Appendix F



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Your Food Consulting Link

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Date:

November 13, 2002

Reference No:

217/22042/01

Client:

Unic Marketing Group Inc. Att: Jean-Paul Richard 795 Main Street, Suite 201 Moncton, NB E1C 1E9 jp@unicmarketing.com

Summary of Regulatory Issues Re: Oyster Handling - Post-Harvest to Point of Sale

The harvest and sale of shellfish/oysters are regulated by several agencies in Canada and the United States. The following is an outline of regulatory requirements for raw oysters as a food product following the actual harvest through to point of sale. It assumes that the harvesters/dealers/repackers/ shippers have the required licences, certifications and leases to approved shellfish growing and harvesting areas. It assumes that processing plants are federally inspected and that the facilities operate under HACCP principles and sanitation prerequisite requirements which are specific to each processing location and each kind of shellfish processed and includes microbiological checks.

Definitions of terms are attached to this report. Abbreviations used include: FIR - Fish Inspection Regulations

NSSP/CSSP - National or Canadian Shellfish Sanitation Program

ICSSL - Interstate Certified Shellfish Shippers List

To export shellfish to the United States, the dealer must be included in the ICSSL, a list which is updated monthly (additions and deletions). Canada and the United States have a Memorandum of Understanding and similar Shellfish Sanitation Programs which allow for shellfish companies, that have certified operations under Canadian regulations, to apply for inclusion on the ICSSL without necessarily requiring inspections and audits by US agencies. The ICSSL states the usual business name(s), business address where inspections occur, certificate number that includes a code for operation type and expiration date.

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Post-Harvest:

- the oysters must be washed to remove excess sediment and detritus as soon as possible.
- if it is not feasible or practical for the harvester to wash the oysters at the harvest site, then they must be washed upon arrival at a registered processing facility by the dealer.
- water for washing must be from an approved shellfish growing area or from other approved source.
 - salinity and temperature of the water at the harvest area must be determined and recorded.
 - the oysters must be placed in containers that are clean and fabricated from approved material and that allow for adequate water circulation.
 - each container must be marked with an approved, durable, water-proof tag that is a minimum of 6.7 cm x 13.3 cm and states:
 - name of registered harvester
 - name of harvest boat
 - assigned identification or lease number
 - precise identification of harvest location with area number
 - date of harvest
 - common name of the shellfish and quantity in the container

in bold upper case "THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY OR IS RETAGGED AND THEREAFTER KEPT ON FILE FOR 90 DAYS"

if the product is transferred to a different container(s) before arriving at the processing facility, each new container must be tagged with this same information.

the harvester's tag stays affixed until the container is shipped or emptied to wash, grade or pack.

at whatever point the harvester's tag is removed from the original container, the tag must be kept for a minimum of 90 days.

after harvest, the oysters are transported directly to their next destination in vehicle/vessel complying with FIR.

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> oysters harvested from one harvest area on one day may have a single tag for multiple containers that are secured in one pallet or tote. If this is the case, the tag must also state the number of individual containers per lot and the statement:

"All oyster containers in this lot have the same harvest date and area of harvest."

based on water temperatures and conditions at the time of harvest, the oysters must be temperature controlled - body temperature of 10°C or less - within a set time period after harvest.

if the water temperature during harvest is greater than 18°C, the harvested oysters must be shaded during the rest of the harvest and during transport.

Wet Storage of Oysters:

oysters may be held in near-shore or on-shore storage facilities for conditioning, salinization or cleaning.

wet storage facilities must comply with FIR, be approved annually and have adequate security to protect the product from adverse physical, chemical or thermal conditions.

wet storage facilities must be organized to keep lots separate and identified. Different species cannot be held together.

holding water temperature must be similar to that of the process water (no warmer and no more than 3° cooler).

records to continue traceability and to monitor conditions of every lot must also include:

time and date received at storage

time and date removed from storage

daily levels of oxygen content, salinity, temperature, turbidity, coliforms and pH.

wet storage of depurated product can only be within the depuration facility. The dates for this wet storage period must also be included on the tags.

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Depuration/Processing of Oysters:

depuration facilities must comply with FIR and be approved prior to a licence being issued for harvesting in a closed area.

depuration facilities must be organized to keep lots separate and identified. Different species cannot be held together.

records to continue traceability and to monitor conditions of every lot must also include:

lot number

time and date of start of depuration

time and date of removal from depuration

daily levels of oxygen content, salinity, temperature, turbidity, coliforms and pH of water

bacteriological results at start and end of depuration process

several equipment parameters including tank number, flow rate,

ultraviolet light history

details on culls.

oysters washed with approved water (running water, not immersion) and sorted to remove broken dead or gaping shellfish prior to cleansing. all equipment used in the cleansing/processing of the oysters is to be FIR compliant and will be maintained, washed and sanitized after each use. oysters held prior to processing to be stored at a temperature not greater than that of the processing water and not more than 3°C less than the temperature of the processing water.

oysters may be stored a maximum of 3 days, including day of harvest and

day of transport, prior to depuration.

Dealer Information:

the dealer's tag contains much of the same information as the harvester's tag; therefore, if the harvester's tag is to remain on the container, the dealer's tag does not have to duplicate information.

if the harvester's tag is removed from the container, the dealer must keep the tag on file for 90 days.

the dealer must maintain record of the growing area and the harvest date of each lot while maintaining lot separation during any intermediate processing.

containers must be clean and fabricated from approved material.

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the information (some of which may be on the harvester's tag) which is to be on the dealer's tag (approved, durable, water-proof tag that is a minimum of 6.7 cm x 13.3 cm) includes:

- name and address of registered dealer
- dealer certification number
- precise identification of harvest location with area number date of harvest
- common name of the shellfish and quantity in the container
- if the oysters are for export to the US, this statement must be made in bold upper case "THIS PRODUCT IS A PRODUCT OF __province__ AND WAS WET STORED AT facility certification number FROM date TO date ."
- if the oysters are destined for raw consumption, the label must state "RETAILERS, INFORM YOUR CONSUMERS
 - Consuming raw or undercooked meats, poultry, shellfish or eggs may increase your risk of food-borne illness, especially if you have certain medical conditions."
- shell oysters means live oysters of the species Ostrea virginica (and others) in the shell. After removal from their beds, they have not been floated or otherwise held under conditions which result in the addition of water or salt water of less than 0.75 percent salt.

Heat Shock and Shucking:

heat shocking is not intended to open the shell but allows oysters to be more easily shucked. The oysters must remain alive until shucking. oysters washed with approved water (running water, not immersion) and sorted to remove broken dead or gaping shellfish prior to heat shocking. the heat shock process must be an approved procedure and the facility may not deviate from this procedure.

immediately after heat shocking, oysters are first cooled with approved running water. Then, using crushed ice or other means, the oysters must reach a body temperature of no more than 7.2°C within two hours of the heat shock and be stored at 7.2°C or less thereafter.

any equipment/surfaces used in the heat shock process must be cleaned and sanitized on a pre-set schedule. Heat shock tanks will be drained and flushed at least every 3 hours./6

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> the equipment must be made of an approved material and construction. records documenting all aspects of the heat shock process must be kept. shucking, packing and repacking processes must comply with FIR and must take place in a federally-registered plant.

> containers must be clean and fabricated from approved material. label on each individual package of fresh or frozen shucked meats must be indelibly marked on the Principal Display Panel with:

common name of the shellfish

net contents as net weight or, if fresh, as net contents in terms of fluid measure or by count (ie. Net Contents 1 pint or 36 oyster meats)

name and address of responsible processor or distributor country of origin

packer's certification number

if less than 64 fl. oz., a legible "SELL BY" date. If greater than 64 fl. oz., a legible "DATE SHUCKED" on the container lid and side or bottom

fresh product will indicate the month and day; frozen product will also include the year. (These dates may be stamped on; all other information is to be indelible.)

if frozen, "FROZEN" must be part of the product name and be in equal font

if product was previously frozen and then thawed for further processing, label must state "PREVIOUSLY FROZEN"

if labelled for retail sale, the label information must be presented according to all pertinent food and fair packaging labelling regulations

if returnable containers are used to transport shucked meats between certified dealers for additional processing or repacking, the above label information is not needed on the returnable containers. However, these shipments must be accompanied by a transaction record which documents:

the name and certification number of the original shucker

the shucking date

quantity of oysters per container total number of containers

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the addition of fresh water, or salt water with less than 0.75 percent salt, to fresh or fresh frozen shucked oysters may cause the product to be classified as adulterated.

the total time that oyster meats are in contact with added water or salt water (of less than 0.75 percent salt) after shucking must be not more than 30 minutes.

shucked oysters that are rinsed, washed or otherwise come into contact with fresh water or salt water (of less than 0.75 percent salt) must be thoroughly drained and then packed without any added substance(s). approved methods for thoroughly draining oyster meats are detailed in the US Code of Federal Regulations 21CFR161.130(c)(2).

21CFR161.130(c)(2) that covers standards for oysters is appended to this report.

Shipping, Reshipping, Repacking, Relabelling:

- a shipper may:
 - buy and sell shellstock from a harvester or dealer
 - reship shellstock or shucked meats
 - relabel and repackage shellstock.

a shipper may not shuck oysters or relabel or repack shucked meats. the shipper must ensure proper sanitation of all equipment and vehicles used in the shipping process and must keep all appropriate records. trucks used to store or transport shellstock must comply with FIR and, for trips longer than 4 hours, must have adequate refrigeration to maintain a truck box temperature of 7.2°C or less. A working time-temperature recording device is required to document temperature maintenance of each shipment. For trips of less than 4 hours, product can be well iced (ice to be FIR compliant) to maintain oyster temperature below 7.2°C and no temperature recorder is necessary.

shipper must continue labelling chain and record keeping.

a reshipper, complying with FIR, may transport shellstock or meats in original containers from certified shippers to other dealers or end consumer.

a reshipper may not shuck, relabel or repack.

a repacker may repack and relabel shellstock or shucked shellfish into other containers./8

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a repacker may not shuck shellfish.

the repacking establishment must comply with FIR and must maintain all records to track each lot of oysters.

at every stage, shellstock/meats in storage and in transit shall be protected from contamination and shall be kept at a temperature of 7.2°C or less.

only clean, wholesome shellfish may be repacked or relabelled.

during repacking, each lot must continue to be separated to allow for lot tracking throughout the chain.

the oysters/meats must be placed in containers that are clean and fabricated from approved material.

the tag/label must include the same information as the original dealer's tag and must also include the name, address and certification number of the repacker. This includes the statement "THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY OR IS RETAGGED AND THEREAFTER KEPT ON FILE FOR 90 DAYS".

retail packages of live shellfish must indicate the date processed and the area of harvest. This information must also be shown on any master carton.

Records:

complete and accurate records must be maintained by the dealersufficient to document and track each container of shellfish from its original approved source through to the end point of sale.

records of sales and purchases of fresh oysters/meats must be kept for at least one year.

records of sales and purchases of frozen oysters must be kept for either two years or the length of the product's shelf-life, which ever is greater.

records may be kept as hard copies or as approved computer files.

examples of some records required to be kept by the dealer is appended to this report.

all records must be properly acknowledged by the responsible operator and must be checked and stored by management.

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Summary of An Acceptable Shipment:

containers are properly tagged, labelled and have proper shipping documents.

