MANDATORY LABELING OF GENETICALLY ENGINEERED FOOD: CONSTITUTIONALLY, YOU DO NOT HAVE A RIGHT TO KNOW

I. INTRODUCTION

In 1962, Americans were introduced to The Jetsons. Viewers were captivated by the portrayal of a family living one hundred years in the future in a world defined by technological convenience. Fifty years since The Jetsons premiered, technology has evolved to a point where the reality of today looks very much like the dreams of yesterday. Today, there are modern marvels such as cell phones that enable us to video chat, the Internet that grants us access to information from all over the world, and libraries of books at our disposal at the touch of a button.

While it is true that the present luxuries afforded to society through innovative production are ever-present, they overshadow the fear that such technology provokes in some. As the scientific community pushes onward, the fear of the “unnatural” or what happens when man “plays God” makes many people feel apprehensive. Numerous inventions have been the subject of controversy when they first emerged: vaccinations,

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2 See id.
4 See id.
6 See id.
vitro fertilization,8 and the currently debated genetically engineered foods.9 Every year, vaccinations save nearly nine million lives;10 in vitro fertilization has given life to five million babies;11 and in 2011 alone, genetically engineered food yielded over 395 million acres of crops.12

For over twenty years, genetic engineering has been used in the production of many foods.13 Genetic engineering allows farmers to overcome regional hardships, such as the ability to grow crops that are resistant to drought in areas that lack water, or crops that are resistant to certain pests or pesticides, while simultaneously allowing farmers to increase yields.14 Despite these benefits, there has been ongoing debate over whether genetically engineered food is harmful to humans.15 Large grassroots groups have formed to urge the government to mandate the labeling of genetically engineered food, to no avail.16 They ask simply to know if their food is genetically engineered.17 Their cries seem to have been ignored by the Federal government, for the Food and Drug Administration (FDA) claims that there is no material difference between genetically engineered food and its conventional counterparts.18 In response to the FDA’s claims, the interest groups that are against genetically engineered food are now pushing for mandated labels through legislation at the state level, for the purpose of informing consumers.19

9 See THE COUNCIL ON SCIENCE AND PUBLIC HEALTH, EXECUTIVE SUMMARY 1 (2012).
10 UNICEF, supra note 7.
11 See Mail Online, supra note 8.
12 ISAAA, EXECUTIVE SUMMARY: GLOBAL STATUS OF COMMERCIALIZED BIOTECH/GM CROPS, http://www.isaaa.org/resources/publications/briefs/43/executivesummary/default.asp (last visited on Oct. 25, 2012) (the source stated measurements in hectares and they have been converted in comment to acres).
13 THE COUNCIL ON SCIENCE, supra note 9.
17 Id.
19 See Why Label?, supra note 16.
As the coalition grows in many states, one highly publicized attempt to mandate the labeling of genetically engineered food occurred in California in November 2012, when the efforts of such groups led to the failed California Right to Know Genetically Engineered Food Act. The initiative reflected the desire of many Americans to have food in grocery stores labeled as “Genetically Engineered.” The stated purpose of the California Right to Know Genetically Engineered Food Act, as well as that of other similar initiatives, was to inform people about the food that they purchase, specifically regarding whether genetic engineering had been used during production. The rationale behind such initiatives is to allow consumers to “choose for themselves whether to purchase and eat such foods.” The Act sought to inform the people by forcing manufacturers and producers to label their food as “genetically engineered,” even though they have chosen thus far not to use such a label. While the movement in California was voted down, progress is being made to have similar initiatives placed on upcoming ballots in other states, such as Vermont, New Mexico, and Washington.

This Comment will show that informing the people about what foods are genetically engineered by mandating that labels be placed on such food is not a substantial enough interest to justify the violation of the manufacturers’ First Amendment right not to speak. Part II will give an overview of genetically engineered foods, how they have come to appear in the grocery store, and the present debate over the possible health effects. Part III will delve into the First Amendment implications involved in mandating that manufacturers label their products as “genetically engineered” when they have chosen not to. In doing so, the Comment will explore the alternatives to mandated labeling that are already in place and explain how the current regulatory systems protect consumers from


22 Id.

23 Id. at 2.

24 Id.

25 Id. at 4.


27 Elaine Watson, supra note 20.

28 Id.
potentially harmful foods. Part IV will advocate educating the people about genetically engineered foods and implementing research from a nonbiased, governmental standpoint, so the people can trust the results.

