



Government  
of Canada

Gouvernement  
du Canada

Canada

**FOOD QUALITY SPECIFICATIONS -  
FOOD PURCHASED BY FEDERAL GOVERNMENT  
DEPARTMENTS  
Fish and Seafood**

**April 1, 2018**

The following specifications are used by federal government departments purchasing the items listed below for their departmental food requirements

## FQS-09 – Fish and Seafood

Any items listed in all Food Quality Specification that are **bolded and in brown** are part of the current National Standard Cycle Menu (NSCM) Standing Offer. Other items that are not on the NSCM but are on the Standing Offer may not be listed in **bolded and in brown**.

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**[FQS-09-42 - Salmon \(General\)](#)**

[FQS-09-43 - Atlantic Farmed Salmon \(Salmo salar\)](#)

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[FQS-09-45 - Pacific Farmed Coho salmon \(Oncorhynchus kisutch\)](#)

[FQS-09-46 - Atlantic Wild Salmon - \(Salmo salar\)](#)

[FQS-09-47 - Chinook or King Wild Salmon \(Oncorhynchus tshawytscha\)](#)

[FQS-09-48 - Sockeye or Red Wild Salmon \(Oncorhynchus nerka\)](#)

[FQS-09-49 - Coho Wild Salmon \(Oncorhynchus kisutch\)](#)

[FQS-09-50 - Pink Wild Salmon \(Oncorhynchus keta\)](#)

[FQS-09-51 - Chum Wild Salmon \(Oncorhynchus keta\)](#)

### [Applicable Regulations and Resources for Fish and Seafood](#)

#### Description

1. This specification covers fresh, chilled or frozen fish and fish products. The term “fish” means any marine animal, including fish, shellfish, crustaceans, mollusks and also other marine animals and any parts, products or by products.
2. Fish and Seafood supplied:
  - a. must be in full compliance with the requirements of the [Food and Drugs Act \(R.S.C., 1985, c. F-27\)](#), the [Food and Drug Regulations \(C.R.C., c. 870\)](#) and the [Canadian Food Inspection Agency \(CFIA\)](#);
  - b. must be in full compliance with the [Fish Inspection Act \(R.S.C., 1985, c. F-12\)](#) and [Fish Inspection Regulations \(C.R.C., c. 802\)](#);
  - c. must be in full compliance with the standards as outlined in the [Canadian Food Inspection Agency \(CFIA\) - Fish and Seafood](#);
  - d. must be in full compliance with the requirements of the [Codex Alimentarius – List of Standards Page \[Fish and Seafood Products\]](#);

- e. must come from a facility that meets HACCP criteria as outlined in the Annex to [Codex Alimentarius - General Principles of Food Hygiene](#);
- f. must be refrigerated or properly iced;
- g. must be delivered in good condition and show no evidence of damage or deterioration at the time of delivery;
- h. must be of the size and variety specified;
- i. must be sound, wholesome, clean and free from foreign matter and from substances toxic or aesthetically offensive to man;
- j. must have a flavour that ranges from characteristic to neutral;
- k. must smell fresh and mild (not fishy, sour, or ammonia-like). Fish should smell subtly of the water from which it came (if it has a strong fishy smell, it is not fresh);
- l. must be blemish-free with the outside skin being neither slick nor soggy;
- m. must be firm and the flesh should spring back when touched;
- n. must display no darkening or drying around the edges;
- o. must have no green or yellowish discolouration, and should not appear dry or mushy in any areas; and
- p. comply with food packaging and labelling requirements listed under the [Consumer Packaging and Labelling Act \(R.S.C., 1985, c. C-38\)](#) and [Consumer Packaging and Labelling Regulations \(C.R.C., c. 417\)](#).

3. Fresh fish shall be thoroughly chilled as soon as possible after catching or removing from the water and shall have received no preserving treatment other than chilling to a temperature between -1°C and +4°C. The chilling shall be accomplished by packing the fish in well dispersed, finely crushed ice from potable water or other suitable method of chilling. Dressed or filleted fish shall be re-chilled immediately after processing. Fresh fish shall be maintained at a temperature between -1°C and +4° C until it reaches the Food Services operation.

4. Whole fish:

- a. will have head on, dressed, individually quick frozen, glazed, entrails removed;
- b. will have body cavity washed and cleaned;
- c. will be sound, wholesome, clean and free from toxic substances;
- d. will have an odour and flavour that is characteristic (fresh seaweed) to the fish;
- e. will have clear glossy eyes, and bulge a little (except for a few naturally cloudy-eyed fish types, such as walleye pike);
- f. will have firm, shiny flesh;
- g. have shiny red gills free from slime;
- h. have a firm body;
- i. have flesh that springs back when pressed, and is free from abnormal conditions such as excessive jelly, milky, dry or granular appearance, and bruises (diffuse blood in the tissue);
- j. have skin that is free of any dark blemishes, or discernible damage to the skin;
- k. have no sign of parasites or discolouration; and
- l. have a tail that is not dried out, brittle or curled.

