

# Conducting Shellfish Illness Investigations and Trace Backs in Massachusetts

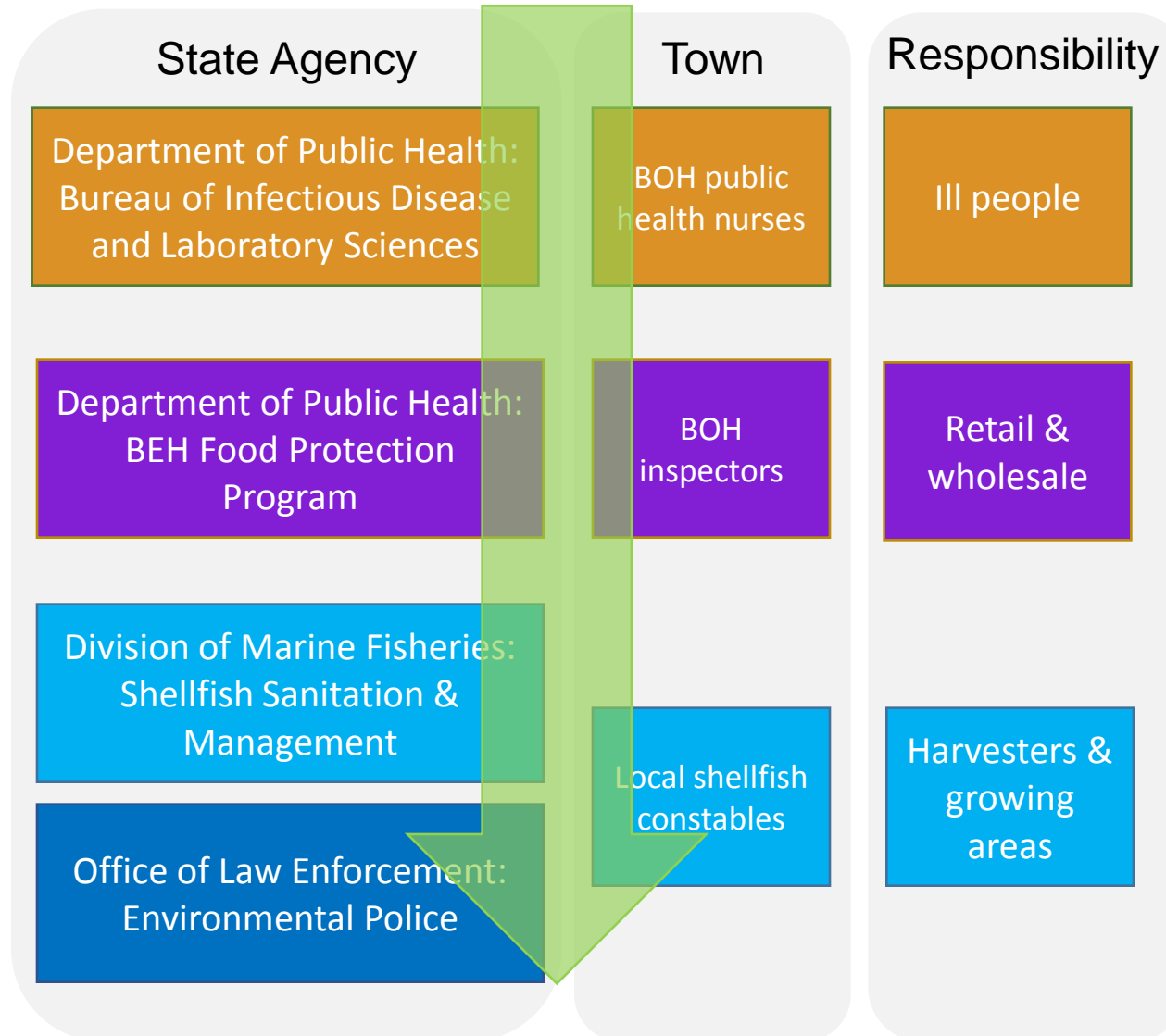
## **NESSA Annual Meeting**

Northeast Shellfish Sanitation Association

Hotel 1620 Plymouth Harbor - Plymouth, Massachusetts

April 9, 2019

# Information



# What Happens With Case Information?

- Traceback information across Vp cases is aggregated and discussed among members of the **Vibrio Working Group**
  - Modeled after the Working Group on Foodborne Illness Control, est. 1986
  - Established as a result of the 2013 season
  - First meeting April 15, 2014

