

HOUSE COMMITTEE ON
ENERGY AND COMMERCE

SUBCOMMITTEE ON
ENERGY AND THE ENVIRONMENT

SUBCOMMITTEE ON HEALTH

The 114th Congress
U.S. House of Representatives
Washington, DC 20515

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Mr. Greg Loberg
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Dear Mr. Loberg:

Thank you for contacting me regarding Genetically Modified Organisms (GMOs) and food labeling. I appreciate hearing from you on this divisive, yet very important issue. As a veterinarian and an organic farmer, and having spent six years on the House Agriculture Committee including two as the Ranking Member of the Subcommittee on Horticulture and Biotechnology, I've studied the issue of GMOs very closely and it's something I take very seriously.

For thousands of years humans have grown or bred plants and animals and chosen the most desirable traits for breeding the next generations in an effort for them to be able to resist pests and disease and increase yields. Through modern techniques using biotechnology it has become possible to modify or isolate genes in a laboratory with great precision and speed to improve a plant's resistance to disease, insects or drought, a plant's tolerance to a herbicide, improving a food's quality or nutritional value, or increasing its yield. Genetic modification builds on breeding techniques that farmers have been using for thousands of years through hybridization and selective plant breeding.

Through biotechnology we've been able to increase productivity and efficiency while reducing the number of inputs like water and pesticides, resulting in higher crop yields. Higher crop yields per acre allow for better land management and the conservation of marginal lands. GMOs reduce the application frequency and toxicity of pesticides in farming. According to the USDA, pesticide use has decreased with the adoption of insect-resistant GE crops with only 9 percent of all U.S. corn farmers using pesticides in 2010. Pesticide use on corn farms declined from 0.21 pound per planted acre in 1995 to 0.02 pound in 2010. In addition, herbicide-tolerant crops have enabled the substitution of glyphosate (or Roundup) in place of more toxic and persistent herbicides.

GMOs in combination with good agricultural practices also improve soil quality and reduce pollution by allowing farmers to till less often, or not at all, therefore reducing soil erosion and reducing the carbon footprint of agriculture. For example, according to data from the USDA approximately 45 percent of GE soybean acres were cultivated using no-till technologies in 2006. By comparison only 5 percent of the acres planted with conventional seeds were cultivated using no-till techniques. 32 percent of GE cotton acres were planted using conservation tillage in 2007, compared to 17 percent of conventional cotton acres. 33 percent of GE corn acres were planted using no-till in 2005, versus 19 percent of conventional corn acres.

Since their introduction in 1996, the use of GE crops in the United States has grown rapidly, accounting for approximately 94 percent of soybean, 88 percent of corn, and 90 percent of cotton acreage in the U.S. Globally, GE

crops are grown in 28 countries (including the U.S., Brazil, Argentina, Canada, India, South Africa, and China to name a few) and account for 420 million acres - an area nearly the size of Alaska.

It is estimated the world population will increase to nine billion people by 2050 increasing food demand by 70 percent. With increased pressures from climate change, we will become even more reliant on the ability of the scientific community to develop the necessary technologies that will increase the yields and productivity of our crops to provide a safe and sustainable food supply. Biotechnology will become an even more important tool in the fight against global poverty and food insecurity. GM crops that flourish in challenging environments without the aid of expensive pesticides or equipment can play an important role in alleviating hunger and food stress in the developing world. This is precisely why I am very concerned about the demonization of biotechnology and the rejection by many of the supporting science behind it. We must be careful we do not discourage further scientific advancement and innovation in this critical area.

Safe and effective use of crops developed through biotechnology can help us feed the hungry and malnourished in developing nations in Africa, Asia, and Latin and South America. For example, a lack of vitamin A in rice-based societies in developing countries leads to an increased incidence of malnutrition, blindness, disease and premature death in small children. Vitamin A deficiency is responsible for 500,000 cases of irreversible blindness and up to 2 million deaths each year. However, dietary supplementation of vitamin A can eliminate this problem. Researchers have developed a strain of rice that uses genetic modification to fortify the grain with vitamin A. This "Golden Rice" can help combat nutrient deficiency, disease and death in developing nations around the world. In fact, Golden Rice was one of the winners of the "Patents for Humanity Award" in 2015 from the White House Office of Science and Technology and U.S. Patent and Trademark Office. Unfortunately, many of the countries most affected by vitamin A deficiency that could benefit from products like Golden Rice have rejected GM foods due to misconceptions about their safety. I don't think the U.S. should do anything to play into those fears.

