



MAINE LOBSTER BUYER'S GUIDE





MAINE LOBSTER

Families along the coast of Maine can trace their fishing roots across multiple generations, sustaining a business that provides delicious products to consumers worldwide, and more than \$1 billion to Maine's economy each year.

The Maine Lobster Marketing Collaborative has created this guide to demonstrate the fishing, processing, and supply practices that yield the most delicious lobster in the world.

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LOBSTERING: THE MAINE EVENT

The lobster industry symbolizes the very essence of Maine – pristine waters, a rugged coast, premium products, hard work, and a legacy that reaches back more than 400 years.

Maine Lobster is one of the oldest continuously operated industries in North America, with the first documented catch dating back to English settlers in the 1600s. This is a multi-generational practice, with the trade being passed down through the ages.

Modern lobster harvesters operate much like their predecessors did – hauling lobsters by hand. Maine Lobster boats are not the industrial boats you may know from other fisheries. Lobstermen work from small day boats, typically topping out around 50-feet in size.

These small business owners independently own and operate their boats, and have been committed to fishery sustainability and traceability since long before it was fashionable.

Maine's lobstermen continue to evolve practices based on the needs of the marine environment. In order to maintain a strong and healthy lobster population, Maine Lobsters are 100% hand-harvested – with lobstermen handling each lobster with care. All are caught one trap at a time to protect their quality and environment.



LOBSTERING: THE MAINE EVENT

The Maine Lobster industry is one of the oldest continuously operated industries in North America, with the first documented catch dating back to the

1600s.

Maine is the largest lobster producing region in the world; today, lobstering in Maine is a multigenerational family tradition, with more than

5,600

INDEPENDENT LOBSTERMEN.

In 2018, Maine Lobstermen landed

119 MILLION POUNDS OF LOBSTER,

representing over 80% of the lobster harvested in the U.S.

Maine Lobster is a culinary icon and economic powerhouse, employing thousands of Mainers and contributing more than

\$1 BILLION

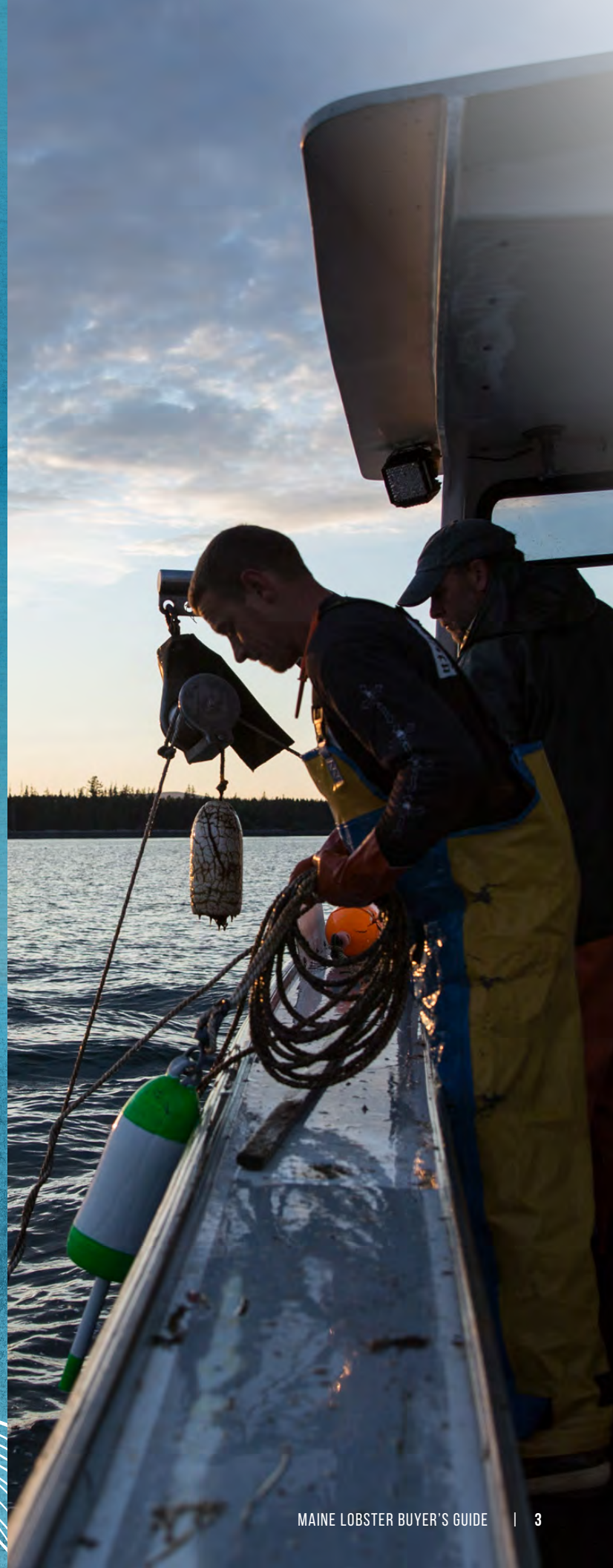
to the state's economy each year.

