



CENTER FOR FOOD SAFETY

February 23, 2016

Oregon State Legislature
Senate Committee on Health Care
Tuesday 23 February 3:00pm Hearing Room A
Re: HB 4122-A, relating to the labeling genetically engineered fish
Public Hearing & Possible Work Session

Chair Senator Monnes Anderson and Members of the Senate Health Care Committee:

We write to urge you to support HB 4122 A, which requires the Oregon Department of Agriculture develop labels by 2018 for genetically engineered fish intended for human consumption in Oregon. Please accept these comments on behalf of the Center for Food Safety (CFS), a nationwide nonprofit, public interest organization that represents over 750,000 consumers and farmers across the country, including tens of thousands of members in Oregon. CFS's mission is to empower people, support farmers, and protect the earth from the harmful impacts of industrial agriculture.

Credentials and Background

As a central part of that mission, CFS advocates for the federal, state, and local regulation of genetically engineered (GE) organisms in a way that addresses their economic and environmental impacts. Since 2001, CFS has worked to prevent the introduction of GE salmon specifically, and for better regulation of GE animals more generally. As to labeling, CFS has been a leader in the effort to label GE foods both nationally and at the state level.

For example, we have filed seven different legal petitions demanding the rejections of GE salmon, led a major grassroots campaign resulting in over 1.8 million comments to the Food and Drug Administration (FDA) opposing approval of the GE salmon, and secured, along with our allies, commitments from hundreds of grocery stores and food companies (including Target, Trader Joe's, and Costco) to refrain from selling GE fish.

As to labeling GE foods, CFS submitted a legal petition to FDA to label GE foods, which garnered over 1.2 million comments in support. We assisted in the drafting and passage of the first-ever law to require GE fish labeling in Alaska, and we have worked tirelessly in Congress to prevent legislation that would take authority away from the states to require GE labeling, including the Denying Americans the Right to Know (DARK) Act. Further, CFS has written model GE labeling legislation used in dozens of state legislative efforts, including successful bills in

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Connecticut, Maine and Vermont, as well as federal legislation. CFS has further supported Vermont in its successful passage of Act 120 to label GE foods by participating in the defense of that law in court. CFS has written numerous op-eds, law review articles, and reports on the subject of GE food labeling, including the award-winning book *Your Right to Know: Genetic Engineering and the Secret Changes to Your Food*. When necessary, we engage in public interest litigation on behalf of consumers, farmers and fishers, and environmental conservation groups.

Specific Testimony

HB 4122 A is an important bill that deserves your support. Labeling of GE fish will serve several compelling goals, including a reduction in consumer confusion, a tool for tracking potential human health issues related to consuming GE foods, and support for Pacific Northwest fishermen and women. While 64 other countries require the labeling of GE foods (including Japan, Australia, Brazil, China, Russia and the European Union), the federal government has failed to provide this basic information to American consumers. Polls repeatedly show that over 90% of Americans want GE food labeling, and specifically labeling for the newly-approved GE salmon.¹ Genetic engineering results in changes to foods at the molecular level that have never occurred in traditional varieties. These changes are determinative of consumers' food purchases and not readily apparent. Thus, the absence of mandatory labeling disclosures for GE foods is misleading to consumers. Beyond confusion, the failure to label GE foods means we lack a tool essential for tracking the emergence of novel food allergies or other effects to human health from consuming GE foods.²

As to GE fish specifically, providing consumers with this information will allow them to distinguish between GE salmon and those salmon caught locally, and in future allow them to distinguish between other GE fish and traditionally caught or raised fish. Salmon have profound cultural and social significance in the Pacific Northwest, and wild Pacific salmon fisheries constitute an important source of jobs and enjoyment for thousands of U.S. citizens and hundreds of coastal communities, particularly here in the Northwest. The recently-approved GE salmon is the first GE animal for human consumption, but it is unlikely to be the last; AquaBounty, the creator of the

¹ See Consumer Reports National Research Center, *Food Labels Survey* at 12 (June 2014), available at <http://www.greenerchoices.org/pdf/ConsumerReportsFoodLabelingSurveyJune2014.pdf> (92% of Americans surveyed want GE labeling generally, and 92% also demand that GE salmon be labeled as such); see also Allison Kopicki, *Strong Support for Labeling Modified Foods*, N.Y. Times (July 27, 2013), <http://www.nytimes.com/2013/07/28/science/strong-support-for-labeling-modified-foods.html> (reporting New York Times poll conducted that year, with 93% of respondents saying that foods containing GE ingredients should be identified).

