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### Ask your grocery store and restaurant

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- » Canada's major grocery chains say they don't sell GM salmon at their seafood counters and have no plans to sell it: Costco, Farm Boy, Federated Co-operatives Ltd, Loblaws, Metro, Overwaitea Food Groups, Sobeys, and Walmart.
- » Some restaurants, including major sushi chains in Quebec, also say they won't sell it.
- » The Canadian Aquaculture Industry Association, representing "virtually all farmed salmon in Canada", says that their member companies do not farm or sell GM salmon, and are not growing or researching it.

## CANADIAN BIOTECHNOLOGY ACTION NETWORK

CBAN provides the latest research, updates and action on GM foods, crops and animals in Canada.

**CBAN MEMBERS:** Canadian Organic Growers, Check Your Head, Council of Canadians, Ecological Farmers of Ontario, Ecology Action Centre Nova Scotia, Growers of Organic Food Yukon, No More GMOs Toronto, Greenpeace Canada, Inter Pares, National Farmers Union, GMO Free PEI, Organic Agriculture Protection Fund of Saskatchewan, GE Free BC, Union Paysanne, SeedChange, Vigilance OGM.

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**Genetic engineering** (genetic modification or GM) is set of laboratory techniques that allow scientists to transfer genetic material directly from one organism to another, even between totally different species, to change the characteristics of plants and animals. Scientists can insert pieces of DNA or disrupt existing genes by deleting them or introducing genetic material to silence them, for example. It is very different from traditional animal breeding.

## WHAT IS THE GM SALMON?

A small US company called AquaBounty has genetically engineered an Atlantic salmon using a growth hormone gene from Chinook salmon and genetic material from ocean pout. The company says that the GM fish grows twice as fast as other salmon.

**The GM salmon is the first GM food animal in the world.**

## GM SALMON IN CANADA

**GM salmon is being sold in Canada, without labels.** GM salmon has been on the market in Canada since 2017. This GM salmon was produced in Panama at a small on-land pilot plant that is now closed.

**Our government has given the company permission to grow the GM fish in Canada, on land.**

The GM salmon is now being produced in Canada and the US. The company AquaBounty has built an on-land GM fish factory in Prince Edward Island (Canada) and one in Indiana (US). The company says the first GM salmon from North America will be on the market in the Fall/Winter of 2020.

For now, government approvals stipulate that the GM salmon can only be produced on land, at these two specific sites.

## GM SALMON COULD THREATEN WILD SALMON

Most Atlantic salmon populations in Canada and the US are endangered. If genetically modified salmon or salmon eggs escape from fish farms, they could put wild salmon at risk. Because of the risk of escape from fish farms in the ocean, AquaBounty is **only permitted to grow GM salmon on land.**

Fisheries and Oceans Canada (DFO) says that the GM salmon and GM salmon eggs could be a hazard to wild populations if they escape into the environment. Government researchers found that GM salmon are more aggressive and can outcompete wild salmon for food. Other research shows escaped GM salmon could breed with wild salmon or other species such as brown trout.

All the GM salmon produced by AquaBounty are female, and 98.5% or more are also sterile. This means that if escape happens, the risk of GM fish breeding with wild fish is minimized. However, even if only 1% of the GM salmon are fertile, escape from confinement could pose an environmental threat.

AquaBounty also plans to produce and sell non-GM salmon and non-GM salmon eggs alongside GM.

DFO recommended production and shipping practices to prevent the accidental mixing of GM and non-GM eggs in PEI **but these are not requirements.**

While, for now, production in Canada and the US is restricted to land-based facilities, as the company expands GM salmon could be grown in ocean farms in other countries.

## AQUABOUNTY

The US biotechnology company Intrexon recently sold AquaBounty. Billionaire Randal Kirk now owns 47% of AquaBounty through his venture capital company Third Security, which now also owns the GM apple company Okanagan Specialty Fruits.

## GOVERNMENT FUNDING

The Government of Canada has given over \$8 million in grants and loans to support the development of the GM salmon. For example, in 2009, AquaBounty got \$2.87-million in an agreement that **promises the federal government 10% royalties from product sales** (from which product is unknown, but AquaBounty states it is not the GM salmon).

The Government of Prince Edward Island has also provided grants and loans to the company, most recently a \$2.7-million grant to complete construction of its GM fish factory.