**5. Fish Steaks:**

- a. will be uniform units cut from dressed fish with normally associated skin and bone without scales;
- b. will have two parallel surfaces and is derived from sawing or cutting perpendicularly to the axial length of the backbone of a whole fish;
- c. will be uniform thickness (minimum 17 mm to maximum 22 mm thickness);
- d. will be from fish that is sound, wholesome, clean and free from toxic substances;
- e. will have an odour and flavour that is characteristic (fresh seaweed) to the fish;
- f. will have flesh that is firm and resilient and free from abnormal conditions such as excessive jelly, milky, chalky (halibut only), dry or granular appearance, and bruises (diffused blood in the tissue);
- g. will be free of parasites or discolouration's;
- h. will have no readily discernible damage to the skin; and
- i. will have a skin colour characteristic of the colour of the species.

**6. Fish Fillets:**

- a. will be from the carcass of a fish in which all internal organs, head, fins and discoloured flesh has been removed;
- b. will be slices of fish irregular in size and shape removed from the carcass of a fish by cuts made parallel to the backbone;
- c. will be boned (v-cut) and free from foreign matter and scales and shall be reasonably free from ragged edges, tears, flaps, fins, blood clots, bruises, black membranes (belly wall);
- d. will be free of parasites or discolouration;
- e. will be from fish that is sound, wholesome, clean and free from toxic substances;
- f. will have an odour and flavour that is characteristic (fresh seaweed) to the fish; and
- g. will have flesh that is firm and resilient and free from abnormal conditions such as excessive jelly, milky (sole only), dry or granular appearance.

**7. Fish Loins:**

- a. will be from the carcass of a fish in which all internal organs, head, fins and discolored flesh has been removed;
- b. will be from the middle portion of the fish fillet, removed from the carcass of a fish by cuts made parallel to the backbone;
- c. will be uniform in thickness and size;
- d. will be boned (v-cut) and free from foreign matter and scales and shall be reasonably free from ragged edges, tears, flaps, fins, blood clots, bruises, black membranes (belly wall);
- e. will be free of parasites or discolouration;
- f. will be from fish that is sound, wholesome, clean and free from toxic substances;
- g. will have an odour and flavour that is characteristic (fresh seaweed) to the fish; and
- h. will have flesh that is firm and resilient and free from abnormal conditions such as excessive jelly, milky (sole only), dry or granular appearance.

**8. Frozen Fish:**

- a. will not show any symptoms of freezer burn such as brown or dry edges;
  - b. will not have packaging that is open, torn or crushed on the edges; and
  - c. will be stored at a temperature of -26°C or cooler and shall not exceed -18°C during transport.
9. Fresh whole shellfish will be:
- a. Live:
    - (1) Lobsters and crabs are to be moving and not sagging at the joints and tails. Live crabs and lobsters should show some leg movement. They spoil rapidly after death, so only live crabs and lobsters should be selected and prepared;
    - (2) Clams, oysters and mussels should have shells that close tight or shut with a little hand pressure.
  - b. Intact. Discard Cracked/Broken Ones: Throw away clams, oysters, and mussels if their shells are cracked or broken.
10. Unacceptable fish have dull flesh which could mean the fish is old. (Fish fillets that have been previously frozen may have lost some of their shine, but they are fine to eat).
11. Fish and Seafood purchased outside of Canada:
- a. must not be adulterated<sup>1</sup>;
  - b. must not be contaminated<sup>2</sup>;
  - c. must be edible;
  - d. must be in full compliance with the requirements of the [Food and Drugs Act \(R.S.C., 1985, c. F-27\)](#), [Food and Drug Regulations \(C.R.C., c. 870\)](#), and the [Canadian Food Inspection Agency \(CFIA\)](#);
  - e. must be in full compliance with the [Fish Inspection Act \(R.S.C., 1985, c. F-12\)](#) and [Fish Inspection Regulations \(C.R.C., c. 802\)](#) or equivalent in the country of origin;
  - f. must be in full compliance with the standards as outlined in the [Canadian Food Inspection Agency \(CFIA\) - Fish and Seafood](#); and/or
  - g. meet all the requirements of applicable local food legislation whenever those requirements are stricter. All fish and seafood shall be obtained by sources approved by the applicable local and international laws, regulations, procedures and requirements;
  - h. must be in full compliance with the requirements of the [Codex Alimentarius – List of Standards Page \[Fish and Seafood Products\]](#);
  - i. must come from a facility that meets HACCP criteria as outlined in the Annex to [Codex Alimentarius - General Principles of Food Hygiene](#) and/or
  - j. must have originated in a country that has a system substantially equivalent to those prescribed by the [Food and Drugs Act \(R.S.C., 1985, c. F-27\)](#), the [Food and Drug Regulations \(C.R.C., c. 870\)](#) and the [Canadian Food Inspection Agency \(CFIA\)](#) and meets their requirements; and/or
  - k. must meet all the requirements as outlined in the [Center for Food Safety And Applied Nutrition \(CFSAN\)](#); and/or

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<sup>1</sup> Within the meaning of sections B.01.046 and B.01.047 and Division 15 of Part B of the *Food and Drug Regulations*.

<sup>2</sup> means containing a chemical, drug, food additive, heavy metal, industrial pollutant, ingredient, medication, microbe, pesticide, poison, toxin, or any other substance not permitted by, or in an amount in excess of limits prescribed under the *Canadian Environment Protection Act*, the *Food and Drugs Act* or the *Pest Control Products Act*, or any substance that renders the processed egg inedible.

