

LEASE MANAGEMENT

FDACS-P-02154 Technical Bulletin #05 - Revised January 2021



Photo: UF/IFAS

Overview:

- Submerged Land Leases and Shellfish Harvesting Areas
- Marking Aquaculture Leases
- Shellfish Aquaculture Best Management Practices
- Shellfish Health and Genetic Requirements
- Tagging and Processing Requirements
- Assistance and Resources

Safeguarding the public and supporting Florida's agricultural economy.

This publication is meant to provide a basic overview of the leasing process and operating requirements of a shellfish aquaculture lease. Refer to the variety of fact sheets referenced throughout for more detailed information about specific topics.

Important Resources

- ◆ [Aquaculture Certificate of Registration](#)
Certification and annual renewal is required for all shellfish farmers.
- ◆ [Aquaculture Best Management Practices Manual](#)
Rule manual for shellfish aquaculture activities, including docks, upland facilities and leases.
- ◆ [Aquaculture Leasing Process](#)
Guide to the leasing process in Florida and how to nominate a new site.
- ◆ [Shellfish Harvesting Area and Aquaculture Lease Maps](#)
Interactive map of all harvesting areas, leases and processing facilities in Florida.



Overview of Shellfish Aquaculture

According to the United States Department of Agriculture's 2018 [Census of Aquaculture](#), shellfish farming was the second highest valued aquaculture product in Florida in 2018, bringing in \$15.5 million in farm gate sales. To date, there are 358 shellfish leases covering more than 1,500 acres in Florida.

Shellfish farming is a multistep process, including hatchery production of seed (larvae) by spawning adult broodstock, nursery rearing of juveniles to a size sufficient for planting on leases, growout on submerged land leases to a marketable size and processing at certified shellfish processing facilities. The Florida Department of Agriculture and Consumer Services (FDACS), Division of Aquaculture certifies all aquaculturists, issues and regulates all aquaculture leases and certifies all shellfish processors in the state.

Shellfish Hatcheries and Nurseries

Hatcheries are typically land-based facilities that require an [Aquaculture Certificate of Registration](#) for the location, and must be annually inspected by Division staff to ensure compliance with all applicable [Aquaculture Best Management Practices](#) (BMPs). Hatcheries can be operated using a saltwater well or intake pipes from waters of the state. Farmers often produce their own live algae as well to feed larval shellfish. Nurseries can be land-based or on an aquaculture dock. These systems typically consist of raceways or upwellers utilizing nearshore water containing natural algae



Clam seed ready to be transferred to a nursery system.

to cost-effectively grow seed to a size that can then be planted on a lease.

Once clams reach 16 millimeters (approximately $\frac{3}{4}$ -inch) in shell length or oysters reach 25 millimeters (approximately 1-inch) in shell length, they must be moved to approved waters for growout (see [page 3](#)). Both hatcheries and nurseries must be designed and operated to meet BMPs.

For more information about Aquaculture Docks or an Aquaculture Letter of Consent to place intake or discharge pipes or aquaculture nursery equipment into state waters, please see the [Aquaculture Docks](#) fact sheet.

Lease Audits

Each January, aquaculture leaseholders are required to complete an Affidavit of Audit (for [shellfish](#) / [live rock](#)) that details plantings and harvesting activities on each lease. Leaseholders must submit copies of all seedstock receipts, health certificates and proof of broodstock origin for out-of-state sources (see [page 7](#)) the previous year. The audit also allows staff to verify whether the leaseholder has satisfied the minimum cultivation requirements.

Effective cultivation for clams requires planting a minimum of 100,000 clams per acre annually and oysters require planting a minimum of 70,000 oysters per acre annually.

Authorized Users

A leaseholder may allow another individual or company to operate on their lease as an **Authorized User (AU)**. Note that the leaseholder is responsible for the activities of the AU and all lease rules and requirements.

An **AU Acknowledgement form** must be completed annually (expires on June 30 each year) for anyone working or selling shellfish in their name or company separate from your lease agreement name or company. All AUs must also obtain a separate Aquaculture Certificate of Registration. **The AU form can be downloaded here:** Forms.DOACS.State.FL.us/15107.pdf

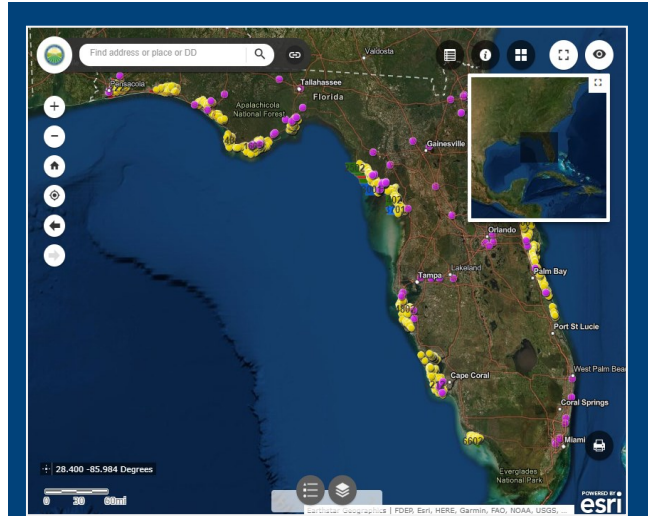
Lease Transfers

Leases may not be transferred or subleased for 5 years from the effective lease date. Contact the Division for more information.



Submerged Land Leases

All shellfish aquaculture leases are located in Approved and Conditionally Approved Shellfish Harvesting Areas. The producer's Aquaculture Certificate of Registration number must accompany shellfish being transported from a hatchery or nursery and to and from approved lease areas. Once the shellfish have reached the preferred size for sale, they are harvested from the leases, tagged and sold to a Florida certified shellfish processing facility. **Direct to retail sales of shellfish is prohibited.** See [page 9](#) for regulations related to retail sales. More information regarding processing can be found on [page 8](#).



An interactive map of locations and information about all aquaculture leases, shellfish harvesting areas and processing facilities can be found on the Division homepage.

For more information about the leasing process and obtaining an aquaculture lease, please review the [Submerged Lands Leasing Process for Aquaculture](#) fact sheet.