Department of Public Health:  
Bureau of Infectious Disease

Department of Public Health:  
Bureau of Environmental  
Health

Division of Marine Fisheries:  
Shellfish Sanitation &  
Management

Office of Law Enforcement:  
Environmental Police

# *Vibrio* Working Group

- Reviews case information and makes decisions as to whether a harvest area closure and/or recall is warranted, in concordance with state regulations
- Discuss new cases under investigation
- Aggregate traceback information across cases
  - Discuss possible closures of harvest areas
- Work to improve *Vibrio* investigation in MA

# Public Health Surveillance of *Vibrio parahaemolyticus* (Vp)

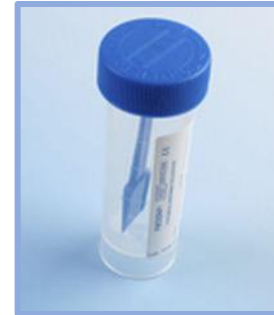
Individual is  
exposed to  
Vp

Get sick

Seek medical  
attention

Submit a  
stool  
specimen

Lab testing  
identifies Vp



# *Vibrio parahaemolyticus* Case Investigation

Reported to public health

Individual is interviewed

Suspect food identified

Information shared with Food Protection



# *Vibrio parahaemolyticus* investigation & traceback

Visit retail and  
wholesale  
establishments



Shellfish tags  
collected



Division of Marine  
Fisheries notified



Visit harvest  
area



# *Vibrio parahaemolyticus* Case Interview

- Demographic
- Clinical
  - When did illness begin
  - Symptoms
  - Hospitalization
  - Underlying medical conditions
- Exposures before becoming ill
  - Consumption of high-risk foods
  - Travel
  - Close contacts with similar illness
  - Exposure to water
- Provide education





# If a Case Reports Eating Oysters

- When consumed
- Where purchased
- Where consumed
- Amount consumed
- How prepared
- Any particular types
- Last four digits of credit card used, # in party, other foods consumed



# Retail Trace Back and Investigation



# 2013 FDA Food Code Requirements

- ***Specifications for Receiving***
  - 3-202-11 Temperature
  - 3-202.18 Shellstock Identification.
  - 3-202.19 Shellstock, Condition.
- ***Original Containers and Records***
  - 3-203.11 Molluscan Shellfish, Original Container.
  - 3-203.12 Shellstock, Maintaining Identification.



# Properly Identified Containers









# Approved Source?

**HARVESTER TAG**

NAME: \_\_\_\_\_

HARVESTER PERMIT #: \_\_\_\_\_ 00 \_\_\_\_\_

HARVEST DATE: **5-25** TIME: **2**

TIME OF ICING: **2:30**

HARVEST AREA: \_\_\_\_\_ CCB11

TYPE OF SHELLFISH: \_\_\_\_\_ OYSTERS

QUANTITY OF SHELLFISH: \_\_\_\_\_ 100 COUNT

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

QUANTITY OF SHELLFISH: \_\_\_\_\_

THIS TAG IS REQUIRED TO BE ATTACHED \_\_\_\_\_ FOR \_\_\_\_\_

OR IS RETAGGED AND THEREAFTER KEPT ON \_\_\_\_\_

T58

# Date on Back of Tag When Last Oyster Sold





**THIS TAG IS REQUIRED TO BE ATTACHED UNTIL THE CONTAINER IS EMPTY OR IS RETAGGED AND THEREAFTER KEPT ON FILE IN CHRONOLOGICAL ORDER, FOR 90 DAYS. RETAILERS: RECORD ON THIS TAG THE DATE WHEN THE LAST SHELLFISH FROM THIS CONTAINER WAS SOLD OR SERVED.**