² Philip J. Landrigan, M.D., and Charles Benbrook, Ph.D., *GMOs, Herbicides, and Public Health*, New Engl. Journal of Medicine (Aug. 20, 2015), <http://www.nejm.org/doi/full/10.1056/NEJMp1505660>.

GE salmon is also working on GE trout and tilapia.³ Thus, HB 4122 A will enable Oregonians to make informed choices when they purchase and consume fish, using their own health, cultural, and socio-economic considerations.

Despite the claims of the biotech industry, the science of the safety of consuming GE food is not settled. First, there is no federal law regulating genetically engineered organisms and federal oversight of the safety of GE foods is exceedingly weak. As to GE foods generally, there is no requirement for human safety testing prior to commercialization; the FDA makes no health or safety approval of GE foods, instead using only a voluntary consultation process where it reviews selected data from the biotech industry and develops no independent research of its own. Even this voluntary process does not conclude with any FDA approval of the health or safety of the particular GE food. Indeed, FDA's 1992 policy on foods made from GE crops provides that the manufacturer, not FDA, determines whether a GE food is safe. As to GE animals specifically, the FDA has shoehorned the approval of the GE salmon into its authority over animal drugs, despite the fact that the GE salmon is a fish, not a drug, and is being approved for *human* consumption.⁴ Use of the animal drug authority is a poor fit for approval of GE fish for human consumption because, unlike the typical animal drug that is used on an animal and expelled by the animal over time, the FDA is using its drug authority to approve the *entire* animal (including the transgenes), as well as the offspring to whom the engineered genes are passed down. *Id.* Moreover, as part of its animal drug approval, the FDA does not fully consider the wider environmental impacts of unleashing this novel GE animal, including impacts to Pacific salmon fisheries. This failing in federal oversight rightly gives consumers pause and supports labeling of GE foods at the state level.

Second, there is no scientific consensus as to the safety of GE foods, and the recently-approved GE salmon is the first GE animal approved for human consumption—we have no idea how eating GE salmon will affect humans. Numerous scientific, health, and legislative bodies have concluded that GE foods have not been proven safe, that mandatory safety assessments are needed, and that they support labeling.⁵ No long-term or epidemiological studies in the U.S. have examined the effects of consuming GE foods on the American public. Genetic engineering is a

³ See <https://www.aquabounty.com/wp-content/uploads/2014/02/2015-11.19-FDA-Approves-AAS.pdf>; see also CFS, *AquAdvantage Salmon*, <http://www.centerforfoodsafety.org/issues/309/ge-fish/aquadvantage-salmon> (in addition to AquaBounty's trout and tilapia, other companies are working on GE salmon and catfish).

⁴ FDA, *AquAdvantage Salmon*, <http://www.fda.gov/AnimalVeterinary/DevelopmentApprovalProcess/GeneticEngineering/GeneticallyEngineeredAnimals/ucm280853.htm>.

⁵ Angelika Hilbeck et al., *No scientific consensus on GMO safety*, *Envtl. Sci. Europe* 27:4 (2015) available at <http://goo.gl/k2f4R6>; Sheldon Krimsky, *An Illusory Consensus behind GMO Health Assessment*, *Sci., Tech., and Human Values* (August 7, 2015), available at <http://goo.gl/5cEHpm>. See also Drs. Landrigan & Benbrook, *supra* n.2.

novel technology that may cause unintended consequences and, unlike traditional breeding, does not have a demonstrated history of safe use. As explained by Drs. Landigran and Benbrook in the *New England Journal of Medicine*, labeling is “essential for tracking emergence of novel food allergies,” and would “respect the wishes of a growing number of consumers” and thus these doctors support mandatory GE labeling along with “adequately funded, long-term postmarketing surveillance.”⁶ Again, while Americans have been consuming foods with GE ingredients for years, GE fish would be an entirely new addition to the human diet with unknown consequences.

