



RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street
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Rhode Island Commercial Shellfish Harvester Education & Certification Program

Transcript

This transcript is made available for those taking the on-line tutorial who are hearing impaired. It is designed to be used in conjunction with – not in lieu of – the visual portion of the tutorial. At the conclusion of the online tutorial, participants must enter their personal information to obtain their certification.

Slide 1 Welcome to the Rhode Island Commercial Shellfish Harvester Education & Certification Program. When you are ready to begin, click on the next button

Slide 2 Welcome to the new, online RI Commercial Shellfish Harvester Education & Certification Program. This program is provided by the Rhode Island Department of Environmental Management (RIDEM), in partnership with the Rhode Island Department of Health (RIDOH) and the National Shellfish Sanitation Program (NSSP).

This is a self-guided tutorial that enables you to meet the shellfish harvester education and training requirements for Rhode Island. This tutorial consists of a series of slides. Each slide will automatically advance.

You may pause the tutorial at any time by pressing the pause button on the seek bar at the bottom of the slide. You may also stop and restart, returning to where you left off, by clicking on the EXIT button located in the top right corner of each slide.

You will need to complete the entire tutorial in order to obtain your certificate of completion.

- Slide 3 The goal of the Program is to ensure that shellfish harvesters are delivering a safe product to shellfish dealers, and in turn, to shellfish consumers.
- Slide 4 This tutorial focuses on the basic principles of proper harvesting, handling, and transportation of shellfish; and why such principles are so important to follow.
- Slide 5 The principles apply to all molluscan shellfish harvested and landed in RI, including oysters, mussels, quahogs, soft-shell clams, razor clams, surf clams, and unshucked scallops. For simplicity, this tutorial uses quahogs as the subject; but again, all shellfish are subject to the same principles and requirements.
- Slide 6 Part 1: What makes shellfish so “special”?
- Slide 7 The harvesting of all seafood needs to be done safely, to protect public health, but shellfish are subject to special rules. Here’s why.
- Slide 8 First, many consumers prefer eating whole quahogs, freshly shucked and raw. As such, they eat the whole animal, often uncooked or undercooked.
- Slide 9 Second, shellfish are filter feeders. They are what they eat. They collect everything from the surrounding water as it pumps through their systems, and their filtration activity can concentrate or accumulate disease-causing organisms and other contaminants, which can be harmful if consumed. This is particularly true if the product is eaten raw or undercooked.
- Slide 10 And third, shellfish that may be safe to eat – that is, free of contaminants -- upon harvest can become unsafe if subject to improper handling following harvest.
- Slide 11 For these reasons, it is essential for all shellfish harvesters to understand and carefully abide by the various rules and regulations governing shellfish harvest, handling, and transportation. Employing safe practices helps ensure that the shellfish you harvest will be safe for consumption. That benefits everyone. No consumer wants to worry about the possibility of becoming ill, or worse, from eating bad shellfish. And no one in the commercial shellfish industry wants their

market to collapse based on a report of someone becoming ill, or worse, from eating bad shellfish.

So you, the harvesters, are the first line of defense in protecting the safety and quality of the product you harvest and sell.

Slide 12 Part 2: Location

The harvester's first primary control is location -- that is, ensuring that you know which waters are classified as safe and legal for shellfish harvesting, and then ensuring that you only harvest from those waters.

Slide 13 Rhode Island waters are generally classified as either: Approved, Conditionally Approved, or Prohibited.

To locate Approved waters, go to RIDEM's website – at www.dem.ri.gov – and type “shellfishing” in the search box. Click on the first link. You'll see a webpage with lots of great information, including the Shellfish Classification Map that identifies all marine waters of the state according to their shellfishing status or classification. The information is updated annually, typically in the spring. You can also obtain a copy of the Shellfish Classification Map at RIDEM's headquarters in Providence.

