

Shellfish in North Carolina: Rules, Risks and Rewards

Kacee Zinn, REHS
Shellfish Sanitation & Rec Water Quality



Facility Inspections:

- Shellstock Shippers (SS)
- Reshipper (RS)
- Shucker-Packer (SP)
- Repacker (RP)

Dealer Certification Number
NC 111 SS
State, 1-5digits, type

Certification Number
NC606SS/D1580224



Facility Inspections:

-Crustacea Processors (C, RP)



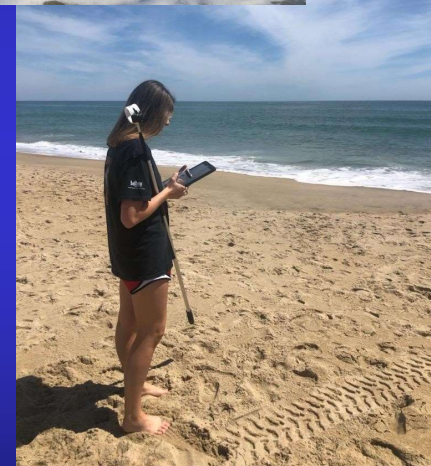
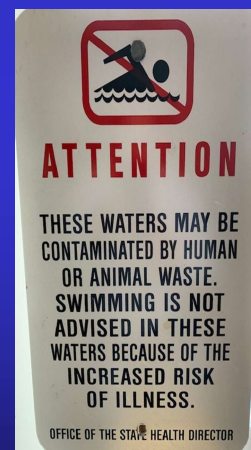
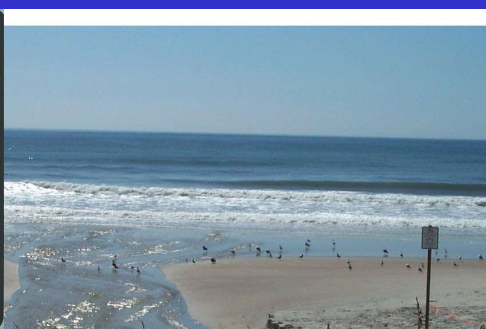
Shellfish Growing Areas:

- Shoreline Surveys
 - Identify & monitor potential pollution sources
- Water Samples
 - Taken throughout the year & after closure



Recreational Water Quality:

- Water samples at ocean & sound locations
- Weekly April through mid October



Laboratory:

- Process Growing Area Samples
- Process Rec Water Quality Samples
- Process meat samples



Tags, tags and more tags

Harvest Tag

HARVEST TAG

Name John Smith

Address 123 Shellfish Rd

Coastal Towne, NC

Phone# 555-555-5555

Harvester's Cert. No. 111111

Harvest Date: 3/11/13 Time: 7:00 A.M.

Harvest Area: E-5

Type & Quantity

Oyster	Bu.		Clams	#
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"THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY AND THEREAFTER KEPT ON FILE FOR 90 DAYS"

TO:



HARVEST TAG

CAROLINA MARICULTURE CO.
3318 CEDAR ISLAND ROAD
CEDAR ISLAND, NC 28520
910-279-4686

LEASE # WC-12-06

Harvester's Cert. No. 406934

Harvest Date: 8/27/22

Harvest Area: NC F-4

Time: 1500

Type & Quantity

Oyster	100		Bu.	Clams	#
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"THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY AND THEREAFTER KEPT ON FILE FOR 90 DAYS"

TO: Salty Catch

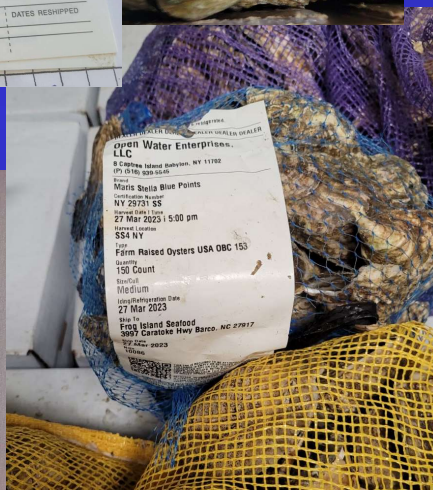
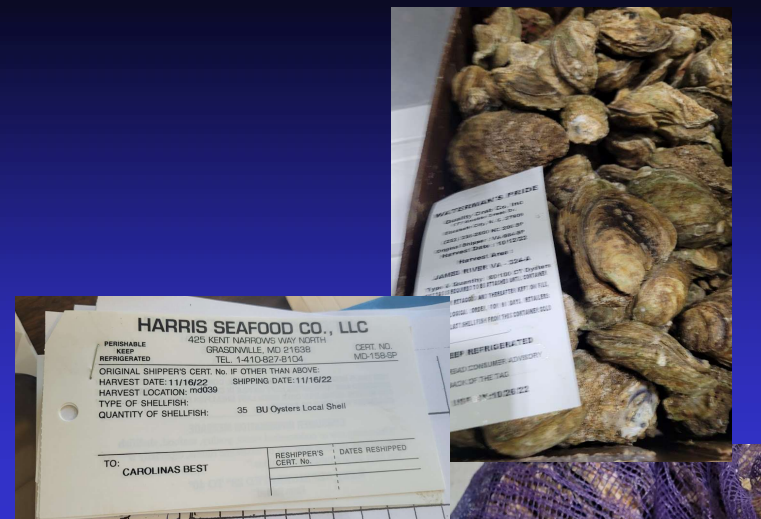