- shellstock is alive and cooled to body temperature of no more than 10°C. shucked meat is cooled to no more than 7.2°C.
- shipment has a functioning time-temperature indicator if transport time is greater than 4 hours. Shipment is adequately iced if transport time is less than 4 hours.
 - shipment has not undergone more than 2 hours of unrefrigerated time at loading docks, etc.
 - frozen shellfish has remained frozen at -20°C or less.
 - entire cargo is only oysters and is on pallets. If the cargo includes other product, the oysters must be protected from contamination, placed on pallets and have no other cargo above it unless all is in sealed, crush-proof, water-proof containers.
 - initial dealer must note the date and time on temperature recorder at start of shipping. Each receiver/handler must note the date and time on temperature recorder when shipment is received. The final receiver keeps the time-temperature recording chart in files for a minimum of 1 year.

Summary of An Unacceptable Shipment:

- containers are not properly tagged, labelled and documented.
- shellstock body temperature is greater than 15.6°C (unless this is allowed based on the harvest water temperature and the chill-down interval has not been exceeded).
- shucked meat temperature is greater than 10°C.
- frozen meats have not been maintained at acceptable frozen temperatures.
- any responsible agency determines the product is unwholesome or unsafe.

Carol Crouse Food Technologist

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New 31/03/92

DEFINITIONS

Approved Area - The classification of a shellfish growing area which has been approved by the shellfish control authority for growing or harvesting shellfish for direct marketing. The classification of an approved area is determined through a sanitary survey conducted by the shellfish control authority in accordance with Chapter 2 of this Manual. An approved shellfish growing area may temporarily be made a closed area when a public health emergency, resulting from for instance, a hurricane or flooding, is declared.

Blower - A container for washing shucked shellfish which uses forced air as a means of agitation.

<u>Canadian Shellfish Sanitation Program</u> - A program to classify harvesting areas and control the commercial and recreational harvesting of molluscs and processing of product for the consumer market.

<u>Certification Number</u> - The number assigned by Fisheries and Oceans (DFO) to each certified shellfish dealer. It consists of a one to five digit number preceded by the two letter province abbreviation and followed by the two letter symbol designating the type of operation certified.

<u>Closed Area</u> - A growing area where the harvesting of shellfish is temporarily or permanently not permitted, except by special permit for specific purposes.

<u>Coliform Group</u> - The coliform group includes all of the aerobic and facultative anaerobic, Gram-negative, non spore-forming bacilli which ferment lactose with gas formation within 48 hours at 35 °C.

<u>Commingling</u> - The act of combining different lots of shellfish or shucked shellfish.

<u>Conditionally Approved Area</u> - The classification of a shellfish growing area determined by the shellfish control authority to meet approved area criteria for a predictable period. The period is conditional upon established performance standards specified in a management plan. A conditionally approved shellfish growing area is a closed area when the area does not meet the approved growing area criteria and is temporarily closed by the shellfish control authority.

<u>Container Relaying</u> - The transfer of shellfish from closed areas to approved areas for natural biological cleansing in a container using the ambient environment as a treatment system.

Amend.nol 25/03/94

<u>Controlled Purification or Depuration</u> - The process of using a controlled, aquatic environment to reduce the level of bacteria and viruses in live shellfish.

Dealer - A commercial shellfish shipper, reshipper, shucker-packer, repacker, or depuration processor or operation.

Depuration Plant - A depuration plant is a facility of one or more depuration units. A depuration unit is a tank or series of tanks supplied by a single process water system.

Depuration Processor (DP) - A person who receives shellstock from approved or closed growing areas and submits such shellstock to an approved controlled purification process.

Dry Storage - The storage of shellstock out of water.

Faecal Coliform Group - The faecal coliform group includes bacteria of the coliform group which will produce gas from lactose in a suitable multiple tube procedure liquid medium (EC or A-1) within 24 \pm 2 hours at 44.5 \pm 0.2°C in a water bath .

Growing Area - An area which supports or could support live shellfish.

Harvester - A person who takes shellfish, by any means, from a growing area.

<u>Harvesting record</u> - is an official record identifying where, when, and the quantity of shellfish that was harvested by a harvester.

Heat Shock - The process of subjecting shellstock to any form of heat treatment, such as steam, hot water or dry heat for a short period of time prior to shucking to facilitate removal of the meat from the shell without substantially altering the physical or organoleptic characteristics of the shellfish.

Lease - A defined geographic area in a marine environment described by a federal or provincial agency and approved by the Competent Authority (Shellfish Control Agency or provincial equivalent) for the purposes of culturing, harvesting and/or relaying (exploratory or commercial) of bivalve molluscs. This definition includes all tenures, licenses of occupation or permits issued to an individual, group or company by the Competent Authority.

Lot of Shellstock - A collection of bulk shellstock or containers of shellstock of no more than one day's harvest from a single defined growing area by one or more harvesters.

Lot of Shellstock for Depuration - Shellstock harvested from an area at a particular time and delivered to one depuration plant.

Lot of Shucked Shellfish - A collection of containers of no more than one day's shucked shellfish product produced under conditions as nearly uniform as possible and designated by a common container code or marking.

Marine Biotoxins - Poisonous compounds accumulated by shellfish feeding upon toxin containing dinoflagellates, such as <u>Alexandrium</u> (formally <u>Gonvaulax</u> and <u>Protogonvaulax</u>) <u>cantenella</u>, <u>A. fundvense</u>, <u>A. tamarensis</u>, and <u>Ptychodiscus</u> <u>brevis</u>, or marine diatoms such as <u>Nitzschia pungens</u>.

Most Probable Number (MPN) - The MPN is a statistical estimate of the number of bacteria per unit volume and is determined from the number of positive results in a series of fermentation tubes.

National Shellfish Sanitation Program (NSSP) - The cooperative United States, State-Food & Drug Administration (FDA)-Industry program, for certification of interstate shellfish shippers as described in the NSSP Manual of Operations, Parts I and II. Foreign governments may be members by having a current Memorandum of Understanding (MOU) or agreement with the FDA.

Poisonous or Deleterious Substance - A toxic compound occurring naturally or added to the environment that may be found in shellfish for which a regulatory tolerance limit or action level has been established or may be established to protect public health. Examples of naturally occurring substances would be paralytic shellfish toxins and trace elements, such as mercury, geologically leached from the environment; examples of added substances would be agricultural pesticides and polynuclear aromatics from oil spills.

Prohibited Area - Distinct areas or areas within closed growing areas that are prohibited to shellfish harvesting for any purposes.

<u>Relaying</u> - The transfer of shellfish from closed areas to approved areas for natural biological cleansing using the ambient environment as a treatment system (Houser 1964).

Remote Shellfish Area - A shellfish growing area that has no human habitation and is not impacted by any actual or potential pollution sources.

Repacker (RP) - A person other than the original certified shuckerpacker who repacks shucked shellfish into other containers. A repacker may also repack and ship shellstock. A repacker shall not shuck shellfish.

Amend.no2 30/11/95

Reshipper (RS) - A person who purchases shucked shellfish or shellstock from other certified shippers and sells the product without repacking or relabelling to other shippers, wholesalers or retailers.

Restricted for Controlled Purification - the median or geometric mean faecal coliform MPN of water does not exceed 88/100 mL and not more than 10% of the samples exceed a faecal coliform MPN of 260/100 mL, for a five-tube decimal dilution test.

<u>Restricted for Relaying</u> - areas within closed areas in which the median faecal coliform Most Probable Number (MPN) of the water exceeds 14/100 mL, and/or more than 10% of the samples exceed a faecal coliform MPN of 43/100 mL, for a five-tube decimal dilution test. These areas must not be within a prohibited area

Sanitary Survey - The evaluation of all actual and potential pollution sources and environmental factors having a bearing on shellfish growing area water quality.

Sanitize - The treatment to adequately treat food-contact surfaces by a process that is effective in destroying vegetative cells of microorganisms of public health significance and in substantially reducing the number of other undesirable microorganisms, but without adversely affecting the product or its safety for the consumer.

Scheduled Controlled Purification Process - A process which places shellfish harvested from closed or approved waters into a controlled aquatic environment selected by the processor and approved by the shellfish control agency as adequate to effectively reduce the level of bacteria and viruses in live shellfish.

Scheduled Heat Shock Process - The process selected by the processor and approved by the shellfish control agency to heat shock a shellfish species in order to facilitate shucking without adversely affecting the microbial quality or altering the organoleptic characteristics of the species.

<u>Seed</u> - Any submarket size bivalve shellfish that has been gathered directly from the wild, or grown in a hatchery, and transplanted or relayed to a private lease site or public shellfish bed for grow-out.

<u>Shellfish</u> - All edible species of oysters, clams, mussels and scallops* either shucked, in the shell, fresh or fresh frozen or whole or in part. For the purposes of marine biotoxin control predatory gastropod molluscs shall also be included.

* Except for the adductor muscle

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Def.

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Shellstock - Shellfish in the shell.

Shellfish Control Agency - The agency or agencies having the legal authority to classify shellfish growing waters (Environment Canada), to issue permits for the export of shellfish and regulate harvesting, processing and shipping (Fisheries and Oceans).

Shellstock Shipper (SS) - A person who grows, harvests, buys, or repacks and sells shellstock. They are not authorized to shuck shellfish nor to repack shucked shellfish. A shellstock shipper may also ship shucked shellfish.

Shucked Shellfish - Shellfish, whole or in part, from which one or both shells have been removed.

<u>Shucker Packer (SP)</u> - A person who shucks and packs shellfish. A shucker packer may act as a shellstock shipper or may repack shellfish originating from other certified dealers.

<u>Spat</u> - Newly settled spawn of bivalve shellfish that has been cultivated in a laboratory or hatchery <u>or</u> collected from the wild using a variety of techniques (eg. monofilament lines, cement-coated collectors, etc.).

Transaction Record - A form(s) used to document each purchase or sale of shellfish at the wholesale level.

Turbidity - Reduced water clarity resulting from the presence of suspended matter.

Wet Storage - The temporary storage of "live" shellfish from approved sources, intended for marketing, in containers or floats in natural bodies of seawater or in tanks containing natural or synthetic seawater.

[Code of Federal Regulations] [Title 21, Volume 2] [Revised as of April 1, 2002] From the U.S. Government Printing Office via GPO Access [CITE: 21CFR161.130]

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WAIS Document Retrieval

TITLE 21--FOOD AND DRUGS

CHAPTER I--FOOD AND DRUG ADMINISTRATION, DEPARTMENT OF HEALTH AND HUMAN SERVICES (CONTINUED)

PART 161--FISH AND SHELLFISH--Table of Contents

Subpart B--Requirements for Specific Standardized Fish and Shellfish

Sec. 161.130 Oysters.

