-by food safety systems with its temperature monitoring labels



2023 Food Safety Innovation Award Recipient



- Mark Begley, Beach Point Oysters Cape Cod, Massachusetts

Help us protect the shellfish we love and the waters that sustain them at nature.org/shellfish4climate

From Lobster Traps to Oyster Cages: Riverdale Mills Celebrates 45 Years of Innovation in Sustainable Aquaculture

By Jane Meehan Lanzillo, Director of Marketing & Communications, Riverdale Mills, Nortthbridge, Massachusetts

When Riverdale Mills introduced Aquamesh® in 1980, it transformed the lobster-fishing industry. Fishermen began moving away from wooden traps in favor of the company's durable, lightweight, marine-grade wire mesh. They discovered the welded wire traps could outlast and outperform the wooden gear that had been used for generations.

Today, as off-bottom oyster aquaculture flourishes across the Eastern Seaboard, Aquamesh has become the gold standard for constructing oyster cages. For Riverdale Mills, the company's 45th anniversary is more than a milestone. It's a reminder that durable, thoughtfully engineered materials are essential to the evolving needs of working waterfronts.





RIVERDALE MILLS

Aquamesh is the gold standard for floating oyster culture on the East Coast. The system accelerates growth, protects oysters from predators, and improves water flow, and also allows cages to be submerged during storms to safeguard valuable stock. Aquamesh floating cages consistently deliver higher survival rates, improved quality, and stronger yields.

The oyster industry reflects this momentum. In 2023, East Coast farmed-oyster sales exceeded \$151.9 million, accounting for nearly half of the total U.S. market value of more than \$326 million. With global oyster farming projected to reach \$16.6 billion by 2034, the industry has emerged as a key player in sustainable seafood supply, coastal economies, and environmental restoration.

"In the early days, Aquamesh was all about lobster and crab fishing," said Jim Knott, Jr., CEO of Riverdale Mills. "Over time, oyster farmers realized it was the perfect material for their cages. We didn't have to reinvent anything; Aquamesh was already built to last in both salt and freshwater environments."

The expansion of off-bottom aquaculture systems, in which oysters are suspended just below the surface in wire-mesh cages floating on pontoons, has transformed shellfish farming. The method accelerates growth, protects oysters from predators, improves water flow, and allows cages to be submerged during storms to safeguard valuable stock. These systems consistently deliver higher survival rates, improved quality, and stronger yields.

Made with marine-grade galvanized steel and engineered for superior corrosion protection, Aquamesh is coated with a durable, food-safe, and environmentally responsible PVC coating. This combination ensures unmatched strength and safety —critical in off-bottom systems, where oysters live in direct con-

tact with the mesh for extended periods.

As climate change reshapes marine ecosystems, many traditional fishing grounds are becoming less viable. In Southern Massachusetts, for instance, rising ocean temperatures have shifted lobster populations northward, leaving many fishermen without a reliable livelihood.

"Oyster farming has given these communities a lifeline," said Knott. "It offers new opportunity, stability, and hope for the next generation."

It's not just legacy fishermen getting involved. The industry is attracting a new wave of young aquapreneurs, scientists, and sustainability advocates, all committed to rebuilding coastal economies and restoring marine health. And at its core is the oyster itself: a natural water filter that promotes biodiversity, requires no feed, and remains one of the most sustainable protein sources on the planet.

Now entering its fifth decade, Riverdale Mills continues to manufacture every roll of Aquamesh at its Northbridge, Massachusetts, facility, powered in part by clean hydroelectric energy. The company recycles nearly all of its steel byproducts and remains committed to domestic sourcing, environmental safety, and community resilience.

"At the end of the day," Knott said, "we are proud to support an industry that protects the oceans, sustains the people who work on the water, and brings exceptional seafood to tables across the country."

Oysters Inspire a Novel Glue for Broken Bones

It is amazing what you learn when you have "oysters" in your Google alerts! According to several sources, researchers in China have developed a glue that repairs broken bones in minutes with a simple injection, often obviating the need for larger incisions, and bolts, screws, or plates. The glue works despite the wet, bloody environment that would defeat typical adhesives, and was apparently inspired by the ability of larval oysters to cement themselves to rocks and shells despite being underwater.