Tags, tags and more tags

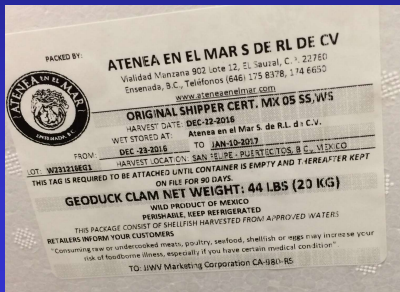
Dealer Tags

SHELLSTOCK TAG INFORMATION REQUIREMENTS

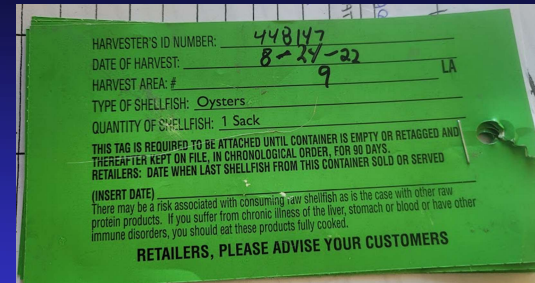
SALE	TAG
ABC Company 111 Beach Lane Beach, NC 28557 NC 123 SS	
Harvest Date; may be mo/d/yr, or Julian date (number of the day of the year).	Original Shipper Cert. No. TX-456-SS
Harvest Area may be a location name, number, letter, or combination of these, including initials of the state of harvest.	Harvest Date: August 1, 2004
Harvest Area: San Antonio Bay, TX	Harvest Area: San Antonio Bay, TX
Type & Quantity: Oysters 1 bushel	Type & Quantity: Oysters 1 bushel
"THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY AND THEREAFTER KEPT ON FILE FOR 90 DAYS"	
KEEP REFRIGERATED	
CONSUMER ADVISORY Eating raw, or undercooked oysters, clams, or mussels may cause severe illness. People with the following conditions are at especially high risk: liver disease, alcoholism, diabetes, cancer, stomach or blood disorder, or weakened immune system. Ask your doctor if you are unsure of your risk. If you eat raw, or undercooked shellfish and become sick, see a doctor immediately.	
90 Day tag retention notice.	Type of shellfish: oysters, clams, or mussels. Quantity can include number, volume, or weight.
Notice that product must remain refrigerated.	Space for Reshipper (receiving from dealer noted at top of tag) to add their name and certification number.
Consumer Advisory Notice. (front or back)	TO:



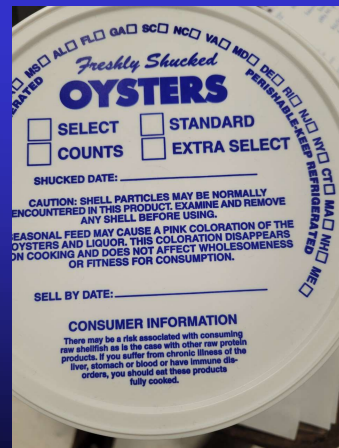
Tags, tags and more tags:



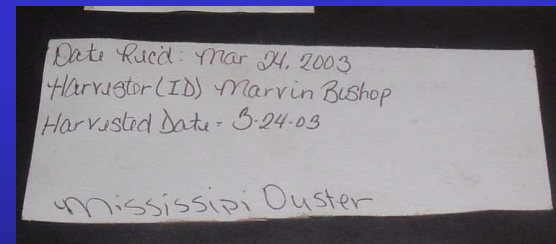
Geoduck Clams



Green Tag Oysters



Shucked Oysters



No Handwritten Tags!!



