

Food Safety: To Conceal or Reveal

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Bad laws are the worst sort of tyranny. ~Edmund Burke

The United States Role And Oversight In Food Safety

In 2012, the United States Department of Agriculture (USDA) celebrated its 150th anniversary. Established in 1862, President Abraham Lincoln signed into law the creation of the United States Department of Agriculture. Lincoln called the USDA, “The People’s Department” since many Americans during that time lived on farms¹. Since that time, the department has undertaken the creation and enforcement of food safety regulations designed to ensure that the nation’s food supply is safe, wholesome and properly labeled and packaged.

The crucial moment for inspection of meat in the United States came in 1905 and 1906 when Upton Sinclair, Jr., an American journalist and novelist published *The Jungle*. The details of *The Jungle* described unsanitary working conditions in a Chicago meatpacking house, putting meat consumers at risk for disease. The popularity of Sinclair’s book contributed, in part, to

¹ United States Department of Agriculture (2016), <http://www.usda.gov/wps/portal/usda/usdahome?navid=USDA150> and http://www.usda.gov/wps/portal/usda/usdahome?navid=USDA_MISSION-AREAS.

the passing of legislation providing for meat inspection. In the ensuing years, Congress passed significant legislation directed to the health and safety of American consumers: the Pure Drug and Food Act (1906), Federal Meat Inspection Act (1906), the Poultry Products Inspection Act (1957), the Humane Methods of Slaughter Act (1958) and the Egg Products Inspection Act (1970). The Food Safety and Inspection Service (FSIS) were enabled by Congress to enforce these acts.

Yet, today more progress is needed to protect people and reduce foodborne illness in America. In December 2015, Boston health officials and Chipotle Mexican Grill agreed that as “many as 80, mostly Boston College students became victims of the norovirus”². Also, according to reports by the Center for Science in the Public Interest (CSPI), “fresh produce is the cause of foodborne illnesses in the United States”³. In another case, an investigation by the Centers for Disease Control and Prevention indicated that the Blue Bell Creameries fatal outbreak of listeriosis, which sickened at least 10 people and led to three deaths, can date back to 2010 according to a database of bacteria

² Dan Flynn, *Health Officials: Boston College Illness Outbreak is Norovirus*, Food Safety News (December 8, 2015), <http://www.foodsafetynews.com/2015/12/health-officials-say-boston-college-illness-outbreak-is-norovirus/#.VnR3xhUrLIU>

³ *Fresh Produce Responsible for Most Foodborne Illnesses in the U.S.*, Food Safety News (December 8, 2015), <http://www.foodsafetynews.com/2015/12/report-fresh-produce-responsible-for-most-foodborne-illness-outbreaks/#.VnR4-RUrLIU>.

DNA. The strain of listeria lurked in the Blue Bell Creameries over the last five years.

Currently, Blue Bell is under criminal investigation by the United States Department of Justice to determine if company executives committed wrongdoing in their handling of the outbreak.⁴ What has caused so many challenges to food safety? Are genetically modified organisms a problem with the safety of our food system? What progressive and preventive actions should have been taken for a healthy food system?

USDA's Lack of Power

In 1993, a West Coast E.coli outbreak occurred in Washington, Idaho, Nevada and California. The USDA spearheaded serious inspections by conducting microbial testing for salmonella and E.coli 0157h7. If a meat processing plant repeatedly failed the USDA tests, the USDA can shut down the plant.⁵

⁴ Sandee LaMotte and Evan Perez, *Justice Department investigates Blue Bell Creameries over listeria response*, CNN Health (Updated January 2, 2016). <http://www.cnn.com/2016/01/01/health/blue-bell-listeria-criminal-investigation/>

⁵ Hearing before the Permanent Subcommittee on Investigations of the Committee on Governmental Affairs, U.S. Senate, Sept. 10, 24 & 25, 1998, <http://www.gpo.gov/fdsys/pkg/CHRG-105shrg51562/html/CHRG-105shrg51562.htm>.

In May of 2000, in *Supreme Beef v. USDA*, the Fifth Circuit Court of Appeals issued an opinion that crushed the food safety reforms regulated by the USDA. The appeals court supported a lower court ruling that the Agriculture Department does not have the authority to shut down a meat-processing plant that repeatedly failed tests for salmonella contamination, utilizing the Salmonella Performance Standard.⁶ The district court ruled that FSIS lacked the constitutional authority to suspend inspection due to the establishment's failure to meet the terms with the Salmonella Performance Standard.