DR. MANUEL GONZÁLEZ REYES/

The glue, called Bone-02, has surprising strength, sets in as little as three minutes, and is naturally resorbed by the body in six months, eliminating the need for follow-up surgery to remove traditional metal supports. According to the Chinese researchers, Bone-02 has been tested on over 150 patients, with reports suggesting faster healing, fewer infections, and better outcomes compared to conventional metal reinforcement.

Bone-02 is reportedly especially successful in healing complex, shattered bones (comminuted fractures). It also works well stabilizing the bone on simple fractures, and promotes healing even in compound fractures where the bone fragments may not be perfectly aligned.

Bone-02 is described as a biomimetic adhesive with a bonding strength of over 400 pounds and impressive shear strength. It is not clear from the reports whether the adhesive has any similarities to the substances actually used by oysters, or if oysters simply provided the inspiration for decades of research trials involving material selection, testing, and safety trials. Either way, it sounds pretty cool.

—Continued from page 4

New Clam Cancer Detection Tools

She added that, "Farmers can be more proactive and manage their populations when an outbreak occurs."

Faster test results will allow growers to make important decisions for their stock, before it's too late. Since clam cancer is harmless to humans, affected stock can be sold to consumers before the disease spreads throughout the lease and mortality increases. This new detection method may be pivotal for shellfish growers in preventing crop losses and maximizing efficiency.

To learn more about the new test and the ADL, visit www.rwu.edu/news/news-archive/scientists-rwus-aquatic-diagnostic-laboratory-develop-breakthrough-test-early-detection-clam-cancer.

For more info about CEED, visit www.rwu.edu/ceed.



ROGER WILLIAMS UNIVERSITY

Roger Williams University's Michael Torselli, and Josh Reitsma from Cape Cod Cooperative Extension conduct yearly sampling of quahog plots. Since the new test can diagnose clam cancer faster and more inexpensively than previous methods, it's hoped that shellfish farmers will take advantage of the technology to get affected clams to market before they succumb to the disease. Clam cancer does not affect the taste of the animals and does not harm humans who eat them.



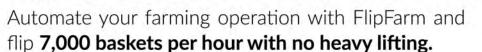




FlipFarm helps you deploy, harvest, flip, and sort oysters faster. Grow more oysters and skip the brutal labor



START AUTOMATING YOUR FLIPPING









STOP FILLING YOUR BASKETS LIKE THIS

START FILLING YOUR BASKETS LIKE THIS

Comfortably fill your baskets without reaching or bending over! A team of three can easily fill 20 baskets per minute with no hard labor.



ARE YOU READY TO TRANSFORM YOUR BUSINESS?

Keith Butterfield | FlipFarm USA | (857) 753-1302 | keith@flipfarmusa.com | www.flipfarm.com

Bivalve Nutrient and Food Safety Handbooks Available

In our last newsletter we reported that the folks at Food + Planet had teamed up with bivalve and seaweed producers and laboratories to analyze aquatic foods that are commonly cultivated and consumed in North America. In August they released the final nutrition and safety data analysis on clams, mussels, oysters, and scallops, as well as seaweed. The results have been compiled in the form of consumer and producer handbooks for both bivalves and seaweed, and are available for free download at eataquaticfoods. org/handbooks.

All the handbooks are colorful and easy to read, with concise summaries, crisp graphics, and clear data tables. The nutrition sections detail levels of macronutrients like protein, omega-3 fatty acids, and fats; as well as vitamins and minerals. It should come as no surprise that bivalves are rich in high-quality protein, omega-3s, iodine, minerals, and essential nutrients, in addition to being sustainable and climate-friendly food choices.

The safety sections offer reassurance that none of the bivalves tested showed concerning levels of heavy metals like cadmium, mercury, and lead. Bivalves were likewise low in arsenic, which occurs mostly in organic form, and is considered safe for consumption. PFAS levels in the bivalve samples were lower than what is found in many other common foods. The handbooks also note that bivalve producers adhere to strict safety regulations and testing protocols.

The Bivalve Producer handbook closely mirrors its Consumer counterpart in the info presented, but comes at the data in terms of how to communicate it effectively to consumers. There are sections on "shaping the bivalve conversation with care," advice to "lean into the story" to communicate bivalves' nutrient density and mineral content, and to "support safe and satisfying choices" by making consumers aware of the relative safety of bivalves compared to other foods. The Bivalve Producer Handbook





Triploid Technology for the Oyster Industry

also offers some guidelines on Prop 65 warnings and cautions that the results of the analyses represent a snapshot in time and cannot be used as a blanket assurance of safety.