To download an application and view current lease availability, visit:

www.FDACS.gov/Agriculture-Industry/Aquaculture/Aquaculture-Submerged-Land-Leasing

Aquaculture Certification of Registration

Any company or person engaging in commercial aquaculture (leaseholders, sublessees and authorized users) is required to obtain an [Aquaculture Certificate of Registration](#) (AQ Certificate) and comply with all applicable [Aquaculture Best Management Practices](#) (BMPs). The AQ Certificate identifies the aquaculturist, their lease, product and/or facility. Personnel employed by a leaseholder are covered under the leaseholder's AQ Certificate number. Persons who are not employees and are engaged in culturing and harvesting shellfish from leases are considered Authorized Users (see more information about authorized users in the box to the left). **The AQ Certificate is valid July 1 to June 30 and must be renewed annually at a cost of \$100.**

Annual Lease Fees

Aquaculture lease fees are paid annually based on the number of acres leased and the lease type, and are subject to annual adjustment by the Board of Trustees of the Internal Improvement Trust Fund based on the Consumer Price Index established for the previous five years. Current bottom lease fees are \$16.73 per acre and every fraction thereof, plus a \$10.00 surcharge per acre and fraction thereof. Water column lease fees are \$33.46 per acre and every fraction thereof, plus a \$10.00 surcharge per acre and fraction thereof. **Payment is due on January 1 of each year, and annual billing statements are mailed to each leaseholder approximately 60 days before payment is due.**

Shellfish Harvester Education Training

Each shellfish dealer, harvester and AQ Certificate holder producing shellfish is required to complete the Shellfish Harvest Education Training (HET), which is an interactive education video regarding proper handling and harvesting of shellfish product. Following completion, a signed certificate will be issued for submission along with any licensing or certification application. **An application or renewal for an AQ certificate that includes shellfish as a product will not be processed without a valid copy of your HET.**

The training can be taken online at: LearningMyFWC.remote-learner.net/login/index.php Contact the Division for assistance taking the training or to attend an in-person training.

Shellfish Harvesting Area Management

The goal of the Division’s shellfish harvesting area classification and biotoxin control management program is to provide maximum utilization of shellfish resources in Florida waters, while minimizing the risk of shellfish-borne illness. To achieve this goal and be able to ship shellfish nationally and internationally, Florida is a member of the Interstate Shellfish Sanitation Conference (ISSC). The ISSC is an association of states, the U.S. Food and Drug Administration (FDA), National Marine Fisheries Service, Environmental Protection Agency and shellfish industry.



As an ISSC member, Florida must adopt laws and regulations for the sanitary control of the shellfish industry, including surveying harvesting areas, harvest area classification standards and ensuring that shellfish are grown, harvested and processed in a safe and sanitary manner. Each classification standard reflects a different degree of water quality based on fecal coliform bacteria data. You can learn more about [National Shellfish Sanitation Program requirements](#) and individual area management plans and characteristics by reviewing the [Shellfish Harvesting Area Classification Boundaries and Management Plan](#) publication.

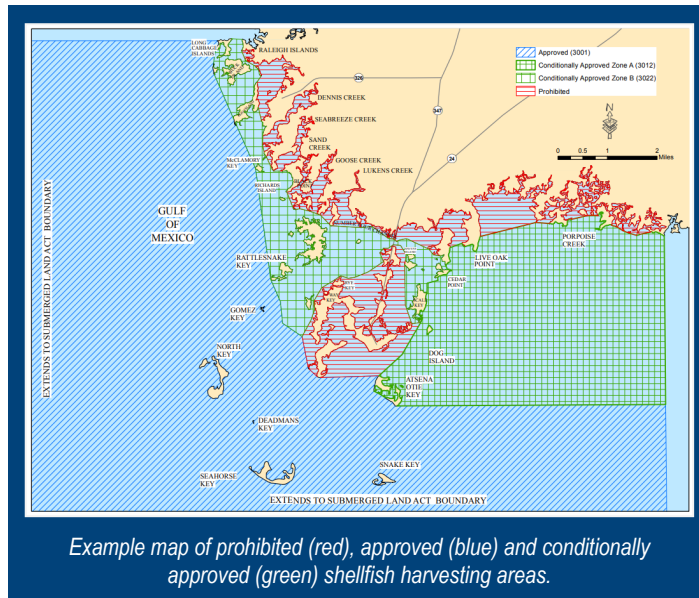
Shellfish Harvesting Area Classifications

Approved: Normally open to shellfish harvesting. Closed under extraordinary circumstances such as red tides, hurricanes and sewage spills. Appears BLUE on maps.

Conditionally Approved: Periodically closed to shellfish harvesting based on pollution events, such as rainfall or river stage. Appears GREEN on maps.

Prohibited: Shellfish harvesting is not permitted due to acute pollution sources. Appears RED on maps.

Unclassified: Shellfish harvesting is not permitted because a management plan has not been developed. Areas are often unclassified because little interest in shellfish harvesting exists. Not designated on harvesting area maps.



Example map of prohibited (red), approved (blue) and conditionally approved (green) shellfish harvesting areas.

Rainfall Closures Explained

Rain events can cause temporary shellfish harvesting area closures because stormwater runoff is known to transport pollution and pathogenic bacteria into surface waters. Shellfish harvesting areas are closed after a significant rain event triggers closures, based upon each area’s management plan. Until adequate flushing of the area has occurred and the shellfish have had a chance to purge themselves of contaminants, the area remains closed. To reopen an area following temporary closure associated with a rain event, water sample results must meet the appropriate standards and adequate time must elapse for shellfish to purify. Public health is protected by allowing shellfish to be harvested only from waters that meet a high quality classification standard (approved and conditionally approved).

Visit the [Shellfish Harvest Area Closure Status](#) webpage to determine the status of the area your lease is located in. Contact the Division at Aquaculture_Web@FDACS.gov to be automatically notified when your specific shellfish harvesting area(s) closes and opens.

Managing Pathogenic Bacteria in Shellfish

Shellfish are filter feeders, which means that they get food and oxygen by pumping large amounts of water across their gills. In addition to food particles, shellfish may take in pathogenic bacteria (bacteria that can cause disease), harmful algae species or chemical contaminants from the surrounding environment. Pathogenic bacteria can be concentrated in shellfish digestive systems and tissues at over 100 times the levels in the surrounding water.

Since shellfish are often eaten raw or partially cooked, shellfish that are harvested from polluted areas or during times where pathogenic bacteria are abundant (such as after significant rainfall events) pose a significant health hazard for consumers. Individuals with compromised immune systems are particularly at risk for becoming ill from eating raw or undercooked shellfish.

To minimize the risk of shellfish-borne illness, the Division routinely monitors shellfish harvesting areas for the presence of pathogenic bacteria. Each year, the Division collects and analyzes water quality and bacterial data from roughly 1,200 sampling stations in 38 different shellfish harvesting areas, encompassing more than 1.4 million acres throughout the state.