DID YOU KNOW?

100%

of Maine Lobsters are hand caught from small day boats.

In the Maine Lobster fishery, sustainability efforts began in **1872,** when the first law was passed to protect the resource for future generations.



SUSTAINABILITY & TRACEABILITY

Today's diners and culinary professionals are more educated than ever about the food they both consume and serve, and how it's sourced.

In fact, a recent survey of professional chefs found that 62% believe that sustainable seafood is a top trend for diners who are looking to know more about the food they consume.

The Maine Lobster community has strived to stay at the forefront of conservation innovations, advocating and adding new regulations as the need for them becomes apparent. From throwing back undersized lobsters to identifying and returning egg-bearing female lobsters, lobstermen take great pride in caring for the resource that provides them their livelihoods.

WHY DON'T MAINE LOBSTER SUPPLIERS OWN LOBSTER BOATS?

Further sustaining Maine's historic fishery, the state employs an owner operator rule that requires every licensed Maine lobsterman to own their lobster boat and gear and be aboard that boat in order to fish legally. The owner operator rule prevents suppliers from owning lobster boats and hiring captains to fish for them. Instead, suppliers source lobster from lobster boats, lobster wharves, and cooperatives of lobster fishermen.

TO PROTECT THE RESOURCE, MAINE LOBSTERMEN FOLLOW STRICT RULES:

TAIL NOTCHING

Female lobsters with visible eggs cannot be harvested. Before releasing her, the harvester notches her tail to identify her as a good breeder, thus protecting her for life from being harvested.

MINIMUM SIZE LIMIT

Minimum 3¼" carapace measurements allow juvenile lobsters the chance to mature and reproduce before they can be harvested.

MAXIMUM SIZE LIMIT

Maximum 5" carapace measurements protect the large, healthy breeding stock.

APPRENTICE PROGRAM

New harvesters must apprentice with veterans to learn the regulated, sustainable practices.

TRAP LIMITS

The total number of traps per harvester is limited by both the state and the individual lobster zones.

HARVEST METHOD

Harvesting in Maine is by trap only — no dragging or diving is allowed. Traps include escape vents for under size lobsters as well as biodegradable escape hatches to free lobsters in lost traps.

LOBSTER SEED FUND

Supported by license fees, the Fund purchases females that extrude their eggs after being harvested. This unique buy-back program helps to ensure that the good breeding stock is returned to the ocean to reproduce.





NEW & HARD SHELL LOBSTERS

SWEET NEW SHELL MAINE LOBSTER

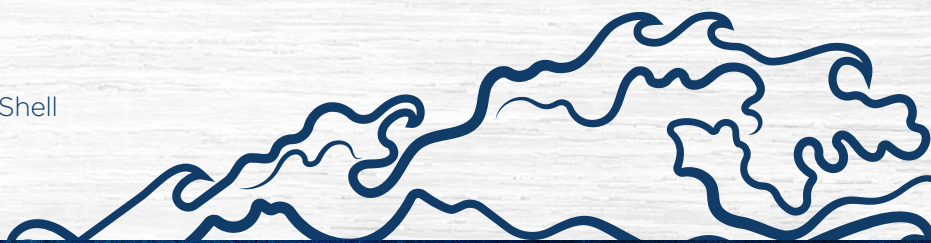
Maine New Shell Lobster is the sweetest, most tender lobster on earth. From mid-June to November, lobsters in the cold, clean waters of Maine shed their shells and reveal new, larger ones underneath – the result: Sweet Maine New Shell Lobster. As the lobsters grow into their newly formed shell, there is a gap between the meat and the shell that seawater fills, allowing it to naturally marinate the meat. New Shell is perfect for lobster rolls and for recipes that extract maximum flavor from the whole lobster, like risotto and pot pie.