II. OVERVIEW OF GENETICALLY ENGINEERED FOOD

A. History

Genes in plants have been modified for hundreds of years, through a lengthy process of cross-breeding and hybridization.29 Historically, two related plants would be cross-fertilized, thus creating an offspring plant that had both of the parent plants’ characteristics.30 Through this process, both the undesirable traits and those that were intended to be expressed would be carried on.31 Further cross-breeding would then take place to eventually eliminate the undesirable traits, but this process was lengthy and inefficient.32 The desired traits would sometimes spontaneously arise through natural mutation, yet this process was very slow.33 The speed at which mutation would occur was sped up in the 1920s with the use of X-rays and chemicals.34

The most significant advancement took place in 1953 with the cracking of the DNA double helix, which allowed for the possibility of altering the DNA structure.35 With this knowledge, gene splicing was made possible; individual genes could be removed, added, or inactivated.36 In the early 1980s, transgenic technology made it possible to isolate genes from one species and add them to another species to express the desired trait.37 This process eliminated undesirable traits and cut out the extra time involved in traditional methods.38 More importantly, and perhaps controversially, it allowed for the possibility of removing a gene from animal DNA and inserting it into plant DNA.39

In 1982, Monsanto scientists were the first to genetically modify a plant cell, and by 1996, genetically engineered plants were on the market.

29 BIOENGINEERED FOOD, supra note 18, at 2.
30 Id.
31 Id.
32 Id.
34 Id.
35 Id.
36 Id.
37 Id.
38 BIOENGINEERED FOOD, supra note 18, at 2.
39 Genetically Modified Crops, supra note 33.
and being used by farmers.\textsuperscript{40} In 2011, 16 years after the commercialization of genetically engineered crops, over 395 million acres of genetically engineered crops were planted in the world by more than 29 countries.\textsuperscript{41} With 170 million acres, the United States of America leads the production of genetically engineered crops.\textsuperscript{42}

B. Ongoing Debate over Human Health Risks

While the debate about genetically engineered food is extensive and will likely not be resolved anytime soon, both sides of the argument present relevant information.\textsuperscript{43} Essentially, the debate is about whether genetically engineering food benefits the producer or the consumer; thus far, the companies creating the genetically engineered seeds have focused their efforts on benefiting the producer, by maximizing their financial gain.\textsuperscript{44} The consumer, who has not experienced a price reduction or an increase in product availability, wonders what he or she is gaining from this technology.\textsuperscript{45} Conversely, the same technology is used in the production of pharmaceuticals; yet, the benefit to the consumer is an immediate health benefit and thus the technology is more readily accepted.\textsuperscript{46}

In June 2012, the American Medical Association released the results of a study on the impact of genetically engineered food on human health.\textsuperscript{47} They concluded that over the past 20 years of human consumption of genetically engineered foods, “no overt consequences on human health have been reported and/or substantiated….”\textsuperscript{48} While there are no known consequences to human health, the report recognizes that there is potential for allergenicity, horizontal gene transfer, and toxicity.\textsuperscript{49} These potential effects on human health are the centrally debated issues on both sides of the argument.

\textsuperscript{40} Monsanto, Company History, http://www.monsanto.com/whoweare/Pages/monsanto-history.aspx (last visited on Oct. 25, 2012).
\textsuperscript{41} See ISAAA, supra note 12.
\textsuperscript{42} Id.
\textsuperscript{43} See Keith Kloor, supra note 15 at 3. (presents both sides of the argument).
\textsuperscript{45} Id. at 1.
\textsuperscript{46} Id.
\textsuperscript{47} The Council on Science, supra note 9 at 2.
\textsuperscript{48} Id. at 3.
\textsuperscript{49} Id.
Allergenicity is defined as the tendency to provoke an allergic reaction. Many fear that proteins from commonly allergenic foods (e.g., eggs, milk, or peanuts), contact allergens (e.g., latex), or respiratory allergens (e.g., pollen or dust mite) will be inserted into genetically engineered food and an individual will then consume the product, unaware of the potential allergen within the food. The fear of allergens is supported, having occurred on two different occasions, both involving food that was not intended for human consumption. In both incidents, these allergens were detected as a result of pre-market safety procedures and the products were never placed on the market. It is due to this small potential of allergenicity that genetically engineered food is exhaustively examined before being placed on the market, whereas identical foods that do not use genetic engineering production methods are not. The extensive pre-market regulation ensures that bioengineered food is no more likely to be allergenic than its non-bioengineered counterpart.