For more information about shellfish harvesting area management, visit:

www.FDACS.gov/Agriculture-Industry/Aquaculture/Shellfish/Shellfish-Harvesting-Area-Classification



Private Aids to Navigation

Use of a water column lease — more than six inches off the bottom on a submerged land lease — requires markers pursuant to a U.S. Coast Guard (USCG) Private Aids to Navigation (PATON) permit. The USCG communicates the potential hazard to the boating public with a notice to mariners, and coastal navigation charts are updated to depict the hazard.

The PATON permit may consist of buoys, signage or lights which are to be installed and maintained by the lessee after the specific configuration and design is approved by the USCG. Each marking situation requires individual and specific review by the USCG. While the USCG considers many variables when determining marking requirements (the type of obstruction, specific location, water depth, vessel traffic and density), types of vessels or marine life are the primary considerations.

The Division coordinates the submission and approval process with USCG on behalf of all leaseholders that require a PATON. Refer to your lease agreement for specific requirements for marking your lease.



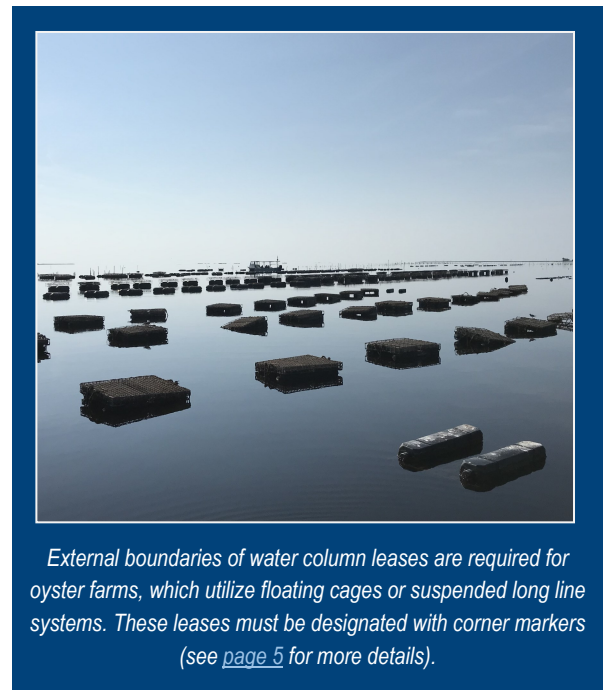
Lease Marking Requirements

The exterior boundaries of individual water column leases and Aquaculture Use Zones (AUZ) are designated with corner markers, which have the following requirements:

- 1) A greater than 6-inch diameter pole with a sign installed a minimum of 3-feet above mean high water.
- 2) A 3-foot x 3-foot, yellow diamond sign (1/2-inch medium density plywood or 1/8-inch commercial grade aluminum) with 2-inch darker yellow border.
- 3) A 12-inch black block letter as specified in your lease agreement.
- 4) Corner direction (*i.e.* NE, NW, SE, SW) and lease or parcel number (*e.g.*, L-123).
- 5) A flashing yellow marine lantern for water column leases.

The boundary of each individual lease is designated by a parcel post or buoy, which have the following requirements:

- 1) **Posts** must be white and have a minimum diameter of 1 1/2-inch (2-inch PVC pipe is most commonly used).
- 2) International orange bands of reflective tape at the top and bottom, at a minimum of 18-inches above mean high water.
- 3) Corner direction (NE, NW, SE, SW) and lease or parcel number (*e.g.*, L-123) in 1-inch black block characters. providing the parcel's appropriate corner direction (NE, NW, SE, SW) and parcel or lease number.
- 4) **Buoys** must be maintained upright at a minimum height of 14-inches above mean high water mark and also contain the corner direction (NE, NW, SE, SW). and lease or parcel number (*e.g.*, L-123) in 1-inch black block characters.



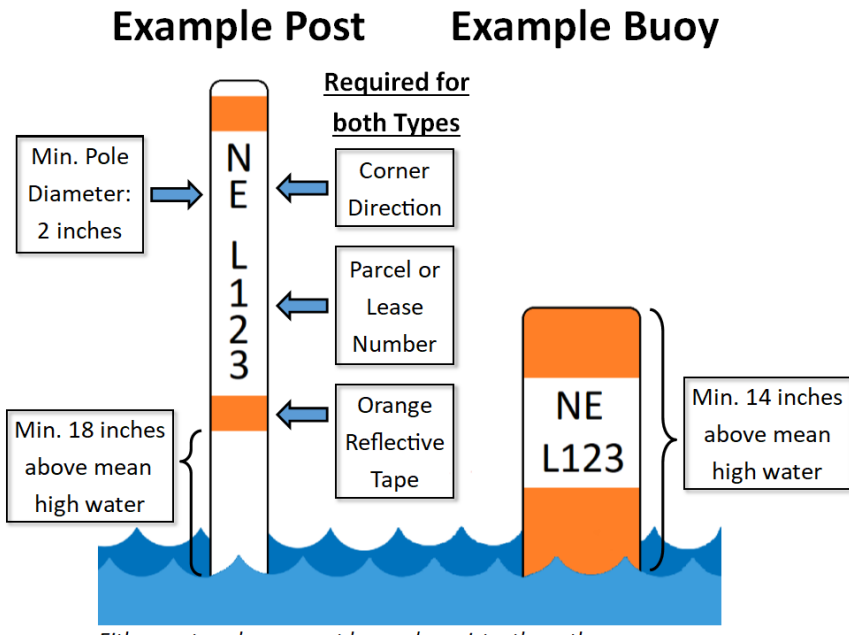
External boundaries of water column leases are required for oyster farms, which utilize floating cages or suspended long line systems. These leases must be designated with corner markers (see [page 5](#) for more details).

Labeling Suspended and Floating Gear

The leaseholder's identification information shall be attached to all floating or off-bottom culturing structures. In the event that floating or off-bottom culturing structures become unanchored and lost, gear tags allow the leaseholder's property to be identified and improve the likelihood of being returned to the owner. This can be especially important during severe weather events when multiple leases may lose gear at the same time. The leaseholder is required to retrieve any dislodged structures or equipment from the shoreline, seagrass beds or submerged bottom with minimal damage to the resources affected. Any derelict structures must be removed and properly disposed of or returned to the lease site.

