

Vibrio parahaemolyticus Management FAQ for Commercial Oyster Harvesters

1. What is Vibrio parahaemolyticus (Vp)?

Vibrio parahaemolyticus (Vp) is a naturally-occurring bacterium found in warm, shallow brackish waters. Vp is a known human pathogen and a causative agent in foodborne illnesses that result from the consumption of raw oysters. While Vp has traditionally caused illnesses in regions with much warmer climates (e.g., Gulf Coast, West Coast), it has recently started to impact Massachusetts. Vp is not related to pollution of Massachusetts shellfish.

2. Why is there a Vp Control Plan for Massachusetts?

The U.S. Food and Drug Administration has determined that Vp is reasonably likely to occur in Massachusetts. This determination is based on a variety of physical factors in harvest areas, including: a long tidal shelf, more extensive exposed areas at low tide, oyster culture and harvest techniques used in many areas, as well as reports of human illness associated with oysters from Massachusetts.

3. What other states already have Vp Control Management Plans in place?

While every state that harvests shellfish has unique growing conditions, other states that have Vibrio Control Management Plans include Alabama, Alaska, California, Connecticut, Delaware, Florida, Georgia, Louisiana, Maryland, Mississippi, New York, New Jersey, North Carolina, Oregon, South Carolina, Texas, Virginia, and Washington. Rhode Island has recently implemented a voluntary Vibrio Control Management Plan.

4. To whom do the Vp regulations apply?

The Vp regulations apply to any Massachusetts commercial oyster harvesters. This includes wild oyster harvesters as well as aquaculturists.

5. When do the Vp regulations apply?

The Vp regulations apply during the Vp Control Season. For 2014, the Vp Control Season is May 19th through October 19th.

6. What do the Vp regulations require?

Oyster harvesters must include time of harvest and time of icing on the tag of each bag or container of oysters, and must ensure that those oysters are iced within two (2) hours after harvest or exposure by tide. During transport to the receiving dealer, harvesters must ensure that oysters are adequately iced to begin cooling and adequately shaded so they're not exposed to direct sunlight. Receiving dealers must cool the oysters to a measured 50 degrees Fahrenheit in a refrigeration unit within 10 hours from the time of harvest.

7. Are oysters harvested during the Vp Control Season subject to the shellfish tagging requirements set forth in the National Shellfish Sanitation Program's Model Ordinance?

Yes. The tagging requirements of the National Shellfish Sanitation Program's Model Ordinance apply year-round to all species of molluscan shellfish. Each container of shellfish harvested for

commercial purposes in Massachusetts must be tagged with a 13.8 square inch or 2 ⁵/₈ inch by 5 ¹/₄ inch durable waterproof tag prior to transport from the harvest site to the landing site. This tag must contain, in the order specified, the following information written legibly in indelible ink:

- the full name of the harvester;
- the DMF commercial shellfish permit number;
- the date and time of harvest;
- the type and quantity of shellstock;
- the initials of the state of harvest;
- the Shellfish Growing Area name and number and, if applicable, the aquaculture site number; and
- the following statement in capital letters: “THIS TAG IS REQUIRED TO BE ATTACHED UNTIL THE CONTAINER IS EMPTY OR IS RETAGGED, AND THEREAFTER KEPT ON FILE FOR 90 DAYS.”

8. Do the Vp regulations require harvesters to ice their oysters?

Yes. All commercial oyster harvesters (i.e., both wild harvesters and aquaculturists) must adequately ice their oysters within two hours of harvest or exposure to air.

9. How is time of harvest determined in Vp regulations?

Time of Harvest means the time when the first oyster in a lot is taken from the water, or in the case of intertidal harvest, the time of first exposure.

10. What does it mean to adequately ice oysters?

There are three approved ways to adequately ice oysters:

- If oysters are placed in mesh bags, then the mesh bags must be completely surrounded by ice, with at least two inches of ice between the mesh bag and the bottom and sides of the container it sits in and three inches of ice on top of the mesh bag.
- If oysters are placed loosely into a container, then all oysters must be completely surrounded with two inches of ice at the bottom and sides of the container and three inches of ice on top of the oysters.
- Loose oysters and mesh bags of oysters may be fully submerged in ice slurry. If ocean water is used to make the ice slurry, it must be taken from an area classified as “Approved” or “Conditionally Approved” by the Division of Marine Fisheries and which is “Open” to commercial shellfish harvesting. If freshwater is used to make the ice slurry, it must be from a source approved as potable by the local Board of Health or the Department of Public Health.

11. Can harvesters pre-bag product and then leave that product in the grant site for harvest the following day?

Yes. Oysters may be pre-bagged (i.e. put in a net bag and left underwater at the site) and then harvested (removed from grant site) and refrigerated the following day. The day they are removed from the grant site is considered to be the day of harvest.

