SOUTHERN REGIONAL AOUACULTURE CENTER

Hard Clams



Latin name: Mercenaria mercenaria or Mercenaria mercenaria notata

Common names: northern hard clam, hardshell clam, quahog, and various trade names related to harvest size



Description: Hard clams, *Mercenaria mercenaria*, are marine mollusks that support fisheries and aquaculture industries from Canada to Florida. Like other commercially important molluscan shellfish, such as oysters and mussels, clams are bivalves. The heavy shells are connected with a strong hinge, which allows clams to remain closed for days in refrigerated storage. Clams are benthic, or bottom-dwelling, and feed by filtering microscopic plants (algae) and nutrients from the water. Hard clam production occurs on hundreds of small farms in coastal waters.

Product Forms: Most cultured hard clams are sold as live shellstock (both shells intact) and are shipped to market fresh under refrigerated conditions. Cooked and partially cooked, frozen specialty products (both whole and half-shell forms) are becoming increasingly available from domestic sources and should not be confused with imported product. Several size grades, determined by shell width (distance across the shell at the hinge) and weight, are available. Although not standardized, size categories of cultured hard clams are as follows:

Common name	Hinge size	Number per pound
Topneck	1.25-1.5 in	5-7
Middleneck	1.05-1.25 in	7-9
Littleneck	0.9-1.05 in	10-13
Button	0.75-0.9 in	14-18
Pasta	< 0.75 in	18-25

Larger sizes, such as cherrystones and chowders, are generally obtained from commercial fisheries. Because the meats are tougher, they are processed into stripped or chopped products.

Buying Tips: Hard clams should be purchased from a reputable source to ensure that they have been kept cold while in display or storage. Live clams may open slightly or gape in storage, but the shells will close when tapped or slightly agitated. Fresh clams should have a mild sea breeze odor and shells should be free of cracks. All shellstock are required by law to be tagged by the dealer. Tags provide information on when and where each batch was harvested. Ask to see the

Nutritional Facts:

Per 3.5 ounces (100 grams) of raw edible portion (mixed clam species)

Calories	86	
Total fat	1 gram	
Saturated fat	0.2 grams	
Protein	14.7 grams	
Carbohydrate	3.6 grams	
Cholesterol	30 milligrams	
Sodium	601 milligrams	
Vitamin and mineral contribution >10% Daily Value		
Vitamin B-12	11.3 micrograms (188%)	
Phosphorus	198 milligrams (20%)	
Selenium	30.6 micrograms (44%)	

Source: USDA National Nutrient Database for Standard Reference, Release 27 (2014) *University of Florida

Omega-3 fatty acid* 400 milligrams

tag to confirm the source. Purchase clams last and transport them home in a cooler with ice or cold packs.

Preparation Tips: Before cooking, rinse clams under cold, running water to remove residual sand or grit. Clams are easy to prepare and delicious when steamed, grilled, roasted, or cooked in the microwave. Cooking times will vary according to size and recipe; however, when the shell completely opens the clam is ready to eat. Littlenecks are often served raw on the half-shell. To "shuck" (open) a live clam, hold it flat on the palm of one hand with the shell hinge against the palm. Insert a "clam knife" between the shell halves at the front of the clam, twisting the knife slightly to pry open and then cutting through the two muscles from one shell for half-shell recipes, or from both shells to obtain the meat. It is easier to shuck clams after they have been placed on ice. State and federal regulatory authorities have programs in place to ensure that live molluscan shellfish are safe to eat, but people with compromised immune systems should not eat raw or undercooked clams.

Storing Tips: Fresh clams will remain alive for several days at home if properly handled and kept refrigerated at 40 to 45 °F. Do not place live clams directly on ice or immerse in water; rather, store them in a ventilated container. Drain excess liquid daily and discard clams if they do not close. Clams in the shell and shucked meats can be frozen and kept up to 3 months in a home freezer. To freeze, place in a heavy freezer bag, push out excess air, and seal. Clams in the shell can be used directly from the freezer; however, frozen clam meat should be thawed in the refrigerator before cooking.

Cultivation: Hard clams require 12 to 24 months to reach market size, depending on seed size and season planted. Seed, ranging from 5 to 15 mm in shell length, are planted in coastal waters on submerged lands typically leased from the state. To

Steamed Clams

Ingredients

2 dozen hard clams in shell, rinsed well

½ cup dry white wine or water

2 Tbsp butter or olive oil

2 tsp lemon juice

2 tsp garlic, minced

A few dashes of spice mix such as Old Bay®

or Tony's Creole Seasoning®

Parsley, chopped (optional)

Directions

Place all ingredients except clams in a deep skillet or pan with a tight-fitting lid. Simmer on medium heat for 3 minutes. Increase heat to medium-high; add clams and cook covered for 5 to 8 minutes (depending on size of clams), stirring occasionally, until clams open. Remove clams and keep warm. Boil remaining broth for a few minutes until reduced; pour over clams and serve with pasta or crusty bread.

protect seed from predation during growout, several culture methods are used. Bottom planting involves securing a layer of protective netting over the broadcast seed. A method used in South Carolina, Georgia, and Florida is the bottom bag, made of a polyester mesh material, which contains the clams and also serves as a harvesting device.

Harvest: Product is available year round. The U.S. produced 418 million hard clams (about 53 million pounds) in 2013.

Markets: Hard clams are shipped to a variety of markets. Although the traditional markets are in the Northeast, clams can now be found in seafood retail shops, grocery stores, warehouse clubs, buffets, and white tablecloth and specialty restaurants in the Southeast and other regions of the U.S.

Sustainability: Farming hard clams is one of the most environmentally friendly forms of aquaculture. Clams feed low on the food chain and their production requires no inputs such as feeds, fertilizers, herbicides, drugs, chemicals, or antibiotics. Clams must be harvested from clean waters, which are classified and monitored at the state level to meet national regulatory standards. In turn, clams are good for the environment because their filtering helps to improve water quality. Farmed clams are ranked as a "Best Choice" by the Monterey Bay Aquarium Seafood Watch® and other groups promoting sustainable seafood products.

History: Hard clam aquaculture is one of the largest and most valuable of the aquaculture industries on the U.S. East Coast, accounting for more than \$60 million in sales annually. Clam culture began in the late 1920s with the development of hatchery methods. Commercial hatcheries now produce seed for hundreds of growers. In the southeastern states, the culture of hard clams grew rapidly during the 1990s. The warmer waters allow seed to be planted almost year round, resulting in continuous production and shorter crop periods than those in the Northeast. Hard clams are currently produced on open-water farms from Virginia to both coasts of Florida, providing jobs and supporting businesses in many waterfront communities while benefiting the ecosystem in which they are grown.

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