The handbooks shed a positive light on the nutritional benefits, safety, and sustainability of bivalves; they could be useful for growers trying to secure or expand leases, or sell their product to consumers and dealers.

Food + Planet (<u>foodandplanet</u>. <u>org</u>), is a 501(c)(3) organization founded by four registered dietitians with varied experience in food systems. Its mission is to "empower food professionals to advance sustainable food systems." The project was funded by the Builders Initiative (<u>www.buildersinitiative.org</u>).



207-449-1180

info@topmeproducts.com www.topmeproducts.com

f @topmeproducts

74 Orion Street, Brunswick, ME 04011 Made in Maine—USA Materials



intermas

Oyster bag solutions for sustainable Aquaculture









aquaculture@intermas.com



Oyster reef for ecosystem restoration



Bio Packaging / Cellmesh



Eco & 100% recycled oyster bags

Long Island Oyster News

by Eric Koepele, President, Long Island Oyster Growers Association

Hello Coastal Neighbors,

Here's a quick rundown of notable oyster industry happenings *ON* (please, please never *IN*) and around Long Island, New York.

Festival season

Fall colors are teasing their debut, one of our baseball teams has spectacularly imploded, the other's in full meltdown mode, and oyster festival season is in high gear. We kicked things off at summer's end with the first-ever Long Island Oyster Jamboree at Smith Point Park—a gorgeous Atlantic beach about 70 miles east of midtown Manhattan. Eleven Long Island farms dished out 30,000 oysters, served raw,



roasted, and smoked. We hauled in five 55-gallon barrels of shells for restoration hatcheries and gave thousands of neighbors a tasty tour of the Island's diverse oyster merroirs.

There are too many festivals to list without losing you, but by the time you read this, we're hoping that the mid-October Oyster Bay Oysterfest will have attracted over 200,000 oyster fans and that the organizers will have attained their goal of shucking

10,000 oysters in an hour, snatching the world record back from those folks in Tyne Valley, Prince Edward Island, Canada, who currently hold it with 8,840 oysters shucked in 60 minutes. Like the Stanley Cup, it's time for the oyster shucking crown to settle south of the border for a good long stay.

Floating gear and bird mitigation

On a more serious note, a group of deepwater Peconic Bay farms, led by Hampton Oyster Co.'s Joe Finora, is finally making headway with the New York State Department of Environmental Conservation on "voluntary submersion" as a valid option for a bird mitigation plan. Although we love to brag that we are the most strictly regulated state on the East Coast, bird deterrents are very costly and often deemed not effective enough for the DEC. The plan? Dedicate a

—Continued on page 12

PUREBIOM ASS

Innovation. Sustainability.





SCALABLE ALGAE PRODUCTION

With control in the palm of your hand

- Indoor / Outdoor Use
- Microalgae and Macroalgae
- Simple, Modular Assembly
- Remote Wi-Fi Control for pH, Temperature, and LED's
- **High Productivity**
- **Cost Effective Solution**

www.purebiomass.org

What's Going On at the ISSC?

by Robert B. Rheault, ECSGA Executive Director

Most of you know that the Interstate Shell-fish Sanitation Conference (ISSC) oversees every aspect of shellfish harvesting, processing, and shipping, including water-quality standards, *Vibrio* control plans, tagging, and shipper facility design and records. It is slated to meet every two years, and was due to meet this fall, but the likelihood of a government shutdown forced its postponement, probably until spring of 2026.

The ISSC is supposed to be "a three-legged stool," consisting of:

- 1. State regulators, who enforce the National Shellfish Sanitation Program's Model Ordinance (NSSP MO)
- 2. The Food and Drug Administration (FDA), which has an oversight role, ensuring that the states comply with the NSSP
- 3. Industry, which plays a critical role in helping regulators understand what we do so that poorly written regulations don't put us out of business

The biennial ISSC meetings are essential because they allow industry representatives to negotiate regulatory changes that accommodate new scientific advancements, technologies, and practices. In between the biennial meetings, more than two-dozen committees meet monthly to refine proposals and debate language that will be voted on at the next conference. The process can be arcane, glacial, and often frustrating. In addition, writing effective regulations is challenging because our industry is incredibly diverse and one size rarely fits all.