(a) Oysters, raw oysters, shucked oysters, are the class of foods each of which is obtained by shucking shell oysters and preparing them in accordance with the procedure prescribed in paragraph (b) of this section. The name of each such food is the name specified in the applicable definition and standard of identity prescribed in Secs. 161.131 to 161.140, inclusive.
(b) If water, or salt water containing less than 0.75 percent salt, is used in any vessel into which the oysters are shucked the combined volume of oysters and liquid when such oysters are emptied from such vessel is not less than four times the volume of such water or salt water. Any liquid accumulated with the oysters is removed. The oysters are washed, by blowing or otherwise, in water or salt water, or both.

are washed, by blowing or otherwise, in water or salt water, or both. The total time that the oysters are in contact with water or salt water after leaving the shucker, including the time of washing, rinsing, and any other contact with water or salt water

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is not more than 30 minutes. In computing the time of contact with water or salt water, the length of time that oysters are in contact with water or salt water that is agitated by blowing or otherwise, shall be calculated at twice its actual length. Any period of time that oysters are in contact with salt water containing not less than 0.75 percent salt before contact with oysters, shall not be included in computing the time that the oysters are in contact with water or salt water. Before packing into the containers for shipment or other delivery for consumption the oysters are thoroughly drained and are packed without any added substance.

packing into the containers for snipment or other derivery for consumption the oysters are thoroughly drained and are packed without any added substance. (c) For the purposes of this section: (1) Shell oysters means live oysters of any of the species, Ostrea virginica, Ostrea gigas, Ostrea lurida, in the shell, which, after removal from their beds, have not been floated or otherwise held under conditions which result in the addition of water. (2) Thoroughly drained means one of the following: (i) The oysters are drained on a strainer or skimmer which has an area of not less than 300 square inches per gallon of oysters, drained, and has perforations of at least \1/4\ of an inch in diameter and not more than 1\1/4\ inches apart, or perforations of equivalent areas and distribution. The oysters are drained for not less than 5 minutes; or (ii) The oysters are drained by any method other than that prescribed by paragraph (c)(2)(i) of this section whereby liquid from the oysters is removed so that when the oysters are tested within 15 minutes after packing by draining a representative gallon of oysters on a skimmer of the dimensions and in the manner described in paragraph (c)(2)(i) of this section for 2 minutes, not more than 5 percent of liquid by weight is removed by such draining.

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ANNEX 10A

RECORDS

The following records must be kept and must be available

Per lot: 10A.1

- date of harvest area of harvest

- area of harvest
 harvesters' names
 quantity of shellfish harvested
 time and date received at storage*
 time and date removed from storage*

- pre-process storage temperature
 amount of culls, time and place of disposal
 time and date of arrival at plant

- for humber
 time and date of start of depuration
 time and date of removal from depuration system
 zero hour bacteriological results
 final hour bacteriological results
 destination of lot
- - If storage facility location is separate from cleansing facility

Daily Plant Records: 10A.2

a) Depuration Water - oxygen content - salinity - temperature - turbidity - coliform count - pH

b) Plant Equipment

- tank number
 - tank flow rate (measured twice daily and after adjustments are made to any tank)
 - time (in depuration hours) that tanks and shellfish hosed down

 - time of back flush temperature of dry storage ultraviolet lights (hours of use, % efficiency, date replaced)
 - water flow chart

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c) Laboratory Equipment - refrigerator temperature - incubator temperature - water bath temperature - autoclave temperature and pressure

10A.3 <u>Other</u>

> Harvesting Site - salinity and water temperature of overlay water ۰.

Container Relay Site - rainfall

NOTE :

All records must be acknowledged by the responsible operator (by initialling records) and by a management check.

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ANNEX 10B

SELECTED EXAMPLES OF TAGS AND RECORD FORMS

A. Lot Identity At Dig Site

HARVEST AREA AND SUB-AREA AND AREA # DATE OF HARVEST
NAME(S) OF HARVESTERS
A CONTRACT OF A CO
PERMIT #
QUANTITY OF CLAMS
LOT #
PROCESSING CO. NAME, ADDRESS & REGISTRATION #

B. Lot Identity At Interim Storage Facility

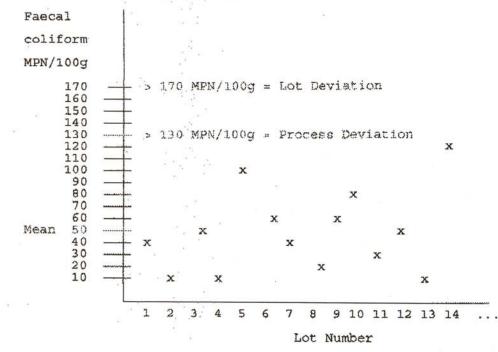
	10.10.000
LOT # STORAGE	E TEMPERATURE DATE RECEIVED
HARVEST AREA AND N	UMBER
QUANTITY RECEIVED	. <u> </u>
QUANTITY CULLED	4 1 M
DISPOSAL METHOD	
DISPOSAL DATE	
QUANTITY SHIPPED	
DATE SHIPPED	

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C. Depuration Cycle

CLEANSING (DEPURATION) CYCLE	lot #
DATE (TIME) IN:	QUANTITY
CONTAINER (TANK) NUMBER	
CONTAINER POSITION	
TIME OF WASH DOWN	
DATE (TIME) OUT	QUANTITY
DISPOSAL OF CULLS	





APPENDIX 11 COCKTAIL OYSTER MARKETING POLICY

POLICY RESPECTING THE HARVEST AND MARKETING OF "COCKTAIL" OYSTERS BY LICENSED AQUACULTURISTS IN NEW BRUNSWICK, NOVA SCOTIA AND PRINCE EDWARD ISLAND

INTRODUCTION

This policy was developed as a result of requests from aquaculturists 1 in New Brunswick and Nova Scotia to be permitted to harvest and market undersized "cocktail" oysters² from licensed shellfish leases. This policy was developed by the Department of Fisheries and Oceans (DFO) in consultation with the provinces involved. This policy takes into consideration health and safety concerns, enforcement requirements to ensure protection of commercial oyster fisheries and the need to harmonize implementation among the three provinces and the various areas within DFO's Maritimes Region. In New Brunswick, DFO and the province conducted a pilot project that permitted the harvest and marketing of cocktail oysters from selected oyster leases under strict guidelines during 1993 and 1994. This policy draws heavily on the experience gained in this pilot project.

POLICY

The policy applies in New Brunswick, Nova Scotia and Prince Edward Island unless otherwise indicated.

- The harvest and marketing of cocktail oysters will be permitted from selected, licensed shellfish leases under variation orders issued by DFO. A variation order will permit the harvest and subsequent marketing of oysters of any size from a specific site during the periods specified in the order. All rules governing the program will be articulated in both an attachment to the variation order and the provincial (or federal) Aquaculture Lease Agreement of the proponent.
- 2. The marketing of cocktail oysters will be subject to the health and safety requirements of the Fish Inspection Act and Regulations.
- All cocktail oysters must be processed in provincially licensed and registered plants when marketed in the province of origin. If being exported outside the province of origin, cocktail oysters must be processed in federally registered plants that have valid Quality Management Programs (QMP).
- 4. Licensees for the "Cocktail" Oyster Program will be selected based on the following criteria:
 - a. Only those aquaculturists <u>not</u> holding commercial oyster licences or licences issued under the Management of Contaminated Fisheries Regulations (e.g., public bed relay or harvesting permits) will be eligible. Submission of a written application to the program will signify a proponent's desire to terminate any commercial licences if and when he/she is accepted into the program.

Note: This criterion also applies to any helpers who will be engaged in the program.

- b. Aquaculturists engaged in this program will be permitted to hold oyster replanting licences under Section 29 of the Maritime Provinces Fishery Regulations only under strict guidelines administered by the DFO Area Office. These licences cannot be valid during the period that the harvesting and marketing of cocktail oysters is permitted.
- c. Only those aquaculturists who comply with the terms and conditions set out in federal and provincial fisheries legislation and policy will be eligible.

Note: If there are any inconsistencies between federal and provincial legislation or policy relating to this program, federal legislation or policy will prevail.

d. Only those aquaculturists who can establish that they are the holders of licensed and surveyed shellfish leases will be eligible.

Note: This is necessary to ensure that the fishing of cocktail oysters is conducted on private leases and not on public oyster beds. Developmental leases recognized by provincial leasing authorities are eligible for this program. The local variation order requires that geographic co-ordinates (grid references or latitude and longitude) be available for all points of the lease to properly describe the site. These must be available from the leasing authority.

http://www.glf.dfo-mpo.gc.ca/fm-gp/mgmt-plan/nb-nb/oyster_huitre_2001_2006-e.html 2003-02-24

IMPLEMENTATION

- 1.
- a. Cocktail oysters being shipped to market must be contained in appropriately sized containers and tagged so they will be tamper-proof while en route to buyers. A record of product and amount must accompany all shipments and be maintained by the processor in a format that can be audited by the authorities. The units or volume of all transactions (sales and purchases) must be in a uniform measure and recorded so that they can be audited against growers' sales records to the processors.
- b. Under the program, the same uniform measure (units or volume) records of all shipments and sales to processors must be maintained by the aquaculturist in a format that can be audited by the authorities.
- Any aquaculturist who fails to abide by the conditions of this policy or the terms and conditions of any federal or provincial licence or lease respecting the harvest and marketing of cocktail oysters will have their variation orders immediately revoked. This will result in the termination of the harvesting and marketing of cocktail oysters under this policy.
- Any aquaculturist who accepts oysters less than 76 mm long onto their site, except in accordance with this policy, will have their variation orders immediately revoked.
- 4. Any aquaculturist who violates any provision of this policy or the conditions of any federal or provincial licence or lease may be subject to the loss or suspension of their provincial or federal shellfish licence or lease.
- 5. Any processor who fails to abide by the conditions of this policy or the terms and conditions of any federal or provincial licence or lease respecting the harvest and marketing of cocktail oysters will have their variation orders immediately revoked. This will result in the termination of the harvesting and marketing of cocktail oysters under this policy.
- 6. The licensing authorities will carry out an immediate review if a processor is suspected of violating any provision of this policy or the conditions of any federal or provincial licence. If it is determined that a violation has been committed, offenders may be subject to the loss or suspension of their provincial or federal shellfish licence or their participation in the Quality Management Program.
- Processors who must "hold" oysters outside of their physical processing facility on open water shellfish leases must, as part of the program, identify the licensed and surveyed leases that will be used only for holding cocktail oyster product. Other species may be held on the same lease, but must be identified in the application for the program.

Note: No other oysters originating from the public or leasehold commercial fishery can be placed or held on the leases identified as part of the program.

GENERAL PROCEDURES

- Any oyster aquaculturists desiring to become involved in the "Cocktail" Oyster Program must request permission to harvest and market cocktail oysters from the DFO Regional Aquaculture Co-ordination Office in Halifax or Moncton by submitting a completed and signed application. In their applications, aquaculturists must be prepared to identify all the information requested as part of the application, including the federally or provincially registered plant that will be processing or exporting the oysters
- DFO will investigate, review and vet the request to determine whether applicants meet the criteria for inclusion in the program.
- 3. After a thorough review of the application with the provinces, the DFO Regional Aquaculture Co-ordination Office will inform applicants, in writing, whether they meet the criteria established in this policy.
- 4. The provinces **must recommend** approval of applications for DFO to issue a variation order permitting cocktail oysters to be harvested from the specific lease and processed through the appropriate facility.
- 5. The following information must be provided with the application for a variation order:
 - a. the name of the aquaculturist;
 - b. the location of the lease (must include either grid references or latitude and longitude for all points of the lease);
 - c. the period requested to harvest cocktail oysters;
 - d. the source of the seed that will be used by the aquaculturist as part of the program;
 - e. the name of the processing facility that will be shipping the product to the buyers/market;

http://www.glf.dfo-mpo.gc.ca/fm-gp/mgmt-plan/nb-nb/oyster_huitre_2001_2006-e.html 2003-02-24

- f. a list of all staff (helpers) who will be engaged or employed by the applicant;
- g. copies of the tamper-proof containers and labels that will be used by the aquaculturist and buyer; and
- h. a copy of the records and accounting procedure that will be used by the aquaculturist and the purchaser to document the product from harvest site to market.
- 6. Current lists of participants **must** be maintained by DFO and made available to those fishery officers and inspection officers involved with the enforcement of this policy and program.
- 7. Oyster aquaculturists participating in the "Cocktail" Oyster Program must grow their own oysters from spat3 or seed3 that is either collected on site or at off site areas which are defined for spat collection in order to avoid user-group conflicts, if required. They can also be purchased from a duly registered seed and spat supplier.⁴ Aquaculturists must be prepared to specify, with supporting documentation, how and where they intend to procure seed and spat for grow-out, and to maintain an inventory.

