Fact Sheet
Farming the Seas – A Timeline

Aquaculture – the farming of fish, shellfish and marine plants in fresh and salt water has been around globally for thousands of years. Its history in Canada is known to date back to the 1800s. Over the last 20 to 30 years, the Canadian aquaculture industry has steadily grown and experienced considerable improvement due to sound science and responsible management. This has led to valuable employment opportunities in the private, public, academic, and non-governmental sectors. Fisheries and Oceans Canada (DFO) continues to work towards environmentally sustainable aquaculture practices which can remain economically competitive in domestic and international markets.

The 1800s

- The first detailed records of planned aquaculture activity in Canada date back to 1857 when the first Superintendent of Fisheries in Lower Canada (present day Quebec) studied the incubation and hatching of Atlantic salmon and brook trout eggs. Shortly thereafter, in 1865, oyster production began in Prince Edward Island.

- In 1874, Rainbow trout is introduced to waters on all continents except Antarctica, for recreational angling and aquaculture purposes.

- In 1889, a cod hatchery, which operated for seven years and released over a billion cod fry into the waters of coastal Newfoundland, is established on Dildo Island, NL.

The 1900s

1920s

- In British Columbia (B.C.), shellfish farming can be traced back to the 1920s, through the cultivation of Pacific Oysters.

1950s

- A network of federal and provincial hatcheries produces approximately 750 million freshwater trout and salmon annually for wild stock enhancement and recreational fishing.

- The industry begins collecting wild juvenile shellfish (spat) on “collectors,” which are placed on commercial grounds and grown to market size.

1960s

- Fisheries and Oceans Canada (DFO) begins to research shellfish aquaculture. The Department's aquaculture research addresses the environmental interactions between the farm production and the natural aquatic environment.

1970s

- DFO research leads to the development of salmon and trout aquaculture.
- Wide-scale commercial activity begins.
- Atlantic Canada begins using spat collection technique for mussels, which leads to the establishment of internationally-renowned names such as the Island Blue Mussel.
- Salmon farming begins in the 1970s as entrepreneurs seek, and discover, areas similar to the deep waters and protected bays of the Norwegian fjords. On Canada's East Coast, salmon aquaculture begins in New Brunswick's Bay of Fundy where the flushing action of twice-a-day 28-foot tides coupled with pristine waters and protected sites made for near perfect conditions. On the West Coast, salmon farming (starting with chinook, coho and sockeye) is first established around the town of Sechelt, British Columbia (B.C.) on the Sunshine Coast.

1980s

- Commercial scale marine finfish aquaculture operations begin in Canada. Before this time, the industry consists merely of small local experiments on the East and West coasts.
- Import and raising of Atlantic salmon in B.C. begins in the 1980s and quickly dominates the industry.
- In 1986, aquaculture production has a calculated value of $35 million. In 1988, values rise to an impressive $433 million.

1990s

- Throughout the 1990s, the industry moves from the smaller independent farm model to more consolidated ownership.
- In 1997, the Province of British Columbia releases the "Salmon Aquaculture Review Report" a comprehensive review prepared by the province's Environmental Assessment Office. The report is the result of a multi-year, multi-million dollar review of salmon aquaculture in B.C. concluding that "farming in British Columbia, as presently practiced and at current production levels, presents a low overall risk to the environment". The report included 49 recommendations, which the provincial government accepted and implemented.
- Increasingly high numbers of escapes from farming pens in B.C. lead to the creation of the provincial Salmon Aquaculture Policy Framework in 1999, which works to improve aquaculture management policies. DFO, the provinces and the industry groups work to achieve "zero escape" of fish from net-pen facilities.
- In 1999, Canada's aquaculture industry produced 113,250 tonnes of fish and shellfish valued at $558 million.

2000 to Today

- There are over 6,000 licensed aquaculture operations across Canada.

- There are eight species of finfish, six species of shellfish and 12 species of marine plants raised commercially in Canada. The most commonly grown species are salmon in B.C. and New Brunswick, oysters and mussels in Prince Edward Island and trout in Central and Western Canada.

- Aquaculture is an increasingly important part of the Canadian economy, providing valuable employment opportunities in coastal and rural communities, and contributing to the world's food supply.

- Aquaculture accounts for 14% of total Canadian fisheries production, 33% of its value, and employs over 16 thousand Canadians. In 2006, Canada's aquaculture industry produced 181,495 tonnes of fish and shellfish valued at $961 million.

- DFO research into the environmental effects of aquaculture provides a solid scientific foundation for the conservation and protection of fish and fish habitat in marine and freshwater ecosystems. It also strives to develop new technologies and transfer them to the aquaculture industry.

- Escapes from fish farms across Canada have been minimized through regulatory and non-regulatory means, such as: improved equipment standards, third-party inspections and auditing, improved farm practices, mandatory escape reporting and recapture plans. The number of reported escapes from aquaculture facilities has significantly declined; in 2006, that number was negligible.

The future of aquaculture

- Demand for seafood in North America is expected to increase up to 40% by 2010.

- Fish and shellfish farming present an innovative approach to sustainable harvest of food from our waters.

- Many alternative species are currently being tested for their potential for wide-scale, commercial production, such as, Atlantic cod, halibut, haddock, wolffish, bar clam, sea urchin, and many more.

For more information

www.dfo-mpo.gc.ca/aquaculture