In December 2001, the US Court of Appeals for the Fifth Circuit ruled that the Salmonella Performance Standard conflicts with the statutory language in the FMIA and therefore is invalid. The appellate court also rejected the USDA's argument that the Salmonella performance standard should be upheld because it serves as a measure of whether pathogens are adulterants or contaminants, such as E.coli O157:H7, are also present in products. The court stated that because the performance standard measures Salmonella in the final product but not in the incoming raw materials, it cannot "serve as proxy for cross contamination because there is no determination of the incoming Salmonella baseline."⁷

⁶ *Supreme Beef Processors, Inc. v. U.S. Department of Agriculture*, 275 F.3d 432 (2001).

⁷ Fidel Toldrá, *Safety of Meat and Processed Meat*, Springer Science + Business Media, LLC (Civil Action No. 3:99-CV-2713-G).

Before the ruling in *Supreme Beef v. USDA*, Supreme Beef Processors Inc., a Texas-based meat processor, produced millions of pounds of ground beef for the public school system in the 1990s. In December 1999, one of the Supreme Beef plants failed the USDA's salmonella tests three times in eight months, with one of the tests returning a 47 percent salmonella contamination rating.⁸

In 1998, the government revealed a restructured way to conduct meat inspections called Hazard Analysis and Critical Control Point Systems (HACCP). HACCP is a tool to evaluate hazards and establish control systems that focus on prevention rather than relying primarily on end-product testing. The Food and Drug Administration states, that HACCP can be useful throughout the food chain from primary production to final consumption and its implementation should be guided by scientific evidence of threats to human health.

Rather than relying on USDA inspectors to ensure that meat and poultry coming out of the plants was safe to eat, the new system required meat-processing plants to develop and implement their own systems of controlling the levels of harmful bacteria in their plants.⁹ The CDC and USDA cite the

⁸ Katherine A. Straw, *Washington University Journal of Law and Policy: Ground Beef Inspections and E. Coli O157:H7: Placing the Needs of the American Beef Industry Above Concerns for the Public Safety* (2011).

⁹ *Pathogen Reduction; Hazard Analysis and Critical Control Point (HACCP) Systems; Final Rule*, 9 CFR § 304 (1996).

implementation of the Hazard Analysis and Critical Control Points (HACCP) system of inspection as a principal reason why the instances of foodborne illness appears to be dropping.

Yet, many critics believe that under the HACCP system involving its seven principles, which are: (1) hazard analysis, (2) critical control point identification, (3) establishment of critical limits, (4) monitoring procedures, (5) corrective actions, (6) record keeping, and (7) verification procedures, there is no way to inspect a plant and ensure the healthiness of food. Each manufacturer is required to create and implement their HACCP system, which is submitted to the USDA for approval. Inspectors expect the manufactures to follow their HACCP plan and withhold the old “poke and sniff”¹⁰ method once used. Many critics believe that manufacturers are not going to regulate themselves and will not effectively implement their HACCP programs. Also, HACCP principles do not work well in restaurants. HACCP principles for restaurants are geared toward cooking, cooling and holding instead of the integrity of particular food types.

GMO Woes and Monsanto

Genetically modified organisms (GMOs) are organisms that have been created through the gene-splicing techniques of

¹⁰ Stephen R. Crutchfield and Jane Allshouse, *The Economics of Improving Food Safety*, Economic Research Service, <https://www.farmfoundation.org/news/articlefiles/128-crutchfield.pdf>.

biotechnology, also called genetic engineering, or GE¹¹. These organisms are a part of a new science which and their creation results in unstable combinations of animal, plant, viral and bacterial genes that do not appear in nature or through conventional crossbreeding methods¹². Over the years, genetically modified foods (GMOs) have developed a bad reputation as studies continue to expose the dangers of GMOs. Many people are unsure about GMOs and they have good reason to be skeptical.

Some issues with genetically modified foods are:

Killing of Bees and Butterflies

A Harvard study confirmed that “70 percent of honey samples collected in Massachusetts contained at least one neonicotinoid in pollen and honey samples.”¹³

Scientists, farmers and beekeepers have been alarmed at the rates at which bees and other pollinators are dying. This problem is leaving approximately a third of the world’s crops in a fragile position as pollination cannot

¹¹ Phillip Gordon, *Genetically Engineered Foods Are Not The Enemy*, Lady Bud, July 3, 2013, <http://www.ladybud.com/2013/07/03/genetically-engineered-foods-are-not-the-enemy/>.

¹² Id.