DEFINITIONS

- Aquaculturists holders of a shellfish lease in the provinces of New Brunswick, Nova Scotia or Prince Edward Island who grow their own oysters from spat or seed collected on site or off site, or purchased from a registered seed supplier or hatchery.
- 2. "Cocktail' oysters oysters less than 76 mm (3 inches) long.
- Seed or spat oysters oysters less than 51 mm (2 inches) long. For seed oysters purchased as part of this
 program that are longer than 51 mm, aquaculturists will require permission from DFO before any sales
 transaction or the movement of the seed between vendor and purchaser.
- 4. Suppliers of seed for the program must be registered with DFO and provincial authorities as seed/spat vendors, and must clearly identify their seed-holding sites or leases involved in the program. Hatcheries supplying seed for the program must hold a certificate of registration issued by their province.

Appendix G



HAWAII YELLOWFIN TUNA ALASKA HALIBUT MAINE ATLANTIC SALMON DELAWARE MAKO SHARK COSTA RICA TILAPIA NEW JERSEY BLUEFISH PANAMA RED SNAPPER MAINE LOBSTER

APPETIZERS

Jumbo Gulf Shrimp Cocktail (Galveston Island, Texas)	EACH 3.40
Grilled Sourdough Bruschetta with Fresh Roma Tomatoes and Basi	
Seared Rare Yellowfin Tuna with Ginger, Wasabi, and Wakame* .	
Mussels Steamed in White Wine with Garlic, Tomatoes and Butter	5.25
Fresh Fried Rhode Island Calamari with Cocktail Sauce	8.80
Quesadilla with Bay Shrimp, Pepperjack, Sour Cream and Salsa	5.95
Mussels Fra Diavlo with Spicy Tomato Sauce	5.60
Salmon Gravlax "Cannoli" In Basil with Crème Fraiche and Mint	6.95
Lump Crab Cake with Tartar Sauce	12.90
Four Topneck Clams Casino with Smoked Bacon and Garlic Butte	r 5.25
Popcorn Rock Shrimp with Cajun Remoulade	
Grilled Shrimp with Orange Ginger Sauce and Wakame Salad	6.75
Pan Fried Oysters with Tartar Sauce	

FROM THE RAW BAR

Lunch Oysters and Clams are an Order of Four	
Barnstable Oysters (Cape Cod Bay, Massachusetts)*	
Malpeque Oysters (Prince Edward Island, Canada)*	4.90
Wellfleet Oysters (Wellfleet Habor, Massachusetts)*	5.35
Wallace Bay Oysters (Nova Scotia, Canada)*	
Blue Point Oysters (Long Island Sound, Connecticut)*	
Moonstone Oysters (Narragansett Bay, Rhode Island)*	
Salutation Cove Oysters (Nova Scotia, Canada)*	4.70
Pemaguid Oysters (Damariscotta River, Maine)*	
Tatamagouche Oysters (Caribou Island, Nova Scotia, Canada)*	
Norwalk Oysters (Norwalk, Connecticut)*	
Littleneck Clams (Wellfleet Habor, Massachusetts)*	4.70
Cherrystone Clams (Wellfleet Habor, Massachusetts)*	
Topneck Clams (Wellfleet Habor, Massachusetts)*	
Combination (One of the top four oysters and a clam).	
TRY ANY OYSTER OR CLAM BY THE EACH*	

SOUPS AND SALADS

SOUPS AND SALADS	CUP	BOWL
McCormick & Schmick's Fresh Clam Chowder	2.95	3.95
Tomato Miso Soup	1.90	2.90
Traditional Oyster Stew with Garlic Toast		7.35
House Field Greens with Glazed Walnuts and Blue Cheese		3.90
Mixed Field Greens with Balsamic Vinaigrette		2.95
Greek Spinach Salad with Feta Cheese and Kalamata Oliv	es	5.90
Cæsar Salad		3.75
Iceberg Salad with Blue Cheese Dressing		4.80

ENTRÉE CALADO

ENTREE SALADS
Classic Cæsar Salad with Whole Romaine Heart Leaf
WITH OREGON BAY SHRIMP
Traditional Oregon Bay Shrimp Louis
Cucumber, Tomato, Olives, Egg and 1000 Island Dressing 9.85
Greek Chicken Salad
Baby Spinach, Goat Cheese, Olives, Cucumber and Vinaigrette . 8.60
McCormick's Seafood Cobb
Shrimp, Scallops, Dungeness Crab, Bacon, Avocado 13.75
Sesame Chicken Salad
Mixed Greens, Julienne Vegetables, and Plum Vinaigrette
Seared Rare Yellowfin Tuna Niçoise*
Red Potatoes, French Beans, Olives and Egg 9.65
Grilled Shrimp and Scallop Salad
Mixed Greens, Tabbouleh with a Citrus Mint Vinaigrette
(Monday Nights One Pound Lobster Dinner \$12.95)

SANDWICHES

Beer Battered Cod Sandwich with Tartar Sauce 6.8	0
Grill-Blackened Mahi with Caramelized Onion and Lime-Cumin Aïoli 7.6	5
Dungeness Crab and Bay Shrimp Salad Served on a Bulkie Roll	0
Grilled Sirlion Tip Sandwich with Sautéed Peppers and Onions 7.3	5
Scotch Cured Salmon BLT with Potato Chips 7.8	10
Open Faced Grilled Ribeye on Sourdough with Sautéed Onion 8.8	\$5
Lump Crab Cake Sandwich	0
Grilled Horseradish Rubbed Chicken Breast with Pepperjack	55
Fresh Maine Lobster Roll in a Pull-Apart Roll with Cole Slaw 15.9	90
Fried Oyster Po'Boy with Tartar Sauce and French Fries	55
Grilled Meatloaf Sandwich with Horseradish Sauce and Cheddar 6.7	70
Cheeseburger or Caiun Burger with French Fries	95

LUNCH ENTRÉES

Atlantic Salmon with Penne
Shiitake Mushrooms and Oregon Hazelnuts in Cream Sauce 9.40
McCormick & Schmick's Meatloaf
Homestyle Country Loaf with Mashed Potato and Gravy
Fettucine with Rock Shrimp and Bay Scallops
Tossed in Garlic and Parmesan Cream Sauce
Seafood and Vegetable Stirfry
Tiger Shrimp and White Fish with Vegetable Stirfry
Grilled Pork Medallions
Marinated Center Cut Pork Loin with Apple Brandy Sauce 7.30
Chicken Primavera with Penne
Tossed with Fresh Vegetables in Garlic Wine Sauce
BBQ Black Tiger Shrimp
Grilled with a Spicy Asian BBQ Sauce
Seafood Shepherd's Pie
Whitefish with Vegetables and Potato Topped
BLUE PLATE SPECIALS \$5.95

Available Monday Through Friday Seafood Burrito with Rice Herb Roasted Chicken with Rice and Vegetables Meatloaf with Potato Croquettes and Vegetables

LUNCH SPECIALTIES

Atlantic Salmon CASCO BAY, MAINE	
Grilled with Northwest Berry Sauce	8.60
Bluefish CAPE MAY, NEW JERSEY	
Glazed with Dijon Mustard and Bread Crumbs	7.55
Scrod Fish and Chips Boston, MASSACHUSETTS	
Beer Battered with French Fries, Cole Slaw and Tartar Sau	ce 9.60
Arctic Charr KEFLAVIC, ICELAND	
Grilled with Lemon Butter	8.95
Rainbow Trout BUHL, IDAHO	
Prosciutto Wrapped Grilled with Lemon and Sage	8.20
Cod New Bedford, MASSACHUSETTS	
Traditionally Baked with Breadcrumbs and Lemon Butter	10.85
Mako Shark "Peppersteak" SLAUGHTER BEACH, DELAWARE	
Peppercorn Crusted with Grain Mustard and Basil Butter	7.40
Red Snapper Colon, PANAMA	
Pan Seared with Stirfried Vegetables and Rice	9.65
Catfish HICKORY, NORTH CAROLINA	
Pecan Crusted Fried with Maple Bourbon Sauce	7.50
Grey Sole New Bedford, MASSACHUSETTS	127-1-5
Parmesan Crusted with Lemon Caper Butter Sauce	9.75
Tilapia QUEPOS, COSTA RICA	22.0012
Grilled with Kalamata Olives, Tomatoes, and Garlic	7.80

"Consuming row or undercooled seafood or mean may increase your risk of foodborne illness. ~ Boston Park Plaza Hotel 34 Columbus Avenue Boston, Massachusetts (617) 482-3999 ~



APPETIZERS

FRIED OYSTERS	. 8.75	
CAJUN FRIED CLAMS, CREDLE REMOULAD	E11.95	
CAJUN FRIED FLORIDA ROCK SHRIMP POPCORN CREDLE REMOULADE	9.95	
STEAMED RHODE ISLAND WILD MUSSEL	S10.95	
JUMBO GULF SHRIMP COCKTAIL . NEW ZEALAND GREENLIP MUSSELS IN	.15.50	
PIJON DRESSING	.5.50	
POACHED WELLFLEET OYSTERS ON WILP MUSHROOM WITH BEURRE BLANC.		
MARINATED HERRING IN A MUSTARD	.6.45	
SMOKED NORTH ATLANTIC SALMON . SMOKED RAINBOW TROUT	.9.45	
MPERIAL BALIK SALMON	.9.95	
MIXED GREEN SALAD WITH TOMATO.		
DICAMA COLE SLAW CLASSIC COLE SLAW DUNGENESS CRABMEAT COCKTAIL	3.75	
SEA URCHIN CPER PIÈCE).1.45	

SOUPS

NEW ENGLAND CLAM CHOWDER . . 4.75 MANHATTAN CLAM CHOWDER. 4.75 TUSCAN WHITE BEAN SOUP WITH ROCK SHRIMP. 5.95 . 5.95

COLD BUFFET

CULU BUFFEI A MEDLEY OF COLD SHELLFISH . 27.45 WHOLE MAINE LOBSTER, LEMON DILL 23.95 A FOURSOME OF SEAFOOD SALADS, 21.45 POACHED NORTH ATLANTIC SALMON FILET WITH CUCUMBER SALAD, 23.95 MAINE LOBSTER ROLL WITH JICAMA SLAW SWEET FOTATO CHIPS . 23.95 FRESH POACHED TUNA NICOISE . 19.95 SMOKEHOUSE SAMPLER: NORTH ATLANTIC SALMON, RAINBOW TROUT, STURGEON, 22.45 CAFE MAY SOULD SALAD WITH MOCADO AND PURPLE BASIL VINAIGRETTE. 20.95 CAFE MAY SOULD SALAD WITH MOCADO AND PURPLE BASIL VINAIGRETTE. 20.95 CAFE MAY SOULD SALAD WITH MOCADO AND PURPLE BASIL VINAIGRETTE. 20.95 CAFE MAY SOULD SALAD WITH TANGCAST CAFE MAY SOULD SALAD WITH TANGCAST CHUTNEY DRESSING . 25.95 FLORIDA STONE CRAD CLAWS WITH MUSTARD MAYONNAISE . 35.95 SEA SCALLOPSK N. 2. GREENLIP MUSSELS, MUSTARD VINAIGRETTE, ASARAGUS 21.95 STEWS AND PARNEDASTS: STELIS: PANEDASTS:

OTLIVUSAND	STEWS:	PANROASTS
OYSTER CLAM : CHERRYSTONE	9.45	12.25
CLAM : IPSWICH	12.95	13.45
LOBSTER	19.45	19.95
COMBINATION	19.45	19.95

FROM OUR SMOKEHOUSE SMOKEHOUSE SAMPLER : NORTH ATLANTIC SALMON, RAINBOW TROUT, STURGEON AND HORSERADISH WHIFTED GREAM . 2

.22.45 .9.45 .13.50 .9.25 MAND HORSERADISH WHITTED GREAM 22250 SMOKED NORTH ATLANTIC SALMON 945 SMOKED RAINBOW TROUT 1350 SMOKED STURGEON 925 IMFERIAL BALIK SALMON 925 EGGS BENEDICT WITH SMOKED SALMON AND HOLLANDAISE ON AN ENGLISH MUFFIN 9.95

SAUVIGNON BLANC WINE SPECIALS

VILLA BEL-AIR ' 97, GRAVES, BORDEAU	X. 30.00
GOLDWATER "DOG POINT" ' 01, MARLBOROUGH, NEW ZEALAND	.31.00
PEZZI KING FUME BLANC '99, SONOMA	.32.00

42.00 45.00

D. PAGUE NEAUX "EN CHAILIOUX POUILLY FUME '00, LOIRE		
POULLY FUME OO, LOIRE	*	
DUCKHORN '00, NAPÁ		

RAW BAR	
OVSTERS:	

PER PIECE:

1 11 11 4 444 1 11 4	0.0500.13777
OVSTERS: BUEPOINT (LONG ISLAND) BEAU SOLEIL (New BRANDWICK DOX (LING ISLAND) BELON (MAINE) LING ISLAND) BRAS DOR INDIA SOTIA) CHIEF'S (REEK (WASH ST) CHINGOTEAGLE (WIGHINA) CAPE BRETON (MMA SOTIA) CAPE BRETON (MMA SOTIA) COTOL (MASS) DUCK ISLAND (INGE ISLAND) DUTCH ISLE (RHORE SILAND) DUTCH ISLE (RHORE SILAND) DUTCH (SLAND (ISLAND) (MASS) HUMTER (REEK (MASH ST) HOG ISLAND (TAMALES BALOL) SLAND (SEK (MASL)	
CULTER CLEARE (LEARS)	1.46
BEALISALCH CHERTRANEY	376
DEAU SOLEIL CNEW BRUNDWICK.	105
DUAT LIND IDLAND	105 - 145
BELON (MAINE)	2.30 . NG 2.40
BRAS D'OR INOVA SCUTIA)	
CHEF'S CREEK (WASH.ST)	195
CHINCOTEAGUE (VIRGINIA)	165
CAPE BRETON (NOW SCOTIA? .	1.95
COTOLT (MASS)	
CUTTYHUNK (MASS)	205
DUCK ISLAND (LONG ISLAND).	1.85
DUTCH ISLE (KHODE BLAND)	1.95
DUNGENESS (WUSH ST)	2.25
FISHER ISLAND (NEW YORK)	210
HUNTER CREEK (MUCH TT)	1 95
LOG ISLAND (TANALES RAY CAL	- + + 1.1J
SE AND OPECK (MARE)	· Z.03
JUDD OVE (WASH CT)	· · · Z.05
IMPERIAL EACLY CHICK STUDIES	1.95
KIISSH (BRITITH CAUBIALSI)	1.95
VIMAMOTO (CONTONION)	2.05
MARTINA STUDIES DUTY DATE ?	2.25
MALEPEOLE (7EI) TI	o 'est 1.95
MATINE COOLS (LANS ICLAND)	L.LD. 4s 1.95
NEWPORT (TE (PLODE SLAND)	
RASPRERRY POULT (D C L)	205
SPINNEY (REEK (MANEL 4)	a.m. 122
MATCH HILL CEUDIC READING ALL	2-10 - 49- 1-15
WELLFLEFT (MASS)	+ + 1.10
WESTCOTT BAY (WASH ST)	+ + 200
HOG ISLAND (TAMILES BAY, CAL ISLAND (CREEK (MASS,) JUDD COVEC (MASH ST) IMPERIAL EAGLE CREEK (MAGN ST) KUSSHI (BAILISH OLUMBA) KUMAMOTO (CALIFORNIA) MATTINECOCK (JUNG ISLAND) MATTINECOCK (JUNG ISLAND) MATTINECOCK (JUNG ISLAND) MATTINECOCK (JUNG ISLAND) RASPBERKY FDURT (P.E. 1) SPINNEY CREEK (MAINE) . XL WELTFLEE (CMASS) WESTCOTT DAY (WASH ST) YAGUINA (OREGON) CLAMS:	100
CLAMS:	+ + -1.40
LITTLENECK 145 DIERR	and the second second
CTITICALCAL . 145 (HEKK)	THOME .1.35

COOKED OYSTERS & CLAMS .14.95 .15.95 .9.45

SHRIMP AND CRAB GRILLED JUMBO SHRIMP IN AN HERB GARLIC BUTTER WITH COCONVERICE FRIED JUMBO SHRIMP IN RICE BATTER FRIED JUMBO SHRIMP IN COCONUT. FRIED JUMBO SHRIMP IN COCONUT. BUTTER JUMBO SHRIMP IN COCONUT. FRIED JUMBO SHRIMP IN COCONUT. BUTTER JUMBO SHRIMP IN COCONUT. STORE CRAB CLAWS WITH MUSTARD MAYONNAISE. 3595

LOBSTER

THE LIVE LOBSTER IN DUR TANKS ARE SHIPPED DIRECTLY FROM MAINE TO US PICK YOUR OWN OR TELL US WHAT SIZE YOU PREFER TODAY 'S MARKET PRICE: 22.45 PER POUND

MAIN DISHES

MAINE SEA SCALLORS & NEW ZEALAND GREENLIP MUSSELS IN MUSTARD VINAIGRETTE OVER HOLLAND WHITE ASPARAGUS . 21.95

.27.95

BOUILLABAISSE . .

- .24.95
- CAJUN FRIED IPSWICH CLAMS, CREOLE REMOULADE . . .21.95

GRILLED NORWEGIAN SALMON FILET, APPLE CIDER MUSTARD GLAZE, WILTED PEA SROUT & STAR FRUIT BALAD .23.95

	HOUSE SPECIALTIES	
ï	BOUILLABAISSE	
	COQUILLE ST. JACQUES	
	MARYLAND JUMBO LUMP CRABCAKES .	
	BEVERAGES	
	BOTTLE EVIAN SPRING WATER	
	BOTTLE SARATOGA SPRING WATER . 28 12.4.75	
	REGULAR SODA 1.95 .DIET .2.50	
	COFFEE REG. OR DECAF 2.25 .ICED .2.25	
	ESPRESSO HOT 2.50 .DECAF .2.75	
	CAPPULCINO HOT 2.95 .DECAF .325	
	TEA HOT 2.25 .ICEP .2.50	
	FRUIT JUICE 3.25 MILK .1.50	

IUVAT SLA	11	-1-	1	AF OF
ARCTIC CHAR. FILET		•	+	25.95
BLACK COD FILET	÷ .	۰.	÷	10.05
BLUEFISH FILET. CATFISH FILET, CAJUN GRILL DOVER SOLE, MEUNIER, BROCCOFI	én.	•	+	19.95
DOVED ON E MELLINERE, ROCCOR	OL	Es.	. *	27.95
		Cit.	1	19.95
GROUPER (RED) FILET	8 -		- 2	23.95
HALIBUT FILET		.S.	2	26.95
HAMACHI (YELLOWTAIL) SEARED LEMON SOLE FILET, BROILED * SAL	MED	NUM	4	25.95
LEMON SOLE FILET, BROILED OK SAL	JTE	ED.	+	24.45
MOONFISH (OPAH) FILET, CAJUN GA	LILI	LED		24.95
MONKFISH TOURNEDOS, BEARNAL	ie.		+	23.95
NANTUCKET BAYSCALLORE OBJECTER) HE	RB.	*	26.95
POMPAND FILET, GRUIED		1	1	20.10
KEP FISH FILET, BLACKENED.		1	4	
RED SNAPTER FILET, BROILED.	1.		4.	28.95
SALMON FILET, NORWEGIAN, GRILLED	tribe	R MU	514	1925.15
	BEUR	RER	à.	C24.95
				19.95
SHARK, MAKO STEAK	+			
SOUID (CALAMARI) FRIED	*	*		19.95
	÷3	÷21	٠.	23.95
SWORPFISH STEAK GRILLED STURGEON STEAK, AN CHOVY BUT TUNA STEAK, GRILLED	-	1	*	26.95
TUNA STEAK, GRILLED, SALSA	TER		2	23.95
TURBOT FILET	+	+	*	28.95
WHITEFISH FILET	+ -		٠	
WOLF FISH FILET	•	*		
OLD FASHIONED FISH "N" CHIPS	1	2	ţ,	19.45
GRILLED SIRLOIN STEAK			-	29.95

TODAY'S CATCH

HALF ROASTED CHICKEN STEAMED VEGETABLE PLATTER 14.95

SIDE DISHES

CREAMED SPINACI	i .		÷		19	. 4.95
FRENCH FRIES		Anicast	énte	20	2	. 4.75
FOTATOES-STEAM	HED I	UKON	GOLD		χ.	4.25
JICAMA SLAW				* ()	1	1.20
COLE SLAW		. te	8 - C	10		- 4.27
STEAMED VEGET	ABIT	· *	3 C	•	10	- 2.15
	COL	- 6.4	-		141	. 4.95

HOMEMADE DESSERTS

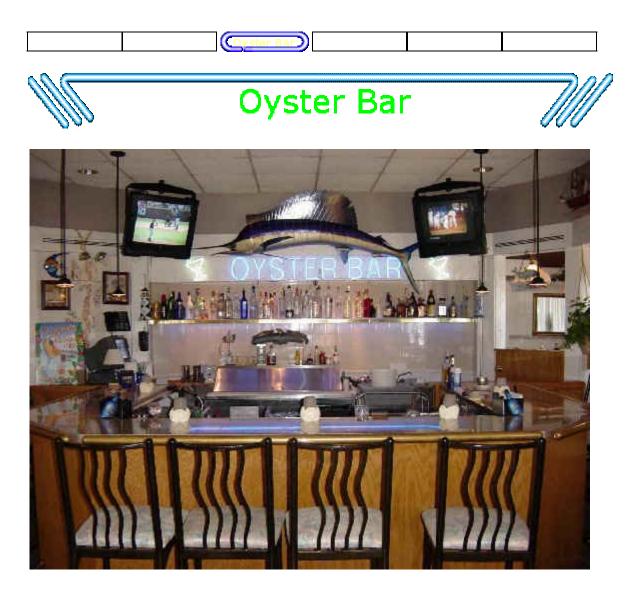
FLORIDA KEY LIME PIE					5.75
CHEESECAKE	2	÷.	8-	S.	5.75
CARAMEL CUSTARD .	8	9	8		5.75
RICE PUDDING	6	6	1	٠.	4.50
CALVADOS APPLE PIE.	8.	÷.	÷.		5.95
HOT FUDGE SUNDAE.	1	÷.	18	÷.	5.00
VERY FRESH FRUIT JALA	n	*	+		
WHITE NECTARINE CLAFOU		in	.*	+	5.50
PHURASE STOAL PERSON	11 1	AK	Ι.		5.75
RHUBARB-STRAWBERRY F	16	4.5	3.6		5.75
CLEMENTINE MARSALA SA	BAY)NE	marg	LAS	\$5.75
POWARIAN CREAM MANRO	1.4-3	C D	r 10	Έ	5.75
APRICOT-RASPBERRY YOGUR	J T/	ART			5.75
CHOCOLATE DOME CAKE		23			6.25
CHOCOLATE ICE CREAM					4.50
PECAN ICE LKEAM	19	S) -	2		
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Please peruse our extensive oyster menu:

- East Coast Oysters
- West Coast Oysters

East Coast Oysters

Belon - (Year Round)

This European flat oyster is farm raised in the cold, clean waters of Maine. They are flat and almost round as a scallop. The flavor is slightly lemony with a subtle metallic finish.

