

Timeline of U.S. and World Aquaculture

3500 BC

Cultivation of carp begins in China using freshwater ponds and rice paddies.

2500 BC

Hieroglyphics indicate tilapia were being farmed in Egypt

2000 BC

Oyster farming begins in Japan.

746 AD

First reference to clam culture appears in Chinese literature.

1400

Marine finfish aquaculture begins in Indonesia when young milkfish are trapped in coastal ponds at high tide.

1600s

Seaweed farming begins in Japan.

1733

Fish farming in its modern form begins when a German farmer successfully gathers trout eggs, fertilizes them, and then grows the hatched fish to maturity.

Early 1800s

Oyster farming is further developed by the French by placing strings of tiles in water for oyster larvae to settle on and then transplanting the larvae to protected beds.

Oyster farming expands to the Atlantic coast of the U.S.

1853

An Ohio trout farm becomes the first in the U.S. to artificially fertilize its fish eggs.

1880s

Aquaculturists experiment with lobster and winter flounder aquaculture in New England.

1909

The first commercial trout farm in the U.S. established in Idaho.

1910

State and federal hatcheries in the U.S. develop channel catfish farming techniques.

1919

Washington's oyster farming industry begins when Pacific oysters from Japan are placed in coastal waters.

1930s

President Franklin D. Roosevelt's Farm Pond Program encourages the growth of the U.S. aquaculture industry by providing federal subsidies for building and stocking fishponds on farms.

Researchers in Japan make major advances in shrimp farming techniques.

1934

Raft culture of scallop developed in Japan.

1940s

Tilapia farming introduced to the Caribbean, Latin America and the U.S.

1950s

Netpen aquaculture is introduced in Japan for the commercial culture of yellowtail.

1951

Intensive seaweed farming begins in China.

1960s

Commercial shrimp farming develops in Japan and soon begins in Ecuador and the U.S.

Late 1960s

Sea bass production begins in the Mediterranean.

First commercial salmon farms are established in Norway and Scotland.

1970s

U.S. catfish farm acreage grows from 400 acres in 1960 to 40,000 in 1970.

After nearly collapsing due to disease and a saturated world salmon market, Norway grows to become the world's top salmon-farming nation.

Salmon farming expands to the U.S. and Canada.

Abalone hatcheries develop in California.

Mussel aquaculture develops on both coasts of the U.S.

1976

New Zealand's first commercial salmon farm is established.

World aquaculture production is estimated to be 6.1 million metric tons (mt).

1980s

The National Aquaculture Act of 1980 is passed in the US to provide for the development of the aquaculture industry.

Sturgeon farming begins in California.

The commercial farming of hard clams, or quahogs, begins in New England.

1981

Manila clam farming begins in Washington and California.

1984

World aquaculture production reaches 10 million mt, contributing 12 percent of the world's aquatic food supply.

1985

Salmon farming introduced in Australia.

Late 1980s

Shrimp farming industries in Asia and South America undergo rapid expansion.

Early 1990s

World aquaculture production in 1990 is 13 million mt.

Research begins in the Mediterranean on the feasibility of off-shore aquaculture.

U.S. striped bass and tilapia aquaculture industries develop.

The Irish sea trout fishery collapses because of sea lice infestations believed to be caused by salmon farms.

Shrimp farming industries in many parts of the world collapse due to outbreaks of disease.

Alaska bans commercial netpen fish farms to protect its wild fisheries.

1991

Tuna farming, in which juvenile wild fish are captured and then fattened in cages, is established in Australia.

1992

Snapper aquaculture begins in Australia.

1994

Between 1984-1994, world aquaculture production grows on average 11 percent per year.

Maine begins commercial seaweed aquaculture.

1995

The British Columbia government places a moratorium on new salmon farm tenures in order to conduct an environmental review of the industry.

World aquaculture production is 24 million mt.

1996

Canadian researchers patent transgenic salmon.

1997

Canada announces plans to fund research in cod farming

1998

Sea bream culture grows from 110 mt in 1985 to 41,900 mt in 1998.

1999

World aquaculture production grows 154% over the 1990s. Production tops 33 million mt and contributes nearly one-third of the aquatic food supply.

Production of farmed salmon exceeds the amount of salmon caught in the wild.

2000

Farmed salmon production tops one million mt.

Research begins on new aquaculture species such as flounder, sablefish and halibut.

American aquaculturists induce spawning in cobia, marking the first step towards commercial cobia farming.

2001

Since 1989, close to three million Atlantic salmon have been reported escaped from farms in British Columbia, Washington, Maine, and Scotland.

Infectious salmon anemia (ISA) spreads to Maine forcing salmon farmers to slaughter over 1 million fish.

2002

Traces of illegal antibiotics are detected in farmed shrimp imported from Asia.

Officials in British Columbia announce plans to lift the moratorium on new salmon farms.

Australia's bluefin tuna farmers produced 9,245 mt for a value of AU \$260.5 million, a three-fold increase in five years.

2003

Salmon farmers in Maine are found in violation of the Clean Water Act and ordered to fallow their sites for two to three years and cease the use of European strains of fish at their farms.

Commercially farmed cod available in the US for the first time.

Offshore fish farming projects, funded by NOAA, exist in Hawaii, New Hampshire, Puerto Rico, and the Gulf of Mexico.