Slide 14 Let's first look at an example of an Approved area. Growing Area 9 (or GA9) is known as West Middle Bay. It extends from the north end of Prudence Island to the north end of Jamestown in the western portion of Narragansett Bay. You see that most, but not all, of the area is classified as Approved, meaning that it's generally open to harvesting (sunrise to sunset), except under extraordinary emergency events such as hurricanes, extreme floods, or oil spills.

Slide 15 Now let's look at an example of a Prohibited area. In the northwest portion of GA9 is the Potowomut River, identified as GA9-5. You'll see that all of the river – that is, all of area GA9-5 -- is classified as Prohibited, meaning that shellfish harvesting is not allowed in that area at any time due to unacceptable water quality. The exact line that separates GA9 (Approved) from GA9-5 (Prohibited) is shown on

the map and described in the document based on specific landmarks. In this case, the line runs from the RIDEM range marker on Marsh Point on the northern shoreline to the RIDEM range marker on Projac Point on the southern shoreline.

Slide 16 Things get a little trickier in areas that are classified as Conditionally Approved. For example, if you were interested in harvesting in Greenwich Bay, the map for Growing Area 8 (or GA8) shows that the area has multiple classifications. Several areas are Prohibited. The eastern portion is Approved. And the main portion – shown as GA8-5 -- is Conditionally Approved. As the name implies, in Conditionally Approved areas, harvesting can only take place as conditions allow, and the status can change from day to day. To determine the status of a Conditional Area on any given day, you must call RIDEM's 24-hour shellfish hotline at 401-222-2900. Some Conditional Areas are also subject to seasonal restrictions, meaning that harvest is only allowed during certain seasons, and sometimes during certain days and times.

Slide 17 You might want to pause the tutorial at this point so you can write down the shellfish hotline number.

Slide 18 An important final point regarding location. Harvesting shellfish exclusively from open areas is not only vital to product safety and public health, it's also the law. The penalties for harvesting from closed areas are severe. Don't take a chance; always know where you can safely and legally harvest on any given day. If you ever have any questions, feel free to call RIDEM's Office of Water Resources; dial 401-222-4700 and ask the operator to connect you to someone in the shellfish section.

Slide 19 Part 3: Storage & Transportation

Slide 20 The harvester's second primary control is storage and transportation – that is, once you've harvested your shellfish from approved waters, ensuring that you know the proper procedures and protocols for storing your harvest and transporting it to your dealer, and then ensuring that you follow these procedures and protocols every day.

There are two phases involved in storage and transportation – what happens on the water, and what happens after you’ve reached shore with your product. The rules and principles are essentially the same, but let’s focus first on your operations on the water.

Slide 21 Your vessel, and your handling of shellfish on your vessel, are vital to protecting the safety and quality of the product you harvest and sell. Proper procedures and protocols fall into three main categories:

- The use of your vessel as an initial storage unit
- Bagging and tagging, and
- Time and temperature control

Slide 22 Category 1: Your Vessel

Good handling starts with your vessel condition. You want to do everything you can to ensure that the product you harvest remains clean and safe while it’s on board your boat. So, your boat should be well-maintained and well-suited for safe product storage, while you’re on the water. Dogs, cats, and other animals are not allowed to be on board vessels that are engaged in commercial shellfishing.

Shellfish should be kept shaded – in fact, they must be kept shaded from April through November – and must be kept away from any standing water, particularly bilge water. Covering your product helps to keep it clean, as well as cool. The covering should be breathable, ideally in the form of a canopy. Using a dark tarp made of vinyl or some other non-breathable material is not recommended as it prevents airflow and traps heat, causing product temperature to rise instead of staying cool.

When you’re harvesting in an approved area, you want to leave the area as clean as you found it. That means that nothing goes overboard – no leaks, no garbage, no waste. Maintain your engine and fuel lines; use a garbage bag; and have an approved marine sanitation device, or portable toilet, or some other sewage disposal receptacle on board your vessel at all times. And always use it. It is never appropriate, and always illegal, to discharge in RI waters. You must empty your port-a-potty or other sewage disposal receptacle at an appropriate facility, such as an approved pump-out facility, which

are located throughout Rhode Island. For a list of all such facilities, go to RIDEM's website – at www.dem.ri.gov – and type “pumpout facilities” in the search box. Click on the first link.