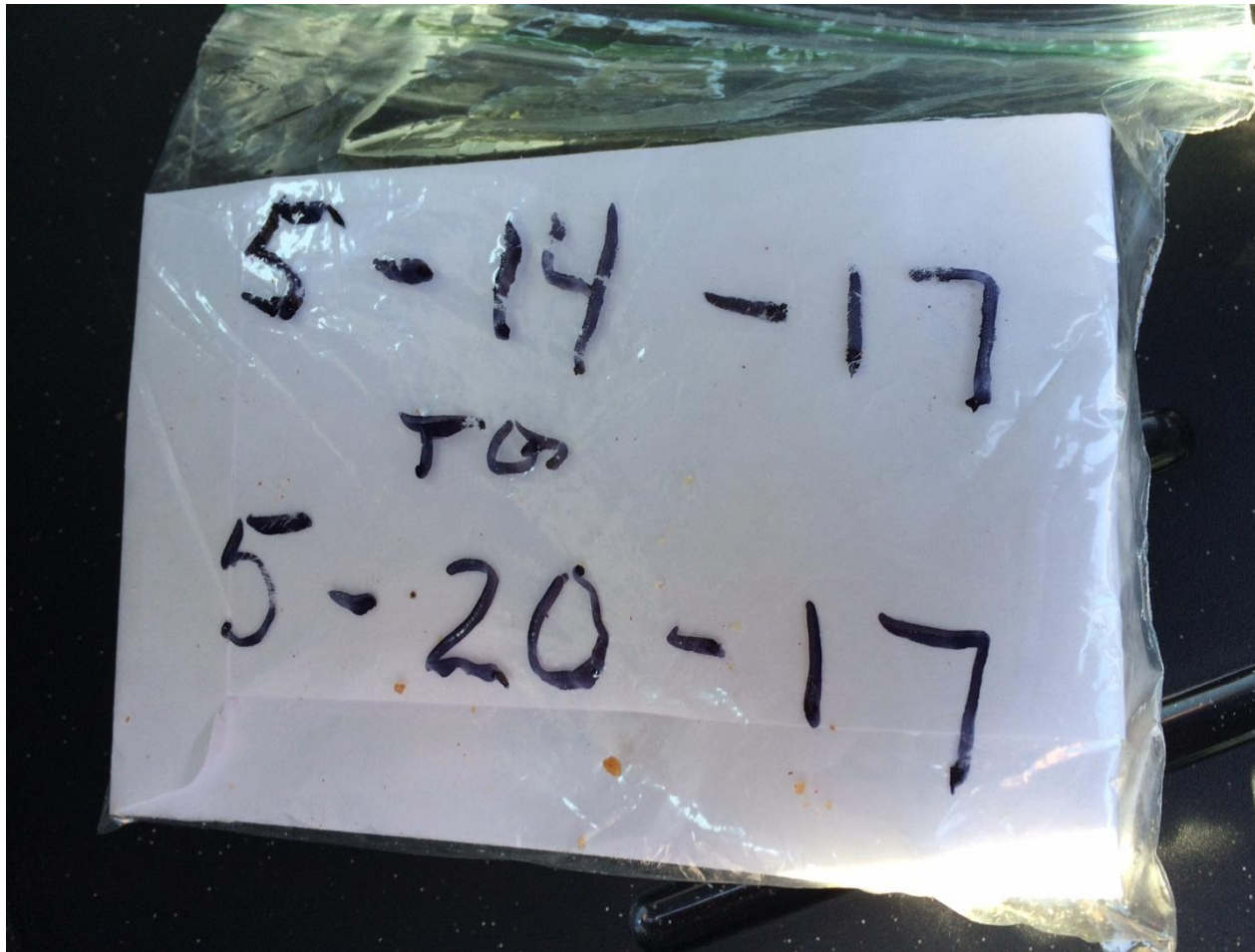
DATE LAST SOLD: \_\_\_\_\_

**RETAILERS, INFORM YOUR CUSTOMERS**

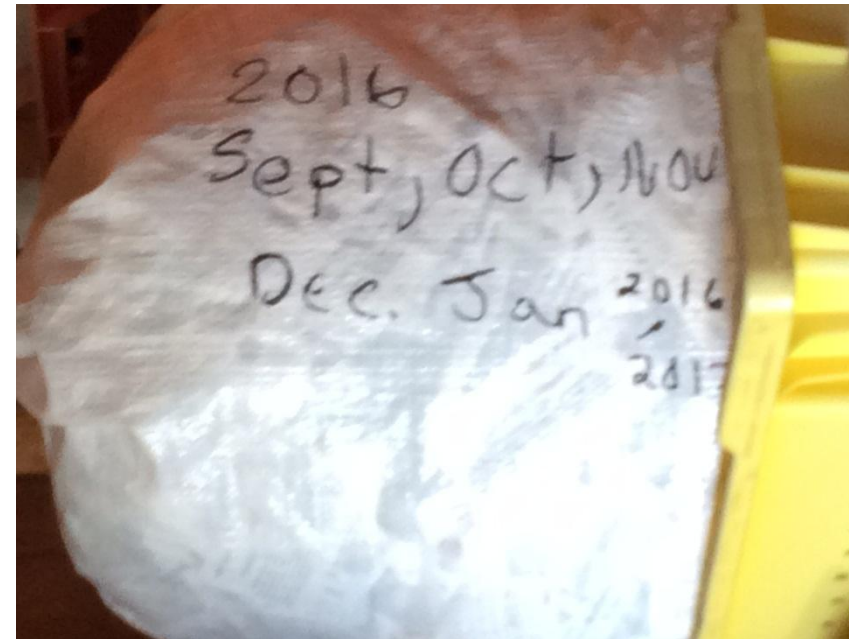
Thoroughly cooking foods of animal origin such as shellfish reduces the risk of foodborne illness. Individuals with certain health conditions such as liver disease, chronic