CENTER FOR
FOOD SAFETY

February 9, 2016

Oregon State Legislature
House Committee on Consumer Protection and Government Effectiveness
Attn.: Victoria Cox
Re: Hearing on House Bill 4122

Members of the Committee:

We write to urge you to support HB 4122. 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) crops in a way that addresses their economic and environmental impacts, such as transgenic contamination of conventional or organic crops or the environment, the increased use of pesticides, and the evolution of pesticide-resistant weeds. CFS has worked on the issue of genetically engineered crops oversight for nearly two decades, at all levels of governance. For example and to that end, we have worked with dozens of states in crafting bills pertaining to genetically engineered crops and foods, and their oversight. CFS has a major program area specific to GE crops, and numerous staff members—scientific, policy, campaign, and legal—whose daily work encompasses the topic. CFS staff are recognized experts in the field, intimately familiar with the issue of GE crops, the inadequacy of their oversight, their health risks, and their adverse environmental and economic impacts. When necessary, we engage in public interest litigation on behalf of farmers; many of these cases center on the issue of transgenic contamination. I also teach Food and Agriculture Law at Lewis and Clark law school as an adjunct professor, which includes the law of agricultural biotechnology.

As we have done across the country, here in Oregon, our Pacific Northwest office has worked with local leaders on crafting of legislation addressing the adverse impacts of industrial agriculture at both the state and local level. For example, we supported the successful ordinance creating a GE-free zone in Jackson county, as we have similar ordinances in numerous other counties in other states. Subsequently, we assisted in the successful defense of the Jackson county ordinance as Defendant-Intervenors and counsel in *Schultz v. Jackson County*, No. 1:14-cv-01975, 2015 WL

NATIONAL HEADQUARTERS
660 Pennsylvania Avenue, SE, Suite 302
Washington, D.C. 20003
T: 202-547-9359 F: 202-547-9429

CALIFORNIA OFFICE
303 Sacramento Street, 2nd Floor
San Francisco, CA 94111
T: 415-826-2770 F: 415-826-0507

PACIFIC NORTHWEST OFFICE
917 SW Oak Street, Suite 300
Portland, OR 97205
T: 971-271-7372 F: 971-271-7374

HAWAI'I OFFICE
1132 Bishop Street, Suite 2107
Honolulu, Hawaii 96813
T: 808-681-7688

office@centerforfoodsafety.org centerforfoodsafety.org

3448069 (D. Or. May 29, 2015). The *Schultz* case, which has now settled, established that Oregon counties can regulate GE crops without violating any existing Oregon law, such as the "right to farm" law. Thus the only block to all Oregon counties having the same rights as Jackson county is the 2013 rider, SB 863, which exempted Jackson.

Specific Testimony

HB 4122 is an important bill that deserves your support. GE-free zones like that of Jackson county are important seed sanctuaries, to protect traditional and organic farmers from GE, or transgenic, contamination.

GE crops have significant impacts on our agricultural economy, public health, and the environment. First and foremost of these is transgenic contamination: the unintended, undesired presence of transgenic material in organic or traditional crops, as well as wild plants. Transgenic contamination happens through, among other means, wind- or insect-mediated cross-pollination, seed mixing, faulty or negligent containment, and weather events.[1] Government audits, farmers, and scientific researchers have repeatedly documented transgenic contamination in a variety of crops including but not limited to alfalfa, canola, corn, rice, and beets.

Harm from transgenic contamination manifests several ways. As the U.S. Supreme Court has explained, this "injury has an environmental as well as an economic component." *Monsanto Co. v. Geertson Seed Farms*, 561 U.S. 139, 155 (2010). The agronomic injury causes significant economic damage to farmers: Over the past decade, transgenic contamination has cost U.S. farmers literally billions of dollars in rejected sales, lost exports, and closed agricultural markets,[2] with new episodes cropping up regularly.[3] GE contamination has significant economic effects. A single incident of GE contamination can—and has—cost farmers hundreds of millions of dollars.[4] Contamination episodes over the past decade have cost U.S. farmers literally billions of dollars, and continue: there is currently a 4 billion dollar lawsuit over contamination of U.S. corn exports stemming from a new genetically engineered corn produced by Syngenta.[5]

Contamination can cause organic growers to lose their customers and markets, since organic consumers demand their products be free of transgenic content; as polls show, it is one of the major reasons they buy organic, to avoid GE foods. In addition to their reputation and markets, organic growers can also lose their organic certification, since United States Department of Agriculture (USDA) organic standards prohibit genetic engineering and require that all inputs in organic production must be 100% organic.