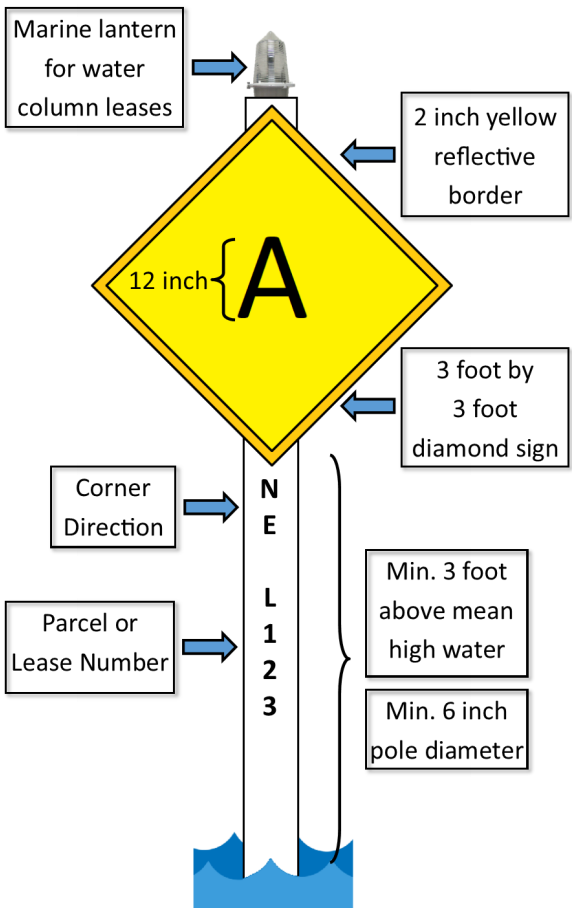
Gear tags come in a variety of types and designs. Contact the University of Florida, Shellfish Extension office at LNST@UFL.edu for more information about gear tags and current suppliers.



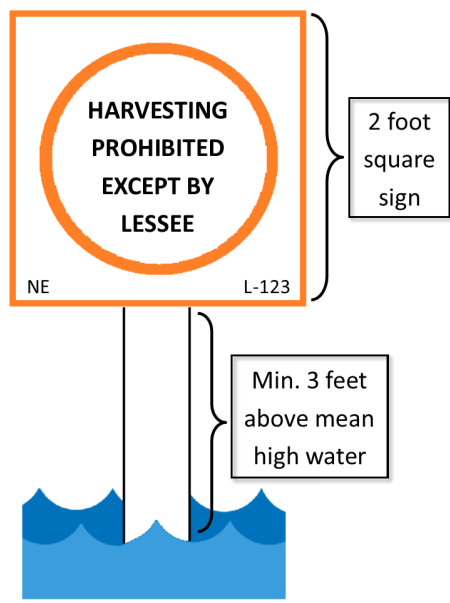


Either posts or buoys must be used consistently on the lease corners.

Example Corner Marker



Example Theft Prevention Sign



Optional Theft Prevention Signs: A 2-foot x 2-foot sign must extend 3-foot above mean high water and must include: 1) A white field with international orange bands of reflective tape around the perimeter; 2) the "circle symbol" using international orange reflective tape; and 3) the phrase: "HARVEST PROHIBITED EXCEPT BY LESSEE".

Marine Lantern Equipment Suppliers

Marine lanterns, if required, must be U.S. Coast Guard approved. Vendors include, but are not limited to:

Essi Corporation
 200 Cummings Road
 Broussard, Louisiana 70518
 Telephone: (337) 837-3774
 Fax: (337) 837-3712
 Website: EssiCorp.com

McDermott Corporation
 1639 Stephen Road
 Ridgewood, NY 11385
 Phone: (718) 456-3606
 Fax: (718) 381-0229
 Website: McDermottLight.com

Go Deep International
 10 Watertower Road
 Saint John, New Brunswick
 Canada, E2M 7K2
 Phone: (506) 633-7850 x204
 Fax: (506) 633-7859
 Website: GoDeepIntl.com

Sealite USA LLC.
 61 Business Park Drive
 Tilton, NH 03276
 Phone: (603) 737-1311
 Fax: (603) 737-1320
 Website: SeaLiteUSA.com

Tideland Signal Corp.
 7100 Business Park Drive
 Houston, TX 77041
 Phone: (713) 681-6101
 Fax: (713) 681-6233
 Website: TideLandSignal.com

Vendor information does not imply an endorsement by the Florida Department of Agriculture and Consumer Services. Vendors not listed are welcome to contact the Division of Aquaculture with their contact information. This sheet will be updated.

Resubmerging Shellfish

Pursuant to Rule Chapter 5L-1, F.A.C., sorting or washing of shellfish may be performed by the aquaculturist over their lease or received and cleaned by a certified shellfish processing facility during normal operation hours.

Aquacultured shellfish that are replanted or resubmerged following routine husbandry practices, such as cleaning, must be segregated from other shellfish on the lease and must be clearly identified.

Due to the rapid growth of *Vibrio* bacteria in unsubmerged oysters during summer months, aquacultured oysters larger than 20 millimeters (approximately $\frac{3}{4}$ -inch) that are removed from the water during the course of routine oyster husbandry practices for **more than 4 hours during April through October** must be returned to the lease and submerged on an aquaculture lease for a **minimum of 14 days before they can be harvested** and sold to a certified shellfish processing facility. Routine oyster husbandry practices include the use of suspended growout containers that may be unsubmerged during natural tidal cycles.

Aquaculturists must maintain a replant log of all replant and resubmergence activities that includes:

- 1) Date of initial removal from water at lease site
- 2) Lease number
- 3) Date of replant
- 4) Replant lease number
- 5) Replant location on lease
- 6) Replant species and quantity

See [page 8](#) for more information on harvest and processing requirements for *Vibrio* control.



Aquaculture Best Management Practices

In order to establish a streamlined regulatory process, FDACS created the Aquaculture Certificate of Registration (AQ Certificate) program and [Aquaculture Best Management Practices](#) (BMPs). **BMPs are required to be followed by all certified aquaculturists.** The Division conducts periodic, unannounced inspections of each certified aquaculture facility, including submerged land leases, to ensure compliance with BMPs and the lease terms.

As a leaseholder, you are agreeing to comply with all applicable BMPs and the terms of your aquaculture lease agreement. Noncompliance may result in cancellation of the lease agreement and/or the prohibition from acquiring or subletting any new sovereignty submerged lands. **The following BMPs are not all of the shellfish aquaculture rules.** It is your responsibility to ensure you are following all applicable regulations. Refer to the BMP Manual or contact the Division any time for clarification.