- l. must meet all the requirements as outlined in [Codex Alimentarius - General Principles of Food Hygiene](#); and/or
- m. must come from a facility that meets HACCP criteria as outlined in the Annex to [Codex Alimentarius - General Principles of Food Hygiene](#);
- n. must have been prepared under conditions substantially equivalent to those prescribed by the [Food and Drugs Act \(R.S.C., 1985, c. F-27\)](#), the [Food and Drug Regulations \(C.R.C., c. 870\)](#) and the [Canadian Food Inspection Agency \(CFIA\)](#);
- o. must be in a container marked with the size designation as set out above;
- p. must be in a container that bears a label marked with the words “Product of”, followed by the name of the country of origin;
- q. must be packed and marked in accordance with the [Food and Drug Regulations \(C.R.C., c. 870\)](#) and the [Canadian Food Inspection Agency \(CFIA\)](#); and
- r. must be accompanied by inspection documentation, for presentation to an inspector at the point of inspection that verifies that the requirements set out above have been met.

## **Types of Fish and Seafood**

### **FQS-09-01 – Arctic Char**

12. Arctic Char is both a freshwater and saltwater fish native to Arctic, sub-Arctic and alpine lakes and coastal waters. The Arctic char is closely related to both salmon and trout and has many characteristics of both. Individual char fish can weigh 20 lb (9 kilograms) generally, whole market sized fish are between 2 and 5 lb in weight (900 g and 2.3 kilograms). The flesh colour of char varies; it can range from a bright red to a pale pink.

### **FQS-09-02 – Basa**

13. Basa is a type of catfish. The body of a basa fish is stout and heavy. The rounded head is broader than it is long. The blunt snout has a white band on its muzzle. It's a white fish. Basa is a tasty fish with a delicate texture and white flesh. Also known as White roughy, Royal basa, Mekong catfish, Pangas catfish, Basa catfish, China sole, and Pacific dory.

### **FQS-09-03 – Cape Capensis**

14. Cape Capensis are a premium species white-fleshed fish, with a mild, delicate sweet flavour with a firm texture. It lends itself to any recipe that requires white fish. In South Africa it is called “Hake”; in Spain it is known as “Merluza” and in the U.S. it is known as “Cape Capensis”.

### **FQS-09-04 – Catfish**

15. Catfish are a very diverse group of bony fish. Named for their prominent barbels, which resemble a cat's whiskers, catfish range in size from the heaviest, the Mekong giant catfish from Southeast Asia and the longest, the wels catfish of Eurasia, and even to a tiny parasitic species commonly called the candiru. The most commonly eaten species in the United States are the channel catfish and blue catfish, both of which are common in the wild and increasingly widely farmed.

### **FQS-09-05 – Caviar**

16. Caviar is the processed, salted roe of certain species of fish, most notably the sturgeon (black caviar) and the salmon (red caviar). It is commercially marketed worldwide as a delicacy.

### **FQS-09-06 – Chicken Haddie**

17. Chicken Haddie is a tasty white fish product used as a substitute in traditional recipes calling for boneless salted fish. Chicken Haddie means canned haddock, cod, cusk or hake, or any combination thereof, that has not

been ground, but does not include dark or sow hake. Chicken Haddie is excellent for making fish cakes, fish paddies, hash and chowder.

#### **FQS-09-07 – Clams**

18. A clam is a mollusk. There are two divisions for clams: hard shell clams and soft shell clams. The shells of soft shell clams are brittle and thin, rather than soft. Examples of soft shell clams include Geoducks, Razors, and Steamers. Hard shell clams have a solid shell. Hard shell clams include clams such as Chowders, Littlenecks and Butters. The smaller the diameter of the clam, the younger, more tender and sweeter-tasting it will be. All fresh clams in the shell are to be supplied alive and are to be cooked when they are alive. Hard shelled clams will be tightly closed if they are alive. A clam that is alive will snap shut if gently tapped on when it is open. A soft necked clam will retract their neck when touched if it is alive. Dead clams are not acceptable and are to be discarded. Because shellfish such as clams can accumulate bio toxins like those contained in a red tide, clams should only be collected when the water is safe.

#### **FQS-09-08 – Cod**

19. Cod is a popular fish with a mild flavour, low fat content and a dense white flesh. Cod is moist and flaky when cooked and is white in colour. The elongated body has colour varying from grey to green to brown to red, pale lateral line, and familiar barbel on the chin. The Atlantic cod, which can change colour at certain water depths, has two distinct colour phases: gray-green and reddish brown. Its average weight is 5 kg to 12 kg (10 lb to 25 lb).

#### **FQS-09-09 – Crab**

20. Crab is a crustacean, whose body is almost perfectly circular, has five pair of long, flattened legs. The first pairs of claws are strong claws. The shell is light brown on the back and creamy white on the belly. When cooked, the shell of the crab turns bright orange. The meat has a rich, sweet flavour and firm texture. Orangey-pink on the surface and white inside, crabmeat is composed of fine, tender filaments that are exquisitely mild and tasty.