Slide 23 A real-life example helps to illustrate the importance of the no-discharge requirement. In 2016, the waters near Wellfleet, Massachusetts were abruptly closed to shellfishing for 33 days due to a rare norovirus outbreak linked to shellfish harvested from those waters. The outbreak sickened at least 75 people, and the closure and associated media attention was devastating for the local shellfish industry. After searching the waters for possible sources of contamination, state officials narrowed it down to a likely one-time introduction of the virus by someone who vomited overboard. The person probably didn't know they were harboring the virus, but by discharging their bodily fluids overboard, they caused havoc. So, always play it safe. If nature calls, in any way shape or form, use a port-a-potty, or some other sewage disposal receptacle with a secure lid, and empty it properly, back on shore. It is in everyone's best interest to abide by the rules, and do the right thing.

Slide 24 Category 2: Bagging and Tagging

Harvester bagging and tagging requirements involve documenting the four w's associated with your harvest: the who, what, when, and where. The who includes your name and RI commercial license number. The what is the type of shellfish you harvested. The when is the date and the beginning time of harvest. And the where is the location of your harvest.

Slide 25 Before you begin your harvest operations, obtain a sufficient number of durable, waterproof tags, which are readily available at most shellfish dealers throughout Rhode Island. Also make sure you're equipped with a sufficient number of sturdy mesh bags, or some other type of suitable container. To save time, pre-record your name and RI commercial license number on each tag (the “who”). Also, each tag say the following, in bold capitalized type: “This tag is required to be attached until container is empty or it retagged and thereafter kept on file for 90 days.”

- Slide 26 As you harvest and fill your bags, fill out your tags and attach one to each bag. On each tag, record the type of shellfish, i.e., quahogs, oysters, soft-shell clams, mussels, or razor clams (the “what’). Also record the date and the time that you commenced harvesting the shellfish in each bag (the “when’). Finally, record the designated harvest area “where” the shellfish were harvested. Do not co-mingle in single bags different types of shellfish, or shellfish harvested at different locations or significantly different times.
- Slide 27 The designated harvest areas are different from the designated growing areas, reviewed earlier. Growing areas tell you where you can safely harvest. Harvest areas tell the dealers and state health officials exactly where the shellfish were harvested. To identify your harvest area, consult the Rhode Island Shellfish Harvest Area Tagging Map. It is available on RIDEM’s website. Go to www.dem.ri.gov, type “shellfish tagging areas” in the search box, and click on the first link. Here is an example; it’s a portion of the Harvest Area Tagging Map showing Greenwich Bay and a portion of the west passage; notice the number of different harvest areas within this region.
- Slide 28 Proper tagging is one of your most important responsibilities as a shellfish harvester. Tags are the required evidence for harvest location, and the date and time of day of harvest activities. The information you provide on each tag follows the product from harvest to final point of sale. Make sure the information you record is accurate and legible. Always remember that tagging is only as good as the information provided on each tag. If anyone were to become ill from eating shellfish – including shellfish that were harvested and handled properly – state officials would need to trace their origin and potentially close those waters. If done based on accurate tag information, such a response helps to protect both consumers and the commercial shellfish industry. If done based on inaccurate tag data, such a response could inadvertently hurt everyone.
- Slide 29 What about rinsing or soaking your product? You should rinse your shellfish so they are reasonably free of bottom sediments, as soon after harvesting as practicable. You can do this, or your dealer can

do this. Water used to rinse shellfish must be in the form of either salt water from an approved area, such as the area where you harvested your shellfish; or fresh, potable water from a certified source. However, you do not want to store your shellfish in standing water, salt or fresh. Storing live shellfish in salt water shortens their shelf life; storing them in fresh water kills them.