Select Shellfish Aquaculture BMPs

- ◆ All stock placed on leases **must be native to Florida.**
- ◆ All shellfish nurseries or hatchery **locations must be listed on the AQ Certificate.**
- ◆ **All farmed shellfish must be transported or shipped in distinct containers** and identified by the producer's AQ Certificate number.
- ◆ **Shellfish must be harvested, tagged, transported and processed in compliance Rule 5L-1, Florida Administrative Code.** See [page 8](#) for more information.
- ◆ **Activity on aquaculture leases is allowed from sunrise to sunset.**
- ◆ **Relaying wild shellfish to a lease is strictly prohibited.**
- ◆ **No vessel of any description shall be moored on or adjacent to a lease for a period exceeding 24 hours,** regardless of whether the vessel is periodically moved.
- ◆ **Mechanical harvesting is prohibited** on aquaculture leases, unless specified in your lease agreement.
- ◆ **The leaseholder's identification information shall be attached to all floating or off-bottom culturing structures,** and it is the leaseholder's responsibility to retrieve any lost gear or structures and properly dispose of derelict gear.
- ◆ **Non-natural materials placed in the water or on submerged lands shall be anchored to the bottom.** This includes any protective netting used to cover clam bags.
- ◆ **All culture materials and equipment must be clean and free of pollutants.**
- ◆ **Bags, cover nets, and/or trays used in the culture operation shall be removed from the water during all mechanical cleaning, maintenance and repair operations.**
 - ⇒ During harvest, culture bags and cover nets shall be rinsed/cleaned over the growout area to allow sediments to remain in the lease area.
 - ⇒ Mechanical or hydraulic devices shall not be used below the water for the cleaning of submerged structures.
 - ⇒ Use hand tools for cleaning shellfish, bags and other structures under water.
- ◆ The aquaculturist must remove all equipment, structures and improvements from the lease within 60 days following the date of expiration or termination of the lease.

Importing Aquaculture Seed or Stocks from Out-of-State

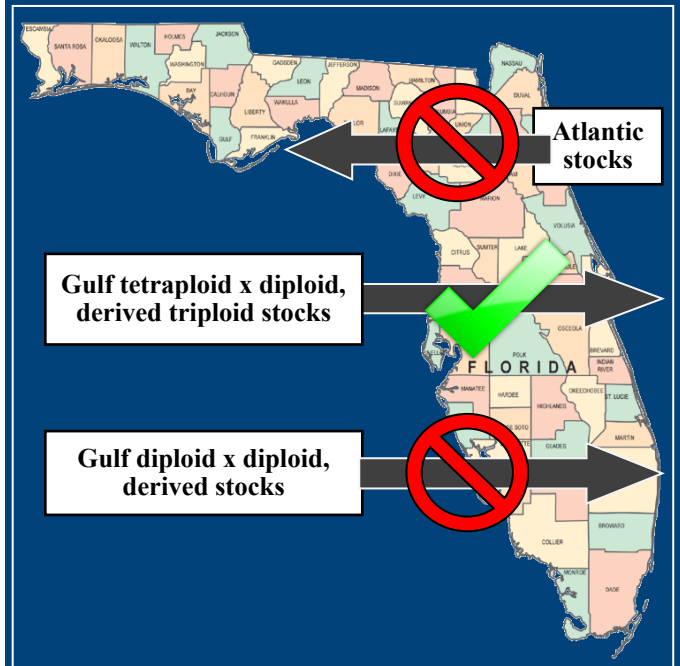
Note: These rules apply to shellfish seed or stocks intended for aquaculture purposes, not shellfish imported following processing for commercial sale.

All shellfish seed or stock intended for aquaculture imported from out-of-state must be accompanied by the following documentation:

- 1) **Diagnostic results**, from an accredited laboratory, that identify the pathology test performed, test results and the dates of such testing
- 2) A valid **Official Certificate of Veterinary Inspection (OCVI)** made on an official form from the animal's state of origin, issued and signed by a veterinarian licensed and accredited in the state of origin. **An OCVI is valid for 30 days following issuance.**
- 3) **Documentation of broodstock origin**
- 4) **Ploidy verification, if applicable** (*i.e.* triploid oyster stocks), that documents:
 - ◆ The methods utilized to create the triploids (*i.e.* tetraploid x diploid cross, heat shock or chemical induction)
 - ◆ The methods utilized to verify ploidy
 - ◆ Ploidy test results from a representative sample of the stock
- 5) Diagnostic results and the OCVI must show that no evidence of the following pathogens were detected:
 - ◆ Quahog Parasite Unknown (QPX) in clams
 - ◆ *Haplosporidium nelsoni* (MSX), *Perkinsus marinus* (Dermo) and *Bonamia exitiosa* in oysters
 - ◆ Additional pathogens as identified by the State Veterinarian, USDA APHIS Veterinary Services or the World Organization for Animal Health (OIE) list may require additional testing.

When Purchasing Shellfish Seed or Gametes From an Out-of-state Hatchery:

- 1) Request an OCVI and diagnostic results on the shellfish stocks you wish to import into Florida. Each hatchery should be working closely with a licensed veterinarian that can provide diagnostic services and an OCVI.
- 2) OCVIs and diagnostic results must be provided to the Division before shipment for approval via email at Aquaculture_Web@FDACS.gov.
- 3) After receiving written/email approval from the Division, the order may be imported into Florida.
- 4) **At time of delivery, request an invoice and copies of documentation** from the seller detailing the following information:
 - ◆ Date of entry/receipt
 - ◆ Date of shipment
 - ◆ Name and address of seller
 - ◆ Name and address of buyer
 - ◆ Buyer's AQ Certificate number
 - ◆ Species
 - ◆ Total number and average size of animals
 - ◆ Ploidy results (if applicable, *i.e.* triploid seed)
 - ◆ Copy of diagnostic test results
 - ◆ Copy of OCVI
 - ◆ Broodstock origin documentation
- 5) After receiving the order, **maintain all health records and receipts on file for a minimum of two years.** Records must be available for inspection by the Division upon request.



Oyster movement restrictions are depicted above. Requirements are based on both genetic and disease concerns.

Shellfish Movement Rules

- ◆ Documentation of broodstock origin must be obtained from the hatchery and retained for two years.
- ◆ Instate and out-of-state aquaculturists who intend to sell or use **clam seed stocks** for further growout in the State of Florida (including at certified upland facilities) must use broodstock which originated from Florida waters in their genetic selection program.
- ◆ Oysters, including all triploid seed, produced from oysters in Atlantic coast waters can only be utilized for growout in Atlantic coast waters.
- ◆ Growout of Atlantic-derived oysters in Gulf coast waters is prohibited due to differences in genetics and the presence of the parasite *Haplosporidium nelsoni*, also known as MSX, in the Atlantic Ocean.
- ◆ Oysters, with the exception of tetraploid-derived stocks, produced from oysters in Florida Gulf coast waters can only be utilized for growout in Gulf coast waters.
- ◆ For triploid oyster seed **derived from a tetraploid x diploid cross**, oyster broodstock must come from Gulf coast waters and seed may be grown in any waters of the state.
- ◆ For out-of-state triploid oyster seed **derived from a diploid x diploid cross** (*i.e.*, heat shock method), oyster broodstock must come from the water body (Florida Gulf of Mexico or Florida Atlantic Ocean) where they will be grown.