#### **FQS-09-10 – Flounder**

21. Winter flounder is sometimes called blackback, lemon sole and George's bank flounder and is sometimes spotted or mottled on its eyed side. Its underside is often tinged with yellow. Winter flounder has a distinctive flat body, with both eyes on the upper (right) side. The blind underside is white, while the upper side is pigmented to match the bottom along which they feed. Once cooked, the meat is pure white, lean, boneless and flaky with a mild flavour. Winter flounder is sold fresh and frozen as whole fish, fillets and blocks as well as fully prepared in various value-added presentations.

22. Summer flounder, often called fluke, is the largest of the flounders. It has a compressed, oblong body, commonly brown or gray with a white underbelly. Fluke has a distinctive flat body, with both eyes on the left side. The blind underside is white, while the upper side is pigmented to match the bottom along which they feed. Once cooked, the meat is pure white, lean, boneless and flaky with a mild flavour. Summer flounder is sold fresh and frozen as whole fish, fillets and blocks as well as fully prepared in various value-added presentations.

#### **FQS-09-11 – Halibut**

23. Halibut is a mild, sweet-tasting, lean fish with fine-grained, dense meat. Cooked, the fish is flaky and tender though still firm. Halibut have a large mouth and forked tail, with an elongated flat body greenish-brown to dark brown on its upper-eyed side, with the blind side ranging from white to gray or mottled gray-white. Atlantic halibut is available fresh and frozen, as whole fish, steaks and fillets.

#### **FQS-09-12 – Haddock**

24. Haddock generally resemble cod, although smaller on average, being from 38 to 63 centimeters in length, with an average weight of .9 to 1.8 kilograms. The head and back are a dark purple-grey with a black lateral

line, and the underside is silver-grey with a slight pink cast. The raw meat is white and cooks up even whiter. Flesh is firm and resilient. Haddock is often sold skin-on so buyers can use the distinguishing black mark (the “devil's thumbprint” or “St. Peter's mark”) to differentiate it from cod. Haddock has a delicate flake, finer than cod, and a slightly sweet taste.

#### **FQS-09-13 – Hake**

25. Hake is a lean fish whose white flesh is described as somewhat coarser than that of cod and less bland in taste. This fish needs immediate chilling when caught or its firm flesh becomes soft in a very short time. The hake's body is elongated compared to other cods, with a projecting lower jaw on the elongated, somewhat slender head. Adult fish in the catch range from 24 to 35 centimeters, weighing on average 0.7 kilograms. It is available frozen (whole, fillets, blocks) and is also utilized in sticks and portions.

#### **FQS-09-14 – Kippers**

26. Kippers are a whole herring that has been split from tail to head, gutted, salted, and cold smoked.

#### **FQS-09-15 – Lobster**

27. Lobster is a crustacean with a long body and five sets of legs, including two large front claws, one of which is large, flat and heavy while the other is smaller and thinner. The body and tail and claws are hard-shelled. Live lobsters range in colour from brownish-rust to greenish-brown. All lobster shells turn bright orange-red when cooked. The white flesh is pleasantly firm and dense with a rich, savory flavour. Live lobsters should be active and their tails should curl, not dangle, beneath them. Lobsters grow by molting, or shedding their shell. After a molt (typically in summer), the lobster is soft-shelled and filled with the sea water it has absorbed in the process. Up to two months pass before the absorbed sea water is replaced by new lobster meat. As the shell hardens in the cold waters of the North Atlantic, the meat's texture and taste improve and the lobster acquires a denser, fuller body.

#### **FQS-09-16 – Mahi-Mahi**

28. Mahi-Mahi is a fish with a firm, flavourful flesh, varies in colour from white to pink, and can be prepared in many ways but is best served with a sauce as it has a tendency to be dry. Found mainly in tropical waters. Sold as steaks, fillets or sometimes whole.

#### **FQS-09-17 – Octopus**

29. Octopus is a mollusk. It belongs to the same group as chitons, abalone, snails, limpets, scallops, oysters, clams and mussels. Octopus is sold already cleaned. Smoked and canned baby octopus is also available. All parts of the baby Octopus can be eaten except for the eyes, mouth area and the viscera. Care must be taken to boil the octopus properly, to rid it of slime and the smell, as well as any residual ink.

#### **FQS-09-18 – Orange Roughy**

30. Orange Roughy is a medium sized fish with a firm, tasty pure white flesh delicate flavour. Orange Roughy gets its colour from its bright orange colouration and rough scales. The inside of the mouth and gill chambers are black Orange Roughy live in the Atlantic and Indo-Pacific Oceans. Orange Roughy is always deep skinned to remove a layer of fat. Consumption of this fat and the skin may cause violent diarrhea. It is also called the Slimehead, Deep Sea Perch or Red Roughy.

#### **FQS-09-19 – Oysters**

31. Oysters are a type of mollusk. The texture of Oysters is soft and fleshy. Raw oysters have complex flavours that vary depending on the variety and the region they are from. The size of the Oyster does not affect the quality. Oysters must be eaten alive or cooked alive. Oysters that are open, and that do not close when lightly tapped, are unsafe. The shells of live Oysters are normally tightly closed or snap shut when tapped slightly. Cooking Oysters in the shell kills the Oyster and caused them to open. Oysters that do not open when



cooked are unsafe to eat and must be discarded. Oysters are filter feeders and will concentrate anything contained in the surrounding water therefore it is important that Oysters are only obtained from safe waters.