Horizontal gene transfer refers to the transfer of genetic material from one organism to another. It is feared that when a human consumes a food that is engineered to express antibiotic-resistant markers, that individual will then take up the antibiotic-resistant marker through enteric bacteria and the marker will become integrated, ultimately creating bacteria in that individual that is resistant to certain antibiotics. However, the likelihood of this happening is next to impossible; furthermore, food that is not bio-engineered carries bacteria as well and is just as likely as genetically engineered food to cause horizontal gene transfer.

Toxicity is possible if the proteins that are used to create the plant are themselves toxic when consumed by humans or cause the plant to express toxins. These fears are based on a couple of studies that were done on mice and rats. Nonetheless, since the study on rats found that an adverse effect occurred in the rats that ingested transgenic

50 See id. at 5.
51 Id. at 6.
52 Id at 5.
53 THE COUNCIL ON SCIENCE, supra note 9 at 5.
54 Id. at 6.
55 Id. at 6.
56 Id. at 4.
57 See id.
58 See id. at 4.
59 Id.
60 Id. at 5.
61 Id.
62 Id.
plants containing lectin genes, no such plant has been commercialized for animal or human consumption.\(^{63}\) Both the American Medical Association\(^{64}\) and the World Health Organization\(^{65}\) maintain that because of the safety assessments in place before genetically engineered food can be placed on the market, such products are equivalent to their conventional counterparts.\(^{66}\) These assessments are based on a “substantial equivalence” concept, where the new transgenic plant is compared to the conventional counterpart, and if the transgenic crop “possesses similar levels and variations of critical nutrients and toxicants,” it is substantially equivalent to the conventional plant.\(^{67}\)

After reviewing the significant concerns of society regarding human health and genetically engineered food, the World Health Organization,\(^{68}\) the American Medical Association,\(^{69}\) and the FDA\(^{70}\) concluded that human health is not affected as a result of the consumption of genetically engineered foods.\(^{71}\)

III. FIRST AMENDMENT RIGHT NOT TO SPEAK

While the leading authorities in the United States have deemed genetically engineered foods to be safe for human consumption, there are a growing number of individuals who wish to see such foods labeled.\(^{72}\) Hundreds of organizations have banded together to launch the “Just Label It” campaign to push for legislation at the federal and state levels mandating the labeling of genetically engineered foods.\(^{73}\) Many states\(^{74}\) have begun organizing in an attempt to mandate labeling through initiatives such as California’s aforementioned Proposition 37: The California Right to Know Genetically Engineered Food Act, which gave the people of California the opportunity to vote for mandated labels. Although Proposition 37 did not pass, the movement persists, with 1.2 million signatures from across the nation petitioning Congress to change the FDA’s

\(^{63}\) Id.
\(^{64}\) Id. at 8.
\(^{65}\) See WHO, supra note 44, at 4.
\(^{66}\) The Council on Science, supra note 9 at 8.
\(^{67}\) Id. at 2.
\(^{68}\) WHO, supra note 44, at 4.
\(^{69}\) The Council on Science, supra note 9 at 1.
\(^{70}\) See Bioengineered Food, supra note 18.
\(^{71}\) The Council on Science, supra note 9 at 1.
\(^{72}\) See Why Label?, supra note 16.
\(^{73}\) Id.
\(^{74}\) Elaine Watson, supra note 20.
labeling policies.\textsuperscript{75} Just Label It claims that the people’s right to know what is in their food is a core American value.\textsuperscript{76} While many people feel they “have a right to know,” the producers and manufacturers also have a right that is guaranteed by the First Amendment of the U.S. Constitution, the freedom of speech, or in this case, the freedom not to speak.\textsuperscript{77} Further analysis of the California Act and prior Supreme Court decisions about protected speech will demonstrate how these two conflicting rights would play out if such an Act were to be passed in a state in the future.