12. Do the Vp regulations require harvesters to shade their oysters?

Yes. All commercial oyster harvesters must adequately shade their oysters during harvest and transport to shore, and while in transit to the primary buyer. To adequately shade oysters, harvesters must take measures to ensure that the oysters are not exposed to any direct sunlight.

13. Do the Vp regulations require harvesters keep and maintain records?

Yes. All commercial oyster harvesters must keep in their possession a bound Vp Logbook. In this book they must record in indelible ink the following information: date of harvest; shellfish growing area; time of harvest; time of icing; quantity harvested in bushels or count of bags; and the primary buyer who received the product. With the exception of the primary buyer information, this entry must be completed by the permit holder at the time of landing before the harvest leaves the shellfish growing area or landing area and is placed in transit. The primary buyer information is to be recorded following the transfer of product to the primary buyer at their facility. Additionally, aquaculturists must also record the disposition of shellfish involved in off-site culling, anti-fouling, recall or non-compliance. This information must be recorded in the Vp Logbook prior to the shellfish being re-submerged and segregated on the license site.

14. How am I to obtain a Vp Logbook?

The Division of Marine Fisheries has provided Vp Logbooks to local Shellfish Constables. These Vp Logbooks are to be distributed to commercial oyster harvesters at no cost. If you have not obtained a Vp Logbook, please contact your local Shellfish Constable.

15. Can harvesters refrigerate oysters at their own home overnight with their own refrigeration unit?

No, the only allowable storage is in a refrigerator owned and maintained by a wholesale dealer subject to control measures required by state food safety regulations.

16. May I store my oysters at a facility prior to delivery to the primary buyer?

No. Following harvest, all oysters must be immediately transferred to the primary buyer's physical facility.

17. I do not hold an aquaculture propagation permit; may I off-site cull, anti-foul, or wet store my oysters?

No. Only aquaculturists may conduct these activities and those aquaculturists that conduct these activities may be subject to additional reporting, tagging and re-submergence requirements, as described in the FAQ questions 14-18 below.

18. I am a wild harvester; may I harvest more than one batch of oysters in a single day, provided each batch is adequately iced within two hours of harvest or exposure?

Yes, as long as the first batch was adequately iced within two hours of harvest or first exposure to air and the second batch was not exposed for more than two hours prior to harvest. Harvesting more than one batch is permitted if both batches are properly tagged, adequately iced within two hours of harvest or first exposure, and held under adequate icing through transport to the primary buyer's permitted physical location.

19. How will state and local officials enforce the plan?

Oyster tagging and harvesting procedures in the affected area will be monitored by local shellfish constables and the state Environmental Police. Inspectors from the Department of Public Health Food Protection Program (FPP) will follow up on record keeping and other control measures during routine inspections of wholesale dealer facilities. FPP staff will coordinate with Division of Marine Fisheries and Environmental Law Enforcement as needed. Initial enforcement efforts will focus on significant education and outreach to the oyster farming community, wild harvesters, wholesale dealers and local boards of health.

20. What occurs if I am found in possession of oysters that do not comply with the Vp regulations?

If the Division of Marine Fisheries, the Environmental Police, or a local Shellfish Constable finds you in possession of oysters that do not comply with the Vp regulations, your harvest will be seized and destroyed. Also, if your oysters are distributed by the primary buyer into commerce and there is a recall of oysters due to illness, your oysters may be destroyed.

Any violation of Vp regulations may result in the immediate suspension of your commercial shellfish permit and/or aquaculture propagation permit and the permit may be subject to an adjudicatory proceeding to determine if it should be revoked.

21. In what scenarios may I re-submerge non-compliant oysters?

In the event of a recall resulting from the closure of a harvest area due to illness and your oysters are tagged and stored at a primary buyer's facility, the oysters may be returned to you and re-submerged. Also, in the event that the Division of Marine Fisheries or the Department of Public Health determines a primary buyer is in possession of oysters that do not comply with the Vp regulations, these oysters may be returned to you and re-submerged under local oversight with approval from the Division of Marine Fisheries and the Department of Public Health and supervision by the local Shellfish Constable. If the local Shellfish Constable is not available to monitor the return of non-compliant oysters, then these oysters cannot be re-submerged and will need to be disposed.

All oysters that are re-submerged must be segregated on the license site where they originated. The aquaculturist is to record the date of re-submergence and the quantity of oysters re-submerged in the Vp Logbook. Additionally, these oysters must be tagged with a waterproof green tag labeled in indelible ink with the statement "non-compliant" or "recalled" and the date when re-submerged. This tag may be removed and the oysters may be harvested after being segregated on the license site of at least 14 days. During this 14-day period, the re-submerged oysters will be under the supervision of the local Shellfish Constable.