Harvest Vessel Sanitation

Vessels must be registered and comply with U.S. Coast Guard (USCG) vessel requirements:

- ◆ A marine sanitation device
- ◆ Clearly displayed registration number and decal
- ◆ A vessel certificate of registration onboard
- ◆ USCG approved flotation device for each person onboard
- ◆ A marine-use fire extinguisher
- ◆ A sound producing device
- ◆ 3 daytime/nighttime signals
- ◆ Boats longer than 16-feet must also have a USCG-approved throwable flotation device

Vessels must be constructed and maintained to also protect shellfish from contamination:

- ◆ All boats must have false bottoms and fore and aft bulkheads to prevent shellfish from coming in contact with any bilge water, fuel or other contaminants.
- ◆ No dogs or other animals are allowed on the boat at any time.
- ◆ Boats must have a portable toilet or other sewage disposal receptacle with a tight fitting lid that will not spill onboard.
- ◆ Shellfish must be covered/shaded with burlap, an awning or other breathable material which prevents direct sunlight, allows air circulation and promotes evaporative cooling. **Plastic tarps are not allowed.**

Please contact the Division at Aqua_PPCIP@FDACS.gov if you have any questions regarding shellfish harvesting, processing or sales requirements.



Harvesting and Transporting Farmed Shellfish

Aquacultured shellfish must adhere to the same sanitary harvesting and handling requirements as wild harvested shellfish. **No wild shellfish can be relayed to a lease under any circumstances. Shellfish must be:**

- ◆ Harvested from open shellfish harvesting areas (see [page 3](#)).
- ◆ Properly identified with a completed aquaculture tag **at all times** following harvest. Tags must be attached to shellfish containers while on the water during harvest **in all circumstances**.
- ◆ Graded, tumbled and/or cleaned over the lease area or delivered to and received by a certified shellfish processor for cleaning by that processor. Refer to [page 6](#) for information about replanting shellfish following cleaning.
- ◆ Delivered directly to a certified shellfish processing facility by the time listed in the Refrigeration Requirements table below **during the same day as harvest**.

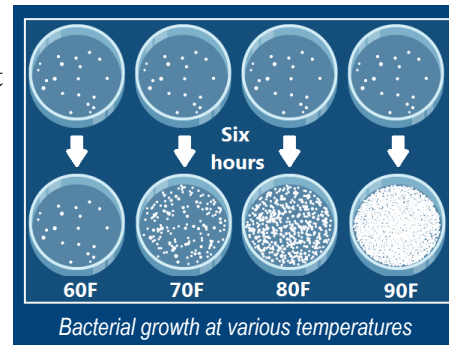
Refrigeration Requirements for Shellfish at a Certified Dealer

Refrigeration/cooling of shellfish after harvest is critical for reducing pathogen growth and protecting consumer health. **Shellfish must be delivered to a certified processor the same day as harvest.** Rapid delivery and cooling of product is critical during *Vibrio* control months (April through October). Shellfish must be received and refrigerated in a cooler that is at or below 45°F by a certified processor based on the time specified in table below.

Month	Oysters (Times listed in the table are when oysters must be placed in a cooler at a certified shellfish processing facility)				Clams Delivery to processor (same day of harvest)
	Traditional Cooling ¹	Rapid Cooling ²	Onboard Cooling with Ice Slurry ³	Restricted Use Only ⁴ (Green Tag)	
November	5:00 p.m.	5:00 p.m.	5:00 p.m.	5:00 p.m.	10:00 p.m.
December	5:00 p.m.	5:00 p.m.	5:00 p.m.	5:00 p.m.	10:00 p.m.
January	5:00 p.m.	5:00 p.m.	5:00 p.m.	5:00 p.m.	10:00 p.m.
February	5:00 p.m.	5:00 p.m.	5:00 p.m.	5:00 p.m.	10:00 p.m.
March	5:00 p.m.	5:00 p.m.	5:00 p.m.	5:00 p.m.	10:00 p.m.
April	11:00 a.m.	1:00 p.m.	3:00 p.m.	4:00 p.m.	12 Hours
May	Not permitted	11:00 a.m.	3:00 p.m.	4:00 p.m.	12 Hours
June	Not permitted	11:00 a.m.	3:00 p.m.	4:00 p.m.	10 Hours
July	Not permitted	11:00 a.m.	3:00 p.m.	4:00 p.m.	10 Hours
August	Not permitted	11:00 a.m.	3:00 p.m.	4:00 p.m.	10 Hours
September	Not permitted	11:00 a.m.	3:00 p.m.	4:00 p.m.	10 Hours
October	11:00 a.m.	1:00 p.m.	3:00 p.m.	4:00 p.m.	12 Hours

- 1) **Traditional Cooling (Oct-April):** Oysters must be in the cooler of a certified facility by time specified the day of harvest and product must be at or below 55°F in 8 hours.
- 2) **Rapid Cooling:** Oysters must be in the cooler of a certified facility by time specified the same day of harvest and product must be at or below 55°F in 2 hours.
- 3) **Onboard Cooling with Ice Slurry:** Oysters cooled on boat with ice slurry dip within 1 hour of harvest and stored under mechanical refrigeration or in a cooler surrounded by ice. Oysters must be in the cooler of a certified facility by the time specified.
- 4) **Restricted Use (green tag):** Oysters that do not meet the Rapid Cool or Onboard Cooling requirements must be tagged for shucking only by a certified dealer or for Post Harvest Processing (PHP) only.

Information concerning shellfish processing can be found on the Division's website at: www.FDACS.gov/Agriculture-Industry/Aquaculture/Shellfish-Processing-Facility-Certification



Aquaculture Bulk Tags

BULK AQUACULTURE TAG

ALL SHELLFISH CONTAINERS IN THIS LOT HAVE THE SAME DATE AND AREA OF HARVEST

AQ # Aquaculture Certificate of Registration # (AQ0000000)

DATE OF HARVEST _____ TIME OF HARVEST _____

Cooling Option (circle one) Traditional Rapid Cooling On-board Cooling

Time of Refrigeration, if applicable: _____

Legal Harvest Area # Shellfish Harvesting Area # (0000)

Lease or Parcel # Lease # (00-AQ-000) or Parcel # (X-000)

Type of Shellfish _____ Quantity of Shellfish _____

Product consigned to certified shellfish processor # FL #####-SS

**THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY
OR IS RETAGGED AND THEREAFTER KEPT ON FILE FOR 90 DAYS**

Shellfish Harvest Tags must be affixed to all harvested shellfish. The tag must be waterproof, 5¼-inch by 2⅝-inch minimum size and follow the requirements of [5L-1.007 F.A.C.](#) For more information about all shellfish tag types, see the [Shellfish Tagging Requirements](#) fact sheet. Bulk Aquaculture Tags (pictured above) are similar to typical harvester tags, but indicate that all shellfish were harvested from the same aquaculture lease on the same day and the specific processor to which the product will be delivered.