alcohol abuse, diabetes, cancer, stomach, blood or immune disorders may be at higher risk if these foods are consumed raw or undercooked. Consult your physician or public health official for further information.



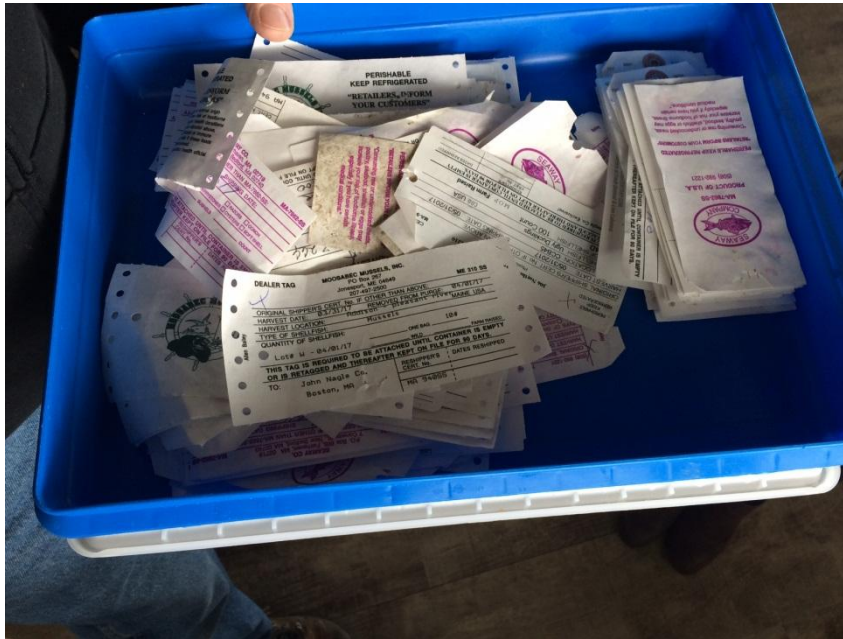
# Store Tags in an Organized Manner



Not like this...



