

# SALMON

- Class: Osteichthyes: Boney Fishes
- Order: Salmoniformes
- Family: Salmonidae



All of the salmon available in the U.S. is either Atlantic salmon *Salmo salar* - or Pacific salmon, of which there are five species. Most Atlantic salmon is now farmed (pond or cage raised). Chile provides much of the Atlantic salmon consumed in the United States. Most Pacific salmon is still wild caught and has more flavor variation than Atlantic salmon. Typically, pink and sockeye salmon are canned while chinook, chum and coho are available fresh. Crown Prince Natural Pink Salmon and Smoked Coho Salmon are caught off the coast of Alaska, while our Skinless and Boneless Pink Salmon is fished out of Canadian waters.

Coho salmon typically weigh from 5 - 12 pounds but can grow as large as 25 pounds. Coho salmon have a silver-blue coloring along their backs. It's hard to tell the difference between coho and chum. Look for the V-shaped tail to identify the chum. Coho salmon flesh is somewhat paler than chinook or sockeye. Farmed coho is available year-round, but wild coho is in season from July until early October with the peak in August.

**Pink (Humpback), *Oncorhynchus gorbuscha*.** Most of these inexpensive salmon end up in cans, but some show up fresh in ethnic markets where there is a demand for inexpensive fish. In fact, these small salmon (usually between 3 and 5 pounds) are often good bargains. Pink salmon is easy to recognize by the characteristic hump on its back.

The pink salmon is the smallest Pacific salmon and highly important commercially. Males develop a very pronounced hump just behind their head at spawning time; hence the species goes also by the name humpback salmon. Though it ranges from California to Alaska, pink salmon occurs in greater numbers farther south than other species. Pink salmon reach

maturity at 2 years of age, at which time a fish will weigh an average of 3 pounds. Occasionally, these fish can weigh as much as 10 pounds. Pink salmon rarely migrate far inland to spawn. Most of their spawning takes place just above the high-tide level.

**Sockeye (Red or Blueback Salmon), *Oncorhynchus nerka*.** is the most prized of salmon in Japan. In the U.S. it runs a close second to chinook. Sockeye salmon are generally small (6 pounds is typical) but sometimes grow up to 15 pounds. It's hard to tell the species unless you can see the whole fish, but in general sockeye salmon has consistently dark red flesh while other species are often paler. Sockeye salmon has bright silvery skin, sometimes with a bluish cast, and much less spotting than chinook salmon.

Most sockeye salmon are available in the summer, with the peak availability occurring the first two weeks in July. Most sockeye salmon comes from Alaska and Canada. This is the second Pacific salmon most likely to be found canned.

## TYPES OF SALMON

**Most Atlantic Salmon, *Salmo salar*, is farmed.** The best of it has a delicate pink hue and a rich sea-like flavor. Atlantic salmon has a fairly high fat content, which is partially responsible for its melting texture and rich flavor. Many people wrongly assume that redder salmon has a higher fat content than pale salmon, whereas the opposite is sometimes true. Salmon's red color is caused by astaxanthin, a non-fatty compound that accumulates in salmon that eat crustaceans and certain insects. Paler flesh can be the result of salmon eating herring and other fish.

**Pond raised salmon** are fed a mixture containing protein, fat, vitamins and minerals. The source of the protein is usually fish meal and fish oil from anchovies. In times past, the Roche scale was used to allow salmon growers to control the color of the flesh of the fish they raised via the additives they used in the feed. Aquaculture of salmon is illegal in the state of Alaska.

**Pacific Salmon varieties** - All five species of Pacific salmon are members of the genus *Oncorhynchus*, which means "hooked nose". This isn't much help when it comes to distinguishing Pacific salmon from Atlantic since Atlantic salmon, depending on its age and stage of development, often has a hooked nose. Unlike Atlantic salmon, which is available year-round, each species of Pacific salmon is available only at certain times of the year. Farm raising fish may change this eventually.

