

Freshwater Prawns



Latin name: *Macrobrachium rosenbergii*

Common names: giant freshwater prawn, giant river prawn, freshwater prawn



Description: Freshwater prawns, *Macrobrachium* sp., are crustaceans that are close relatives of marine shrimp but spend their adult life in freshwater. Prawns tend to have a firmer flesh than shrimp and are more similar to lobster meat. Prawns can be produced inland without the need for access to saltwater or expensive coastal lands. They do not require high levels of fish meal in the diet. These factors make freshwater prawn production a good choice for long-term, sustainable aquaculture. Prawn production is also well suited for small-scale farmers and markets.

Product Forms: Freshwater prawns are available live, whole-on-ice, and as fresh or frozen tails. Live prawns are of the highest quality and normally are available only close to the point of production. Fresh tails also can be available in farmers' markets. Frozen tails can come from domestic producers, but are most often imported. Very large, frozen, whole prawns and tails are primarily imported.

Buying Tips: When buying whole, live prawns, look for active movement. Whole, fresh prawns on ice should still have good coloration and not be too pale. Avoid any with loose shells or heads loosely attached to the bodies. Frozen tails should also have good coloration. Tails that are pale or blotched, especially those that are im-

ported, may have been thawed and refrozen or treated with preservatives. Fresh prawns from a known source are your best bet for high quality.

Preparation Tips: If purchased frozen, proper thawing is especially important for prawns. Improper thawing can result in a mushy texture of the tail meat. Prawns should be cooked from a frozen state or after thawing in a refrigerator for no more than 8 hours. Complete thawing under flowing water or in a microwave, as is done with marine shrimp, is not advised for freshwater prawns. For whole, head-on product, slow thawing in a refrigerator for no more than 8 hours can keep the claws intact but may result in some softening of the tail meat, especially near the head. For best results, whole product should be only partially thawed before cooking.

If using prawn tails frozen in a block of water, it is best to remove the frozen block

Nutritional Facts:

Per 3.5 ounces (100 grams) of cooked portion

Calories	65
Total fat	<1 gram
Saturated fat	<1 gram
Protein	21 grams
Cholesterol	85 milligrams
Sodium	148 milligrams

Source: Data collected from studies by researchers at Kentucky State University

from its packaging and place it in a colander sitting in a bowl or pan in the refrigerator. This allows prawns to drain as they thaw and prevents the thawed product from sitting in water. If prawns will be cooked immediately, hold them under flowing cold water just long enough to separate the tails. Only partially thaw the tails. Quality is best if there are still ice crystals in the flesh when they go into the pan or the pot.

Storing Tips: Once prawns are thoroughly chilled, they can be placed on drained ice. They cannot sit in the melt water or the flesh will get mushy. Shaved ice is best. The container should be packed with alternating layers of prawns and ice. However, the bottom and top layer should always be ice, and the drain must be kept open. A perforated “false bottom” in the cooler can also help to keep the prawns above the melt water. Whole prawns can be held on drained ice for 2 days, although Mississippi State University researchers have reported good quality as long as 12 days. If fresh tails cannot be cooked within 3 to 4 days, they should be frozen.

Cultivation: Pond production of freshwater prawns in temperate climates involves stocking nursed, juvenile prawns into ponds, followed by 3 ½ to 6 months of grow-out until they are ready for harvest. The exact growout time depends on the temperature range within the growing season. The production cycle requires prestocking preparation, stocking, feeding, and managing water quality until harvest.

Freshwater Prawns Sautéed in Garlic Butter

Ingredients

1 pound of freshwater prawn tails, peeled
1 stick of butter
½ cup oil
4-5 garlic cloves, crushed, or 1 heaping Tbsp
of prepared crushed garlic
⅓ tsp salt
Pepper to taste
A few dashes of spice mix such as Old Bay®
or Tony’s Creole Seasoning®

Directions

Melt the butter in a pan, add oil and garlic. Let the garlic become fragrant on medium heat. Add prawns and seasoning. Turn prawns when they are just turning pinkish white, about 1 to 2 minutes. Add another dash of seasoning and cook another 1 to 2 minutes until all prawns are pinkish white. Do not overcook; prawns cook very quickly and will dry out if over cooked.

Harvest: Prawns are harvested and held live in aerated tanks to purge themselves of mud and debris. They are then sold live, whole fresh on ice, or processed for tail markets, either fresh or frozen. Domestically grown prawns are available seasonally from late summer to fall.

Markets: Freshwater prawns lend themselves to markets that desire locally raised products. Such markets have been found to accept both fresh on ice and frozen product forms. In many regions of the U.S., locally produced seafood is not something that consumers can readily find. Point-of-sale information on the producer and farm are very desirable to those consumers.

Sustainability: Prawns are an alternative to marine shrimp and appeal to Non-Governmental Organization (NGO) groups and consumers concerned about environmental sustainability. The Seafood Watch Seafood Report produced by the Monterey Bay Aquarium FishWise program evaluated freshwater prawns on five criteria of sustainability, including: 1) use of marine resources (i.e., fish meal), 2) risk of escape to wild stocks, 3) risk of disease and parasite transfer to wild stocks, 4) risk of pollution and habitat effect, and 5) management effectiveness. They rated the freshwater prawn as “Low Environmental Concern” in all five categories. They also awarded prawns a “Best Choice” designation and stated that prawns are “one of the most sustainable seafood choices available.”

History: Prawn production is well suited for small-scale farmers and markets. While the vast majority of freshwater prawn production occurs in Asia, there is significant and increasing interest in producing prawns in temperate regions of the U.S., largely because of consumer demand for locally produced foods and the environmental sustainability of freshwater prawn production.

For additional information, contact:

James H. Tidwell, Professor and Chair, Division of
Aquaculture, Kentucky State University



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