Interstate Certified Shellfish Shippers List (ICSSL)

An official website of the United States government [Here's how you know](#)

FDA U.S. FOOD & DRUG ADMINISTRATION Search Menu

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Interstate Certified Shellfish Shippers List

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Interstate Certified Shellfish Shippers List

NORTH CAROLINA
CERTIFICATES EXPIRE APRIL 30, 2024

Name	City	State	Cert No.	Symbol
ONEAL'S SEA HARVEST	WANCHESE	NC	249	SS
OUTER BANKS SEAFOOD	BEAUFORT	NC	304	SS
PAMLICO PACKING CO	GRANTSBORO	NC	14	SP
PAMLICO PACKING CO	VANDEMERE	NC	17	SP
PEERLESS OYSTER COMPANY	BEAUFORT	NC	832	SS
PERFORMANCE FOOD SERV, HICKORY	HICKORY	NC	342	RS
QUALITY CRAB AND OYSTER COMPANY	ELIZABETH CITY	NC	208	SP
QUALITY SEAFOOD	CEDAR ISLAND	NC	491	SS
QUEENS CREEK SEAFOOD	SWANSBORO	NC	107	SS
R. E. MAYO SEAFOOD	HOBUCKEN	NC	408	SS
RAMONA MILLER	SNEADS FERRY	NC	763	SS
RNR SHELLFISH FARMS	SNEADS FERRY	NC	738	SS

- Published Monthly
- Includes Foreign Shippers
 - Canada, Spain, Korea, New Zealand, Mexico and Netherlands
- Does not include Intrastate Dealers



Texas Recall December 2022

North Carolina Impacted by Texas Oyster Recall; Illnesses Reported

The following information was provided to ISSC:

NOTICE OF POTENTIAL HEALTH RISK ASSOCIATED WITH AN IMPLICATED GROWING AREA (Ch II@.01(C)(2)) On 12/08/2022, Texas Department of State Health Services determined that an epidemiological association between a gastrointestinal illness outbreak and oyster consumption existed and began an investigation of the outbreak to determine whether the illness was growing-area related or was the result of post-harvest contamination or mishandling. We have determined that this outbreak is growing-area related and this email serves to notify ISSC and the FDA Shellfish Specialist of these findings. On 12/08/2022, the harvest area TX 1 was closed to harvest and recall procedures consistent with the Recall Enforcement Policy at 21 CFR Part 7 are being initiated to recall all implicated oysters harvested from 11/17/2022-12/08/2022.

The Point of Contact for this matter is Kirk Wiles.
Phone Contact 512 466-7905 email Kirk.Wiles@dshs.texas.gov

Oysters from area of Galveston Bay recalled after dozens report illness in La., Texas

HEALTH

Hundreds sickened after oysters recalled from part of Galveston Bay, DSHH says

FOOD

Your life in data

Add Topic +

Raw oysters sold in 8 states carry risk for norovirus, health officials say

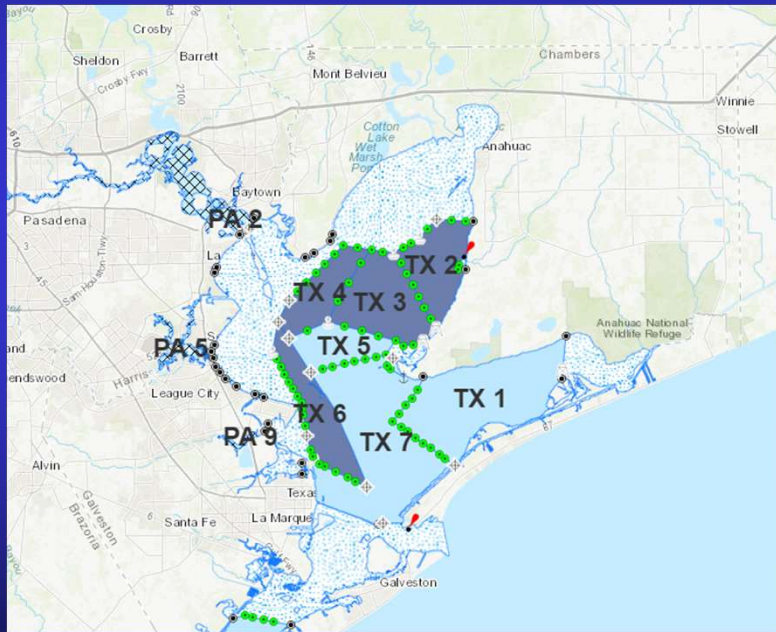


Jordan Mendoza
USA TODAY



Texas Recall 2022

- Growing area TX 1



The FDA is advising consumers not to eat, and restaurants and food retailers not to sell, and to dispose of oysters that were harvested between 11/17/2022 and 12/7/2022 from area TX 1, Galveston Bay, Texas due to possible norovirus contamination. These oysters were sold in Alabama (AL), Florida (FL), Georgia (GA), Louisiana (LA), Mississippi (MS), North Carolina (NC), Tennessee (TN) and Texas (TX). Consumers who purchased oysters after November 17 should check the packaging to see if they were harvested in TX 1. Contaminated oysters can cause illness if eaten raw, particularly in people with compromised immune systems. Food contaminated with norovirus may look, smell, and taste normal. Consumers of these products who are experiencing symptoms of norovirus illness should contact their healthcare provider, who should report their symptoms to their local Health Department.

