

Future of Food: This Genetically Engineered Salmon May Hit U.S. Markets As Early As 2020

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Fish is an important protein source for many people around the world, and we are eating more of it than ever before. And with one-third of the world's stocks overfished, aquaculture has taken off – tripling production in the last twenty years. Yet to date, fish farming has struggled with environmental problems just like land-based farming has. One small company is producing a genetically engineered salmon it says could help solve some of these problems and help meet the world's demand. Others say it's a dangerous step in the wrong direction.

Scientist Garth Fletcher came up with the idea of altering Atlantic salmon DNA to get the fish to grow more quickly. A salmon's growth hormones are more active during certain times of the year. Fletcher thought, what if he could get the hormones to stay active all the time?

He took DNA from a fish called an ocean pout, which produces a special protein all year long that helps it survive in frigid waters. Fletcher took the DNA that keeps those proteins turned on and running and connected it to a salmon growth hormone gene, which had the effect of keeping the growth hormone on.

If you have a fish that grows a little faster, such as an Aquadvantage that reaches market weight in half the time, you can produce those fish almost anywhere because you can grow them in a land-based aquaculture facility. [It is] closer to consumers, [so] you can reduce the transportation cost, you can reduce the carbon footprint associated with transportation. So this opens up a whole new opportunity for global salmon production.