A. Compelled Speech

When one thinks of the First Amendment, one initially recognizes the right to speak against politics and religion without being persecuted by the government.\textsuperscript{78} This freedom of speech has been defined through various Supreme Court cases to recognize not only the freedom to speak but also the freedom not to speak.\textsuperscript{79} In \textit{West Virginia Bd. Of Education v. Barnette}, 319 U.S. 624 (1943), it was determined that the government could not compel students to salute the flag nor require the recitation of the Pledge of Allegiance; hence, forced speech became unconstitutional.\textsuperscript{80} In \textit{Wooley v. Maynard}, 430 U.S. 705 (1977), the Court held that a state law requiring citizens to display a license plate frame bearing the State’s motto was unconstitutional.\textsuperscript{81} Furthermore, the government cannot force a person to use his or her private property to convey an ideological message with which that person disagrees.\textsuperscript{82} The speaker has the right to tailor his or her speech and to choose what he or she says or does not say, whether it is an opinion, value, endorsement, or factual assertion.\textsuperscript{83}

On the basis of these prior decisions of the Court, the doctrine of compelled speech and the means by which to identify such protected speech have been established.\textsuperscript{84} It must first be determined that the government

\textsuperscript{75} Id.
\textsuperscript{76} Id.
\textsuperscript{77} See U.S. CONST. amend. I.
\textsuperscript{78} See A\textsc{llan} IDES \& C\textsc{hristopher N. May, Con}\textsc{stitutional Law Ind}\textsc{vidual R}\textsc{ights} 331 (Vicki Been et al. eds., 5th ed. 2010).
\textsuperscript{80} Id.
\textsuperscript{82} Id.
is compelling the speech.\textsuperscript{85} Compelled speech must be (1) a specific
government mandated message, (2) delivered on private or public prop-
erty, and (3) associated with the manufacturer and the message is one
with which the manufacturer disagrees.\textsuperscript{86}

California’s Proposition 37 required labeling on the following geneti-
cally engineered foods at the grocery store: bins of produce or on pack-
ages of produce had to be labeled “Genetically Engineered” and pack-
aged foods containing genetically engineered ingredients had to read
“Partially Produced with Genetic Engineering.” Additionally, any pack-
aged foods containing genetically engineered food could not be labeled
as “natural,” “naturally made,” “naturally grown,” or “all natural.”\textsuperscript{87} The
Act meets the first element of compelled speech: the message to be con-
veyed is quite specific; the message is laid out word for word in the leg-
islation.\textsuperscript{88} As for the second element, the State would be compelling
the manufacturers to use their personal property, the package containing
the product, to convey the State’s message in reference to the product being
genetically engineered.\textsuperscript{89} For the third element, placing labels on the
packages of food would directly associate the food within the package
and the manufacturer of the product with the message. It can be inferred
that the manufacturers do not agree with this message, for they did not
voluntarily label their products as such.\textsuperscript{90} The Court reasoned that a

\textsuperscript{85} See Hurley, 515 U.S. at 573.
\textsuperscript{86} See generally Hurley (explains how to differentiate compelled speech from speech
that the speaker chooses to make).
\textsuperscript{87} The California Right To Know Genetically Engineered Food Act, supra note 21 at 4.
\textsuperscript{88} See generally Hurley (example of speech that has a specific message).
\textsuperscript{89} Id. (example of personal property, a group that organizes a parade is to be associated
with the individual floats).
\textsuperscript{90} Id. (example of a group that did not want to associate with a specific message, so
they did not allow the float in their parade).
\textsuperscript{91} Hurley, 515 U.S. at 575.
\textsuperscript{92} Id.
"engineered," it would have already voluntarily placed such a label on its product.

The mandatory labeling set forth in Proposition 37 satisfies the elements of compelled speech; thus, the manufacturers’ right to autonomy over the messages they convey would be compromised.93

1. Strict Scrutiny

After determining that the manufacturers’ interests implicate First Amendment protection, there are different levels of scrutiny under which the Court will analyze different types of compelled speech.94 The most restrictive analysis is strict scrutiny, where the government has the burden of showing that the compelled speech (1) “is narrowly tailored to serve a compelling governmental interest” and (2) uses the least restrictive means of promoting the government’s interest.95 Strict scrutiny of compelled speech affords the judge discretion as to whether the governmental interest is compelling and is exercised with a presumption in favor of furthering the free expression of speech.96