Industry participation in the process has been steadily declining because we are all busy, and taking time away from our jobs to debate regulations is tedious and expensive. The ECSGA and Pacific Coast Shellfish Growers Association have been working to try to reverse this trend by exploring ways to support travel for industry representatives.

I sit on five of the 32 ISSC committees and advocate for rational rules that not only protect public health, but also are workable and science-based. I have been working with the **Recall Committee**, which is developing guidance to help producers, dealers, and regulators streamline the shellfish recall process by clarifying the roles of everyone involved. I am eager to explore how we can refine the criteria that the FDA uses when deciding whether to issue public notices of outbreaks and recalls. Their "use of press" can have devastating impacts on sales, even when we are certain that all implicated product has been accounted for and destroyed.

I chair the **Aquatic Bird Risk Assessment Committee**, which has the daunting task of reviewing mountains of scientific literature

to identify what research is needed to guide the development of a Quantitative Risk Assessment to determine how many birds are too many, and what are the most SANITATION CONFEREN appropriate steps we can take to mitigate the risk of illnesses from birds. It is clear that bird guano has a different risk profile from sewage, even though both impact coliform levels and can close growing areas. We are exploring tools to identify risk factors and explore ways to keep growing areas open, in order to allow shellfish that may have been impacted by birds to purge pathogens before harvest.

The Marina/Mooring Area Committee is tasked with developing guidance for state regulators on managing shellfish harvest around these potential pollution sources. I am trying to ensure that the hundreds of mooring areas in states with rigidly enforced no-discharge regulations are not closed to harvest unless necessary. Several New England states have invested millions of dollars in pump-out facilities, public education, and enforcement to ensure that heads are not being emptied in shellfish harvest areas. Many boats in marinas and mooring areas have holding tanks or no heads at all. Seasonally

closing these areas would require massive enforcement and sampling efforts that may not be justified by the potential risk. This is an issue where huge variations in regional management approaches greatly complicate the need for uniform regulations.

I wrote about the **Aquaculture Committee** in the June newsletter. Once again, we see significant regional differences in state growing practices, which complicates developing consistent regulations. **Here, especially, we need industry participation** to help the FDA understand how differences in species, growth rates, and practices impact regulation so we can ensure that the rules make sense and do not hobble our businesses.

I continue to emphasize the importance of industry representation because this work is crucial. The Model Ordinance controls every aspect of your business. You have a voice in the process and a seat at the table, but only if you show up. Without your input, the FDA will dictate the rules, and you probably won't like them. If you can't attend ISSC meetings, maybe you could work with your state association to help fund travel for someone who can. Your livelihood depends on it.





Formutech Inc. 135 Kent St. PO Box 893 Charlottetown, P.E.I. Canada C1A 7L9

E-mail address jfortune@formutech.ca Internet www.formutech.ca Phone number 1.855-599-0099

Owner/President

Cell number 1 902-629-0126

lesse Fortune

Cell number 1 902-629-0126



—Continued from page 10

Long Island Oyster News

portion of each farm as a submersion zone, moving oysters from floating gear to bottom or suspended gear for three to four weeks before harvesting and packing for market. Details are still being hashed out, but for farms facing shutdown threats over vague bird counts and gear disputes in the absence of water-quality tests, this program offers a clearer path to compliance and ensures we're shipping the safest oysters possible.

Suffolk County and New York State support

All of Long Island's oyster farms operate in Suffolk County, covering the eastern twothirds of the Island. The county is all-in on oysters, offering marketing grants, access to parks for festivals, and summer internships.

They're also hyping Long Island Oyster Week, a nine-day extravaganza that started on October 11. This marks the third year of the event, and restaurants have reported huge spikes in oyster sales that boost overall receipts. The county is thrilled with the growing buzz and sustained demand for our oysters.

Meanwhile, New York State is waking up to aquaculture's potential, especially for shellfish and seaweed. The state pumps nine figures annually into its dairy industry and allocated up to \$128 million for licensed cannabis cultivators through loans, grants, and tax credits in the 2024-2025 budget, But oyster farmers? We've been bootstrapping it until now. This year, though, we saw the first round of applications for \$1.5 million in grants for processing and husbandry equipment like cages and tumblers. Round two, with \$2.7 million for infrastructure,

opens in November. Forget the land of milk and honey, New York's dreaming of cheese, weed, and oysters. Go figure.