Bras D'Or - (Mid May to December)

A mild yet sweet oyster from Cape Breton, Nova Scotia. A subtle beginning with a finish that just won't quit.

Blue Point - (Year Round)

A mild Atlantic oyster. Medium in size (even though we call our Blue Points "Mediums," they are quite large). They are very popular and common. Our Blue Points are from Long Island and are better quality than a Louisiana Blue Point.

Cape Anne - (Mid May to December)

Harvested in Northern Nova Scotia, Cape Anne oysters are very clean and extremely crisp with nice plump meats.

Cape Breton - (Year Round)

Cape Bretons originate from the Bras D'Or lakes in Cape Breton, Nova Scotia. These large lakes are well connected to the ocean. Wild oysters are harvested from these beds using tongs from small vessels. These oysters spawn in late June / early July.

Carraquet - (Mid May to December)

Cultivated in the cool waters of New Brunswick, Canada. This is a sweet and buttery oyster with great "mouth feel."

Chedabucto Bay - (Mid May to December)

Harvested from the pristine waters of Nova Scotia's beautiful Bras D'Or lake, Canada's inland sea. They have a distinctive salty taste with plump meats for a high meat to shell ratio.

Dutch Isle - (October to May)

Deep cupped, round with a delicate mild flavor. A good substitution for Blue Points. Large shell, large meat from Dutch Island, Narragansett Bay, Atlantic Ocean.

French Huitre - (May to February)

A beautifully shaped and uniform medium oyster from Prince Edward island, Canada. Plump, yet firm, and very satisfying.

Hog Island - (May to February)

Deep cupped, full white meat, small to medium size. Mild flavor, grown in shallow waters. Shell looks somewhat ridged like a singing scallop. Harvested from Hog Island in the mouth of Bristol Harbor, Narragansett Bay, Rhode Island.

Malpeque - (May to February)

Harvested from Malpeque Bay in Prince Edward Island, Canada. This well-known medium size oyster has a clean, distinctive taste. "Crunchy as salted celery."

Newport Cup - (Year Round)

A gorgeous, select Rhode Island farm raised oyster from the "City by the sea." Full meats surrounded by briny liquor that presents itself beautifully on the half shell.

Parramout Island - (Year Round)

Farm raised using suspension culture on nature conservancy property off the coast of Virginia. This oyster is salty and firm.

Pemaquid - (Fall and Spring Months)

One of the saltiest oysters! Farm raised in the Damariscotta River in Maine. This is one of the finest oysters on the market.

Pickle Point - (June to December)

A slow-growing choice oyster from the waters of Prince Edward Island National Park. Exceptionally fat and salty.

Prudence Island - (September to May)

A well-formed choice oyster from Narragansett Bay, Rhode Island with a clean, sweet flavor. Popular!

Raspberry Point - (May to December)

Another slow-growing oyster (5-6 years) farm raised on the north side of Prince Edward Island. This is an exceptionally sweet oyster with a limited season. Get them while you can.

Sailor Girl - (Year Round)

Small to medium in size, moderately salty with a clean mild flavor. Best to cook with. James River Virginia, Chesapeake Bay.

Sakonnet Point - (October to May)

Briny, crisp, plump meat, harvested where the Sakonnet River meets Narragansett Bay. Medium in size, deep cupped for an east coast oyster. Limited availability outside of Rhode Island.

Salt Aire/Salutes - (May to January)

A small yet exceptionally deep cupped oyster from Prince Edward Island. Sweet, plump, and juicy.

Star - (Year Round)

Small to medium size, deeper cupped than most east coast oysters. Hand harvested from Buzzards Bay, Cape Cod, Massachusetts. Unique ridges on the shell resemble a star. Plump, meaty, briny finish.

Tatamagouche - (May to December)

A medium size salty and rich tasting oyster from the northern coast of Nova Scotia. Availability can be erratic, but well worth the wait.

Watch Hill - (Limited)

A small farm-raised oyster from Rhode Island. The sweetest, most flavorful oyster on the market. Rated as one of New England's finest oysters by Bon Appetit Magazine.

Welfleet - (Limited)

A true welfleet from Cape Cod, Maine, with a slightly salty and crisp flavor to mild finish.

West Coast Oysters

Chef Creek - (September to July)

Chef Creek flows into deep bays of Baynes Sound, on the eastern coast of Vancouver Island, B.C. Faster growing, slightly softer shelled, nicely cupped oyster, with a mild briny, sweet taste.

Cortes Island - (September to July)

This oyster is cultivated in one of British Columbia's more northerly oyster growing locations, Cortes Island. This is a briny, full flavored oyster. The shell is moderately hard, nicely cupped, and fairly smooth.

Coromandel - (April to Mid October)

The most widely farmed oyster in the world. Now cultivated and harvested in New Zealand. Flesh is lighter in color with blackish edges around the mantle. Delicate flavor with a cucumber finish. Mildly salty, no metallic after taste.

Dabob Bay - (Year Round)

A slow growing oyster that is on the small side. Delicate texture with fruity overtones and a salty flavor.

Deer Creek - (September to July)

This is a perfectly sized oyster for those just beginning to discover one of nature's best kept secrets. This 2.5 - 3 inch extra small oyster is just the right size to taste, and yet full of fresh, briny, and crisp flavor to leave one desiring more. This little oyster is grown on the Cobble beaches of the Puget Sound, in the heart of oyster country. Harvested at approximately two years of age, it has a deep cup and is flush with meat. The inter-tidal culture process leaves the young oyster with a good hard shell with is perfect for shucking.

Denman Island - (September to July)

These oysters are cultivated on the beaches of Denman island almost directly across from Fanny Bay and Chef Creek. This is a rounded, nicely cupped oyster with a firm, full mean, a mild, slightly salty taste, and crunchy texture. The shell is slightly darker, thicker, harder, and smoother than most others.

Discovery Bay Flat "Belon" - (September to July)

Oyster Bar

This famous oyster is originally from the Brittany Coast of France. It is also known as the "Flat Oyster." This oyster is now successfully grown in Pacific Northwest waters. This cream colored meat oyster is grown on racks and can be characterized as being salty, delicate in texture, and with an extreme metallic or spicy finish. These tray cultured oysters grow for about three years and develop a distinct sandy-brown, circular, shallow shell.

Emerald Cove - (September to July)

These oysters are beach grown off Denman Island, B.C., Canada. Mild flavored oyster.

Evening Cove - (September to July)

This Pacific oyster is bred and raised off Vancouver Island, near Deep Bay, Denman Island. Their growing process takes about two years. The area produces an oyster that is slightly salty, firm, and with a watermelon flavor.

Fanny Bay - (September to July)

These oysters are cultured using a combination of growing techniques and grown in one of British Columbia's most prolific growing areas in Baynes Sound. Fanny Bay is located on the east coast of Vancouver Island. The flavor is salty, but sweet, firm fleshed and has a fruity finish. It has a softer and moderately fluted ivory colored shell, edged with many colors, predominately red and purple.

Gold Creek - (September to July)

This delicious and classic looking Pacific oyster is seeded and grown on the southern end of the Puget Sound of Washington State. The nice full cupped shell is 3-4 inches in length and the briny, crisp oyster meat makes this oyster a Puget Sound favorite.

Golden Malaspina Miyagi - (September to July)

These are highly cultivated oysters grown in the deep, cold waters of Malaspina inlet near Desolation Sound in British Columbia. A very pretty oyster with a melon like taste and a clean finish. in addition to elegant appearance is the "Golden" colored mantle that is more commonly darker in other oysters. It is from the golden colored mantle that the oyster derived its name.

Hunter Point - (September to July)

This 3-4 inch beach grown Pacific oyster is cultured in one of the inlets of the Southern Puget Sound, in the clean water-shed of the Olympic mountain range. The meats are full and have a firm texture and fresh from the sea flavor.

Imperial Eagle - (September to July)

Also grown on the west coast of Vancouver Island, these oysters are cultivated on the isolated beaches of Imperial Eagle Channel in Barclay Sound in British Columbia. The meat is plump, not too salty, with a "cucumber-like" finish.

Kumamoto - (Year Round)

Originally from the Kumamoto area of Kyushu, Japan, this very slow growing oyster is small in size (1.5 - 2 inches) with a very deep cup. The Kumamoto has a firm texture, is rich in flavor, creamy and slightly salty. The finish is buttery-sweet, mildly fruity, with a hint of metallic flavor. Kumamoto oysters are cultivated now successfully in California, Oregon, and Washington. This oyster is popular with the novice half-shell consumer.

Malaspina - (Year Round)

Malsapina oysters are beach cultured oysters. Raised intertidally in British Columbia's excellent gravel beaches in Okeover Inlet, they produce an exceptionally strong, heavy shell. The meat is white and dark, textured mantle, plump and juicy, Malaspina oysters have a clean, strong ocean flavor with a "cucumber-like" finish.

Nootka Sound - (Year Round)

This Canadian oyster is unique as it is one of the few oysters produced on the rugged west coast of Vancouver Island. Its meat tends to be plump and sweet... not too salty. A thick, heard shell protects it from the constant wave action of its isolated growing area.

Olympia - (Year Round)

Indigenous to the Pacific Northwest waters, "OLY" is not farm raised in limited quantities. It is the smallest of the commercially harvested oysters (1 - 1.25 inches). This oyster has an appealing full flavor that to many is the ultimate taste sensation. The Olympia is a very slow growing oyster, sometimes taking 5 years to reach full market size.

Pacific Orchard - (September to July)

This is signature oyster. It is beach grown on gravel beaches around Pristine Cortes Island 100 miles north of Vancouver British Columbia. The flavor of this oyster is briny with a crunchy texture and an essence of melon finish.

Pearl Point - (September to July)

Pearl Point oysters are harvested from racks in Netarts Bay on the Oregon Coast near Tillamook. Netarts Bay is a shallow, sandy bottomed bay with higher than average salinity. This oyster has a pleasing flavor and a cantaloupe finish. It is one of the Pacific oysters originally from Japan.

Pickering Pass - (September to July)

This oyster is bag cultivated and beach hardened in the Pristing waters of Pickering Passage in the South Puget Sound Region. The oyster is grown to the size of 4 inches long with a deep fluted, ridged cup lending ideally to a flavorful half-shell oyster.

Quilcene - (Year Round)

This Japanese oyster has been raised in Washington for over sixty years. The Quilcene Bay area produces an oyster which is very delicate in texture, slightly salty and sweet, with a cucumber-like finish. Quilcene oysters are said to be similar to the "Fine De Claire" oyster from France.