Tags must list all of the following information:

- ◆ Leaseholder or Authorized User’s Aquaculture Certificate of Registration number (AQ#), even if the product is being transported by an employee. Saltwater product license numbers (SPL#) **cannot** be listed on tags for aquacultured shellfish.
- ◆ Shellfish Harvesting Area number (four digit code).
- ◆ The specific lease (00-AQ-000) or parcel (X-000) number where the product was harvested.
- ◆ Date and time of harvest (when the first shellfish was removed from the water for that specific lot or container).
- ◆ Type (oysters or clams) and quantity of shellfish.
- ◆ Certified shellfish processor number that the product was consigned/sold to.
- ◆ Time and type of refrigeration, *if applicable*.
- ◆ The following statement: “**All shellfish containers in this lot have the same date and area of harvest.**”

Retail Sale of Aquaculture Products

All farmed shellfish must be received and processed by a certified shellfish processing facility. Once processed and re-tagged with a processor tag that includes the AQ#, aquaculturists can then buy back their shellfish and sell directly to retail establishments, such as seafood markets, restaurants and individual consumers. See [Retail Sales of Farmed Shellfish](#) for more details about sales and record requirements.

If you plan to sell farmed shellfish by setting up a tent, catering business, food truck, farmers market booth or similar outlet, additional licenses are required. For permit and licensing information related to **retail sales of raw seafood at farmers markets, roadside stands, etc.**, contact the Division of Food Safety at (850) 245-5520 or Foodinsp@FDACS.gov and visit www.FDACS.gov/Business-Services/Food-Establishments/Mobile-Food-Vendors. For permit and licensing information related to **retail sales at temporary events such as festivals, football games, etc., or retail sales of prepared or cooked seafood**, contact the Florida Department of Business and Professional Regulation, Division of Hotel and Restaurants at (850) 487-1395 or DHR.info@MyFloridaLicense.com.

Receipts and Container Labels

Aquaculture products must be identified with an AQ# while possessed, transported or sold, from harvest to point of sale.

Receipts, bills of sale, bills of lading or other such manifest must show:

- ◆ Date of sale
- ◆ Name and address of seller (harvester, processor, etc.)
- ◆ Name and address of purchaser (processor, distributor, etc.)
- ◆ Seller’s Aquaculture Certificate of Registration Number
- ◆ Shellfish common name and quantity

Farmed shellfish cannot be transported in the same boat as wild shellfish at any time.

Aquacultured shellfish products must be transported in containers that separate aquacultured products from wild stocks. Shellfish containers must be identified by tags or labels which are securely attached and clearly displayed.

Facilities must maintain records of all live purchases and/or all live sales of shellfish. **These records must include:**

- ◆ Date of shipment
- ◆ Name, address and AQ #(s) of the supplier and the recipient if to another Florida aquaculturist

Records must be retained by the hatchery or farm and available for inspection by Division staff upon request. Invoices or bills of lading containing the above information is sufficient.

Technical Assistance Contacts

Shellfish Production

Leslie Sturmer
Inst@ufl.edu
 (352) 543-5057

Shellfish Reproduction

Dr. Huiping Yang
huipingyang@ufl.edu
 (352) 294.0671

Aquaculture Economics

Dr. Andrew Ropicki
aropicki@ufl.edu
 (352) 294-7667

Seafood Processing

Dr. Steve Otwell
otwell@ufl.edu
 (352) 392-4221

Shellfish Ecology and Physiology

Dr. Shirley Baker
sbaker25@ufl.edu
 (352) 273-3627

Southwest Coast

Angela Collins
abcollins@ufl.edu
 (941) 722-4524 ext. 1826

Panhandle

Erik Lovstrand
elovstrand@ufl.edu
 (850) 653-9337

Shellfish Aquaculture Research and Extension Program

An integral part of the University of Florida [Institute of Food and Agricultural Sciences](#) (UF/IFAS), the [Shellfish Aquaculture Research and Extension Program](#) is a university-based program that supports integrated research, education and extension to develop, sustain and enhance economic opportunities for the shellfish aquaculture industry in Florida.

UF/IFAS taps into the expertise of scientists of various disciplines located within the university's 20 departments and schools. The statewide UF/IFAS extension specialists lead highly relevant programs including seafood safety, aquaculture economics and business management, invertebrate physiology and ecology, shellfish reproduction, soil and water sciences and more. The Division's extension, education and outreach programs are often done in partnership with UF/IFAS Extension, [Florida Sea Grant](#) and coastal counties of Florida.



The Shellfish Extension webpage (Shellfish.IFAS.UFL.edu/) has a large variety of Florida specific shellfish aquaculture information, publications and videos available to assist farmers with all aspects of shellfish aquaculture. You can also contact UF/IFAS Shellfish Extension at (352) 543-5057.

The resource webpage for Florida shellfish aquaculture serves as a one-stop shop for technical assistance for your shellfish farm, including:

- ◆ *Fact Sheets and How-to Guides*
- ◆ *Financial and Risk Considerations*
- ◆ *Applied Research Projects*
- ◆ *Supplier Lists for Gear and Seed*
- ◆ *Workshop Videos*
- ◆ *Up-to-Date News*

Aquaculture Tax Exemptions

As an aquaculture farm possessing a valid Aquaculture Certificate of Registration, you qualify for many of the same agricultural tax exemptions offered to other forms of agriculture. **Many common items, such as boats, trailers, otors, gas, diesel, generators, feed, electricity, pumps and more, are exempt from sales tax in Florida.**

For more information and to download purchaser exemption certificates, see the [Aquaculture Tax Exemptions](#) fact sheet or visit Florida Farm Bureau's tax exemption website at:

www.FloridaFarmBureau.org/agricultural-sales-tax-exemptions-in-florida/



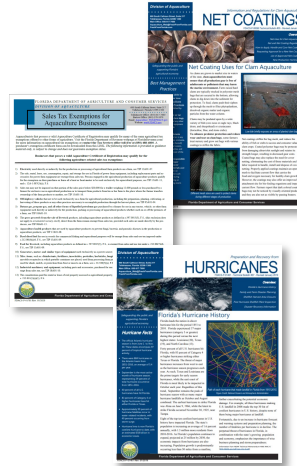
Additional Resources

The Division has a variety of publications that may be useful to you as a shellfish farmer. All of these fact sheets can be accessed through the Division's webpage at:

www.FDACS.gov/About-Us/Publications/Aquaculture-Publications. You can also contact the Division to have hard copies mailed to you free of charge.