The lack of publically available health and risk data is no accident, as the industry tightly controls any research through intellectual property. GE foods are patented, so independent researchers must obtain consent from the biotech company, who can refuse requests for any reason. Academics deemed critical may be denied permission; even if granted, the patent holders retain the right to control and approve studies and any publication.⁷ Thus, American consumers have served as guinea pigs in the GE experiment for years, and only labeling can give consumers the information they need to decide for themselves and their families whether to be part of this experiment.

Consumers may want to avoid GE fish for reasons beyond health concerns, including the potential impacts to wild and endangered salmon, and to the commercial, recreational, and tribal fishers that depend on healthy fisheries. As noted above, FDA’s review and approval of GE salmon did not include full analysis of these potentially devastating impacts, should GE salmon escape confinement and get released into the environment. While AquaBounty submitted its initial application to FDA for only two facilities (egg production in Canada and grow out in Panama), the company has made clear (through public statements and financial disclosures) its plans to expand its operations to other markets, including within the U.S. and other countries, as soon as it has its foot in the regulatory door. Indeed, it is common sense that the GE salmon will not be profitable if confined to these two facilities. Despite the public statements of AquaBounty regarding expansion, FDA improperly confined its environmental impacts analysis to these two limited facilities, refusing to consider the impacts once AquaBounty seeks to expand (including selling eggs to producers within the U.S.). Transgenic contamination is a major problem associated with GE crops, with numerous contamination episodes that have cost farmers literally billions of dollars in

⁶ Drs. Landigran & Benbrook, *supra* n.2.

⁷ Emily Waltz, *Under Wraps*, 27 *Nature Biotech.* 880, 880-82 (2009), available at http://www.emilywaltz.com/Biotech_crop_research_restrictions_Oct_2009.pdf; Rex Dalton, *Superweed Study Falts as Seed Firms Deny Access to Transgene*, 419 *Nature* 655 (2002), available at <http://www.readcube.com/articles/10.1038%2F419655a>; Andrew Pollack, *Crop Scientists Say Biotechnology Seed Companies Are Thwarting Research*, *N.Y. Times*, Feb. 19, 2009, <http://goo.gl/Nz7tWu>.

lost markets, rejected sales, and loss of customers.⁸ Similarly, genetic introgression from GE salmon (and other fish) to wild species is a major concern with approval of GE fish. Both environmental groups and expert scientists warn that GE fish could negatively impact native wild fish species through competition for food, transfer of disease, disruption of ecological processes like migration, and through genetic impacts via introgression. GE fish may be competitive for mating, which would affect the genetic makeup of fish populations by passing along the engineered genes to successive generations, until a wild, unaltered population no longer exists, and potentially passing on a reduced overall viability, i.e. survival of the unfittest.⁹ These impacts are detrimental to any fish population, but especially to already imperiled populations of endangered species, including many species of Pacific salmon.

Both commercial and recreational salmon fishing contributes millions of dollars to the Oregon economy each year. Commercial fishing is an important industry in Oregon (onshore landings totaling \$156 million in 2014), with salmon as a major component of that industry.¹⁰ Commercial salmon fishing contributed \$31.58 million to the Oregon economy in 2014.¹¹ Oregon also benefits from an active recreational fishing industry, totaling \$68.9 million in 2014.¹² Recreational salmon fishing accounts for a majority of this income, generating a total of \$46.5 million in economic contributions in 2014 (\$6.3 million from ocean angling, \$37.1 million from non-Columbia River coastal inland estuary and freshwater angling, and \$3.1 million from Columbia River angling).¹³ The commercialization of GE fish constitutes a two-fold threat to these fisheries: potential impacts from escaped GE fish on the health and vitality of wild salmon and competition on the market between farmed GE fish and wild-caught salmon and other fish. Oregon commercial fishers already face lowered salmon prices from the availability of aquaculture-

⁸ Andrew Harris, *Bayer Agrees to Pay \$750 Million to End Lawsuits Over Gene-Modified Rice*, Bloomberg, July 2, 2011, <http://goo.gl/ymErOa>; K.L. Hewlett, *The Economic Impacts of GM Contamination Incidents on the Organic Sector* (2008), available at <http://goo.gl/jf2F5E>; Stuart Smyth et al., *Liabilities & Economics of Transgenic Crops*, 20 *Nature Biotech.* 537, 537 (2002), available at <http://goo.gl/KeDRPX>; Carey Gillam, *U.S. Organic Food Industry Fears GMO Contamination*, Reuters, Mar. 12, 2008, <http://goo.gl/nkC52J>.