# More like this!





Keep 'em cold!



# Wholesale Vibrio Traceback



# 2017 MA Vp Control Plan

## Massachusetts 2017 *Vibrio parahaemolyticus* (Vp) Control Plan

### Commercial Harvest Restrictions for Oysters May 21, 2017 - October 16, 2017:

#### A. Definitions:

**Adequately iced** means that the amount and application of the ice is sufficient to ensure that immediate cooling begins and continues for all oysters as described in Section B.5 of this Plan.

**Adequately shaded** means measures have been taken to prevent **market bound** oysters from direct exposure to sunlight. Materials in direct contact with oysters must be smooth, easily cleanable and impervious to water.

**Approved** means a classification used to identify a growing area where harvest for direct marketing is allowed.

**Quaculturist** means any person authorized by the Director of the Division of Marine Fisheries (DMF) to propagate or rear shellfish for commercial purposes under the authority of a shellfish propagation permit issued pursuant to 322 CMR 7.01(4).

**Batch tagging for re-submergence** means the use of a single tag to identify multiple contained **market-sized oysters** returned to the original oyster license site ("grant") following **oyster culture activities** requiring **re-submergence**.

**Broadcast re-submergence** means the return of loose, **market-sized oysters** back to the water at the original license site ("grant") following **oyster culture activities** requiring **re-submergence** as approved by DMF.

**Additionally Approved** means a classification used to identify a growing area which meets the criteria for the approved classification except under certain conditions described in a management plan.

**Harvester** means a person who takes shellstock by any means from a growing area for commercial purposes.

**Harvester icing tag** means a **harvester tag** indicating the **time of icing** for a single harvest attached to a **shellfish icing container**.



## Vibrio Control Plan HACCP Monitoring Record

**Effective May 21 - October 16, 2017**

FACILITY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

DMF DEALER PERMIT #: \_\_\_\_\_

[illegible]

Weekly Review by \_\_\_\_\_

Weekly Review Date \_\_\_\_\_

# Oyster School 2017





# Case Study

- Case at raw oysters (and Chilean sea bass) at 5:30 PM on June 27, 2017 and became ill at 10:00 pm on 6/28/17.
- RESTAURANT or EVENT
- ADDRESS
- Last 4 of cc
- # of guests
- Other information

# REGISTER RECEIPT

## Restaurant

IBER.PRT

Boston, MA 02210

Server: Kingsleyo  
Table 304/1  
Guests: 2  
Reprint #: 3  
Area: Restaurant

06/27/2017  
9:58 PM  
60017

Bt ROSE Billette	42.00
French Fried Potatoes	13.00
Sauteed Wild Mushrooms	19.00
Brussel Sprouts	14.00
Key Lime Pie	11.00
Alaskan Halibut	48.00
.... Chilean Sea Bass	51.00
Sauteed Sea Scallops	28.00
→ Oysters on Half Shell	0.00
( East Coast 1 1/2 Dz )	23.00
Foie Gras Appetizer	35.00

Subtotal	284.00
State and Local Tax	19.88

Total	303.88
-------	--------

AMEX #XXXXXXXXXXXX2022	\$303.88
Tip	60.00
Total	363.88

Auth:500564

X \_\_\_\_\_

--- Check closed ---

# RESTAURANT

PRE SHIFT 6/27/17 (M)

SCOTTISH SALMON	#	86 <b>limited crab legs</b>
CHILEAN SEA BASS	#	
ATLANTIC SWORD	#	
BIG EYE TUNA	#	
FEATURE FISH:		

WAGYU	8 oz. / <b>1 AU</b>	10 oz.	12 oz.		
LOBSTERS	2	2.5	3 : 4	3.5	4+

CAVIAR	QUANTITY	\$\$\$	AMOUNT
Royal Belgian Platinum	30 GR	300	3
Graveri Osetra - Italy	30 GR	300	4
Royal Belgian Osetra	30 GR	500	3