With advances in shipping techniques, live New Shell can now be received worldwide while in season.

BRINY HARD SHELL MAINE LOBSTER

Maine Hard Shell Lobsters are caught year-round, but are much more prevalent in the winter and spring months from December to May. Hard Shell Lobsters are packed full of tasty lobster meat that has a brinier flavor and firmer texture when used in cooking.

Both Hard Shell and New Shell Lobsters are shipped in divided wine-crate-style coolers with damp newspapers to ensure safe arrival.



WHAT MAKES MAINE NEW SHELL LOBSTER SO GREAT?



The superior taste is a result of the pure Gulf of Maine seawater that fills the newly formed shell and naturally “marinates” the meat, creating an intense, and more “lobster-y” flavor.



The sweet, tender and more delicately textured meat more readily takes on the nuances of flavors like herbs, spices, smoke, citrus and more.



A thinner shell means it’s easy to crack and eat by hand. And thanks to advances in packaging and handling techniques, Maine New Shell Lobster can also be shipped outside of Maine.

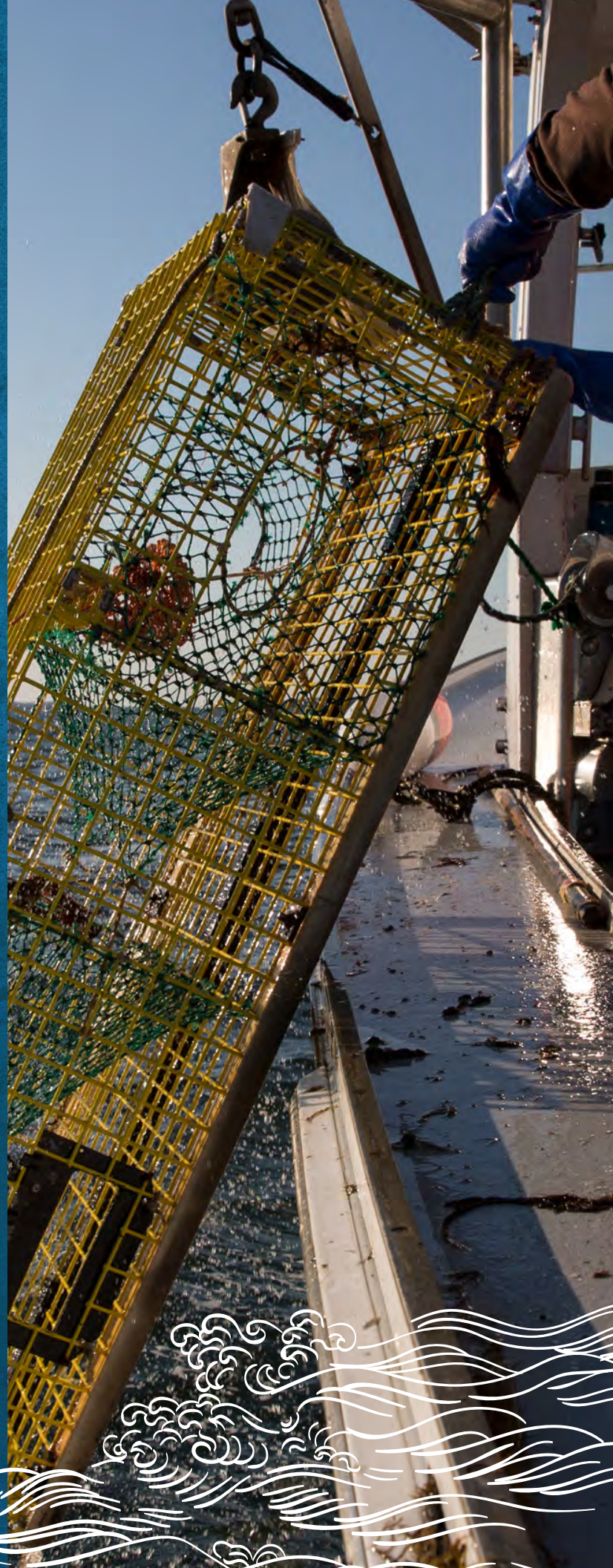


Prized as a seasonal delicacy, Maine New Shell Lobster is primarily available as a live product during peak harvest, which runs from about June – November.