The Long Island Oyster Growers Association has produced short films to pitch New York oysters to the New York City market. These will drop in full and as 20-second clips on social media and local media outlets. Most feature interviews with chefs, restaurant owners, and distributors, but because it's Long Island, there's also a cameo from some ladies who lunch.

Hope you enjoy.

drive.google.com/file/d/1srPq0TgBP 3H7PCbZpLMqQGuUxiAZIFTW/ view?usp=sharing

drive.google.com/file/ d/1Cf562te891ZSTYRLgMg5Jp-4abitM61P/view?usp=sharing



For business, for community and for our environment.



Developed through many years of innovation and testing, the OysterGro® system offers all the in-depth knowledge and specialized equipment required for the cost-efficient, commercial production of high-quality oysters.



- OysterGro® consistently produces a higher quality oyster that delivers the best price
- Consistent growth
- · High-value harvest

Desirable size and shape

Appealing look

Built rugged, built to last

- · Designed, engineered and tested for strength and performance
- Built with the best quality materials in the market
- Over the last two decades OysterGro® has proven to stand up to bad weather from winter ice and storms through to hurricanes



Engineered to be a highly

your oysters are consistently feeding in the nutrient rich waters just below the surface Better access - OysterGro® is designed to be easy to work with from your boat so you're less restricted by tides • Highly efficient - each 6-bag unit will carry 1,200 to 1,500 grow out oysters, so you handle less equipment but produce more oysters



T 506 743-5455 F 506 743-6729 info@oystergro.com www.oystergro.com



Simpler Shellfish Tagging

Customizable, rugged, full-color compliant tags you print on demand with the BlueTrace app & printers

Creating shellfish tags by hand or with an old desktop printer setup is a drag. You've got to deal with ripped and lost tags, data errors, and technology from the last century. And all the info that goes on the tag has to be rewritten, a second time, in your logs. Double entry wastes a lot of time.

With BlueTrace your tags get smart. Enter data once as you harvest to print your tags on the printer we supply you, and your harvest log is built, automatically. Get a log to an inspector by just tapping a button and a spreadsheet arrives in your inbox, ready to send.

And not only are these tags smart, but they look great and professional. Showcase your brand by preprinting the backs of your tags in 4-color, high-resolution for a lot less than custom bags or packaging.

Visit blue-trace.com or call (781) 776-7689 to learn more or get a personalized quote today.

TRADE T MARK

STORY OF THE STOR

PERISHABLE; KEEP REFRIGERATED. PRODUCT OF THE USA.

HARVESTER HARVESTER HARV

HARVESTER HARVESTER HAR\

Your Shellfish Company

1000 Main Street, Coastal Town, CT, 00000, USA (P) (999) 234-5678 | contact@company.com | www.company.com CERT #: ST-0000-AQ

HARVEST DATE | TIME 21 May 2023 | 8:30 AM HARVEST LOCATIONS
Some Bay, 12345

TYPE

OUANTITY

Oysters SIZE/CULL

ICING/REFRIGERATION DATE
21 May 2023 | 9:16 AM

BRAND

Best Oysters

SHIP TO

Amazing Seafood

999 Amazing Street, City, ST, 00000

THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY OR I RETAGGED AND THEREAFTER KEPT ON FILE, IN CHRONOLOGICAL ORDER, FOR 9 DAYS. RETAILERS DATE WHEN LAST SHELLFISH FROM THIS CONTAINER IS SOLIOR SERVED (INSERT DATE

RETAILERS, INFORM YOUR CUSTOMERS: CONSUMING RAW OR UNDERCOOKED MEATS, POULTRY, SEAFOOD, SHELLFISH OR EGGS MAY INCREASE YOUR RISK OF FOOD BORN ILLNESS, ESPECIALLY IF YOU HAVE CERTAIN MEDICAL CONDITIONS.

A WARNING: CONSUMING THIS PRODUCT CAN EXPOSE YOU TO CHEMICALS INCLUDING CADMING, WHICH ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. FOR MORE INFORMATION GO TO WWW.P65WARNINGS.CA.GOV/FOOD

PERISHABLE: KEEP REFRIGERATED.