## HOW TO DISTINGUISH BETWEEN PACIFIC SALMON VARIETIES

**Chinook (King Salmon), *Oncorhynchus tshawytscha*,** is the largest of all salmon and weighs from 15 - 40 pounds. Typically, chinook salmon is the fattiest and has the largest scales of any salmon. The most distinguishing characteristic of chinook salmon is its black gums. Chinook salmon also has black spots on its back above the lateral line. The color of chinook can range from pale, almost white to deep red. Most chinook is available in the summer, though Columbia River chinook is available in the fall. A small amount of farmed chinook is now available in the winter.

**Chum (Dog or Keta Salmon) *Oncorhynchus keta*,** is one of the least expensive salmon and is often frozen to be sold in supermarkets. Chum salmon usually weigh from 8 - 10 pounds and have distinctive V-shaped tails. Chum's flavor and texture deteriorate as the salmon approaches spawning, so when buying from a whole fish, choose one with bright silvery skin and avoid dark salmon or salmon with mottled and blotchy skin.

Because **Coho (Silver or Jack Salmon), *Oncorhynchus kisutch*,** contain less fat than Atlantic, chinook, and sockeye salmon, they tend to be less flavorful and flakier when cooked.

**CATCHING AND TRANSPORTATION** Salmon for canning are typically caught using large fishing boats equipped with a purse seine net and are transported to the cannery in refrigerated fresh water. Usually seawater is used during transportation, but this is avoided in the case of our no-salt-added product. Salmon are removed from the hold of the boat with a vacuum pump, which discharges fish onto elevator, conveyor, and sorting belts. Fish are well iced prior to processing and are inspected both internally and externally by a quality control technician. Next the salmon have their head, tails and fins removed mechanically, then are gutted and the belly cavity is washed. The cleaned salmon are cut into cross sections and placed in empty cans. Nothing is added to the salmon. The liquid in the can is the natural liquid that cooks out of the fish.

After the cans are filled, they are inspected for correct weight and defects in appearance. The lids are applied and double seals are formed in the vacuum-seaming machine. The seamed cans are checked for leakage and then retorted in steam pressure vessels. Following heat processing, the cans are spray cooled to approximately 140° F, then allowed to cool. The cooled cans are then palletized and sent to the packer's warehouse for labeling. By law, all Canadian canned salmon must be held at the packer's warehouse for ten days prior to shipment. Crown Prince works with a packer who is in compliance with accepted Good Manufacturing Practice standards and who has an approved Quality Management Program that fully complies with HACCP principles.

**SALMON SUPPLY** Unlike their southern cousins in the Pacific Northwest, most Alaskan salmon populations are thriving. A variety of circumstances, including favorable ocean conditions, healthy river habitats, and improved management have contributed to robust populations.

**HOW LARGE DO SALMON GET?** The largest Pacific salmon caught in Alaskan waters, a chinook (king), weighed in at 126 pounds. In some European countries, weights of 100 pounds and slightly over have been reported for wild Atlantic salmon.

**HOW INCREDIBLE ARE SALMON?** Most spawning salmon return to the precise stream of their birth, sometimes overcoming great distances and harsh river conditions to reach their homes. The young salmon spend a variable amount of time in freshwater and in the estuary before migrating to ocean habitats. As salmon mature, they migrate back to freshwater to spawn and die. All five species of Pacific salmon die after spawning.

## HOW OLD DO SALMON GET?

*Chinook (king)* - 7 years  
*Chum* - 6 years  
*Coho* - 7 years  
*Pink* - 2 years  
*Sockeye* - 7 years  
*Atlantic Salmon* - 8 years

## HOW BIG IS THE CANNED SALMON INDUSTRY?

In 2008, supermarket sales of canned salmon totaled 44.7 million pounds with dollar sales totaling \$143 million.

**CALCIUM IN SALMON** Crown Prince Pink Salmon provides 20% (100mg) of the USRDA of calcium in each half cup serving.



Crown Prince, Inc. 18581 Railroad Street City of Industry, California 91748  
 1-800-255-5063 www.crownprince.com