THE MAINE LOBSTER DIFFERENCE

SIMILARITIES BETWEEN U.S./MAINE & CANADA

1. U.S./Maine and Canadian Lobster are the same animal – *Homarus americanus*.
2. U.S./Maine and Canadian Lobsters are fished from the same waters in the Gulf of Maine.
3. U.S./Maine harvests and processes a significant portion of its catch in the summer and fall, Canada harvests and processes a significant portion of its catch in the spring and winter.
4. Maine Lobsters have unblemished undersides with bright orange / red coloring.
5. Lobster is priced according to market conditions. A significant factor in purchasing decision is based on flavor and texture preferences.
6. Both countries place a high value on sustainable fishing practices, such as trap-only harvesting and returning egg-bearing female lobsters.



TAIL

The bulk of meat on a lobster, incorporate into any recipe calling for lobster meat or as a standalone protein; cook in a variety of ways, from grilled to sautéed.

CLAW

Hearty amount of meat; incorporate into any lobster recipe or leave whole to garnish a dish.

BODY (CARAPACE)

Clean and use for unique plate presentation; use clean shell for stocks.

LEGS

Use as a garnish or for stock; larger lobsters have a flavorful portion of meat that's worth extracting from where the joint meets the body.

MINCE

Small amounts of meat found throughout the lobster, such as in the fins and carapace, that packs rich lobster flavor.

KNUCKLES

Extract from the arm for savory meat; lobstermen's favorite part of the lobster.

ON THE MENU

When consumers order a Maine Lobster dish, they typically imagine that back in the kitchen, a whole live lobster is being made to their order. Behind-the-scenes, the reality is that professional chefs work with different portions of the lobster depending on the dish they're preparing.

Fortunately, Maine Lobster wholesalers and processors offer a range of products to suit each and every style of preparation. Suppliers package lobster in several ways, from whole lobster and tails to lobster meat, mince, and more to ensure that both the chef and the end consumer walk away delighted by their Maine Lobster experience.



From high-end to fast-casual, restaurants feature Maine Lobster in popular items like Lobster Mac n Cheese, Lobster Bisque and Lobster Sushi.



Menuing "Maine Lobster" adds an average value of \$8.11 per lobster dish.*



While butter is a beloved favorite, new flavor pairings are on the rise such as avocado, curry, coconut and lime.

*According to an October 2018 Technomic study.



MAINE LOBSTER OFFERINGS

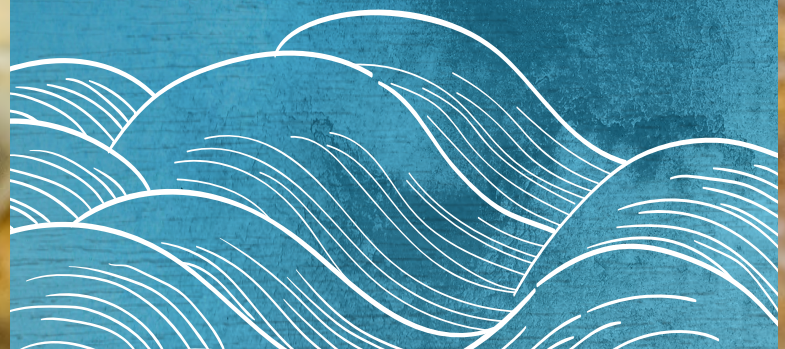
Maine Lobster suppliers offer fresh and frozen products in a range of sizes. Popular forms of Maine Lobster include whole lobster, tail, knuckle, and claw meat, value added products, and mince.