The government’s interest in the mandatory labeling of genetically engineered food is to fully inform the people “about whether the food they purchase is genetically engineered and not misbranded as natural so that they can choose for themselves whether to purchase and eat such foods.”97 However, courts have found that an interest in informing the people does not constitute a compelling enough interest to force manufacturers to speak through labeling a product.98

*International Dairy Foods Association v. Amestoy*, 92 F.3d 67 (2nd Cir. 1996), involves issues that are similar to the issue examined in this Comment.99 This case deals with mandated labels on food to inform the consumer about an aspect of production that was genetically engineered.100 In *Amestoy*, the State of Vermont passed legislation that required labeling on milk that would identify if the product had been derived from dairy cows treated with a synthetic growth hormone that is

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93 See generally Hurley.
95 ALLAN IDES & CHRISTOPHER N. MAY, CONSTITUTIONAL LAW INDIVIDUAL RIGHTS 398 (Vicki Been et al. eds., 5th ed. 2010).
96 See Central Hudson Gas, 447 U.S. at 564.
97 *The California Right To Know Genetically Engineered Food Act*, supra note 21 at 2.
99 See generally International.
100 See id.
used to increase milk production.\textsuperscript{101} The FDA did not mandate the labeling of these dairy products because such products had been proven to be indistinguishable from the dairy products derived from cows that were not treated with the synthetic hormone.\textsuperscript{102} The Dairy Foods Association claimed that the statute requiring labels indicating the use of the synthetic growth hormone violated its First Amendment rights.\textsuperscript{103}

The court in \textit{Amestoy} held that the mandated labels violated the First Amendment because of the following:

\begin{quote}
[S]trong consumer interest and the public’s ‘right to know’ . . . . are insufficient to justify compromising protected constitutional rights . . . . We are aware of no case in which consumer interest alone was sufficient to justify requiring a product’s manufacturer to publish the functional equivalent of a warning about a production method that has no discernible impact on a final product.\textsuperscript{104}
\end{quote}

The court continues in \textit{Amestoy} that if consumers’ desires alone were sufficient to force a manufacturer to speak, then the information that could be required in regard to production alone would be endless.\textsuperscript{105} Ultimately, the court concluded that “consumer curiosity alone is not a strong enough state interest to sustain the compulsion of even an accurate, factual statement, in a commercial context.”\textsuperscript{106}

When it comes to the mandatory labeling of genetically engineered food, the interest of the State is to inform the consumer of what he or she is buying.\textsuperscript{107} While many fear that the consumption of genetically engineered food has the potential for harmful effects, there is no conclusive evidence of this, as stated by the American Medical Association in June 2012.\textsuperscript{108} Thus, the State’s interest is not compelling because it lacks a verified harm that is caused by genetically engineered food. The State bears the burden of justifying its labeling law and this “burden is not satisfied by mere speculation or conjecture; rather, a government body seeking to sustain a restriction on commercial speech must demonstrate that the harms it recites are real and that its restriction will in fact alleviate them to a material degree.”\textsuperscript{109} The argument that the State’s interest

\begin{footnotes}
\item[101] Id.
\item[102] \textit{International}, 92 F. 3d at 73.
\item[103] Id. at 70.
\item[104] Id. at 73.
\item[105] Id. at 74.
\item[106] Id.
\item[107] See \textit{The California Right To Know Genetically Engineered Food Act, supra} note 21 at 2.
\item[108] See \textit{The Council On Science, supra} note 9 at 1.
\item[109] \textit{International}, 92 F. 3d, at 73 (quoted from Edenfield v. Fane, 507 U.S.770-771).
\end{footnotes}
is not compelling is strong.110 Furthermore, the State’s interest is not narrowly tailored to serve its interest of informing the public. According to Proposition 37, the food that would require labeling excludes any food that is obtained from animals that have ingested genetically engineered food,111 making the Act under-inclusive. For example, a cow that is fed nothing but genetically engineered grains will produce steaks and milk that would not be labeled.112 If the purpose of the Act is to inform the people of what foods are produced with genetic engineering, it will not be accomplished, because many of these foods will not be labeled as such, in accordance with the Act.113