⁹ See generally, Comments to FDA on Draft Environmental Assessment, <http://www.regulations.gov/#!docketDetail;D=FDA-2011-N-0899>; FDA, *AquAdvantage Salmon*, <http://www.fda.gov/AnimalVeterinary/DevelopmentApprovalProcess/GeneticEngineering/GeneticallyEngineeredAnimals/ucm280853.htm>; CFS, GE Fish, <http://www.centerforfoodsafety.org/issues/309/ge-fish>.

¹⁰ ODFW, *Oregon's Commercial Fishing Industry: Year 2013 and 2014 Review* (Sept. 2015) http://www.dfw.state.or.us/agency/docs/ODFW_comm_review_2013-2014.pdf.

¹¹ *Id.* at III-2.

¹² ODFW, *Oregon Marine Recreational Fisheries Economic Contributions in 2013 and 2014* (Sept. 2015) http://www.dfw.state.or.us/agency/docs/ODFW_Marine_Rec_Ec_Effects_2013-2014.pdf.

¹³ *Id.* at 9.

raised salmon,¹⁴ and a salmon engineered to grow faster and thus be cheaper to produce will only exacerbate this problem. Labeling such fish will allow consumers to make a choice of whether to support this technology given the grave concerns of its impact to wild (often endangered) species and the people and communities who rely on these wild fish.

While CFS and allies have petitioned the FDA to require labeling of GE foods generally, and to prevent introduction of GE fish specifically, the FDA has not acted to protect fisheries or provide consumers this basic information. States have stepped into this gap to require labeling for the protection of their citizens. In addition to the states that have already passed GE food labeling laws, Connecticut, Maine, and Vermont, numerous additional states are considering bills to require mandatory GE food labeling, including New York, Massachusetts, and Florida.¹⁵ As previously stated, Alaska already requires the labeling of GE salmon, a law that has been in effect since 2005.¹⁶ Oregon should now join these states by supporting Oregonians' right to what foods they are buying and whether their fish has been genetically engineered.

As a final note, while opponents of GE fish labeling argue that FDA will soon require labeling, this is a misleading representation of reality. First, FDA's Congressional mandate relates only to the recently-approved AquaBounty GE salmon, not to all GE fish, as HB 4122 does. As noted above, more GE fish are sure to follow the first GE salmon. Second, FDA has never required labeling of GE foods (despite repeated pleas from the public to do so), and specifically declined to require labeling of the GE salmon when it was approved last fall. Now, due to Congressional action, FDA is required to stall imports of GE salmon until it has determined how to label the novel product.¹⁷ However, at this time the content and strength of FDA's GE salmon labeling rules are unknown. Third, the new Congressional mandate was included in an omnibus spending bill, and thus will sunset in 6 months unless included in the next federal budget omnibus or other federal law. In short, it is far from certain what duration or in what form FDA may be taking action, and it should not in any way dissuade states like Oregon from ensuring their citizenry have the right to know.

For these reasons, we urge you to support HB 4122 A to protect Oregonians' right to decide for themselves whether to consume or serve their families GE fish. Thank you for hearing

¹⁴ ODFW, *supra* n.10 at III-9.

¹⁵ Lorraine Chow, *8 Battleground States in the GMO Labeling Fight*, EcoWatch (Jan. 29, 2016), <http://ecowatch.com/2016/01/29/gmo-food-labeling-fight/>. See also CFS, State Labeling Legislation Map, http://salsa3.salsalabs.com/o/1881/p/salsa/web/common/public/content?content_item_KEY=13981.

¹⁶ The Alaskan State Legislature, http://www.legis.state.ak.us/basis/get_bill.asp?session=24&bill=SB+25&submit=Display+Bill+Root.

¹⁷ Brady Dennis, FDA bans imports of genetically engineered salmon – for now, Washington Post (Jan. 29, 2016) <https://www.washingtonpost.com/news/to-your-health/wp/2016/01/29/fda-bans-imports-of-genetically-engineered-salmon-for-now/>.

February 23, 2016
Re: Hearing on House Bill 4122 A
Page 7

4122 A. I'm happy to answer any questions the Committee may have or otherwise be a resource as might be helpful.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Amy van Saun". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

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