Additionally, contamination can be irreparable, because once it occurs, it becomes difficult or impossible to contain, resulting in a fundamental loss of choice for farmers and consumers. *See, e.g., Geertson Seed Farms*, 2007 WL 518624, at *9 ("For those farmers who choose to grow non-genetically engineered alfalfa, the possibility that their crops will be infected with the engineered gene is tantamount to the elimination of all alfalfa; they cannot grow their chosen

crop."); *Ctr. for Food Safety v. Vilsack*, No. C 08-00484 JSW, 2009 WL 3047227, at *8 (N.D. Cal. Sept. 21, 2009). Unlike chemical pollution that dissipates over time, transgenic contamination is a living form of biological pollution that can instead spread over time and space. *Geertson Seed Farms*, 2007 WL 518624, at *5 ("Once the gene transmission occurs and a farmer's seed crop is contaminated with the Roundup Ready gene, there is no way for the farmer to remove the gene from the crop or control its further spread."). And once contamination occurs, evidence shows this contamination can persist for many years.[6]

Oregon is no stranger to these harmful economic effects. In 2013, the discovery of experimental, unapproved GE wheat in an eastern Oregon field cost Oregon farmers access to vital export markets and caused untold financial losses. In 2010, USDA re-discovered that GE bentgrass that escaped from field trials conducted near Madras seven or eight years prior, and had established itself in the wilds of eastern Oregon, at the Crooked River National Grassland.[7] This GE bentgrass was never commercially approved, but was tested here despite the protests of many Oregon grass seed farmers. It has now proven itself to be nearly impossible to eradicate. Oregon continues the Sisyphean task of trying to find and destroy feral populations of Monsanto's Roundup Ready GE bentgrass that escaped field trials there over a decade ago. *Int'l Ctr. for Tech. Assessment v. Johanns*, 473 F. Supp. 2d 9, 13, 29 (D.D.C. 2007).

Even the *risk* of transgenic contamination alone causes significant economic harm to farmers: lost opportunity costs by forgoing planting otherwise lucrative crops because of contamination risk; DNA testing costs; and precautions, such as buffer zones or other planting efforts to try and minimize contamination likelihood. These contamination avoidance burdens currently all fall on the traditional farmer to try and "fence out" such harm from damaging their property interests. Such a standard is contrary to hundreds of years of property law, which teaches that the entity *causing* the property harm—not those being harmed from it—should have such burdens to prevent harm to his or her neighbor.

Unfortunately, the U.S. Department of Agriculture currently does not protect traditional farmers from transgenic contamination. Oregon's own GE bentgrass contamination incidents serve as a telling reminder of how USDA has failed to effectively regulate in this area.[8] But more generally, USDA's oversight has been found severely lacking repeatedly by government reports and courts. USDA's oversight of experimental field trials of GE crops has repeatedly failed, as evinced by the local GE bentgrass and GE wheat examples, among others. For example, 2008 Government Accountability Office (GAO) study analyzed several major transgenic contamination incidences stemming from experimental field trials in from the past decade, noting the billions of dollars in economic damages associated with them.[9] The GAO concluded that "the ease with which genetic material from crops can be spread makes future releases likely."[10] When it comes to commercial GE crops, USDA disavows any oversight whatsoever, refusing to continue to monitor or restrict them in any way to help prevent contamination of traditional farmers.

In addition to transgenic contamination, GE crops have significant other environmental and agronomic impacts. GE crops, which are overwhelmingly engineered to do one thing only—be resistant to herbicides—have also massively increased overall herbicide use in U.S. agriculture, by hundreds of millions of pounds. The vast majority of GE crops are engineered to withstand what would otherwise be fatal applications of the herbicide glyphosate, commonly known as "Roundup." "Roundup Ready" crop systems have made glyphosate the most heavily-used pesticide in the history of agriculture. In 2007, American farmers applied 180-185 million pounds of the chemical.[11] Overall, glyphosate use in American agriculture jumped tenfold from 1995 to 2007.[12] The increased herbicide use associated with GE crops threatens Oregon's watersheds and creates health risks for farm workers, community members, and wildlife.

GE crops have also reduced biodiversity through the transgenic contamination of local varieties and native flora. They have also spawned an epidemic of herbicide-resistant superweeds that already cover over 60 million acres of U.S. farmland.[13] Increased use of glyphosate will worsen the glyphosate-resistant weed epidemic. The attempted eradication of superweeds will only lead to more herbicide use, causing further damage to our agricultural areas and to our drinking water, and posing health risks to farm workers, wildlife, and consumers.

In the absence of leadership from Washington, D.C., the responsibility of addressing the adverse impacts of GE crops has fallen to states and counties, and they have rightly filled the breach. Among other things, more and more counties across the United States are deciding that what is best for their local agriculture is not the currently-dominant paradigm of industrialize food production created and owned by chemical giants such as Monsanto and Syngenta. Rather, they seek to choose a different future for our food and farmers, that is environmentally as well as economically sound, creating and protecting new GE-free agricultural markets.

The State of Oregon has similarly failed to protect its farmers from contamination, and instead blocked all counties from so acting, except Jackson. In the absence of responsible state regulation, local communities must be allowed to address the issues caused by GE crops, in order to protect their local food systems, farmers, and economies, and to decide for themselves what is best for their region, and its economic and agricultural future.