Under strict scrutiny, it must be determined that the government is using the least restrictive means of promoting its asserted interest.114 While the State is asserting the interest of creating a regulatory system for mandating labels of genetically engineered foods, such less restrictive systems are already in place.115 The FDA regulates genetically engineered food to protect people from harmful food.116 The FDA has also established guidelines for a voluntary system by which manufacturers can label their products as genetically engineered or as not genetically engineered.117 The non-GMO (genetically modified organism) Project is a private organization that currently regulates the voluntary labeling of genetically engineered foods.118 Furthermore, the United States Department of Agriculture (USDA) has created the certified “organic” industry that guarantees, through its “organic” labels on products, that those products are not genetically engineered.119

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110 See id. at 73.
111 The California Right To Know Genetically Engineered Food Act, supra note 21 at 4.
112 See id.
113 Id.
115 See BIOENGINEERED FOOD, supra note 18.
116 Id.
i. The United States Food and Drug Administration

Based on the Federal Food, Drug, and Cosmetic Act (FD&C) the FDA has authority over the safety of all imported and domestic foods in the U.S. market that are intended for both animal and human consumption.\textsuperscript{120} Bioengineered food must adhere to the same safety requirements as its counterpart non-engineered food.\textsuperscript{121} There are two sections of the FD&C that the FDA looks to regarding the safety of foods and their ingredients. The first is the adulteration provisions of section 402(a) (1).\textsuperscript{122} With the post-market authority given to the FDA, if the food raises any health concerns, the manufacturer may be sanctioned or the product taken off the market.\textsuperscript{123} The second section is section 409, the food additive provisions.\textsuperscript{124} “Under this section, a substance that is intentionally added to food is a food additive, unless the substance is generally recognized as safe (GRAS) or is otherwise exempt.”\textsuperscript{125}

“The FD&C requires pre-market approval of any food additive, regardless of the technique used to add it to the food.\textsuperscript{126} Thus, substances introduced into food are either (1) new food additives that require pre-market approval by the FDA or (2) GRAS.\textsuperscript{127} Almost all bio-engineered foods are created with the addition of proteins, fats, or carbohydrates and are considered similar to their non-genetically engineered counterparts and are presumed to be GRAS;\textsuperscript{128} therefore, according to section 409, the labeling of genetically engineered food is not required because genetically engineered foods are safe.\textsuperscript{129}

The FDA established a voluntary consultative process in 1992 to assist companies with meeting the requirements for approval under the FD&C.\textsuperscript{130} Companies that create genetically engineered food meet with FDA scientists to assess the safety of the food and to determine what tests need to be completed.\textsuperscript{131} Once completed, the data are given to the FDA, where they can be accessed by the public on the FDA website.\textsuperscript{132}

\textsuperscript{120} BIOENGINEERED FOOD, supra note 18 at 3.
\textsuperscript{121} Id.
\textsuperscript{122} Id.
\textsuperscript{123} Id.
\textsuperscript{124} Id.
\textsuperscript{125} Id.
\textsuperscript{126} Id.
\textsuperscript{127} Id.
\textsuperscript{128} Id.
\textsuperscript{129} Id.
\textsuperscript{130} Id. at 4.
\textsuperscript{131} Id.
\textsuperscript{132} Id.
By making this information publicly available, the consumer has the opportunity to access information about foods that are genetically engineered. The FDA ensures that there are no allergens, nor decreased levels of nutrients, and that toxic levels have not increased, in all genetically engineered food. If a food has significantly changed from its non-genetic counterpart, then it must be labeled accordingly. If a food is genetically engineered and has used protein from a potentially allergenic plant or animal in the genetic engineering process, the product would have to be labeled as such, informing the consumer of the presence of this material.

The FDA cannot legally require labeling simply for a different production process, if the product is not “materially” different than its non-genetic engineered counterpart. Although this consultative process is voluntary, to date, all genetically engineered plant-derived food that is intended for commercialization has been evaluated by the FDA.

Concerning mandatory labels informing the public that a product is genetically engineered, the FDA affirms that it has “neither a scientific nor a legal basis to require such labeling.” As a result of the public’s demand for information, the FDA created a Draft Guidance in 2001 for manufacturers who wish to voluntarily label either the presence of genetically engineered ingredients or the lack thereof.

