

GMO Seafood: A Necessary Conversation



Sea Products Development uses these large indoor recirculating sea water tanks to grow Sablefish. The R&D facility is a first step to developing a full-scale farm in 2018.

BY TIM SUGHRUE

Few subjects evoke more heated and opinionated debate than that of human consumption of genetically modified plants and animals, known as GMOs.

As a wildlife biologist with four decades of experience in the commercial fishing industry, I hope this article will shed more light than heat on issues related to genetically modified fish and fish farming in the future.

This article should not be viewed as an endorsement of GMO fish. I hope it can serve as the start of a necessary conversation about this subject. In the not too distant future, these fish will enter the marketplace, and all stakeholders, including consumers, should be able to make informed decisions.

No Evidence of Safety Issues

The National Academies of Science, Engineering, and Medicine issued a report last spring in which the scientists wrote that they “found

no substantiated evidence that foods from genetically engineered crops were less safe than non-genetically engineered crops.” On top of that, polling has found that 88 percent of the scientific community feels GMO foods are safe. This view is 180 degrees different than that of the general public today where only 37 percent think that GE foods are safe.

When I look at the “bigger picture” surrounding seafood, I often wonder where our fish will come from 15, 20, 30 years from now. Our domestic fisheries are well managed, for the most part, but they are all at their “maximum sustainable yield.” That means they cannot be relied on for a significant increase in harvestable poundage to help satisfy the ever-increasing demand for seafood in the future.

The logical conclusion is that we will grow our own fish to meet future demand. Aquaculture is now responsible for more than half of the seafood production worldwide. The predominant method used to grow fish today — ocean open cage

aquaculture — has more than its own fair share of environmental issues. All ecosystems, both land and sea, have a “carrying capacity.” When we exceed the carrying capacity of an ecosystem, mother nature moves swiftly to correct it. When you have too many deer in a certain area, black tongue disease breaks out and kills deer by the hundreds. When you farm salmon in densities that are too high, infectious salmon anemia wipes them out. Hundreds of millions of fish being raised in one region of Chile produced an algal bloom that killed 25 million fish last year, and salmon prices spiked by 20 percent.

Zero Environmental Effects

The technology exists today to grow fish successfully on land with zero harmful effects to the environment. Using this technology, there would be no reason to harvest a salmon inside the arctic circle of Norway, truck it to Copenhagen, fly it to JFK airport, and truck it to DC to put on a plate. That fish can

instead be grown an hour outside the Washington beltway on a land-based aquaculture farm with a closed recirculating water system, powered by a wind turbine, with not one drop of pollution to the environment.

Science fiction you say? No! You can fly to the sleepy little Gulf coast town of Rockport, Texas and see this technology at work every day. Sustainable Sea Products has created a facility there with several million gallon pools inside big white “tennis bubbles” held up by air pressure. Beautiful white Vanemai shrimp are grown to twice the size (10/15 count) in half the time (20 weeks) of conventional pond-reared shrimp — *and* not one drop of pollution to the environment! Sustainable Sea Products is also now growing sable (black cod) in Texas, of all places, using the same technology. Eventually, we could meet all our seafood needs using this technology. We can create the “Silicon Valley” of seafood right here along the east coast, growing fish in