¹³ Christina Sarich, *Harvard Finds Pesticide in 70% of Honey Samples Tested, Results that are hurting our pollinators*, Natural Society, Sept. 12, 2015, <http://naturalsociety.com/harvard-finds-pesticide-in-70-of-honey-samples-tested/>.

occur without bees.¹⁴ The shrinking population of the North American monarch butterfly has been linked to Monsanto's popular herbicide, Roundup. The World Wildlife fund announced that last year's migration of the monarch butterfly from Canada, to the United States and down to Mexico was the lowest it's been since scientists began tracking them over twenty years ago. In fact, a 43 percent drop has been measured compared to last year.¹⁵

Pesticides and Herbicides

Farmers have been drawn to genetically modified (GM) crops by the anticipation that fewer pesticides and herbicides will be needed, resulting in less cost and greater production. Yet, farmers of GM crops have experienced "super weeds" that have evolved a resistance to glyphosate, an herbicide that kills grass and broadleaf plants, disappointing crop yields, and crops developing a resistance to chemicals. Over time, this has resulted in increased use of herbicides and pesticides causing increased herbicides and pesticide levels on

¹⁴ Megan L. Norris, *Will GMOs Hurt my Body? The Public's Concerns and How Scientists Have Addressed Them*, Science in the News, (2015), <http://sitn.hms.harvard.edu/flash/2015/will-gmos-hurt-my-body/>.

¹⁵ Arjun Walia, *Not Just Bees: Disappearance of Monarch Butterflies Linked to Monsanto's Roundup Herbicide*, Collective Evolution, Feb, 20, 2014, <http://www.collective-evolution.com/2014/02/20/not-just-bees-disappearance-of-monarch-butterflies-linked-to-monsantos-roundup-herbicide/>.

food. Scientists recently studied thirteen major crop pests and discovered that five had developed a resistance to the poisons genetically bred into GM plants like Bt corn and Bt cotton. The Bt prefix signifies for *Bacillus thuringiensis*, a microbe that produces insecticidal endotoxin and has been used as a topical pesticide against insects since 1961.¹⁶ According to Dr. Charles M. Benbrook, a pesticide policy expert who became involved in the Food Quality Protection Act (FQPA) debate during the early 1980s, states GM crops caused herbicides use to increase 25 percent per year.¹⁷

GMO Farmers cannot Harvest GE Seeds

Monsanto, the largest producer of genetically engineered (GE) seeds in the world, is an agrochemical and agricultural biotechnology company. Monsanto produces for over 90 percent of genetically engineered (GE) seeds being planted globally. Farming, a process consisting of: planting seeds, growing crops, harvesting crops and gathering seeds from the plants for next season has changed with the monopoly given to

¹⁶ Matthew Niederhuber, *Insecticidal Plants: The Tech and Safety of GM Bt Crops*, Science in the News (2015), <http://sitn.hms.harvard.edu/flash/2015/insecticidal-plants/>.

¹⁷ Charles M Benbrook, *Impacts of genetically engineered crops and pesticide use in the United States. Years-* USDA Survey Data (Sept. 28, 2012) <http://www.nlpwessex.org/docs/benbrook.htm>.

companies like Monsanto for their seed patents. GMO companies, like Monsanto, take the last step of farming away from farmers and force farmers to continually buy the premium priced GM seeds every growing season which is expensive.

In Bowman v. Monsanto 2013, which went to the Supreme Court, Bowman wanted to reduce costs for his riskier late season planting. Bowman purchased soybeans intended for consumption from a grain elevator, planted them, treated the plants with glyphosate killing all plants that proved to be lacking the Roundup Ready trait. He then harvested the surviving soybeans that contained that trait; and saved some of these harvested seeds to use in his late-season planting. Upon learning this practice, Monsanto sued Bowman for patent infringement. Bowman raised the defense of patent exhaustion, which gives the purchaser of a patented article or any subsequent owner the right to use or resell that article. The District Court rejected Bowman's defense and the United States Court of Appeals for the Federal Circuit affirmed. The 70-year old farmer was found guilty of patent infringement after he purchased and used second generation (replicated Monsanto seeds) Monsanto seeds.¹⁸

The United States Court of Appeals for the Federal Circuit stated "that under the doctrine of patent exhaustion, the authorized sale of a patented article gives the purchaser, or any

¹⁸ Vernon Hugh Bowman v. Monsanto Company, 569 U.S. 11 (2013).

subsequent owner, a right to use or resell that article. Such a sale, however, does not allow the purchaser to make new copies of the patented invention. The United States Court of Appeals for the Federal Circuit reasoned that patent exhaustion did not protect Bowman because he had created a newly infringing article.”¹⁹

Lawful Consequences of Accidentally Grown Patented GM Plants

Recent case law has established that it is unlawful to grow a genetically modified plant whose seeds were not directly purchased from an approved distributor such as, cross-pollination.