For these reasons, we urge you to support HB 4122 and restore to all Oregon counties the right to decide for themselves what type of agriculture they wish to have. Thank you for hearing 4122 and please support this important bill. I'm happy to answer any questions the Committee may have or otherwise be a resource as might be helpful.

Respectfully submitted,

George Kimbrell
Senior Attorney
gkimbrell@centerforfoodsafety.org
Center For Food Safety
917 SW Oak Street, Suite 300
Portland, Oregon 97205
www.centerforfoodsafety.org
(971) 271-7372 | fax (971) 271-7374

---

[1] *See, e.g., Geertson Seed Farms v. Johanns,* No. C 06-01075 CRB, 2007 WL 518624, at *4 (N.D. Cal. Feb. 13, 2007) ("[C]ontamination can occur through pollination of non-genetically engineered plants by genetically engineered plants or by the mixing of genetically engineered seed with natural, or non-genetically engineered seed."). Michelle Marvier & Rene C. Van Acker, *Can Crop Transgenes Be Kept on a Leash?*, 3 Frontiers Ecology & Env't 99, 100-01 (2005), available at http://goo.gl/m2K6rS.

[2] 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.

[3] Tom Polansek, China rejections of GMO U.S. corn cost up to $2.9 billion, Reuters, Apr. 16, 2014, http://goo.gl/5Nc6Ub.

[4] *See, e.g., In re Genetically Modified Rice Litig.*, 666 F. Supp. 2d 1004 (E.D. Mo. 2009); *In re Genetically Modified Rice Litig.*, No. 4:06-MD-1811 CDP, 2009 WL 4801399 (E.D. Mo. Dec. 9, 2009).

[5] *See, e.g.,* Cottingham, *Syngenta Corn Case Draws Comparison to Riceland Lawsuit,* Arkansas Buiness, February 23, 2015, at http://www.arkansasbusiness.com/article/103519/syngenta-corn-case-draws-comparison-to-riceland-lawsuit

[6] G. Squire et al., *The Potential for Oilseed Rape Feral (Volunteer) Weeds to Cause Impurities in Later Oilseed Rape Crops,* Dep't for Env't, Food and Rural Affairs (August 2003) (documenting canola contamination lasting 16 years).

[7] Jay R. Reichman et al., *Establishment of Transgenic Herbicide-Resistant Creeping Bentgrass (Agrostis solonifera L.) in Nonagronomic Habitats*, 15 Mol. Ecol. 4243, 4245 (2006).

[8] *See generally* Mitch Lies, *Canola Study Validates State's Prohibitions*, Capital Ag Press (Feb. 4, 2010), http://www.capitalpress.com/content/ml-canola-research-020510.

[9] U.S. GOV'T ACCOUNTABILITY OFFICE, GENETICALLY ENGINEERED CROPS: AGENCIES ARE PROPOSING CHANGES TO IMPROVE OVERSIGHT, BUT COULD TAKE ADDITIONAL STEPS TO ENHANCE COORDINATION AND MONITORING

(Nov. 2008) *available at* http://www.gao.gov/new.items/d0960.pdf at 44 ("After two decades of experience with field trials, it is widely acknowledged that unauthorized releases of regulated material from field trial sites are likely to occur in the future"). The GAO Report documented six events of GE crops contaminating the food and feed supply, including the 2000 StarLink Corn incident, causing between $26 to $288 million in economic damages; the 2002 Prodigene Corn contamination incident where a variety of GE corn designed to create a pig vaccine protein contaminated non-GE corn; the 2004 Syngenta Bt Corn incident where a pesticidal Bt corn determined not to suitable for commercialization was illegally released onto 37,000 acres; the 2006 Event 32 Corn incident where 72,000 acres were planted to 3 lines of corn contaminated with regulated GE pesticidal corn; and the 2006 Liberty Link Rice incident where GE rice contaminated export rice stocks causing economic damages of over $1 billion. *Id.* at 3.

[10] *Id.* at 3.

[11] U.S. EPA, Biological and Economic Analysis Div., Office of Pesticide Programs, Pesticide Industry Sales and Usage: 2006 and 2007 Market Estimates, tbl. 3.6 (2011). Total 2007 glyphosate usage in the United States of 198-208 million lbs. is more than twice as high as the second-leading pesticide, and exceeds even the peak U.S. production of DDT. Nat'l Pesticide Info. Ctr., Oregon State Univ., *DDT Technical Fact Sheet*, http://npic.orst.edu/factsheets/ddttech.pdf. Peak DDT production in the United States was 188 million lbs. in 1963. *Id.*

[12] Robert Service, *A Growing Threat Down on the Farm*, 316 Sci. 1114, 1114-17 (May 25, 2007).

[13] Charles M. Benbrook, *Impacts of Genetically Engineered Crops on Pesticide Use in the U.S.- the First Sixteen Years*, Environmental Sciences Europe (Sept. 28 2012), *available at* http://www.enveurope.com/content/24/1/24.