LIVE PRODUCTS BY WEIGHT

CHIX	1 lb.
QUARTERS	1.25 lbs.
HALVES	1.5 lbs.
SELECTS	1.75 lbs.
DEUCES	2 lbs.
JUMBOS	3 lbs. & up

PROCESSED PRODUCTS

IN SHELL	LOBSTER MEAT
Whole lobster	Tail, Claw, Knuckle Meat (TCK)
Whole tail	Claw, Knuckle Meat (CK)
Split tail	Claw, Knuckle, Leg Meat (CKL)
	Mince



WHOLE MAINE LOBSTER

Whole Maine Lobsters can be purchased live or frozen, and frozen whole lobsters can be purchased cooked or raw.

KEY QUESTIONS FOR YOUR SUPPLIER

1. Is this *Homarus americanus*?
2. Where did the lobster come from?
3. Is this New Shell or Hard Shell?
4. How was this frozen?

PROPER STORAGE & HANDLING

- Live lobsters are most often hand packed in wine crate-style insulated coolers, topped with damp newspaper to preserve moisture. From the sea to your doorstep, the live product is handled carefully to protect its quality and flavor.
- Frozen whole lobsters should remain in original packaging until ready to be served, and should be enjoyed within three to six months of freezing for optimal taste.

COOKING WHOLE LOBSTER

LIVE

The most popular way to cook live lobster is steaming. Live lobster should be cooked the same day it is delivered, especially if its claws have begun to droop down. If your lobster maintains its vitality, holding its claws up, this lobster can be kept another day if stored properly in a refrigerator with a damp cloth.

***TIP:** The softer shell of the Maine New Shell Lobster means it's easy to crack and eat by hand

COOKED & RAW

The most common way to cook or reheat frozen lobster is steaming. Be sure to allow time for the lobster to thoroughly thaw in the refrigerator overnight.





MAINE LOBSTER TAILS

Maine Lobster tails are a popular item and come in a variety of formats, including in-shell whole and split tails and pre-shucked tail meat. All can be shipped worldwide in fresh, frozen, pre-cooked or raw formats and are available for purchase year-round

KEY QUESTIONS FOR YOUR SUPPLIER

1. Where did the lobster come from?
2. Where is the lobster processed?
3. What certifications does the product or company have?

PROPER STORAGE & HANDLING

- All Maine Lobster products should remain in their original packaging until ready to be served.
- All frozen lobster tail products should be enjoyed within three to six months of freezing for optimal taste.
- All fresh or thawed tails should be kept under refrigeration and enjoyed within two to three days of thawing.

COOKING WITH MAINE LOBSTER TAILS

- Raw tail products are great for recipes that need extra time in the oven - starting with raw meat reduces risk of over cooking.
- Thoroughly thawing frozen lobster tails results in a better taste and texture. To thaw, leave the tails in the wrapping or put in new wrapping and place on a plate in the refrigerator overnight. Tail will be slightly flexible when fully thawed. Shell-on tails should be thawed slowly to prevent meat sticking to the inside of the shell.

PICKED MAINE LOBSTER MEAT

Some of the most popular picked Maine Lobster products are tail, claw, and knuckle meat, which can be purchased either raw or cooked. These products are available fresh or frozen worldwide.

While tail, claw, and knuckle meat is often packaged and sold together, other popular packages include claw and knuckle meat, claw, knuckle, and leg meat, or simply tail meat. The package you choose to purchase will depend on the type of recipe you are preparing.

KEY QUESTIONS FOR YOUR SUPPLIER

1. Where did the lobster come from?
2. Where is the lobster processed?
3. What is the drained weight?
4. What certifications does the product or company have?

CHOOSING THE RIGHT PRODUCT

Communicating closely with your Maine Lobster wholesaler ensures you can get precise quantities and combinations of picked meat packaged together or separately as:

- Tail, claw, and knuckle (TCK)
- Claw and knuckle (CK)
- Claw, knuckle, leg (CKL)
- Separately packaged tail, claw, knuckle, or leg

COOKING WITH MAINE LOBSTER MEAT

- TCK lobster meat is most often used in dishes like lobster rolls, pastas, salads, and more.
- CK meat can be used on its own in lobster rolls and salads, and is also used in dishes such as lobster mac and cheese.