In Monsanto Canada Inc. v. Schmeiser (2000), Monsanto brought a patent infringement action against Percy Schmeiser, alleging that 95 to 98 percent of farmer, Percy Schmeiser’s, fields were planted with this type of seed harvested from plants resulting from accidental cross-pollination, which they claimed to be a direct infringement of the patent. Schmeiser defended, stating he did not intentionally plant the patent variety of canola crop but that natural pollination or an accidental spillage onto his field by an area farmer’s truck must have been the cause. Monsanto was not persuaded, urging the court to find that regardless of how the patented seed came to be growing in Schmeiser’s field; the patented seed was still the property of the

¹⁹ Id.

company. Monsanto argued that the company deserved both the \$15 coulombs per acre (US \$15 coulombs/acre) licensing fee as well as profits from the sale of Schmeiser's 1998 canola crop.²⁰

The Canadian Supreme Court, in a 5-4 decision, upheld the validity of Monsanto's patent. However, the court also said that although Schmeiser had infringed on Monsanto's patent by growing Roundup Ready® canola, he did not owe them either damages or court costs. The court said that in a case like this, the total of damages is measured by the extra profits derived from the use of the patented item. Because Schmeiser did not spray the field with glyphosate, he enjoyed no benefit and thus his profit was the same as if he has planted a non GMO canola crop. Therefore Schmeiser owed Monsanto nothing.²¹

No Legal Requirement that GMOs be Labeled for Consumer Awareness

Legislation has been passed to block a proposed requirement that GMO's be labeled, to allow consumer awareness. The Safe and Accurate Food Labeling Act of 2015, creates a federal standard which preempts states and localities from being able to require the labeling of GMOs on foods and sets up a voluntary labeling of foods with GMO ingredients.

²⁰Monsanto Canada Inc. v. Schmeiser, SCC 34 1 S.C.R. 902, 2004 SCC 34 (2004).

²¹ Id.

Many state legislators have different opinions about labeling foods with GMO attributes. A strong majority of the Massachusetts House of Representatives and Senate have decided to sponsor GMO food labeling. In fact, 154 out of 200 Massachusetts legislators signed a GMO labeling bill as co-sponsors. Senate Minority Leader Bruce Tarr (R-Gloucester) states, “People have the right to know and understand the products that are contained within our food in order to make informed and healthy decisions to meet their dietary needs.”²² The majority of Florida representative voted for a ban on state required GMO labeling. The Florida legislation passed 275-150, backing the food industry to not have mandatory labeling on GMO products. Those who voted yes include, Representative Ileana Ros-Lehtinen, Carlos Curbelo and Mario Diaz-Balart. Those who voted against the legislation include Representative, Frederica Wilson, Debbie Wasserman-Shultz and Lois Frankel.

Senator Mike Pompeo (R-KS), drafted the Safe and Accurate Food Labeling Act (H.R. 1599), yet this act has been nicknamed by critics as the DARK Act – or “Deny Americans the Right to Know Act” to block all states from labeling genetically engineered foods, and make it difficult for the FDA to ever mandate labeling. Senator Mike Pompeo states, “We’ve got a number of states that are taking wildly different approaches to putting restrictions on the capacity for technology to continue

²² Conor Yunitz and Deirdre Cummings, *Majority of State Legislators Support GMO Food Labeling*, February 5, 2015.

to enter the food chain in a safe and affordable way, and that won't work."²³

According to the FDA in regards to labeling, the FDA asserts, "food manufacturers to ensure that labeling terminology concerning the use of modern biotechnology in the production of a food or its ingredients be accurate and consistent and that the integrity and meaning of scientific terminology be preserved to help ensure clear communication in food labeling."²⁴ Ultimately, it's the food manufacturer for assuring safety.

The International Agency for Research on Cancer (IARC), the specialized cancer agency of the World Health Organization (WHO) has assessed the herbicide glyphosate and insecticides malathion, diazinon, tetrachlorvinphos and parathion and "classified these as being possibly carcinogenic to humans."²⁵

According to scientists, glyphosate is in 80 percent of our food, and is believed to be the most toxic chemical ever

²³ Jeff Daniels, *GMOs: Congress may block states from requiring labeling*, July 22, 2015.