OYSTERS	ORIGIN
EC — LOTTERY TICKET	CCB, MA <b>SWT/MD</b>
INC — FOREIGN OYSTER	, CANADA <b>SH/CRM</b>

## BRUNCH

OMELETTE: **limited lunch**

NOTES: **IRON STEAK — 400Z TOMAHAWKS** **Rush 330Z Tomahawks**

DAIRY IN COFFEE STATION FRIDGE — LABEL / ROTATE  
TUPPERWARE / SELF CONTAINERS — NO

# SEAFOOD DEALER

INVOICE

Date	Invoice #
6/26/2017	#

Bill To	Ship To
RESTAURANT	RESTAURANT

O Number	Terms	Shipped Via	B.O.L. Number	Ship Time and Temp (f)	Box Count @ Weight (lbs)
y	Net 14	DELIVERY	22573	8:30a @ 38F	1

Quantity	U/M	Product	MOH	Price/Unit	Amount
100	ea	LOTTERY TICKET MA	FR-USA	0.79	79.00
100	ea	OTHER MA - 100ct.	FR-USA	0.79	79.00
120	ea	FOREIGN Columbia -	FR-CAN	0.85	102.00

PRODUCTS ON THIS INVOICE AS WELL AS



3-23-13

18

3-23-13

18

4-2-13

18

4-2-13

18

4-2-13

18

4-2-13

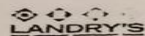
18

4-2-13

18

4-2-13

18



Menu Item Name	Qty	Price	Extension
\$ADD SHRIMP	8	8.000	\$64.00
AHI TAR TAR	17	19.000	\$323.00
AHI TUNA TOSTADA	10	21.000	\$210.00
BQT TWR SHRIMP ROLL	1	22.000	\$22.00
CALAMARI	12	21.000	\$252.00
COLOSSAL CRAB COCTAIL	6	32.000	\$192.00
CRAB CAKES	6	36.000	\$216.00
CRAB CAKES EACH	4	19.000	\$76.00
CRAB LEGS KING APP 8OZ	3	38.000	\$114.00
EACH AHI TUNA TOSTADA	1	7.000	\$7.00
FOIE GRAS APP	2	35.000	\$70.00
HAMACHI WITH CRISPY	3	26.000	\$78.00
ONIONS			
JALAPENO TUNA	9	25.000	\$225.00
LOBSTER COCKTAIL	2	28.000	\$56.00
LOBSTER ROLL	5	29.000	\$145.00
MAGURO LIME ROLL	3	26.000	\$78.00
OYSTER PREMIUM 1/2DZN	5	30.000	\$150.00
OYSTER PREMIUM EA	5	5.000	\$25.00
OYSTER ROCKEFELLER	7	21.000	\$147.00
OYSTER WHL EAST 1 EA	10	4.000	\$40.00
OYSTERS EAST 1 1/2dzn	14	23.000	\$322.00
SAUTEED SCALLOPS	6	28.000	\$168.00
SAUTEED SHRIMP	4	24.000	\$96.00
SHRIMP COCKTAIL	17	23.000	\$391.00
SHRIMP ROLL	3	20.000	\$60.00
SM STEAK BACON	1	14.000	\$14.00
SMOKED SALMON APP	1	22.000	\$22.00
TOWER CHILLED CRAB 8OZ	4	38.000	\$152.00
TOWER JALAPENO TUNA	2	25.000	\$50.00
TOWER LOBSTER CKTL	5	28.000	\$140.00
TOWER LOBSTER ROLL	2	29.000	\$58.00
TOWER MAGURO LIME ROLL	7	26.000	\$182.00
TUNA SASHIMI APP	3	19.000	\$57.00
VEGGIE ROLL	1	17.000	\$17.00
total APPETIZER			