MINCE & VALUE ADDED

In addition to being offered as a “center of the plate” option, lobster is also becoming more and more popular as an ingredient in appetizers and in dishes which incorporate lobster flavor, but do not feature lobster visually, such as lobster ravioli or lobster dip. Lobster mince is perfect for these recipes, and is often incorporated into the industry’s pre-prepped value added products.

MINCE

Mince is an up-and-coming lobster product obtained by extracting all of the meat from the shell - beyond just the meaty TCK areas. Mince is perfect for lobster ravioli, lobster dip, and a host of other recipes that call for rich lobster flavor without heartier pieces of meat. Talk to your supplier about how mince is prepared - plate freezing is a particularly effective method of preserving mince lobster.

VALUE ADDED PRODUCTS

Maine’s lobster wholesalers and processors offer a host of value added products, from pre-shucked meat, to spreads. These products allow restaurants, retailers, and consumers to incorporate the delicious flavor of Maine Lobster into their offerings and provide consumers with an easy option that goes beyond the center of the plate.

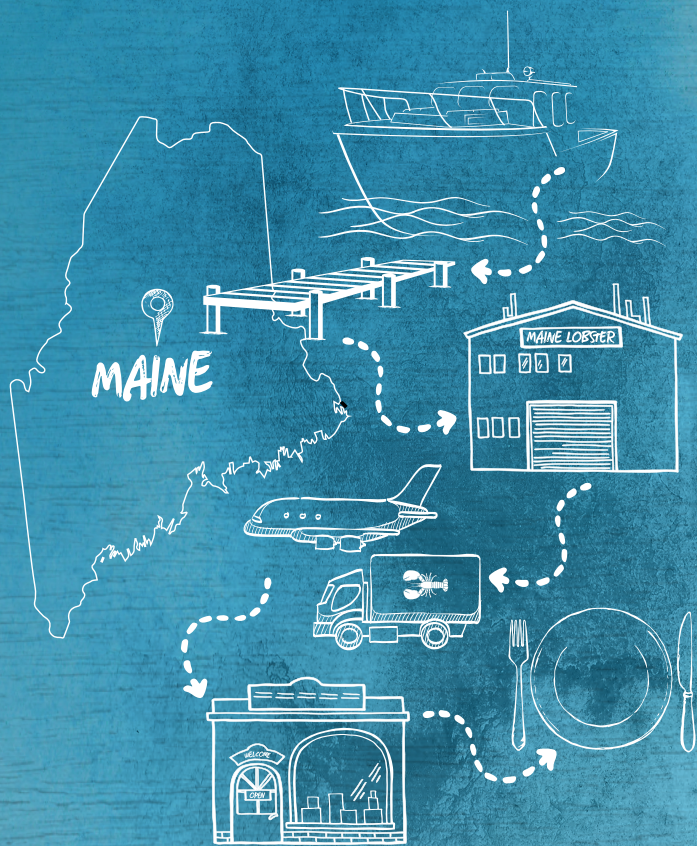
FROM MAINE'S COAST TO YOUR PLATE

The Maine Lobster industry services retail, wholesale, food service, and consumer buyers, and takes great measures to deliver the highest quality products to customers worldwide. The industry is constantly working to advance techniques which maintain quality and freshness for lobster products in transit.

When considering a lobster purchase, be sure to ask your lobster supplier which technique they use to preserve the freshness and sweet, sought-after flavor of the product, and why.

FOR PROCESSED AND FROZEN LOBSTER PRODUCTS, TECHNIQUES TYPICALLY INCLUDE:

- High pressure processing
- Traditional shucking
- Liquid nitrogen flash freezing
- Vacuum-sealed packaging



FREEZING TECHNIQUES

Freezing Maine Lobster makes it even easier for diners around the world to enjoy Maine's favorite crustacean. Frozen products offer many advantages to professional chefs and consumers alike, providing a longer shelf life than live products, keeping their flavor longer, and reducing kitchen labor costs.

Throughout the freezing process, the Maine industry takes great care to preserve the texture and freshness of our products, investing in new technologies and constantly evaluating opportunities to make sure that the lobster that arrives at your door is as delicious as lobster enjoyed right off the dock. While there are many methods of freezing lobster for transport, Maine has found that the best methods freeze very quickly so the cell walls don't break down in the meat, preserving the fresh taste and texture. Be sure to ask your wholesaler which method they use!