PRINTED WITH BLUETRACE. BLUE-TRACE.COM



Visit blue-trace.com to learn more

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 Iture's National News,
GO DIGITAL - sign up ab:

www.fish-news.com/ffn



Training and Education for Growers

Check out ecsga.org/grower-training for instructional videos; links to training classes, presentations and webinars; and info about hands-on courses all along the coast. We have resources for newbies and old hands alike, and it's free.

SHRED



ELECTRIC

www.shredelectric.com BeRad@shredelectric.com (207) 613-5708





Sustainable Aquaculture Equipment

Our battery-operated washdown pumps: combine reliability and versatility, recharging via solar, grid, or alternator power to keep you ready anywhere.

Efficient Solar-Powered Grading: Our solar tumbler motor provides eco-friendly performance for shellfish tumbling, powered solely by renewable solar energy.

Streamlining Sustainable Aquaculture: Our solar-powered upweller circulates water for healthy shellfish growth, relying entirely on solar energy with no external electricity needed.

Our innovative software solutions:

ShredConnect™ ensures cold chain food safety with temperature monitoring and Al-driven analytics for accurate predictions and alerts. We're excited to announce our new water quality and environmental monitoring features.

Reliable Cold Storage

The ShredCube™ ensures your harvest stays fresh from farm to table, offering great taste and food safety on the go. With solar and AC charging, it operates quietly and reliably while staying Cloud-connected for temperature monitoring, route tracking, and energy forecasting. It's easy to transport and fits perfectly in a pickup truck, van, or boat.



Electric Boats

Our specially designed aluminum boat features Flux Marine's powerful electric outboards, providing a silent and emission-free experience for transporting gear, daily catches, and more. These electric boats can be customized to meet the specific needs of your operations, whether you require a skiff, a fast barge, or a landing craft. Plus, we provide highly competitive pricing to ensure you get the best value. Let's make your boating experience exceptional!



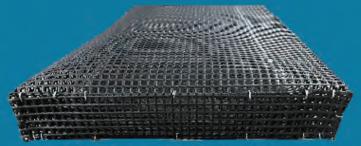




Boost Your Harvest with Ketcham Supply

Manufacturer of high quality cages.
Distributor of top supplies.

Flow N Grow™ Floating Cages



Pre-boxed Oyster Bags



Saeplast® Insulated Coolers and Recirculating Bins



D345 (317 gal)



KetchamSupply

Ketcham Supply Co Inc 111 Myrtle Street New Bedford, MA 02740 f @KetchamTraps

508.997.4787 www.ketchamsupply.com info@ketchamsupply.com

Why Choose Grandview Welding LTD?

- We fabricate products from aluminum, stainless steel, and mild steel.
- Expertise in designing equipment for oyster and mussel farming.
- Serving all of Canada and the United States.



Strength, Durability, and Precision for Your **Aquaculture Operations**

Custom Fabrication Solutions Designed to Meet Your Needs

Aluminum Oyster Tumbler

- Electric or hydraulic driven
- Almost any hole sizes available
- Durable and lightweight
- Custom lengths available



Boats & Barges

- Licensed manufacturer
- Aluminum construction
- **Custom sizes and designs**
- Hiab, Palfinger, or Amco Veba



Conveyors

Box Dumpers

Stainless construction

Electric/hydraulic powered Custom sizes available

- Custom conveyors
- Electric or hydraulic driven
- Designed to fit any application

Oyster Shaker Tables

- Electric or hydraulic driven
- Screen sizes available from 1/4" to 1.5"
- Available in 4'x2' or 5'x3'



Aluminum Oyster Cages

- Manufactured from 1/2" aluminum round bar
- Multiple styles and sizes of floats available



Let's Discuss Your Project! Request a Free Consultation Today.



Follow us on: (f) (a) @grandviewwelding

GRANDVIEWWELDING.CA (902) 651-3000

SCOTT@GRANDVIEWWELDING.CA

If You Hear Hoofbeats ... Think of Horses, Not Zebras

Since we have seen a handful of Campylobacter illness outbreaks related to shellfish consumption, state epidemiologists have started to ask patients diagnosed at the hospital with campylobacteriosis if they recently consumed ovsters. In several states this has led to outbreak investigations of growing areas that thankfully concluded that oysters were not to blame.