The Pew Research Center recently conducted a poll of the scientific community and found that 88 percent of scientists polled found GE food is safe to eat^[1]. A wide range of well-respected international science organizations concur with this analysis concluding GMOs are no less safe than other foods. Here are some examples:

- **The American Medical Association:** "There is no scientific justification for special labeling of genetically modified foods. Bioengineered foods have been consumed for close to 20 years, and during that time, no overt consequences on human health have been reported and/or substantiated in the peer reviewed literature."^[2]
- **The American Association for the Advancement of Science:** "The science is quite clear: crop improvement by the modern molecular techniques of biotechnology is safe."^[3]
- **The National Academy of Sciences:** "To date more than 98 million acres of genetically modified crops have been grown worldwide. No evidence of human health problems associated with the ingestion of these crops or resulting food products have been identified."^[4]
- **The European Commission:** "The main conclusion to be drawn from the efforts of more than 130 research projects, covering a period of more than 25 years of research, and involving more than 500 independent research groups, is that biotechnology, and in particular GMOs, are no more risky than conventional plant breeding technologies."^[5]
- **World Health Organization:** "No effects on human health have been shown as a result of the consumption of GM foods by the general population in the countries where they have been approved."^[6]
- **The Union of German Academics of Sciences and Humanities:** "In consuming food derived from GM plants approved in the EU and in the USA, the risk is in no way higher than in the consumption of food from conventionally grown plants. On the contrary, in some cases food from GM plants appears to be superior in respect to health."^[7]

- **Council for Agricultural Science and Technology:** "Over the last decade, 8.5 million farmers have grown transgenic varieties of crops on more than 1 billion acres of farmland in 17 countries. These crops have been consumed by humans and animals in most countries. Transgenic crops on the market today are as safe to eat as their conventional counterparts, and likely more so given the greater regulatory scrutiny to which they are exposed."[\[8\]](#)
- **American Phytopathological Society:** "The American Phytopathological Society (APS), which represents approximately 5,000 scientists who work with plant pathogens, the diseases they cause, and ways of controlling them, supports biotechnology as a means for improving plant health, food safety, and sustainable growth in plant productivity."[\[9\]](#)
- **The French Academy of Science:** "All criticisms against GMOs can be largely rejected on strictly scientific criteria."[\[10\]](#)

Proponents of mandatory labeling often point to the European Union (EU) who many think, incorrectly, has a ban on GMOs. To date, 75 GM products were approved for food and feed use in the EU[\[11\]](#) including corn, sugar beets, cotton, and soy beans. The EU has also approved two crops for cultivation: a GMO corn and a potato. The Chief Scientific Advisor to the European Union stated, "If we look at evidence from [more than] 15 years of growing and consuming GMO foods globally, then there is no substantiated case of any adverse impact on human health, animal health or environmental health, so that's pretty robust evidence, and I would be confident in saying that there is no more risk in eating GMO food than eating conventionally farmed food."[\[12\]](#)

The Food and Drug Administration (FDA) is the government agency tasked with ensuring that foods sold in the United States are safe, wholesome and properly labeled. The Federal Food, Drug, and Cosmetic Act (FD&C Act) and the Fair Packaging and Labeling Act are the Federal laws governing food products under FDA's jurisdiction. The Nutrition Labeling and Education Act (NLEA), which amended the FD&C Act requires most foods to bear nutrition labeling and requires food labels that bear nutrient content claims and certain health messages to comply with specific requirements.

Under these laws the FDA requires that consumers have all information relevant to health, safety, and nutrition, on federally approved labels and that they are accurate, informative, truthful, and not misleading. Any food, whose composition has been changed in any way that is related to health, safety, or nutrition, must inform consumers of such changes on the label. Mandatory labeling of GE foods would damage the integrity of our food labeling laws by redefining their purpose and moving us away from a labeling system that has always been based solely on health, safety, and nutrition.

There is now near unanimity among scientists that GMOs are safe to eat and I'm afraid in the rush to mandate labeling of GE food we will unfairly stigmatize these foods and mislead consumers. The costs and negative impacts of a fifty state patchwork of inconsistent and incoherent standards would be significant. A more reasonable approach is to put in place a national standard for voluntarily labeling products free of GM ingredients. That is why I am a strong supporter of HR 1599, the Safe and Accurate Food Labeling Act which would:

- Require the Food and Drug Administration (FDA) to conduct a safety review of all new plant varieties developed using bioengineering before those foods are introduced into commerce.
- Create a new legal framework, subject to FDA oversight, governing the use of label claims regarding either the absence of, or use of, genetically engineered food or food ingredients.
- Require FDA to develop a Federal definition and regulations for "natural" claims on product labels.
- Establish a voluntary, national "non-GMO" certification program at the USDA. This would allow those who wish to label their products as GMO-free to do so through a USDA-accredited certification process providing consumers with a nationwide label they can have confidence in no matter which state they are in.

- Would not preempt local bans on the cultivation of GE crops like those in Jackson and Josephine Counties in Oregon.

HR 1599 passed the House on July 23, 2015 with broad bipartisan support by a vote of 275-150, including 45 democrats, and has been sent to the Senate for further consideration.

I understand this issue is extremely sensitive to many people and I take their concerns to heart. I hope you realize that my approach on this issue is one based in science and my long history of being an organic farmer. Crafting a legislative solution to a difficult public policy problem is never easy task, but I feel we have achieved a reasonable solution that serves the needs of those on both sides of this issue. I believe there is room for conventional and organic agriculture and I will continue to be a voice for both here in Congress.

Thank you once again for contacting me.