#### **FQS-09-20 – Perch**

32. Perch is a fresh water fish. Perch is the common name for several distantly related species of fish. True perch in North America include the Yellow Perch, the Sauger, and the Walleye. The Yellow Perch is one of the best-known food fish in the United States and Canada. The oval shaped Yellow Perch is generally 4-10 inches long. The colouring varies with size and habitat but usually the back and head are a bright green to olive or golden brown; the sides are a yellow-green to yellow with the colour of the back extending down in about seven tapering bars. Perch have rough scales. The flesh is white, flaky making Perch a popular panfish that are considered very good eating.

#### **FQS-09-21 – Pickerel**

33. Pickerel is a lean fish with firm, white flesh and a nice flake and a delicate, refined flavour. Also known as Walleye is a freshwater, white fish. The fish is olive green to brown on the back with silvery sides. Its colour varies depending on variety. Part of the Perch family it has two dorsal fins. The yellow and the black Walleye can weigh two to five kilograms. The fish is available fresh or frozen, headed and gutted, fillets (boneless, skin-on/skinless) and blocks (minced or whole fillets).

#### **FQS-09-22 – Pickled Herring**

34. Pickled Herring is a very popular Scandinavian food item. It is a lean, firm flesh fish with yellow overtones. Most cured herring uses a two-step curing process. Initially, herring is cured with salt to extract water. The second stage involves removing the salt and adding flavourings, typically vinegar, salt, sugar solution to which ingredients like peppercorn, bay leaves and raw onions are added. Herrings are small oily fish found in the temperate, shallow waters of the North Atlantic and the Baltic Sea.

#### **FQS-09-23 – Pollock (Boston Blue Fish)**

35. Pollock is related to the cod and haddock. It is often known commercially as Boston bluefish. It differs in appearance from others in the cod family by having a pointed snout and a projecting lower jaw, a more rounded body, and a forked rather than a square tail. Fish range from 50 to 90 centimeters long and weigh from 1 to 7 kilograms. Atlantic Pollock is a lean fish with somewhat darker flesh than cod. It is sold fresh (whole, steaks, fillets); and frozen (whole, steaks, fillets, IQF and blocks). Pollock is frequently salted and cured for export.

#### **FQS-09-24 – Rainbow Farmed Trout**

36. Rainbow trout is the most common fresh water fish farmed whether harvested or cultured in Canada. Rainbow trout refers to the fish when it is harvested or cultured in fresh water. Steelhead salmon is fish harvested or cultured in salt water. Rainbow Trout have a pink streak that runs from the gill cover to the caudal fin. Rainbow trout has a mild, nut-like flavour; the flesh is pink or orange. The skin of the rainbow trout should be dark, shiny and have a slippery feel. The colour of a rainbow's back varies from blue or green to a yellow-green or brown. Both types of fish have small black spots along their back, dorsal and caudal fins. Rainbow trout are available in a variety of product forms. Whole or dressed fish, fresh or frozen, fillets (frequently boneless with pinbones removed) and portions.

#### **FQS-09-25 – Red Fish (Ocean Perch)**

37. Ocean perch is a small fish yielding small fillets. With the skin on, redfish fillets have a firm flake, white flesh and a taste just slightly stronger than cod. The majority of the Canadian catch is processed into frozen, skin-on fillets for retail markets.

#### **FQS-09-26 – Red Snapper**

38. Red Snapper is the largest of the scorpion fishes of Canada's west coast sometimes attaining a length of 1 meter and a weight of 23 kilograms. "Pacific Red Snapper" is a market name confined to the West Coast with orange-yellow colouring washed with pink on the back and sides with paler undersides.

**FQS-09-27 – Rosefish**

39. Rosefish is perch like in its general appearance, moderately flattened sidewise, about one-third as deep as it is long (to base of tail fin). Orange to flame red, occasionally grayish red or brownish red, with a belly of paler red that fades to white after death. The rose fish is also known as the Ocean Perch, Norway Haddock, Red Perch, Redfish, or Hemdurgan. It is sometimes mistakenly called Bergylt, Bream, or Snapper. When full grown it is usually bright rose-red or orange-red.

**FQS-09-28 – Sardines**

40. Sardines are a group of several types of small, oily fish related to herrings. It is a small fish with an iridescent, silvery body and a single dorsal fin located over the middle of the body. The linear bony ridges on its gill cover distinguish this species from other members of the herring family. The flesh of the sardine is pink in colour and has a fine, soft texture. With a high fat content, it has a stronger and heavier flavour than whitefish species.

41. The actual sizes of the fish can vary by species. Good quality sardines should have the head and gills removed before packing. They may also be eviscerated before packing (typically the larger varieties), or not; if not eviscerated they should be free of undigested or partially digested food or feces (accomplished by holding the live fish in a tank for long enough that their digestive systems empty themselves). They may be packed in oil or some sort of sauce.

**FQS-09-29 – Seabass**

42. Seabass are found in the North Atlantic and the Mediterranean as well as in rivers. Its flesh is white and delicate and tastes a lot like lobster or shrimp. The Sea Bass has no bones and holds together well when cooking.