The vast majority of *Campylo*bacter illnesses are associated with other foods, most commonly undercooked chicken or foods contaminated with even as little as a drop of chicken blood. Epidemiologists are complaining that they are expending limited resources on these oyster Campylobacter investigations when they believe they should be looking at Vibrio outbreaks instead. Vibrio is commonly associated with shellfish consumption, while the number of outbreaks of Campylobacter linked to shellfish consumption is actually quite small.

Using the CDC NORS BEAM Dashboard search tool (www. cdc.gov/ncezid/dfwed/beamdashboard.html) I was able to pull up the outbreak statistics for the years 2009 to 2023 and search for illnesses caused by Campylobacter with oysters implicated as the food source. The tool revealed only 11 outbreaks, with 79 reported illnesses, in the 15-year period. Chicken was implicated in 26 outbreaks with 322 illnesses. When all foods were included in the search, the tool revealed 448 outbreaks and 4,540 illnesses over the same period. So oysters were implicated in only 2.5% of outbreaks and 1.7% of illnesses. Chicken was implicated in 5.8% of outbreaks and 7.1% of illnesses.

The epidemiologists' frustration is well founded. If you ask someone what they ate in the past week, it is pretty likely that an oyster consumer also ate chicken, making the investigation far more complex. If you have limited resources, perhaps you should be focusing on the most plausible causes instead of focusing on the rare culprits.

Looking at Salmonella (which is implicated in far more illness outbreaks), the disparity is even more striking. Salmonella was implicated in 1,929 outbreaks and 49,828 illnesses from all foods, but only six outbreaks and 72 illnesses from oysters!

Keep in mind that the CDC NORS BEAM tool is only reporting outbreaks with confirmed etiology (the organism responsible), and many illnesses go undetected and unreported. The actual number of illnesses is undoubtedly far greater. Campylobacter is most commonly seen in individuals, as opposed to groups of unrelated people, which is the definition of an outbreak.

Another take-home message: There is a good reason why HACCP regulations prohibit putting shellfish into a cooler below raw meat. A single drop of chicken blood can be enough to cause illness, so if you are delivering shellfish and the customer says "just put it on the floor in the walk-in," DON'T DO IT! You could be nailed with the illness and forced to undergo the nightmare of a recall!

Shellfish belong on the top shelf! —RBR



WWW.PEXELS.COM

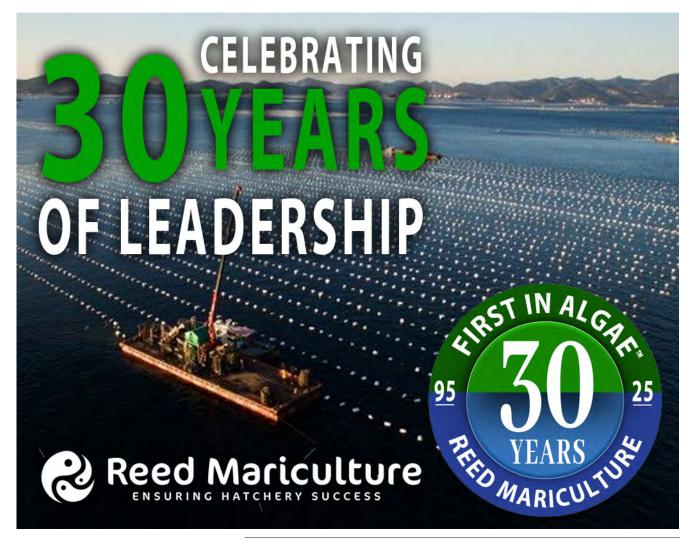




Proudly serving the shellfish industry since 2014.

Dave Merriman, CPCU Sales and Risk Management Consultant (434) 296-7191 ext 139 (434) 409-3085

> PO Box 96 218 Third St NE Charlottesville, VA 22902 www.hanckelcitizens.com









Covering Your Operation From Ship-to-Shore and Shore-to-Door



Brendan Crawford Marine Insurance Advisor

O. 401.314.4658 C. 401.477.2277

E. bcrawford@crvinsurance.com

Our Specialties Include

Aquaculture, Wholesale Seafood, Commercial Vessels Marine Manufacturing, Retail Markets, Restaurants Ocean Marine, Specialty Operations

We are a proud supporter of the East Coast Shellfish Growers Association



Coming Events

Virginia Aquaculture Conference. Nov. 14–15. Biennial conference and trade show. Marriott at City Center, Newport News, VA. Visit vaaquaculture conference.com.

