

Farm-Raised Channel Catfish



Latin name: Ictalurus punctatus or the Ictalurus punctatus × Ictalurus furcatus cross

Common names: U.S. farm-raised catfish, channel catfish, hybrid catfish



Description: Channel catfish is the most commonly farmed finfish in the United States and the largest component of U.S. aquaculture accounting for 63% of domestic poundage produced and 29% of the value in 2010. The top four states (Mississippi, Alabama, Arkansas, and Texas) accounted for 95% of total production. The channel catfish is a native North American freshwater fish whose original range extended from northern Mexico and the states bordering the Gulf of Mexico up the Mississippi River and its tributaries. Farmers are also producing a hybrid of the channel catfish female (*I. punctatus*) and blue catfish male (*I. furcatus*).

Product Forms: Farm-raised channel catfish is available in many convenient forms, both fresh and frozen. Dressed fish have been headed, skinned, and gutted. Steaks are cross-section cuts from larger dressed fish. Boneless fillets are available with the belly section attached (regular) or removed (shank). The boneless pieces cut from the belly section of the fillet are referred to as nuggets. Smaller pieces cut from the fillets are called strips or fingers. Farm-raised catfish are also available in prepared forms including breaded and marinated.

Buying Tips: Look for fresh product forms that have moist flesh, firm texture, and no discoloration or dryness. When touched, the flesh should spring back. Flesh that looks dull could mean the fish is old. Fresh product

should smell fresh and mild, not fishy, sour, or ammonia-like. If purchasing frozen product, choose IQF (Individually Quick Frozen) fillets that do not have any dry looking white portions which might indicate freezer burn.

Preparation Tips: Refrigerate fresh catfish until just before preparing. Thaw frozen catfish in the refrigerator or soak in lukewarm water until soft to the touch; do not refreeze. Before using, rinse under cold water; pat dry. This fish is extremely versatile, mild flavored, and difficult to overcook in the kitchen. The firm, flaky texture lends itself to grilling, baking, broiling, frying, and many other preparation methods.

Storing Tips: Once purchased, you should store catfish on ice or in the refrigerator or freeze immediately. If you will use it within 2 days, store it in the refrigerator. If you won't use it for 3 or more days, freeze it. If you do

Nutritional Facts:

Per 3 ounces (85 grams) of cooked portion

Calories 122
Total fat 6.1 grams
Saturated fat 1.3 gram
Protein 15.7 grams
Cholesterol 56 milligrams
Sodium 101 milligrams

Source: USDA National Nutrient Database for Standard Reference, Release 24 (2012)

not have vacuum packaging equipment, use heavy duty freezer bags or moisture-/vapor-proof plastic wrap. Place each fillet in a separate freezer bag or wrap individually in plastic wrap without adding water. Eliminate as much air as possible from the freezer bag or wrapped fish. Recommended storage times for fresh catfish in the refrigerator is 1 to 2 days and 3 to 8 months in the freezer.

Cultivation: Channel catfish production in the United States occurs in inland, freshwater ponds. Ponds are either filled with groundwater or designed to collect rainfall. Ponds are operated for multiple years before having to be drained for reconstruction. Catfish aquaculture is usually practiced in four discrete phases: 1) broodfish are held in ponds at relatively low numbers of fish per acre and allowed to randomly mate each spring; 2) fertilized eggs are taken from the broodfish pond to a hatchery where they hatch under controlled conditions; 3) fry are transferred from the hatchery to a nursery pond where they are fed a manufactured feed for about 6 months; 4) fingerlings are moved from the nursery pond to foodfish production ponds where they are fed a manufactured feed until they reach 1 to 2 pounds. In the southeastern United States, 18 to 30 months (two or three growing seasons) are required to produce a food-size channel catfish from an egg. Catfish feeds are made of a mixture of grain products (primarily soybeans, corn, and wheat) and vitamin and mineral premixes.

Grilled Catfish with Fresh Salsa

Ingredients

4 U.S. Farm-Raised Catfish fillets ½ tsp garlic salt ½ tsp pepper 1 tsp cayenne pepper

Fresh Salsa

3 medium tomatoes, chopped ¼ cup chopped onion 2 medium jalapeño peppers, chopped 3 tbsp white wine vinegar 1 tsp salt

Directions

Prepare a grill or preheat the broiler. Sprinkle catfish fillets with garlic salt and pepper. Place fillets on oiled grill rack or broiler pan rack. Grill or broil about 4 inches from the heat source for about 5 minutes on each side, or until fish flakes easily when tested with a fork. Place a fillet on each serving plate and spoon some Fresh Salsa over it. For the Fresh Salsa: Place all ingredients in a medium bowl and stir well. Let salsa stand at room temperature for about 30 minutes before serving. (Source: The Catfish Institute, http://www.uscatfish.com/index.html.)

Harvest: Farm-raised channel catfish are harvested almost every week of the year. Before harvest, catfish samples are submitted to processing plants multiple times to evaluate flavor quality. Once the fish pass flavor evaluation, market-sized fish are selectively harvested using largemesh seines and transported live to processing plants. Once unloaded at the facility, the processing procedure takes less than 30 minutes.

Sustainability: Farm-raised catfish is widely recognized as among the most environmentally sound sources of seafood. The Monterey Bay Aquarium's Seafood Watch program lists U.S. farm-raised channel catfish as a "Best Choice" due to its abundance and well managed, environmentally friendly farming practices. The sustainability analysis used by the Seafood Watch program is also used by their partners, such as FishWise, in the Conservation Alliance for Sustainable Seafood. Other important environmental advocates endorsing U.S. farm-raised channel catfish include The World Wildlife Fund and the Environmental Defense Fund. The superior environmental performance of U.S. catfish farming is based on the use of domesticated broodstock, low escape risk, low pollutant discharge potential relative to inputs, feeds with low levels of fish meal and fish oil, and very low use of antibiotics and chemical theraputants for disease control.

History: Channel catfish have long been esteemed as a foodfish in the southern part of its original range. In an effort to capitalize on its demand, farmers stocked the first commercial ponds in the late 1950s and early 1960s. Harvest and subsequent sales were seasonal limiting consumer demand. The construction of modern processing plants in the late 1960s and the resulting need for a year-round supply of catfish made fish available on a much more consistent basis. With the advent of efficient feed mills, equipment innovations, and scientifically tested production methods, channel catfish aquaculture expanded rapidly becoming the largest aquaculture industry in the United States. More than 300 million pounds of farm-raised channel catfish were processed in 2012.

For additional information, contact:

Jimmy Avery, Extension Professor, Mississippi State University **Chuck Mischke,** Research Professor, Mississippi State University



United States Department of Agriculture National Institute of Food and Agriculture

The work reported in this publication was supported in part by the Southern Regional Aquaculture Center through Grant No. 2010-38500-21142 from the United States Department of Agriculture, National Institute of Food and Agriculture.