- 322 illnesses reported
- Across 8 states
- One hospitalization
- No deaths



Texas Recall 2022

One Northern facility:

- Purchased 191 boat bags harvested on Nov 28th
- shucked into 8 & 16 oz jars
- shipped to Atlanta for distribution to 400+ stores
- All product retrieved and destroyed on Dec 13th



HOLD

NOT TO BE USED OR SHIPPED UNLESS RELEASED BY A FOOD SAFETY TEAM MEMBER

Product Name: Oyster Shuck

Reason for Hold: recall

Supplier Information: Quality Crab

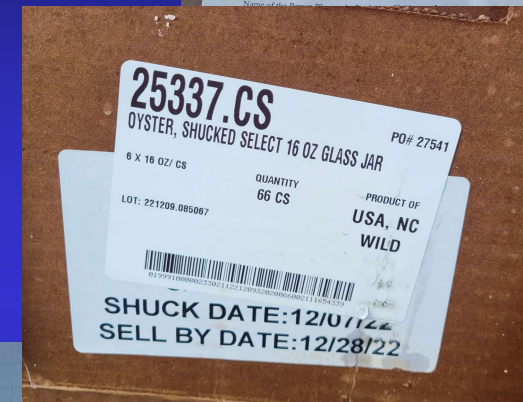
P.O.#: 7754 and 7766

Date: 11.9.22

Name of Facility: _____

Include all information available at the action records folder.

QP036
Revised: 02/17/2019



Vibrio Vulnificus

Vibrio

- estimated 80,000 cases annually
- naturally occurring in water
- higher concentrations in warmer months
- follow stricter harvest regulations
 - refrigerate to below 50 degrees in 5 hours
 - store below 45 degrees
- fully cook shellfish before eating
- wash hands after handling shellfish



Vibrio in NC 2023

June 2023:

- 1 confirmed case at Oyster Bar in Raleigh
 - shellfish from multiple in/out state dealers
 - patient recovered, no hospitalization



- 1 confirmed case at Oyster Bar in Southern Pines
 - shellfish from out of state dealers
 - patient recovered, no hospitalization

July 2023:

- 1 confirmed case at restaurant Charlotte
 - shellfish from out of state dealers
 - patient recovered, no hospitalization



Vibrio in NC 2023

3 NC residents died of Vibrio infections in July

By Outer Banks Voice on July 28, 2023

NCDHHS statement follows July 21 death of Nags Head resident

On July 28, the North Carolina Department of Health and Human Services (NCDHHS) issued this warning about the Vibrio bacteria that have now caused three fatalities in the state this month. On July 25, the Voice published this story (*Avid Nags Head waterman dies after contracting*



NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**

- Infection from handling crab pot on July 16th and removed from life support on July 21st
- Since 2019 8 of 47 cases fatal in NC

Avid Nags Head waterman dies after contracting bacterial infection in sound

By Corinne Saunders | Outer Banks Voice on July 25, 2023

Nags Head resident Michael "Mike" Gard, 71, a fondly remembered local business owner and avid waterman, died unexpectedly on July 21, following infection of a cut he got while handling a crab pot in the sound five days earlier.

While Dare County Health and Human Services (DHHS) Director Sheila Davies said she could not confirm that the deceased individual was Gard for privacy reasons, the DHHS said it was made aware of a confirmed Vibrio bacteria case on July 20 and was notified of that person's death on July 24—something that tracks with the Gard death and timeline.



Mike Gard.



Oyster Aquaculture in North Carolina



- 1.4 million areas of coastal waters
- Shellfish farming since 1858
- 30-million-dollar industry in 2021



Pros of Oyster Aquaculture:

- economic development for coastal economy
 - tourism
 - jobs
- supplement wild harvest demands
- additional habitat for fish & other species
- increased water filtration



The tanks in this photo are filled with water from the same source, but the tank on the right has oysters in it. A single adult oyster can filter as much as 50 gallons of water a day.



Cons of Oyster Aquaculture:

- User conflicts
- Manmade gear in marine environment



Solutions:

-BMP'S

- locations
- design
- gear selection
- storm readiness

-Community engagement



Goal for 2030 to be 100-million-dollar industry in North Carolina



Questions?

Kacee Zinn, REHS
919-599-9079 call or text
kacee.zinn@deq.nc.gov
252-726-6827 Morehead City