**FQS-09-30 – Scallops**

43. Scallops have two valves or shells. Both are round, almost equal in diameter, and held together by a small, straight hinge and the adductor muscle. The lower valve is white or cream in colour and the upper is usually reddish. Inside these shells is the "meat" (the ivory white puck-shaped abductor muscle), which is the part of the scallop commonly eaten in North America, and the brown-orange crescent shaped roe - commonly discarded in North America but greatly appreciated in Europe and Japan. The raw meats are creamy white in colour and sometimes slightly orange due to the food (algae) they consume. Scallops have a distinct, sweet odour when they are fresh. "Dry" scallop - meaning you get the shucked meat "as is" with no additives. This is pricey but vastly different from "wet" scallops. "Wet" scallops refer to a treatment process where the dry scallop is soaked in tripolyphosphate. This brightens the colour, extend the shelf life, and "pump" up the size of the scallop. This is accepted practice and very common and most scallops sold that do not specify "dry" packed are treated this way.

**FQS-09-31 – Scampi**

44. Scampi is a species of lobster. It is somewhere between a shrimp and a lobster. Scampi can measure from 8 and 25 centimeters and are found mainly in the coastal waters of the Atlantic, in Scandinavia and North Africa. There are also some species in the Adriatic Sea. The shell is pinkish-white, salmon red, brick red or greyish pink depending on species. Scampi is often the menu name for shrimp in Italian-American cuisine. The term "Scampi", by itself, is also the name of a dish of shrimp served in garlic butter and dry white wine. The highly-prized flesh of scampi is very similar to lobster but much more delicate.

**FQS-09-32 – Shrimp**

45. Shrimp are crustaceans. They possess a hard outer shell and must shed this shell in order to grow. Coldwater shrimp are much smaller than their tropical cousins, averaging 5-10 cm in length. A lot of flavour is packed into a small package, however. Coldwater shrimp have a sweet, delicate taste and are generally considered more flavourful than warm water varieties. Live, the tail of the northern shrimp is more red than pink. Cooked, the shell is pink and the meat is an opaque white tinged with pink. The meat is firm and crisp in texture.

46. Shrimps are available fresh or frozen with the shell on or removed; tail on or off; intact or deveined. Shrimps are sold based on the count or number of shrimps per pound. U-10 count shrimps are shrimp that are 10 or less to the pound and are the largest. 51-60 count shrimp are quite small. Words like small, medium, and large can vary by processor when describing the size of shrimps, so it is best to buy by count.

**FQS-09-32-01 – Table 1: Shrimp Sizes (by Name)**

Shrimp Size (by Name)	Count (per pound)	Average Shrimp (per pound)
Extra Colossal	U10	5
Super Colossal	U12	9
Colossal	U15	14
Extra Jumbo	16-20	18
Jumbo	21-25	23
Extra Large	26-30	28
Large	31-35	33
Medium Large	36-40	38
<b>Medium</b>	<b>41-50</b>	<b>45</b>
<b>Small</b>	<b>51-60</b>	<b>55</b>

**FQS-09-33 – Smelts**

47. Smelts are a family of small fish found in the Atlantic and Pacific Oceans. Smelts resemble salmon in appearance, but are smaller, usually reaching only around 20 centimeters (7.9 in), although some species can reach as much as 70 centimeters (28 in). Smelts have a characteristic odour, similar to the smell of cucumbers.

**FQS-09-34 – Sole**

48. Sole is a lean fish with a finely-grained delicate white flesh. The colour can be variable, mostly browns and greys. Rock sole is available fresh and frozen, whole or filleted.

**FQS-09-35 – Squid**

49. squid has an elongated body, marked at one end with two fins used to stabilize it while it swims. It has 10 arms, including two longer tentacles. The body of a squid is covered with a flexible layer of tissue which protects the delicate inner organs. Squid flesh is slightly chewy and sweet. Squid is a common ingredient in an assortment of dishes, such as calamari. Calamari is a culinary treat made of squid that is native to Spanish, Italian, and Greek cuisines. The most popular calamari dish in North America is fried calamari.

**FQS-09-36 – Sturgeon**

50. A sturgeon is a fish, which contains over 20 known species. Its eyes are small, and the snout of an adult is short and depressed with a wide toothless mouth. Instead of scales the White Sturgeon is covered with patches of miniscule dermal denticles and isolated rows of large bony plates. The colour is a lighter grey, pale olive or grey-brown often speckled with white moving to grey or white on the belly. The flesh of the White Sturgeon is highly acceptable as food and often the eggs (as much as 200 lbs per female) are marketed as caviar. Sturgeon meat is rich, high in fat, and very dense with a mild flavour.

51. Since 1998, many species of sturgeon have been regulated by the Convention on International Trade in [Endangered Species](#) (CITES), because of concerns about overfishing. Legally traded sturgeon products are

accompanied with a CITES certificate verifying that they have been inspected and the fishery has been approved.

#### **FQS-09-37 – Swordfish**

52. Swordfish are large, highly migratory, predatory fish characterized by a long, flat bill. Meat is usually sold as steaks, which are often grilled. The colour of the flesh varies by diet, with fish caught on the east coast of North America often being rosier. Many sources including the United States Food and Drug Administration warn about potential toxicity from high levels of methyl mercury in swordfish.

