

GM salmon

Take a leap of faith

Jon Entine says that we need to trust science to develop better foods

News that the US Food and Drug Administration is about to bless the sale of the first genetically modified food – salmon – set off the familiar outcry among anti-GM activists.

By all reports, the Massachusetts firm AquaBounty will get the OK this autumn to sell salmon eggs programmed to produce a full-grown Atlantic salmon in about half the time it currently takes on a farm. It took a gene from one species that matures faster, the Chinook, and another gene from the ocean pout, a distant cousin of salmon, that switches on the Chinook growth gene.

The naturalistic religious left then kicked into gear. Headlines decrying “FrankenSalmon” sprouted. Food & Water Watch, which has no scientists on its staff, launched a protest based on the claim that government doesn’t have the expertise to evaluate the impact of GM on human health and the environment. Most disturbingly, its position is backed by groups such as the Council for Responsible Genetics in the US and GeneWatch in the UK.

Most recently, the US Supreme Court rejected a suit filed by the Centre for Food Safety (CFS) to block the introduction of bioengineered alfalfa. After an exhaustive review in 2005, the US Department of Agriculture gave the alfalfa – modified to tolerate glyphosate, a herbicide produced by Monsanto commercially known as Roundup – the green light. CFS successfully sued, requiring the department to revisit its ruling. A draft of that second evaluation, released in December 2009, echoed the original findings, which should lead soon to clearance of the GM alfalfa sales.

A sizable anti-GM establishment

is behind almost every campaign to gut the introduction of bioengineering, especially in the agricultural sector, where the technology has been successfully used for decades.

Significant proportions of soybean (77% of global harvest), maize (26% of feed) and canola (21%) crops engineered to be grown with less use of insecticides have been part of the world diet for years with no negative consequences.

All told, 60 to 70 transgenic crops have been developed. Now we’re moving into the second generation of GM foods: ones modified with special qualities such as faster growth (salmon), greater nutrition (aubergine and rice), or the ability to cut pollution from waste (pigs).

Weird science?

Fear of science and mistrust of government oversight brings together the worst impulses of the far right and the loony left. Religious conservatives have long opposed stem cell research as manipulating God’s way. Substitute “nature” for “God” and roll out such sober-sounding phrases as “unintended consequences” and you have the left’s limp justification for its anti-GM hegemony.

Both groups’ suspicions extend to medicine, where bioengineering’s benefits are undeniable. Gene therapy can help treat immune deficiencies. It’s used to create GM bacteria and rodents that are essential tools of modern research. Biotechnology has been successful in mass-producing insulin, human growth hormones, follistim for treating infertility, vaccines ... the list goes on and on.

What’s most disturbing is that anti-GM hysteria is now part of the



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Fishy?

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mainstream left, which embraces naturalism almost as religion, with the precautionary principle (selectively applied) as its central canon.

The loudest objections to the GM salmon are that we are “messing with nature”. But this fish is 100% salmon and to avoid interbreeding with wild fish, females are grown sterile and GM salmon are only sold to companies that will breed them in inland tanks.

The left’s squeamishness is odd because scientists are overwhelmingly liberal. A Pew Research Centre study found that only 9% of scientists viewed themselves as conservative while 66% say they are liberal or very liberal.

So, while scientists, mostly leftists, focus on how to harness the future, activist groups aggressively scare the public, often intimidating legislators. Psychology, not science, drives the resistance. GM food that is essentially identical to the natural kind, which offers the promise of more sustainable production of more protein at less cost faces resistance from people who, as we all do to some degree, worry about risks that while minimal are hard to understand, invisible and undetectable. Like the far right, they do not trust government bureaucracy to protect us.

The bottom line is: anti-science extremists on the left and right can’t handle the truth. ■



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