22. How will the state monitor the situation to determine if there is a continuing Vp problem?

State health officials will continue monitoring for human cases of Vp illness as part of their overall foodborne illness surveillance efforts.

23. I am an aquaculturist; may I off-site cull oysters during the Vp Control Season?

Yes. Aquaculturists may remove market-sized oysters from their license site for off-site culling with prior notice provided to the local Shellfish Constable. Any handling or processing of oysters that is conducted at barges or other floating structures off the license site that results in the oysters being out of the water for more than two hours without adequate icing is considered to be off-site culling.

Any oysters that have been culled off-site must be returned to and segregated on the license site. The date of return and quantity of oysters returned must be recorded in the Vp Logbook. Additionally, these oysters are to be tagged with a waterproof green tag labeled in indelible ink with the statement “culled off-site” and the date when they were returned. This tag may be removed and the oysters may be harvested after being segregated on the license site for at least 14 days.

24. I am an aquaculturist; during the Vp Control Season, if I harvest and cull oysters from my license site on an off-site barge or floating structure and hold the oysters temporarily in the water from the barge during culling, may I return them to my license site without incurring the National Shellfish Sanitation Program’s wet storage requirements?

Yes. Oysters may be temporarily held in the water from an off-site barge or floating structure during the culling process and then re-submerged for a minimum of 14 days at the license site without having to meet National Shellfish Sanitation Program wet storage requirements, provided the barge or floating structure is in the same state Designated Shellfish Growing Area as the licensed site and the area is in the open status. After culling, oysters being held in the water must be returned to the license site as soon as possible for re-submergence.

25. I am an aquaculturist; may I conduct anti-fouling procedures on my oysters during the Vp Control Season?

Yes. Aquaculturists may remove market-sized oysters from the water and expose them to air to remove or kill attached organisms from the exterior of the shell. Upon completion of this activity, these oysters must be returned to and segregated on the license site. The aquaculturist is to record the return date and the quantity of oysters subject to this activity in the Vp Logbook.

Additionally, these oysters must be tagged with a waterproof green tag labeled in indelible ink with the statement “anti-fouled” and the date when they were returned. This tag may be removed and the oysters may be harvested after being segregated on the license site for at least 14-days. Notification to the local Shellfish Constable is not required for anti-fouling procedures.

26. I am an aquaculturist; may I wet store oysters during the Vp Control Season?

Yes. Aquaculturists may wet store their oysters on the license site where the oysters originated. The wet storage of oysters at off-site locations is not authorized. Dealers, in certain instances, may be allowed to wet store oysters from multiple locations within the same Designated Shellfish Growing Area as the license site or off-site if authorization is provided in writing by the Division of Marine Fisheries following an inspection of the off-site location to determine it complies with the [National Shellfish Sanitation Program’s Guide for the Control of Molluscan Shellfish 2011 Revision, Section II, Chapter VII](#) and other shellfish disease considerations.

27. Do the levels of Vp in oysters change with the cycles of the tide? How are the levels of Vp in oysters affected?

Levels of Vp in oysters can vary with tidal cycles. Vp levels can increase in oysters when exposed during low tide, but oysters constantly purge themselves when under water during high tide. Vp levels in oysters can rise dramatically with increasing air and water temperature.

28. Are there plans in place for helping to educate the oyster industry?

Yes, the Division of Marine Fisheries, the Department of Public Health, and the Department of Agricultural Resources have already been providing educational forums on the Vibrio Control Management Plan and Vp regulations to aquaculturists, wild oyster harvesters, wholesale dealers of seafood, local health officials, and local shellfish constables, among other stakeholders. These efforts will continue. The Division of Marine Fisheries has also been working with other states impacted by Vp to develop educational materials for professional oyster harvesters in Massachusetts.

29. Are there plans to educate the public concerning recreationally harvested oysters?

Although recreational harvesters are not subject to the requirements of the Vp regulations, the Department of Public Health recommends that recreational harvesters consume or refrigerate their oysters immediately after harvest. Additional educational materials have been developed by the Cape Cod Cooperative Extension (CCCE) and will be posted on the [CCCE](#), [Department of Public Health](#) and [Division of Marine Fisheries](#) websites.

30. What is the message to the public regarding the Vp regulations?

Implementation of the Vp regulations, along with existing food safety regulations, provides assurance to the public that consumption of commercially available raw oysters does not present a health hazard.

31. Where can I get more information about Vp control measures in Massachusetts?

For more information, contact:

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<http://www.mass.gov/eohhs/gov/departments/dph/programs/environmental-health/food-safety/vibrio-control.html>

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