#### **FQS-09-38 – Tilapia**

53. Tilapia is a fresh water fish native to Africa and is farmed in South America. Tilapia has a firm, sweet, delicate, white flesh that keeps its shape during cooking. Cooked meat is opaque although the meat is typically white, the red skinned tilapia may have a reddish tint to the meat if the tilapia is not skinned deeply enough. Sold whole and in fillets, which are de-boned. Tilapia is sometimes called Sunshine Snapper, Cherry Snapper, Nile Perch, Mouthbreeders and St. Peter's fish.

54. Tilapia meat should be moist and resilient. It should not have a musky odour. Tilapia absorbs flavour from the water it is raised in, so check the source and harvest methods.

55. The best quality frozen product is Individually Quick Frozen (IQF), where the fillets are not frozen together and have an ice water glaze. Shelf-life for frozen product is 6 months. Block frozen product is a sign of a poor quality. Frozen tilapia that has freezer burn or that is mushy when thawed, is unacceptable.

#### **FQS-09-39 – Tuna**

56. Tuna is a big, hardy fish that grows up to 2-3 meters long. Because of its firmness and flavour, fresh tuna is sometimes called “sea steak”. There are various types of tuna;

- a. Red tuna - has red strongly flavoured flesh that is excellent for sushi;
- b. Albacore - also called white tuna- has a delicate whitish flesh that is prized for its roe;
- c. Bonito - a striped tuna. Dried and flaked, its dark red flesh figures prominently in the Japanese diet;
- d. Yellow fin tuna - albacore with pale, succulent flesh; and
- e. Fresh tuna is sold in steaks, fillets and pieces and can be cooked in various ways.

#### **FQS-09-40 – Turbot**

57. Turbot has a bright white firm, meaty flesh that retains its appearance when cooked and its flavour and texture is similar to Pacific halibut. It is in the same flatfish family as halibut and often mistaken for it however, the Atlantic turbot is a much smaller flat fish. The turbot measures an average of 40 to 50 cm and weighs a maximum of 25 kilograms. The scales on its body look like irregularly-scattered little bones or tubercles and its undersurface is white.

#### **FQS-09-41 – Whitefish**

58. Whitefish are silver-coloured with large scales, fleshy dorsal and adipose fins, no teeth, and a small fleshy appendage at the base of the pelvic fin. The Atlantic whitefish has silvery sides, a silvery-to-white belly, and a dark blue-to-dark green back. The fish has an elongated body and a mouth at the end of its snout rather than under its head. Adult fish range from 18 to 40 cm in length. The Atlantic whitefish's dorsal fin and forked tail fin are dusky in colour; the lower fins are light. The Atlantic whitefish also has a small, fleshy fin between the dorsal and tail fins, which is typical of members of the salmon family.

#### **FQS-09-42 – Salmon (General)**

59. Salmon is part of a family of fish called Salmonidae, which includes trout and char. The fish has soft fin rays, a short dorsal fin, a fatty (adipose) fin, and teeth in its jaws. A young salmon has a splotched colour on its

sides for the first three years of its life. The scales then turn to silver when it leaves for the ocean. The head of a female salmon is streamlined throughout its lifetime. A male develops a hook, called a kype, in its jaw before reproducing. Whole or dressed fish, fresh or frozen, steak, fillets (frequently skin-on or skinless, pinbones in or out), or loin (best piece of meat from the fillet, coming from the back or sides of the salmon, quite near the tail end).

**FQS-09-43 – Atlantic Farmed Salmon (*Salmo salar*)**



60. A silver-skinned fish with distinct black spots over the body and head and above the lateral line. The flesh is bright orange or pinkish-orange in colour. This fish has a mild flavour. The meat is moderately firm and oily with a large moist flake.

**FQS-09-44 – Pacific Farmed Chinook Salmon (*Oncorhynchus Tshawytscha*)**

61. This fish has black gums and small, round spots on the back, dorsal fin and both upper and lower parts of the tail. The flesh is red. It has a rich, buttery taste with a more delicate texture than other species due to the high oil content.

**FQS-09-45 – Pacific Farmed Coho salmon (*Oncorhynchus kisutch*)**

62. This fish is silver with small black spots on the back and on the upper lobe of the tail. The gums are white. Coho flesh is reddish-orange. When cooked, the meat is moderately firm and flakes well. “Pan-sized” coho (fish harvested at two-to-three lbs) have a very delicate flavour.

**FQS-09-46 – Atlantic Wild Salmon (*Salmo salar*)**



63. Atlantic salmon that do not journey to the sea, are known as landlocked salmon or ouananiche. This fish is pink with fragrant flesh that is very different from Pacific salmon species. This fish is sometimes smoked.

**FQS-09-47 – Chinook or King Wild Salmon (*Oncorhynchus tshawytscha*)**



64. The Chinook is light pink to dark orange flesh and usually found fresh or smoked. Distinct characteristics separate a Chinook from the other salmonidae species. The Chinook salmon has black gums; therefore it is also called a blackmouth. Its blue-green back and tail are completely covered with tiny spots. An average size Chinook can grow as long as one metre and be between 10 lbs and 20 lbs. A tyee is over 30 lbs.