Sister Point - (September to July)

This oyster is from the lower end of Hood Canal, Washington. As a thumbnail sized seed, these oysters are placed in plastic mesh bags which are then staked directly onto the beach. They have a nice deep cup with a firm, meaty body, and a briny flavor with a sweet finish.

Skookum Inlet - (September to July)

Oyster Bar

These oysters are being raised in the French manner (rack & bag) in Little Skookum Inlet in Puget Sound near Olympia, Washington. They are plump, almost crunchy, and salty with a smoky-sweet flavor.

Snow Creek - (September to July)

Snow creeks are grown in trays suspended from buoys in 60 feet of water near the heard of Discovery Bay, which is fed by the snow creek in the Olympic Mountains. They are sweet, plump, and meaty with a cucumber-like finish.

Steamboat Island - (September to July)

These oysters are grown in the prime oyster growing area in the United States. This area is in the South Puget Sound. The meat yield is among the highest in the Pacific Northwest. Sea flavor and a vegetable finish are the most common characteristics of these oysters.

Viking Bay - (September to July)

This oyster is farmed on the beaches of Quadra Island. This oyster stays nice and firm throughout the summertime.

Willapa Bay - (September to July)

Beach grown for the half shell market, this oyster has a clean colorful outer shell, while the meat on the inside is full and firm. Taste is the perfect blend of sweetness and saltiness.

Yaquina Bay - (September to July)

This oyster is grown in Yaquina Bay on the central Oregon coast. The moderate climate and the clean algae rich waters of the Yaquina bay are producing oysters comparable to the finest anywhere in the world.

maestro s.v.p.

bistro fruits de mer seafood bistro





Aspy Bay...Nova-Scotia.Very salty, cucumber finishBelon...Nova-Scotia.Hazelnut finishBras D'Or...N-ScotiaSalty, juicyCape-Breton...N-ScotiaSalty, meatyCaraquet...N-Brunswick Very salty, juicyChedabuto...N-ScotiaSalty, mineralChef's Creek... Washington StateSalty, cucumber finishChincatinque...VirginiaLight, vegetable finishCotuit...CapeCodLight finishDebobBay...WashingtonStateCreamy, very saltyEelLake...N-Scotia.Salty, strong finishEveningCove...B.CMild, vegetable finish

Fine de claire...France. Salty, meaty Fox Island...N-Scotia Very salty, juicy Grande Entrée...Île de la Madeleine Mild, salty, very meaty Grosse île...Île de la Madeleine Meaty and spicy Gulf Star...Florida. Salty, juicy Hood Canal... Washington State. Salty, mineral Island Creek...Mass Juicy, citrus fruit finish Kumamoto...Washington State. Exotic, butter finish Lady Chatterly...Nova-Scotia Light, salty, meaty, citrus fruit finish Little Harbour...Nova-Scotia Slightly salty, fatty Madion...Oregon Sweet, citrus fruit finish Malaspina...B.C.. Crispy, mild, lemony Malagash...P.E.I. Salty, juicy <u>Malpeque...P.E.I</u>. Very salty, juicy Marin... Nova-Scotia Slightly salty, meaty Martha's Vinevard... Mass.Salty, seaweed finish Nantucket...New England. Salty, fleshy, almond finish <u>Olympia...California</u> Creamy, salty Paramour...Virginia. Creamy, ocean taste Peaconik Bay...New Brunswick . Light, sweet vegetable finish Pearl Bay...B.C.. Meaty, bitter taste Pearl Point...California Light, vegetable finish. Pemaquid...Mass . Salty, mild, lemon finish Pickering Pass...California Light, juicy, mineral

http://www.maestrosvp.com/body_oyster_bar.html

Pine Island...NewYork State Mild, cucumber, almond finish Prudence...Rhode Island Salty, mild, juicy Pugwash...Nova-Scotia Salty, sweet finish Raspberry Point...P.E.I. Salty, mineral Rocky Side...N.-Scotia Salty, juicy Royal Miyagi...B.C. Salty, ocean taste, mineral Sakannet...Rhode Island Mild, very tasty Salutation Cove...P.E.I . Similar to a Malpeque, sweeter Samish Bay... Washington State Mild, slighty mineral Shediac...N-Brunswick Sweet finish, plump Shemoque... New-Brunswick Very salty, juicy <u>Sinku...B.C</u>. Honeymelon flavor, sweet finish Sister Point... Washington state Salty, butter finish Skokomish...Washington State Creamy, buttery taste South Lake... Cape Breton Salty, juicy Snow Creek... Washington State Salty, mineral St.Anne...Nova-Scotia Slightly salty Steamboat...Washington State Watermelon finish <u>Summer Ice...B.C.</u> Sweet finish, very meaty Tatamagouche... Nova-Scotia Very salty, juicy Thrumcaps...N-Scotia Mild, vegetable finish Watchill...LongIsland Salty Wellfleet...Mass. Slightly bitter, crispy



"I simply cannot imagine why anyone would eat something slimy served in an ashtray"--Miss Piggy

THE MENU	OYSTER BAR	WINE LIST	MAESTRO S.M.P.	DESSERTS	FRENCH
	- REC.PES	- Seadi	– DOC TRIVIA –	- FRENCH	



Appendix H

Specis Focus: May 2001

Oysters

New technologies are helping to open new markets for one of America's oldest seafood industries

By Peter Redmayne

About five years ago, Pat Fahey, a riverboat gambler, decided to roll the dice on Gulf oysters. At the time, the oyster industry in the Gulf of Mexico, which accounts for about two-thirds of the U.S. production, was under attack from both the Food and Drug Administration and consumer groups, who were pushing for a ban on the consumption of raw Gulf oysters during the summer months.

The problem, of course, was that nasty bug Vibrio vulnificus, which could prove fatal to a group of high-risk individuals with compromised immune systems.

Big oyster customers like Red Lobster, Marriott Hotels, Publix and Kroger supermarkets had taken Gulf oysters off their menus and banned them from their seafood counters.

"When I saw Washington state oysters being sold in Houston, it was clear to me the Gulf industry had a problem," Fahey recalls.

"And it was a problem that had nothing to do with availability and nothing to do with price. It was strictly corporate concern with safety."

The industry's response to safety concerns was to truck Gulf oysters to Virginia and Maryland, where they were shucked and sold as Chesapeake Bay oysters, often to unsuspecting customers who had banned the purchase of oysters harvested from the Gulf.

It was - and still is - says one Louisiana oyster producer, "the darker reality of the Gulf oyster industry."

Fahey, though, had a different idea. He teamed up with John Tesvich, a long-time oyster producer, and scientists at Louisiana State University in an effort to produce a safe oyster that could be consumed raw year-round. And he patented the process, a low-heat pasteurization that kills the Vibrio bacteria.

This year, Fahey's company, AmeriPure Processing, will sell about \$3 million worth of processed oysters to customers like Joe's Stone Crab in Miami and Commander's Palace in New Orleans.

Getting customers to fork over an extra dime or so for an AmeriPure oyster has "taken a lot of hard work," says Fahey. "Initially, buyers have a lot of reticence, and you have to explain how reliably and effectively the process reduces the bacteria.

"But I'm glad I have something to explain, rather than something to hide."

A brighter future

As growing concerns over safety once again become an issue for the oyster industry, many people believe its future will depend upon the adaptation of post-harvest treatment processes. And if that is the

http://www.seafoodbusiness.com/archives/01may/speciesfocus.html

case, the future may be very bright indeed.

Just ask Steve Hillman. He's the fourth generation of Hillmans to sell shrimp and oysters from the waters of Dickinson Bayou, on Texas' sprawling Galveston Bay.

The family business, Hillman Shrimp and Oyster Co., which was started by Steve's father, Clifford Hillman, used to sell mostly shrimp and a few live oysters. Back in the late 1980s, though, when the wave of Vibrio worries first washed over the oyster industry, Clifford Hillman lay in bed at night and wondered if freezing oysters cryogenically might not be the answer to the industry's problems.

As far as the Hillmans are concerned, the answer is a resounding "yes." Today, more than 90 percent of the company's sales come from halfshell oysters that are frozen in liquid carbon dioxide at minus 109 degrees F. According to Steve Hillman, the company's marketing manager, sales last year were up 61 percent.

Along with AmeriPure, Hillman Shrimp and Oyster is the only company to have received a waiver from the state of California's requirement that Gulf oysters be sold with a written safety warning.

Hillman processes oysters only in the colder-weather months from November to April, when meat yields are higher and bacteria counts are significantly lower.

"We had to create a market for product that no one wanted – a frozen oyster," says Steve Hillman. "We had to spend a lot of money on advertising the brand, but it has paid off. We can offer people consistent product and consistent availability, which has opened up a lot of new markets for oysters."

Hillman sells its product in 35 states, with the biggest markets in California and Florida. While they're not cheap, at 36 cents to 40 cents each to restaurateurs (compared with 11 to 18 cents for live Gulf oysters), the lack of labor costs and shrink make IQF oysters very competitive for foodservice operators, says Hillman.

Although pasteurization and cryogenic freezing have allowed producers to dodge the Vibrio bullet, the biggest gun in the oyster industry's growing arsenal of post-treatment processes may turn out to be one of the most unusual.

Pressurizing foods to kill bacteria is nothing new; the process was first documented by European scientists more than 100 years ago. However, growing concern over food safety and advances in equipment technology led Flow International Corp. of Kent, Wash., to patent the core technology and roll out a line of pressurizing machines for the food industry over the past few years.

It wasn't long after Flow developed its first machine that the technology caught the eye of Mike Voisin, one of Louisiana's largest oyster processors. Voisin worked with Flow in adapting the technology for oysters and subsequently filed his own patent.

An added bonus

While killing Vibrio was the primary goal, what really got Voisin and Flow excited was the discovery that the process, which kills the oyster, detaches the animal's adductor muscle from its shell, in effect producing a pre-shucked whole oyster.

Voisin's company, Motivatit Seafoods of Houma, La., processes 375,000 bushels of oysters a year. And

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if things work out as Voisin envisions, most of those oysters will be processed using Flow's "Fresher Under Pressure" technology.

After purchasing two pressurizers at a cost of about \$500,000 each, Voisin has designed a new processing plant with 10 machines.

While \$5 million or so may seem like a lot for a relatively small, family-owned business (eight generations of Voisins have harvested oysters from the bayous of Louisiana), Ed Ting, vice president of research and development for Flow, says the payback time on the machines is very fast – as little as one year in some cases – due to the reduced labor costs.

Voisin says the new process has opened up "a world of business" in restaurants that never carried oysters because they couldn't find people to shuck them. He says Las Vegas casinos, for example, have become a huge new market.

He's currently experimenting with adding flavors to his oysters as well.

Although Vibrio is not an issue in colder waters, oyster producers in Washington state, the single-largest oyster-producing state in the United States, are also looking hard at the new technology.

Dave Nisbet, who markets his oysters under the Goose Point brand, purchased a Flow machine this April.

"It's hard to say where it's going to go," says Nisbet, who initially plans to run half his production through the machine.

In addition to saving as much as 60 percent on labor costs, Nisbet says safety concerns are a primary reason for his investment.

"We're under scrutiny for some kind of post-harvest treatment," he says. "Consumers don't differentiate between East and West Coast oysters. When something bad about oysters hits the press, we all get hit. This treatment will ease the consumer's mind."

But not all oyster producers see the new pressure technology as the industry's saving grace.

"We're not interested in any way, shape or form," says Erika Wiksten, general manager of Minterbrook Oyster, the second-largest oyster producer on the West Coast.