NACE 2026. Jan. 7–9. Northeast Aquaculture Conference & Exposition and the Milford Aquaculture Seminar. Holiday Inn by the Bay, Portland, ME. Visit www. northeastaquaculture. org.

Oyster South. Jan. 29–31. Symposium and trade show. InterContinental Houston by IHG, Houston, TX. Visit www.oystersouth.com.

Aquaculture America. Feb. 16–19. Conference and trade show. Paris Hotel, Las Vegas, NV. Visit was.org/ meeting/code/AA2026.

National Shellfisheries Association. March 22-26. 118th annual meeting. Marriott Portland Downtown Waterfront, Portland, OR. Visit www.shellfish.org/ annual-meeting.

Northeast Shellfish Sanitation Association. April 8–9. Conference and annual meeting. Harraseeket Inn, Freeport, ME. Visit www. issc.org/nessa.

24th International Pectinid Workshop. April 22–28. Workshop on scallop research. New Bedford, MA. Visit pectinidworkshop.com.

Norovirus Outbreaks From Imports Are Killing **Our Markets**

I track a lot of shellfish-related news, and have been dismayed to see the number of Food and Drug Administration (FDA) Alerts related to norovirus-contaminated shellfish increasing over the past two years. Every time there is an outbreak, the FDA sends an Alert to the media, which dutifully reports it. Reporters often get some information wrong or embellish the facts, leading to alarming headlines like "Toxic Shellfish from [pick a state]" when, in fact, the implicated harvest area was localized. Even more maddening, these Alerts often come several weeks after the shellfish was harvested, meaning odds are pretty good that all the implicated product has been eaten or recalled, making these Alerts more punitive than preventative.

Many of these norovirus outbreaks have been traced to imported oysters. I counted five reports from South Korea, two from Sonora, Mexico, and two from British Columbia. Over the same two-year period, the FDA issued four Alerts for U.S. shellfish: two from Washington State, one from Louisiana, and one from Connecticut (dubious). Countries that are permitted to export uncooked shellfish to the U.S. are required to have sanitation controls that are equivalent to ours, and only a handful of countries have met our standards. With domestic production dwarfing imports, the numbers look even worse.

A few years ago there was a spate of norovirus outbreaks related to South Korean oysters. FDA inspectors went to re-evaluate the Korean program to find the source and come up with solutions before trade could resume. The time has now come for more inspections. If these countries cannot meet our standards, they should not be allowed to export to us.

One thing is certain, media reports of shellfish-related illness are damaging to our markets. We have a challenging history of sickening and killing shellfish consumers, dating back to the invention of the flush toilet at the turn of the century. Since then, we have made significant progress with improvements in wastewater treatment, harvest-area monitoring, and the development of strict controls through the Interstate Shellfish Sanitation Conference. Generations of consumers have been able to enjoy raw shellfish with only the rare chance of illness.

Every time a potential customer reads a report of shellfish-related illness, all that progress is at risk. We may never completely eliminate all risks in raw foods, but if we want to avoid becoming the punchline of late-night comedians, we have to do better. The same applies to the countries that want to ship their product to our shores.

--RBR



ECSGA Dues Categories

Growers, dealers and equipment suppliers enjoy full voting rights. (If you are both a grower and a dealer simply ask yourself where most of your revenue comes from.) If you don't fall into one of these industry categories please consider joining as a non-voting associate member.

Member Type	Gross Annual Sales	Dues
Grower	\$0 to 50,000	\$100
Grower	\$50,000 to \$100,000	\$200
Grower	\$100,000 to 300,000	\$500
Grower	\$300,000 to 1 million	\$1,000
Grower	\$1 million to \$3 million	\$2,000
Grower	over \$3 million	\$3,000
Shellfish Dealers and Equipment Suppliers		\$250
Restaurant Ally		\$100
Non-voting Associate		\$50

You can pay your membership dues online with a credit card or mail this form with your check to:



ECSGA

111 Myrtle St.

guarded and will not be shared!

New Bedford, MA 02740	
Name	
Company	
Street Address	
City, State, Zip	
Email	
Phone	
Member Type and Level*	
* Rest assured your sales information will be closely	



ISSUE 3 OCTOBER 2025