NITROGEN

Nitrogen is the quickest and most modern method of freezing - taking as little as 18 minutes - and preserves the fresh natural flavor and texture of the lobster. In a tunnel freezer, sub-zero nitrogen vapors are pumped into the chamber, surrounding the lobster and freezing it on contact. The nitrogen immediately turns into a gas when it comes into contact with the product, creating very minimal dehydration losses.

CO2

In this freezing technique, liquid CO2 is released into a tunnel freezer as the lobster moves through. Inside the tunnel, the liquid CO2 converts to a snow-like solid, coating the product and then vaporizing as heat is removed and the product freezes. The vapor CO2 absorbs additional heat before exhausting into the atmosphere. The combination of liquid, solid, and vapor CO2 ensures that the lobster is completely frozen and safe for transport.

PLATE

This method of freezing is primarily used for lobster tails and other flat packaged products. Refrigerant is circulated within metal plates while applying pressure to the tails until completely frozen. Since there is no air in the freezing process, there is no dehydration of the meat or weight loss.

BLAST & BRINE

Blast freezing is used for freezing lobster in bulk, however, it is a lengthy process, taking 24-36 hours, due to the large amount of product. In a refrigerated room, high pressure air blowers are used to quickly circulate cold air around the room. Brine freezing is used for shell-on products like tails and whole frozen. The product is first crusted in a brine, a process through which the product absorbs additional salt, resulting in a more salty finished product. The product is then finished in the freezer, a method of freezing that takes hours to complete.

Due to the slow freezing process in both blast and brine methods, large ice crystals form within the meat, causing the lobster to lose a lot of its natural moisture upon thawing. The result is a less desirable flavor and texture.



LIVE LOBSTER GUIDELINES

SHIPPING GUIDELINES

- Temperature is a crucial component of shipping Maine Lobster. When in transit, use pre-refrigerated trucks set at 36-38° Fahrenheit (4-6° Celsius).
- Once the lobster is at the tank facility, live lobster suppliers regularly monitor the salinity, aeration, and temperature of the water to match natural habitat as closely as possible.
- When packing lobster, your live lobster supplier will consider the size and destination of the lobster shipment. This will determine the type of packaging needed, such as an 8K box or cloud pack. If lobsters are traveling further and to warmer destinations, include more frozen gel packs to better mimic the temperatures they are used to.
- Separate each lobster with cardboard dividers and insert them with their tails facing down and their claws facing up.

HANDLING & STORAGE GUIDELINES

- Avoid dropping or throwing boxes that contain live lobsters when unloading them at your facility.
- Many shipments will include temperature monitors. Review the data on your monitors to ensure there have been no discrepancies in temperature throughout the shipping process. If there have been, contact your supplier. Gel packs that are no longer frozen or cold at the time of delivery could be an indicator of this.
- Remove lobsters from their packaging one at a time, grabbing them by the body, or carapace, whenever possible.
- If you do not have a tank in which to store live lobsters, keep them in their original packaging and place the boxes in a refrigerator.
- Have regular conversations and trainings to make sure that each employee and third party that interacts with your lobster shipment understands these rules and best practices.

NUTRITION FACTS

IS MAINE LOBSTER GOOD FOR YOU?

Short answer - Yes! If you ask us, not only is it good for you, it's also the most delicious lobster in the world! Lobster is an excellent source of lean protein and can help keep you full for longer.

With 16 grams of protein per serving, it provides you with about 1/3 of your recommended daily value, while also being low in saturated fat. Plus, gram for gram, it has fewer calories and fat compared to roasted, skinless chicken breast, whole poached eggs and cooked lean beef.

USDA SERVING RECOMMENDATION

The USDA recommended serving size for cooked lobster is 3 oz. or 85 g. contains:

AMOUNT PER SERVING	
Calories	80
Total Fat	0.5g
Total Carbohydrates	0g

IS LOBSTER NUTRITIOUS?

Lobster contains omega-3 fatty acids, about 200 milligrams per serving, helping to improve heart health and fight inflammation. Lobster is also a good source of a variety of other nutrients your body needs, including vitamin B12, copper, zinc, selenium, phosphorus, and magnesium.