Wiksten contends that the process alters the oyster meat's texture and flavor, an opinion not shared by Flow or any of the oyster companies that are using the technology.

So, instead of investing in new post-harvesting technology, Wiksten has put her money in marketing Minterbrook's certification by the American Heart Association.

She says, "We want the consumer to feel comfortable about the product, so we've put a lot of focus on our certification and our label, which has complete nutritional information."

In addition, she says, the company has focused on reducing bacteria counts by installing an ozonatedwater system.

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So far, her strategy seems to be paying off. Wiksten says the company's sales are growing by 15 to 20 percent a year, and Minterbrook now leases growing areas that range from the Canadian border to southern Oregon.

Meanwhile, as the oyster industry debates the merits of various post-harvesting technologies and attempts to convince consumers its product is safe, it appears a lot of U.S. consumers aren't the least bit worried about slurping down a plate of the raw morsels.

Restaurant operators like McCormick & Schmick's, which operates 33 units nationwide; Clyde's Restaurant Group, which owns a number of Washington, D.C.-area restaurants, including the Old Ebbitt Grill; and Chicago-based Shaw's Crab House say their sales of raw oysters keep exploding.

"There's been a boom in the 'boutique' oyster trade," affirms Tom Ahern, marketing manager for Rhode Island-based American Mussel Harvesters, which, in spite of its name, is a leading supplier of live coldwater oysters to distributors around the United States.

Ahern says that in less than five years, oysters have grown to become a third of the company's business, and sales are growing 25 to 30 percent a year.

It would seem that America's appetite for oysters – whether treated or untreated, coldwater or warmwater – is as robust as ever. And that's good news for an industry with a history as old as the country itself.

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2003-01-29

Appendix I

September 2002 Buyer's Guide

Oysters

Production, price outlook good everywhere but Texas

The oyster industry in Louisiana, the leading oyster-producing state in the United States, has been enjoying a good year, and the outlook for 2003 is also good. Processors say production from public beds, which hits the market in September, will be down from last year, but there will be more than enough oysters from farmed beds to offset the decline.

That means the quality of Louisiana oysters will be generally better this fall, as the farmed oysters tend to have fatter meats because farmers move them around to find optimum feeding conditions.

Production is on the upswing in Mississippi, which continues to build reefs to increase oyster harvests.

The harvest outlook for the Texas season, which begins in November, is not as bright, however. Heavy summer rains this year have reduced salinities, and feeding conditions have been poor.

Continued strong demand has led to a steady increase in prices for Gulf oysters again this year. Wholesale prices for live Gulf oysters have been fluctuating between \$16.50 and \$19.50 for 100-count boxes and \$4.50 to \$5.50 a pound for meats. The lower prices (and the better values) are in the winter, when oysters are fatter.

Gulf oyster producers are still enjoying success with value-added products. The market for IQF oysters on the halfshell has grown rapidly as increased numbers of casino operators use them for buffets.

This summer, IQF oysters were running anywhere from 25 cents to 30 cents apiece, depending on how they were packed. The production of oysters treated with pressure and pasteurization in the Gulf continues to increase. One Louisiana processor is undergoing a major expansion of his plant to produce pressure-treated oysters, which have been selling for about 35 cents each for banded product.

Out on the West Coast, the oyster business has a split personality. The market for live oysters has never been better, say producers. One of the largest suppliers in Washington state says his in-shell sales now outnumber his shucked-meat sales by a ratio of 3 to 1. Less than 10 years ago, he says, the ratio was reversed.

"There's a lot more production out there," says the operator of a large hatchery that supplies seed to farmers from California to British Columbia. "The growing demand for live oysters is driving the industry."

In spite of the increase in supply, the price for live Pacific oysters has remained relatively stable for the past 10 years. This summer, prices to distributors for live oysters were running \$2.75 to \$4 a dozen, depending on size.

Farmers are harvesting a bumper crop from farms in Willapa Bay on the Washington coast, but the market for shucked Pacific oyster meats remains weak, say producers.

"As an industry, we've done nothing to promote the product for years," says one Washington processor.

http://www.seafoodbusiness.com/archives/02sept/oysters.htm

"Fewer people like to cook oysters, and that's killing meat sales."

The price to distributors for shucked medium-sized Pacific meats has fallen another 20 percent this year, he says, to \$21 to \$22 a gallon for small and medium-sized meats and \$24 for extra smalls. Oysters

Production, price outlook

good everywhere but Texas

The oyster industry in Louisiana, the leading oyster-producing state in the United States, has been enjoying a good year, and the outlook for 2003 is also good. Processors say production from public beds, which hits the market in September, will be down from last year, but there will be more than enough oysters from farmed beds to offset the decline.

That means the quality of Louisiana oysters will be generally better this fall, as the farmed oysters tend to have fatter meats because farmers move them around to find optimum feeding conditions.

Production is on the upswing in Mississippi, which continues to build reefs to increase oyster harvests.

The harvest outlook for the Texas season, which begins in November, is not as bright, however. Heavy summer rains this year have reduced salinities, and feeding conditions have been poor.

Continued strong demand has led to a steady increase in prices for Gulf oysters again this year. Wholesale prices for live Gulf oysters have been fluctuating between \$16.50 and \$19.50 for 100-count boxes and \$4.50 to \$5.50 a pound for meats. The lower prices (and the better values) are in the winter, when oysters are fatter.

Gulf oyster producers are still

enjoying success with value-added products. The market for IQF

oysters on the halfshell has grown rapidly as increased numbers of casino operators use them for buffets.

This summer, IQF oysters were running anywhere from 25 cents to 30 cents apiece, depending on how they were packed. The production of oysters treated with pressure and pasteurization in the Gulf continues to increase.

One Louisiana processor is

undergoing a major expansion of his plant to produce pressure-

treated oysters, which have been selling for about 35 cents each for banded product.

Out on the West Coast, the oyster business has a split personality. The market for live oysters has

never been better, say producers. One of the largest suppliers in Washington state says his in-shell sales now outnumber his shucked-meat sales by a ratio of 3 to 1. Less than 10 years ago, he says, the ratio was reversed.

"There's a lot more production out there," says the operator of a large hatchery that supplies seed to

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farmers from California to British Columbia. "The growing demand for live oysters is driving the industry."

In spite of the increase in supply, the price for live Pacific oysters has remained relatively stable for the past 10 years. This summer, prices to distributors for live oysters were running \$2.75 to \$4 a dozen, depending on size.

Farmers are harvesting a bumper crop from farms in Willapa Bay on the Washington coast, but the

market for shucked Pacific oyster meats remains weak, say producers.

"As an industry, we've done

nothing to promote the product for years," says one Washington processor. "Fewer people like to cook

oysters, and that's killing meat sales."

The price to distributors for shucked medium-sized Pacific meats has fallen another 20 percent this year, he says, to \$21 to \$22 a gallon for small and medium-sized meats and \$24 for extra smalls.

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Appendix J

ON THE MENU : November 1999

Sluuurp! Diners are gulping down oysters with gusto

This chic shellfish is back in style, and restaurant operators are cashing in

By Joan M. Lang

Side dish

It may have been a bold man who first ate an oyster, but these days it's a smart restaurateur who opens an oyster bar.

The popularity of oysters is rising. Want proof? Last year, for the first time, oysters made the Top 10 list of America's most popular seafoods. The shellfish's increasing popularity is being driven, in part, by a surge of interest in oysters on the halfshell and other raw-bar specialties.

Oyster bars and halfshell programs have been cropping up all across the country; several cities even have Web sites devoted to favorite places to slurp oysters.

Like wine, caviar, cigars and other luxury products, oysters inspire a veritable cult following among aficionados, who debate the relative taste and texture of the Hama Hama vs. the Kumamoto, the Hood Canal or the Peconic Bay.

Oysters sales really took off at Grill 23 & Bar in Boston with the addition of an exhibition oyster bar this past February. "It's really going gangbusters," says executive chef Jay Murray.

Murray is particularly surprised at the popularity of the \$65 Grand Sampler, which includes oysters, clams, lobster, shrimp and several sauces. "We get a lot of out-of-town business people in here weeknights who order it for the table to set the stage," says Murray. "It's a very showy presentation."

The growing availability of different varieties and the oyster industry's attention to food-safety issues are making oysters much more attractive to operators.

The annual Oyster Riot at the Old Ebbitt Grill in Washington, D.C., features 22 different varieties of oysters along with complementary wines. Held every November, the event draws more than 800 oyster fanciers, who shell out \$40 a head to sample oysters and quaff wine.

When chef-partner Michael Schwartz closed Fish, his seafood restaurant in Aventura, Fla., he took the most successful part of the concept — the oyster bar — and incorporated it into his hugely popular Nemo

Salt of the Earth

One of the top-selling dishes at Canaletto, Il Fornaio's new Italian restaurant in Las Vegas' opulent Venetian Resort Hotel, is an unusual whole fish baked under a salt crust, priced at \$18.95 a pound. Chef Luigi Bomparello uses striped bass, snapper and sea bass, gutting, boning and scaling the creature but leaving head and tail on. The fish is seasoned simply with garlic, thyme, rosemary and salt and pepper, layered with sliced potatoes to keep the fish intact, then sealed up in salt paste and baked. The technique keeps the fish moist, and the tableside presentation is a real show-stopper.

Fish & chips nouveau

Think there's nothing new in fish and chips? Talk to Pascal Oudin, chef of Sweet Donna's Country Store, a new Frenchaccented family restaurant and takeout shop in South Miami. Oudin makes his premium-priced version with mahimahi, which lends an upscale image and firm texture to the dish. The \$17.95 item is

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restaurant in Miami Beach.

"I guess the customer in Aventura wasn't ready for upscale pan-Asian seafood, but Miami is certainly ready for oysters," says Schwartz, who also owns the funky family restaurant Big Pink.

He serves anywhere from three to five varieties nightly, alone or in combination with other raw-bar items. "It's a really good chance to upsell, because it allows many tables to sneak in another course," notes Schwartz.

To that end, waitstaff are encouraged to tout the raw bar when taking the initial drink order, and many customers take advantage of the opportunity to have something to nibble on while considering the rest of the menu.

Average checks, in fact, have increased \$3 to \$4 since the oyster bar of puff p opened. The raw bar, says Schwartz, encourages dialogue between patrons and waitstaff, which translates into a better service experience for the guest.

the restaurant's topselling entrée.

A bone to pick

First prize for the most intriguing menu name of the season goes to Clams and Ham in a Bone, an appetizer on the new fall menu at Maison Robert in Boston. Chef-owner Jacky Robert binds chopped Virginia ham, hardshell clams and a compound butter into a hollowed-out marrowbone, then bakes it and serves it on a round of puff pastry.

Bill King, executive director of special services for McCormick & Schmick's in Portland, Ore., says it's difficult to keep up with oyster demand right now.

At the 20-unit company's new restaurant in Houston, oysters are one of the hottest sellers.

"They're just slurping those puppies down," marvels King, who figured that Houstonites used to Gulf oysters might not take kindly to out-of-town varieties like Yaquina Bay or Kumamoto. Not so. Most M&S restaurants feature six or eight different oysters a day.

The menu helpfully lists each variety along with its characteristics (Salutation Cove oysters are described as having a "firm texture with a salty finish"; Yaquina Bays are "plump and mild with a clean finish").

Collectively, the addition of more oyster varieties has pushed the overall species selection from about 25 to 30 varieties five or six years ago to up to 35 species today.

"We encourage our purveyors to find new and different species, so we have to be prepared to increase our program whenever something interesting crops up," explains King.

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