

Facts & Figures About Canadian

Aquaculture Industry

In General:

- Aquaculture is the fastest growing food production sector in the world and produces about 50% of the aquatic food production.
- Canada is one of the world's key suppliers of farmed salmon, produced almost entirely in British Columbia and New Brunswick.
- Canada ranks 27th in global aquaculture production and 20th in terms of value of production.
- Rainbow trout are the number one freshwater fin fish farmed in Canada.
- More than 85% of Canada's fish and seafood is exported mainly to the U.S.
- Most of Canada's trout production is in Ontario, 2% of the national production value.
- Canada is an ideal place for aquaculture because of the abundance of fresh and salt water thus, most of our provinces participate in aquaculture.
- Aquaculture in Canada generates about \$1 billion in economic activity, but has 'flat-lined' over the past decade due to regulatory uncertainties.



You were asking about...Aquaculture

Housing: Where do Farmed Fish Live?

Farmed fish can be kept outdoors or indoors and can be farmed in salt water or freshwater. Outdoors, the fish are either contained in large bodies of waters by a series of nets (called net pen aquaculture), or they are kept inland in man-made tanks. Indoors, fish are kept in specialized tanks located in various buildings. Some tanks are custom built, specifically for aquaculture and others are in existing buildings which have been modified, such as old barns.

To protect the fish from predators, farmers use barriers, auditory deterrents, or remove the predators. Barriers used include nets, covers and buildings.

Nutrition: What do Fish Eat?

Different types of feed are given based on the age and kind of fish being fed. Pellet size, fat and protein are all adjusted as fish age. All ingredients in the fish feed are natural, including oilseed meals, grain products, animal proteins, fish and plant oils. Carotenoids are commonly used in fish food as a source of vitamin A and anti-oxidants, and as an immune booster.

Shellfish eat phytoplankton that naturally occurs in the water. They are not fed supplemental foods.

Aquaculture: The Product

Salmon accounts for two thirds of Canada's aquaculture production. Other major species in Canadian aquaculture include mussels, oysters and trout.

Minor species farmed in Canada include manila clams, soft shell clams, Arctic charr, tilapia, Atlantic cod, sablefish, geoducks, Atlantic halibut, quahogs, white sturgeon and scallops.

Emerging aquaculture markets in Canada include spotted wolffish, American eels, abalone, sea cucumbers, sea urchins, cockles and marine plants.

For information on which species are farmed in which provinces or territories, and statistics about the aquaculture industry in Canada, visit www.aquaculture.ca.

The Bay of Fundy in New Brunswick is where the most Atlantic salmon is cultured. On the coastlines of British Columbia, one can find both Pacific and Atlantic salmon being cultured. Most of Canada's trout production is concentrated in Ontario. Prince Edward Island produces the majority of Canadian mussels.



Health Care for Fish

Fish can get sick, the same as everything else. Farmers have protective measures in place to ensure the fish stay healthy. The first consideration is obtaining good quality fish stocks from hatcheries and selecting a site with good growing conditions for the fish. Factors to take into consideration when choosing a fish farming site include water temperature, depth and salinity. Fish farmers have to also provide nutritious food, reduce stress, and hire staff who are well trained in aquaculture practices. Farmers also work closely with professional aquaculture veterinarians to implement preventative health practices.

When selecting parent stock for the next generation, farmers screen potential fish to be sure they are healthy. Eggs are only kept from the healthiest stocks. Eggs are disinfected with an iodine solution, and are hatched and grown in controlled environments which limit exposure to pathogens. Before fish are put into ocean pens, they are often individually injected with a vaccine to boost their immunity against naturally occurring diseases.

Many farmed fish are raised to market without the use of antibiotics. It is possible for fish to become sick, and if this happens, in certain cases veterinarians will prescribe an antibiotic for just the sick fish. The antibiotics are only used for a short period of time, and have cleared the fish's system before the fish are harvested. This is controlled through withdrawal periods on all antibiotics. Antibiotics are not used as growth promoters or without a veterinary prescription, which protects against antibiotic resistance. The Canadian Food Inspection Agency tests farmed fish, like all meats, to ensure standards are being met and no antibiotics are present.

AQUACULTURE TRIVIA

- Aquaculture is the fastest growing food production sector in the world.
- Canada is one of the world's key suppliers of farmed salmon, produced almost entirely in British Columbia and New Brunswick.
- Rainbow trout are the number one trout fish farmed in Canada.
- Shellfish farmers do not feed their stock. Shellfish are filter feeders that consume phytoplankton already in the water column.
- More than 85% of Canada's fish and seafood is exported with the United States is Canada's largest export market.
- Aquaculture farms are set up outdoors or indoors.
- Ontario is Canada's largest trout producer.
- PEI is Canada's largest mussel producer.
- Aquaculture exists in every Canadian province and territory.
- There are a wide variety of species farmed in Canada.
- Salmon accounts for two thirds of Canada's aquaculture production.
- Salmon gets its pink colour from the high levels of carotenoids in its diet.
- Tilapia are a warm water fish, but can and are being farmed in Ontario.



Aquaculture
FACT SHEET

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About Aquaculture: Additional website links

Canadian Aquaculture Industry Alliance
Visit: www.aquaculture.ca/index.php

Aquaculture Association of Canada
Visit: www.aquacultureassociation.ca

Canadian Aquaculture Institute
Visit: www.upei.ca/programsandcourses/canadian-aquaculture-institute

Northern Ontario Aquaculture Association
Visit: www.ontarioaquaculture.com

Aquaculture Centre, University of Guelph
Visit: www.aps.uoguelph.ca/aquacentre

BC Salmon Farmers Association
Visit: www.salmonfarmers.org

BC Shellfish Growers Association
Visit: www.bcsfga.ca

Aquaculture Association of Nova Scotia
Visit: www.aansonline.ca

Atlantic Canada Fish Farmers Association
Visit: www.atlanticfishfarmers.com/index.html

Newfoundland Aquaculture Industry Association
Visit: <http://naia.ca>

PEI Aquaculture Alliance
Visit: www.aquaculturepei.com

For other links, click www.aquacultureassociation.ca

Aquaculture Dictionary

- **Aquaculture:** The farming of aquatic organisms such as fish, crustaceans, mollusks and aquatic plants.
- **Commercial fisheries:** Catching wild fish in the open waters. This is not aquaculture.
- **Mariculture:** Aquaculture practiced in marine environments.
- **Phytoplankton:** Tiny organisms in the water