WHAT ABOUT CHOLESTEROL?

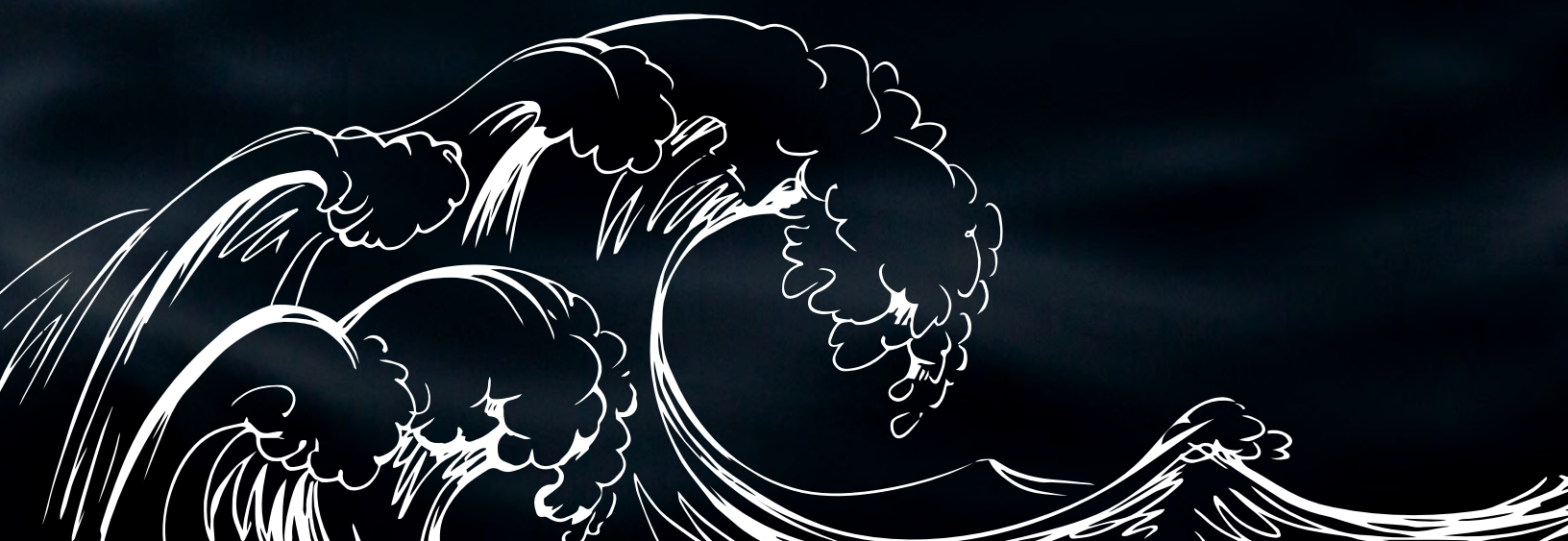
The way health experts view dietary cholesterol is changing. In fact, cholesterol limits were removed from the Dietary Guidelines for Americans in 2015 because there is not enough scientific evidence to show that limiting dietary cholesterol actually lowers “bad” cholesterol in the blood. Instead, the focus is on limiting saturated fat, which has a more definitive link to cholesterol in the body. A serving of lobster is low in saturated fat while being an excellent source of protein and providing a variety of important nutrients.

*Harvard Health Publishing (2009). Heart Beat: Shellfish for the heart? [online] Available at: health.harvard.edu

**U.S. Department of Agriculture, Agricultural Research Service. FoodData Central, 2019. fdc.nal.usda.gov



FIND A MAINE LOBSTER SUPPLIER AT
LOBSTERFROMMAINE.COM/BUY-LOBSTER





The Maine Lobster Marketing Collaborative (MLMC), founded in 2013, is funded by Maine Lobster harvesters, dealers and processors to grow demand for whole live lobster and a variety of value-added products. The MLMC supports that objective by promoting the core values of the Maine Lobster industry - sustainability and traceability that's deeply rooted in tradition. Maine Lobster achieved the Marine Stewardship Council certification in 2013 allowing Maine Lobster to certify its long-standing sustainable practices. The industry has been self-regulating for more than 150 years.