**Vibrio Control Plan HACCP Monitoring Record**  
**Effective May 21 - October 16, 2017**

**Shellfish Dealer**

DMF DEALER PERMIT #: \_\_\_\_\_

TRANS #	HARVESTER ID #	HARVEST			QUANTITY	PROPER TAG Y/N	ADEQUATE ICING		DEALER'S VEHICLE TEMP		OYSTERS COOLED ≤ 45°F			
		DATE	TIME	AREA			TIME	Y/N	TIME	TEMP	DATE	TIME	TEMP	INITIALS
29172	155303	7/25	11:40p	CCB45	5000	Y	2:15p	Y	2:30p	38°	7/25	2:30p	33°	Y
30243	162939	7/25	6:15a	CCB23	4000	Y	6:45p	Y	9:15p	40°	7/25	9:45p	30°	Y
28975	100466	7/25	2:00p	CCB45	9000	Y	2:30p	Y	3:00p	40°	7/25	3:00p	34°	Y
28976	100466	7/25	2:00p	CCB45	9/1100	Y	2:30p	Y	2	—	7/25	11:00p	40°	Y
28976	00083	7/26	6:00a	CCB42	1400	Y	6:30a	Y	—	—	7/26	11:45a	39°	Y
30093	163337	7/26	6:45a	CCB42	2500	Y	7:30a	Y	—	—	7/26	11:37a	34°	Y
29011	167758	7/26	7:00a	BB332	1800	Y	7:18	Y	7:52a	38°	7/26	7:52a	39°	Y
26862	137203	7/26	8:00a	BB43	3900	Y	9:30a	Y	—	—	7/26	10:10a	38°	Y
29746	142237	7/26	12:00	CCB45	4200	Y	1:00p	Y	—	—	7/26	1:45p	27°	Y
30295	169566	7/26	8:00a	CCB42	1200	Y	8:14a	Y	—	—	7/26	10:50a	35°	Y
28714	007256	7/26	6:00a	CCB42	4600	Y	6:30a	Y	—	—	7/26	6:45a	38°	Y
30281	145997	7/26	8:30a	CCB42	5550	Y	9:30a	Y	—	—	7/26	11:22a	43°	Y
28979	100466	7/26	3:00p	CCB45	7300	Y	3:35p	Y	3:45p	40°	7/26	3:45p	40°	Y
28978	100466	7/26	2:50p	CCB45	8200	Y	3:15p	Y	3:45p	40°	7/26	3:45p	40°	Y
31190	175864	7/26	2:30p	CCB45	3300	Y	3:20p	Y	3:45p	40°	7/26	3:45p	39°	Y
29173	155303	7/26	2:40p	CCB45	3700	Y	3:15p	Y	3:45p	40°	7/26	3:45p	39°	Y

Weekly Review by \_\_\_\_\_

Weekly Review Date \_\_\_\_\_

# TRANSACTION SLIP

Harvester  
permit #

DATE  
06 JUN 17

POUND  
BUSHEL  
2000

TRANSACTION  
NUMBER

5203

SOURCE OF SHELLFISH  
FROM MASS. WATERS

AREA NUMBER

CCB-23

34.1

LOCATION

HARVEST EXPOSURE  
TIME

0552

ICED BY  
HARVESTER

0745

ICED BY  
DEALER

807

SHELLFISH  
DEALER

WHITE - FISHERMAN'S COPY YELLOW - DEALER'S COPY  
PINK - RETURN TO DIVISION OF MARINE FISHERIES

I CERTIFY UNDER THE PAINS AND PENALTIES OF PERJURY THAT THE  
INFORMATION IS TRUE AND COMPLETE.

Signature

TOTAL PURCHASE

## HARVESTER TAG

Harvester

Permit #

HARVEST DATE: 24 JUN 17

TIME: 0552

HARVEST AREA: MA-CCB-23

TYPE OF SHELLFISH: Crassostrea Virginica

QUANTITY OF SHELLFISH: 100 Pieces

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

TIME OF ICING: 0745



Steven Rice  
MA DPH Food Protection Program  
[steven.rice@state.ma.us](mailto:steven.rice@state.ma.us)

