April 25, 2017

WILL PEI BE THE SITE OF THE WORLD'S FIRST GM FISH FACTORY?

Summary

Just one year after telling the province that its new facility at Rollo Bay would not have any genetically modified (GM, also called genetically engineered) salmon, the company AquaBounty is now asking the PEI government to approve construction of the world's first GM fish factory.

On May 19 2016, AquaBounty's Environmental Impact Statement said, "The proposed facility at Rollo Bay West will have no GMO salmon."

On April 12 2017, AquaBounty's Amended Environmental Impact Statement says, "AquaBounty will rear AquAdvantage Salmon, a sterile genetically modified salmon, from eyed egg to market size within the production facility."

Rollo Bay, PEI

The company is asking the PEI government to give it permission to renovate the existing building and construction of two new structures (3,700 m2 (40,000 ft2) each) to be used as an aquaculture facility for the world's first genetically modified food animal, the genetically modified Atlantic salmon. The company says the site would have the capacity to produce 250 metric tons of GM Atlantic salmon.

Background

On May 19, 2016, Health Canada approved the genetically modified (GM, also called genetically engineered) Atlantic salmon for human consumption. This followed a 2013 decision by the Minister of the Environment to approve commercial production in Canada, in land-based facilities.

Canada is, so far, the only country in the world to grant approval to produce this GM fish and the company AquaBounty is now proposing to build the world's first GM fish factory in Prince Edward Island.

The company AquaBounty (now majority owned by the US biotechnology company Intrexon) has genetically engineered Atlantic salmon to grow faster. The salmon has a growth hormone gene from Chinook salmon and genetic material from ocean pout (an eel-like creature). The company says its "AquAdvantage" salmon grow to market-size twice as fast as other farmed salmon.

AquaBounty stated its specific plans (in various documents to the US and Canadian governments) to produce GM Atlantic salmon eggs in PEI, ship them to Panama to grow out and process for export. However, the Government of Panama has not yet approved commercial production of the GM salmon and the company is now asking the PEI government to permit construction of new buildings to grow 250 metric tons of GM Atlantic salmon every year.

Environmental Concerns

The escape of farmed fish from either marine net pens or hatcheries is serious, reoccurring pollution that threatens wild species. AquaBounty has permission to grow GM fish in land-based containment, but even this containment raises concerns. Any risk of GM Atlantic salmon escaping into the wild is unacceptable, especially when Atlantic salmon are already in danger of disappearing.

- The company says that the GM salmon will all be sterile females, but they can only guarantee that 99%-95% of the salmon will be sterile.
- There is a possibility that escaped GM salmon could breed with other species. For example, one study showed that GM salmon can interbreed with wild brown trout.

Who is AquaBounty?

» The US biotechnology company Intrexon is now majority owner of AquaBounty.

» In 2014, the Government of Panama fined AquaBounty for breaching some national environmental laws during its research and development of the GM salmon.

Global Rejection of GM Fish

» The Canadian Aquaculture Industry Association and the International Salmon Farmer's Association do not support the commercial production of GM fish.

» Many US grocery stores are pledging not to use GM seafood.

» The largest producer of farmed salmon, Marine Harvest "does not support the introduction of GM salmon. If the GM salmon is to be approved for consumption, Marine Harvest asks for it to be specifically labelled."

» In 2014, 76 fisheries and oceans conservation, environmental and social justice groups endorsed a statement objecting to raising GM fish and eggs.

What is genetic modification?

Genetic modification (GM), also called genetic engineering or GE, is the introduction of new traits to an organism by making changes directly to its genetic makeup, e.g. DNA, through intervention at the molecular level. With genetic engineering, scientists can change the traits of plants and animals by inserting DNA pieces, whole genes, or long stretches of DNA segments from many different organisms. These genetic sequences can also be taken from the same species or be newly made up. Scientists can also delete or swap DNA sequences in organisms or introduce genetic material to silence genes.

Unlike conventional breeding and hybridization, genetic engineering is a laboratory technology that enables the direct transfer of genes between organisms in different species or kingdoms that would not breed in nature, and the introduction of new sequences that do not even exist in nature.

For more information and details: **www.cban.ca/fish**

Provided by the Canadian Biotechnology Action Network (CBAN)

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The Canadian Biotechnology Action Network (CBAN) brings together 16 groups to research, monitor and raise awareness about issues relating to genetic engineering in food and farming. CBAN members include farmer associations, environmental and social justice organizations, and regional coalitions of grassroots groups. CBAN is a project on the shared platform of Tides Canada, a registered Canadian charity.