**FQS-09-48 – Sockeye or Red Wild Salmon (*Oncorhynchus nerka*)**



65. Also called red salmon or blueback salmon, is an anadromous species of salmon. The red flesh is firm and flavourful and usually found smoked or salted. It is also often canned. It has an elongated, torpedo shaped body, with an adipose fin, and a bluntly pointed snout. The gill rakers located just behind the head are long and



closely spaced. Its colour changes as it migrates from saltwater to freshwater in preparation for spawning. In freshwater, its colour is bright red with a pale green head. Females may have green and yellow marks or stains. Its colour in saltwater is bluish-green on top, silvery on the bottom, with uniform, shiny skin. A Sockeye Salmon can be as long as 33 inches (84 cm) and weigh 6 to 8 lbs (2.5 to 3.5 kilos).

**FQS-09-49 – Coho Wild Salmon (*Oncorhynchus kisutch*)**



66. The Coho has orange-red flesh that breaks easily into large pieces. It's often canned. It can also be found fresh, frozen or smoked. Coho salmon have many distinct features that separate them from other members of the Pacific salmon species. Small rearing juveniles have parr marks that run across their entire body. They have white gums, black tongues and numerous spots along their back. During the ocean phase, their body is silver in colour, with a blue metallic back. Their square tail has a wide base that is scattered with some spots, normally on the upper portion. During spawning, adult male will develop a distinct "hooked nose" and the body colour during spawning is red. Adults on average range between 4lb to 20 lbs. Small premature spawning males between 25 cm and 35 cm in length are known as "jacks".

**FQS-09-50 – Pink Wild Salmon (*Oncorhynchus keta*)**



67. The pink salmon is the smallest member of the five Pacific salmonidae species due to their short life span, usually matures quickly (2 years). The soft, pinkish flesh breaks easily into small pieces. It is generally considered inferior salmon and commonly sold canned. In the juvenile stage, pinks are silver in colour and do not have any marks (spots or parrs). When in the ocean, pink salmon are silver in colour, with a slightly darker back. Large oval spots can be found along its back, as well as the entire tail fin of the fish. These spots are much larger than the spots on a Coho and chinook salmon. During the fall migration a hump back and a slight hooked jaw will develop, while females remain relatively normal in body shape and colour. As they migrate into streams for spawning, their body colour will turn to dark green. The average size of a pink is between 4 to 6 lbs.

**FQS-09-51 – Chum Wild Salmon (*Oncorhynchus keta*)**



68. The Chum is also known as a "dog salmon" due to its canine appearance during the spawning phase. The flesh is slightly pink, spongy and soft and breaks apart. It has the least attractive flesh and is the least flavourful of all salmon. It's best fresh but often sold canned, frozen, dry-salted or smoked. During the ocean phase, chum salmon have a metallic blue colour on their back while the rest of the body remains silver. Chum salmon have fewer but larger gill rakers. Once they enter the rivers, their spawning colours change. Streaks of purple, green, pink bars can be seen on the side of their body. A hook snout and large teeth will develop in males while a lateral black streak can be seen in females. At spawning age, most fish will range between 10 and 20 lbs.

**Packaging**

69. Unacceptable packaging is packaging that has tears, rips or is ragged looking.

**Storage and Distribution**

**70.** Fish shall be transported, stored and processed in vessels and establishments that meet the requirements set out by the Food Safety Code of Practice for Canada's Foodservice Industry. Fish and Seafood shall be delivered in good condition.

**Applicable Regulations and Resources for Fish and Seafood**

[Fish Inspection Act \(R.S.C., 1985, c. F-12\)](#)

[Fish Inspection Regulations \(C.R.C., c. 802\)](#)

[Canadian Food Inspection Agency \(CFIA\) - Fish and Seafood](#)

[Food and Drugs Act \(R.S.C., 1985, c. F-27\)](#)

[Food and Drug Regulations \(C.R.C., c. 870\)](#)

[CFIA - Canadian Shellfish Sanitation Program \(CSSP\)](#)

[CFIA - Specific Products and Risks](#)

[CFIA Fish List](#)

[Industry Labelling Tool \(replaces the Guide to Food Labelling and Advertising\)](#)

[CFIA - Regulation of Imported Fish and Seafood Products in Canada](#)

[Fresh and Frozen Seafood: Selecting and Serving it Safely](#)

[Agriculture and Agri-Food Canada, Canadian Fish and Seafood - Supplying Value and Variety](#)

[Codex Alimentarius - General Principles of Food Hygiene](#)

[Center for Food Safety and Applied Nutrition \(CFSAN\)](#)

[Codex Alimentarius – List of Standards Page \[Fish and Seafood Products\]](#)

[Fisheries and Oceans Canada - Species Farmed in Canada](#)

[Fisheries Council of Canada \(FCC\)](#)

[Agriculture and Agri-Food Canada – Fish and Seafood Products Fact Sheets](#)

[Quick Guide to Canadian Farmed Salmon](#)

[Canadian Aquaculture Industry Alliance \(CAIA\) - Aquaculture in Canada](#)

[Pacific Angler Identification Chart](#)

[Canadian Food Inspection Agency \(CFIA\)](#)

[Cosumer Packaging and Labelling Act \(R.S.C., 1985, c. C-38\)](#)

[Consumer Packaging and Labelling Regulations \(C.R.C., c. 417\)](#)

[Food Safety Code of Practice for Canada's Foodservice Industry](#)