Slide 30 Category 3: Time and temperature control

Slide 31 To best understand the importance of time and temperature control, it's important to be familiar with Vibrio.

What are Vibrio? *Vibrio parahaemolyticus* is a bacterium found in brackish saltwater, which, when ingested, causes gastrointestinal illness in humans. *Vibrio vulnificus* is a bacterium in the same family as those that cause cholera and *Vibrio parahaemolyticus*. Vibrios are naturally occurring and are not related to pollution; but they do cause illness. Naturally occurring bacteria such as vibrios are more abundant in warmer water temperatures, but begin appearing in waters around 60 degrees Fahrenheit. Vibrios multiply fast in warm environments, so low levels in freshly harvested shellfish can increase dramatically if shellfish are not properly handled.

Slide 32 To minimize the health risks associated with Vibrio, shellfish harvesters must abide by strict time and temperature controls. From the beginning of November through the end of March, there is a maximum allowable time of 20 hours from the commencement of harvest to the delivery of shellfish to a dealer. From the beginning of April through the end of October, the maximum allowable time is 10 hours. Note that the clock starts at the moment the first haul is taken aboard. Also, during this April-October period, shellfish must be kept shaded at all times. Also, if the shellfish are harvested from waters categorized as Designated Temperature Control Areas, and if 5 hours elapses from the commencement of harvest, the shellfish must be placed in mechanical refrigeration or adequately iced in a storage container, until delivered to a dealer within the 10-hour maximum allowable timeframe.

Slide 33 Waters categorized as Designated Temperature Control Areas are: Winnapaug Pond, Quonochontaug Pond, Ninigret Pond, Potter Pond, Point Judith Pond, Island Park Cove (Spectacle Cove), Hog Island Cove and Great Salt Pond. These areas have a higher risk of Vibrio illness associated with the consumption of quahogs and oysters.

Slide 34 Earlier, it was noted that there are two phases involved in handling and transportation – what happens on the water, and what happens after you’ve reached shore with your product. To this point, the focus has been on your operations on the water. Now let’s turn to the second and final phase: handling, transport and delivery of your product once you’ve reached shore.

As a harvester, your responsibility for protecting the safety and quality of the product you harvest and sell begins with your vessel and harvesting activities, and continues until the point that you transfer your product to your dealer. As such, while delivering your product, either in your boat or in your truck, you must follow the same practices employed during your harvest operations. Proper post-harvest procedures and protocols include the following:

Slide 35 If using a vehicle, make sure it’s clean. You want to do everything you can to ensure that the product you harvest remains safe while it’s being driven to your dealer. That means no contact with gasoline, garbage, or any other potential contaminants. Generally, you should deliver your product to your dealer directly and immediately, avoiding stops along the way.

With regard to time and temperature controls, the rules on the road are an extension of those on the water:

- From November through March, you must transfer your product to your dealer within 20 hours of the commencement of harvest.
- And from April through October, you must transfer your product to your dealer within 10 hours of the commencement of harvest. Also, you must continue shading your product at all times. Also, you must refrigerate or ice your product within 5 hours of harvest

from the southern coastal ponds, Island Park Cove, Hog Island Cove, or Great Salt Pond.

For shading and protecting your product from exposure, you should continue using a breathable covering -- not a dark vinyl tarp!

Slide 36 Finally, you must deliver and sell your shellfish to a licensed shellfish dealer. It is illegal to sell your product to anyone other than a licensed dealer. Why is this so important? Because licensed dealers are subject to a separate set of stringent requirements aimed at maintaining and ensuring product safety. You want the shellfish you properly harvested, handled, and transported to reach the consumer as a safe, high-quality product – in the same excellent condition as you delivered it. That’s the dealer’s responsibility, and only licensed dealers are qualified to uphold that responsibility.