²⁴ *Guidance for Industry: Voluntary Labeling Indicating Whether Foods Have or Have Not Been Derived from Genetically Engineered Plants*. <http://www.fda.gov/food/guidanceregulation/guidancedocumentsregulatoryinformation>

²⁵ *Evaluation of Five Organophosphate Insecticides and Herbicides*, International Agency for Research on Cancer, World Health Organization, Volume 112, March 20, 2015. <http://www.iarc.fr/en/media-centre/iarcnews/pdf/MonographVolume112.pdf>.

approved for commercial use. Glyphosate is now linked to, antibiotic resistant bacteria, inflammatory bowel disease, kidney disease, depression, obesity, ADHD, Alzheimer's disease, autism, Parkinson's disease, multiple sclerosis, ALS, cancer, cachexia, infertility, and developmental malformations. It destroys the microbiome of humans and plants, which is the root cause of many modern diseases.²⁶

The Food and Drug Administration recently determined that the AquaAdvantage salmon, a genetically modified salmon, is as safe to eat as Non-GE salmon. FDA scientist meticulously evaluated data submitted by AquaBounty Technologies to determine whether AquaAdvantage salmon met the criteria for approval established by law. The data proved that the inserted genes remained stable over several generations of fish and GE salmon is safe to eat by humans and animals.²⁷

GMO Lobbying

Across the globe, many countries have enacted mandatory labeling laws for GMO foods. Many large food makers like Coca-Cola, General Mills, Hormel, Land O'Lakes, Kellogg, Kraft, PepsiCo, Syngenta, Grocery Manufacturers

²⁶ Zen Honeycutt, *EPA Stalling of Glyphosate Decision is Harmful to America*, Huffington Post, December 11, 2015.

²⁷ *FDA Has Determined That the AquaAdvantage Salmon is as Safe to Eat as Non-GE Salmon*, Consumer Updates, November 19, 2015, <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm472487.htm>.

Association and biotech giants like Monsanto and Biotech Industry Org. are determined to stop the passage of GMO labeling in the United States.

An analysis from Environmental Working Group (EWG) revealed that big food and biotech companies have vastly increased their lobbying expenditures in the first half of 2015 to prevent the GMO labeling. According to EWG in a 2015 report, “A total of 51 million was spent to hire 32 lobbyists exclusively to advocate for legislation to block state and federal GMO labeling.”²⁸

Last May, Vermont became the first state to enact legislation to require GMO labeling. The Grocery Manufacturers Association and other trade groups filed a lawsuit in an effort to prevent the law from being implemented. If the suit fails, all food made with GMOs that is sold in Vermont must be labeled, effective July 1, 2016. Connecticut and Maine have approved GMO labeling laws that would go into effect if other northeastern states authorize similar legislation.²⁹

Moreover, a EWG report also stated that big food and biotechnology companies made Political Action Committee (PAC) contributions totaling over \$3.8 million to 404

²⁸ Libby Foley, *Big Food Companies Spend Millions to Defeat GMO Labeling*, Environmental Working Group, August, 4, 2015.

²⁹ *Id.*

candidates.³⁰ Monsanto, dubbed as a political heavyweight, employed Justice Clarence Thomas as a corporate attorney during the 1970s. Some have criticized Thomas' participation in cases involving a previous employer. And aside from Justice Thomas, Monsanto has ties to lawmakers who own stock in Monsanto, including Sen. Kay Hagen (D-N.C.), Michael McCaul (R-Texas) and Fred Upton (R-Mich.) to name a few.³¹

Conclusion

Food safety is flawed and it's time to strive toward a more sustainable and supreme system. Transparency is needed to guide consumers on what is contained in food and allowing them to make knowledgeable decisions when it comes to choosing foods that have been produced through biotechnology, like GMOs, or naturally grown.

Strong regulations are necessary so corporate monopolies in food production have less power, political influence and can cease their destructive practices by funneling money into lobbying campaigns to keep consumers in the dark about what they are eating.

The food industry is broken and has become a destructive system. We, humanity, need to fight for our survival

³⁰ Id.

³¹ Janie Boschma, *Monsanto: Big Guy on the Block when it comes to friends in Washington*, February 19, 2013.

and demand natural systems which will be wholesome, ecological, affordable, and resilient. It is time to dismantle this food system and be pioneers of a food movement that will benefit subsequent generations.

There isn't going to be a quick resolution. Government must intervene in the food industry to save Americans' health and get beyond the lip service which solves nothing.