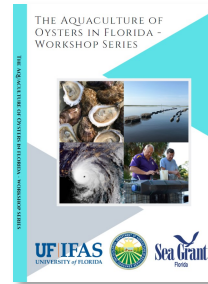
Fact Sheets

- ◆ [List of Certified Hatcheries and Nurseries](#)
- ◆ [Shellfish Aquaculture Gear Management](#)
- ◆ [Hurricane Preparation and Recovery Information](#)
- ◆ [Aquaculture Technical Assistance Contacts](#)
- ◆ [Guide to Importing and Exporting Aquaculture Products](#)
- ◆ [Guide to Shellfish Net Coatings](#)
- ◆ [Overview of Division's Red Tide Management Program](#)
- ◆ [Aquaculture Business Resources Webpage](#)
- ◆ [Aquaculture Tax Exemptions](#)



Oyster Aquaculture Workshop DVDs

The Division, in partnership with UF/IFAS and others, has created a series of video recordings from workshops over the past several years. Various topics are covered, including gear management methods, product marketing and hurricane preparation and recovery strategies. Contact the Division for a copy of the DVD series.



Crop Insurance

As a relatively new agriculture crop, private shellfish insurance policies can be difficult to locate and cost prohibitive to acquire.

The U.S. Department of Agriculture Farm Service Agency offers a disaster insurance option for both oysters and clams, the [Noninsured Crop Disaster Assistance Program](#) (NAP). NAP insurance provides financial assistance to producers of non-insurable crops to protect against natural disasters that result in lower yields, crop losses or prevents crop planting. Basic NAP coverage is affordable and can provide needed financial assistance if your crop is lost due to a severe weather event or other disaster.

Contact your [local Farm Service Agency office](#) for details and to apply for a NAP policy. The state office can be reached at (352) 379-4500.

Financial and Business Consulting

The Small Business Development Center (SBDC) can provide **free** one-on-one business consulting and training to assist your farm with a variety of topics including loan access, state and federal financial resources and marketing plans. As Florida's principle provider of business assistance, SBDC aims to ensure the viability of Florida's farm businesses while meeting the challenges of tomorrow.

Visit the [Florida SBDC webpage](#) or call (866) 737-7232 for more information.



Shellfish Aquaculture Associations

Florida Aquaculture Association

www.FLAA.org
(813) 438-3522
tiffany@flaa.org

Florida Shellfish Aquaculture Association

www.FloridaShellfishAquacultureAssociation.com
(561) 702-8159
fshellfishaa@gmail.com
raiclams@bellsouth.net

Cedar Key Aquaculture Association

(352) 543-5057
cantwellrr@bellsouth.net

East Coast Shellfish Growers Association

ECSGA.org
(401) 783-3360
bob@ecsga.org

National Aquaculture Association

www.theNAA.net
(850) 216-2400
naa@thenaa.net

Reporting Illegal Activities



Law enforcement officers of the Florida Fish and Wildlife Conservation Commission (FWC) are responsible for enforcing all shellfish resource and aquaculture laws in the state. Marine patrol officers are available in every county of the state and can respond to situations that are reported by farmers or the general public. Illegal harvesting of shellfish or improper harvesting sanitation or handling may result in shellfish illnesses which can close down harvest areas for all users, including leaseholders.

To protect public safety and your farm, FWC should be contacted anytime you suspect illegal activities.

Report Illegal activities to the Wildlife Alert Hotline anytime at (888) 404-FWCC



Aquaculture Review Council



The Aquaculture Review Council (ARC) was established in Florida statute ([Chapter 597.005, F.S.](#)) to provide a means of communication between the aquaculture industry and the Florida Department of Agriculture and Consumer Services. The council consists of eight members: the aquaculture representative on the State Agricultural Advisory Council and seven additional members appointed by the Commissioner of Agriculture. These seven members represent the industry groups and include an alligator farmer, a food fish farmer, a shellfish farmer, a tropical fish farmer, an aquatic plant farmer, a representative of the commercial fishing industry and a representative of the aquaculture industry at-large. **The ARC has public meetings at least quarterly and has the responsibility of recommending rules and policies governing the aquaculture industry to the Commissioner of Agriculture.** The ARC annually submits a list of recommendations for short-term research projects designed to address research priorities as identified in the [Florida Aquaculture Plan](#). The Council reviews and discusses problems that act as barriers to the growth and development of aquaculture and has been key in the continued growth of the aquaculture industry in Florida.

Wild Seafood Harvest Information

The Florida Fish and Wildlife Conservation Commission (FWC) is responsible for enforcement of wild shellfish harvest regulations. Information on licenses required to engage in commercial harvest, harvest seasons, and gear or bag limits may be obtained by visiting MyFWC.com/fishing/saltwater/commercial/oysters/ or by calling the Division of Marine Fisheries Management at (850) 487-0554.

Division of Aquaculture Contact Information

- ◆ For **shellfish leases questions**, contact the Tallahassee office.
- ◆ For **shellfish tagging and processing facility questions**, contact the Tallahassee office.
- ◆ For **shellfish harvesting area questions**, contact your closest regional office.

<p>Headquarters</p> <p>(850) 617-7600 600 South Calhoun St., Ste. 217 Tallahassee, FL 32399-2009</p>	<p>Western Gulf</p> <p>(850) 236-2200 4408 Delwood Ln. Panama City Beach, FL 32408-7492</p>
<p>Big Bend Gulf</p> <p>(352) 543-5181 11350 SW 153rd Ct. Cedar Key, FL 32625-5700</p>	<p>Atlantic Coast</p> <p>(321) 984-4890 1220 E. Prospect Ave., Ste. 216 Melbourne, FL 32901-7396</p>
<p>Central Gulf</p> <p>(850) 653-8317 260 Dr. Frederick S. Humphries St. Apalachicola, FL 32320-1336</p>	<p>Southern Gulf</p> <p>(914) 613-0954 Suites B, C, D Cube #1 25550 Harborview Rd. Port Charlotte, FL 33980-2503</p>