Slide 37 Almost done! Before summarizing the main points, it’s important to recognize that the various practices, procedures and protocols explained in this tutorial are not only important to understand and follow, but they are also legal requirements, applicable to all commercial shellfish harvesters in Rhode Island. There are penalties for noncompliance, and, depending on the circumstances, they can be as steep as loss of license and confiscation of vessel and gear. No law enforcement official wants to cite anyone for being out of compliance with the law. But it is their job to monitor for compliance, and to take action if necessary. This harvester education program is designed to help minimize instances of noncompliance by explaining the rules pertaining to product safety. If everyone follows the rules, everyone benefits.

Slide 38 OK, let’s conclude by summarizing the key points.

Slide 39 The harvesting and handling of all seafood needs to be done safely, to protect public health, but shellfish are subject to special rules. That’s because 1) many consumers prefer to eat shellfish raw or undercooked; 2) shellfish are filter feeders, collecting everything from the surrounding water as they pump seawater through their systems; 3) the filtration activity can accumulate and concentrate disease-causing organisms and other contaminants, which can be harmful if consumed; and 4) shellfish that may be safe to eat upon

harvest can become unsafe if subject to improper handling following harvest.

- Slide 40 A harvester's first primary control is location. That means only harvesting from waters that are designated as approved or conditionally approved on the Shellfish Classification Map. The status of any given area is subject to change, sometimes on a day-to-day basis, so get to know the map, and routinely call DEM's 24-hour shellfish hotline for updates. Again, that number is 401-222-2900.
- Slide 41 A harvester's second primary control is storage and transportation – both on your vessel and if using a vehicle, on your truck. The three key issues associated with storage and transportation are 1) the condition of your vessel and truck; 2) bagging and tagging; and 3) time and temperature control.
- Slide 42 Keep your vessel and vehicle clean; use a storage system that keeps your product shaded and separated from any potential sources of contamination; keep your pets home; and use a proper marine sanitation device.
- Slide 43 Properly bag and tag your shellfish by including all necessary information on each tag, including the exact harvest area as shown on the Shellfish Harvest Area Tagging Map.
- Slide 44 Keep shellfish shaded and cool at all times, particularly during the spring, summer and fall; and deliver your product to your dealer within the applicable 10-hour or 20-hour timeframes. If harvesting from the southern coastal ponds, Island Park Cove, Hog Island Cove, or Great Salt Pond, refrigerate or ice your shellfish within 5 hours of harvest.
- Slide 45 Only sell your shellfish to a licensed shellfish dealer
- Slide 46 All of the regulations, maps, and other information referenced in this tutorial, as well as additional information pertaining to shellfish and shellfishing in Rhode Island, are available on RIDEM's website, which can be found at www.dem.ri.gov. Use the search function at the top of the page to find what you're looking for. Also, if you ever have any questions about any issue pertaining to water quality or approved harvest areas, you can call RIDEM's Office of Water Resources at 401-

222-4700 (ask the operator for someone in the shellfish section). And if you have any questions about fishery management issues, such as harvest limits and management area regulations, you can call RIDEM's Marine Fisheries Division at 401-423-1923.

- Slide 47 Before we end, we need to thank those who supported the development of this program. RIDEM was able to develop and present this program thanks to its partnership with the following organizations and agencies: the Interstate Shellfish Sanitation Conference, the National Shellfish Sanitation Program, the Rhode Island Department of Health, Rhode Island Interactive, and the United States Food and Drug Administration.
- Slide 48 Congratulations! You have completed the Rhode Island Commercial Shellfish Harvester Education & Certification Program. Thank you for your time and attention. The final step involves entering your information. This is a really important step. Make sure you enter your information fully and accurately. If you already hold a license, your personal information will be automatically conveyed to RIDEM's licensing office. If you are a new license applicant, your information will also be forwarded and placed on file with the office. And finally, if you are connected to a printer, you will also have the opportunity to print your Certificate of Completion.
- Slide 49 Click the Next button to complete the process.