1. FDA Draft Guidance for Voluntary Labeling

In 2001, the FDA established guidelines for when a product may be labeled genetically engineered or have a label indicating that it is not genetically engineered. These guidelines discuss specific terminology as well as the prohibition of wording that would imply that a non-genetically engineered product is superior to a genetically engineered product. Most importantly, a product that is labeled as genetically engineered or not genetically engineered must have a third party regulatory system that confirms the affirmation as well as extensive records, certificates, and affidavits from growers and others involved in the production

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133 See id.
134 See id. at 5.
135 Id.
136 See id.
137 Id.
138 See THE COUNCIL ON SCIENCE, supra note 9 at 7.
139 BIOENGINEERED FOODS, supra note 18, at 5.
140 Id.
141 See Food Labeling, supra note 117.
142 Id.
At this point in time, a consumer seeking to purchase food that is not genetically engineered can buy food with the Non-GMO Project verification seal on it, which guarantees that the product has undergone the appropriate testing and that the proper records have been maintained to ensure that the product is not genetically engineered.

### iii. Non-GMO Project

The “Non-GMO Project Verified” seal is on many foods at grocery stores throughout North America. This seal ensures that such products have gone through an extensive process to validate that they do not include genetically engineered ingredients. When a manufacturer first contacts Non-GMO Project, an assessment is done to determine if the product has non-, low-, or high-risk inputs.

Low-risk inputs include species that have not been commercially genetically engineered yet. High-risk inputs are crops that are genetically engineered and grown on a large scale in North America, such as alfalfa, canola, corn, cotton, papaya, soy, sugar beets, zucchini, and yellow summer squash. High risk also includes animal derivatives, such as milk, meat, eggs, honey, and other products; livestock production inputs: hormones, vaccines, and veterinary medicine; microbes and microbial products; and ingredients used in food production. The inclusion of animal derivatives would not be mandated in the government mandated labeling; thus, the voluntary system set up by Non-GMO is more inclusive and better meets the government’s interest in informing the people. Not only is the system in place a less restrictive alternative; this alternative better meets the governmental interest.

After the risk assessment, different protocol is followed to verify that the product is in fact non-GMO. All levels include accountability of the traceability of the final product back to the specific originating lots.

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143 Id.  
144 See Non-GMO Project, The “Non-GMO Project Verified” Seal, supra note 118.  
145 Id.  
146 See id.  
148 Id.  
149 Id. at 34.  
150 Id. at 35.  
151 The California Right To Know Genetically Engineered Food Act, supra note 21 at 4.  
152 See id.  
153 Id.  
154 See Non-GMO Project, Non-GMO Project Working Standard, supra note 147, at 6.
including a record keeping system with “lot numbers, and marking and labeling of packaging, containers and storage facilities to assure traceability of inputs, work-in-progress, and final products at all points in the production process.”

When products are received, produced, manufactured, stored, transferred, shipped, and transported, all tools and vehicles involved must be inspected, cleaned to remove any possible source of genetically engineered food contamination, and segregated; there must also be proper documentation of this process. After such preventative measures have been successfully completed and documented, testing is also done to verify that the food has no trace of any genetically engineered product. Testing typically takes place as early in the production process as possible. The Real-Time PCR method of genetic testing is followed, and the results must comply with set thresholds: for seed and other propagation material: 0.1%; human food, ingredients, supplements, and personal care products: 0.5%; and products that are not ingested or used on the skin: 0.9%. Involvement in the program requires onsite inspection, revision of documents, retention of such documents for up to three years, monitoring, and annual (if not more frequent) updates. In addition to the participants, the suppliers and contractors must also participate in this process.

The Non-GMO Project has taken every step to ensure that the products bearing its seal inform consumers and verify that the products they are purchasing are not genetically engineered, while including the labeling of animal derivatives. In addition to voluntary labeling, a consumer can purchase food that is certified “organic,” having gone through government regulation to be labeled as such, which also guarantees that the product is not genetically engineered.

iv. Certified Organic

If a consumer wishes to eat foods that do not contain genetically engineered ingredients, such foods can be found in the organic section of the

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155 Id. at 10.
156 Id.
157 Id. at 15.
158 Id.
159 Id.
160 Id. at 21.
161 Id.
162 See id. at 12.
163 See USDA, supra note 119.
The Organic Foods Production Act, established in 1990 by the National Organic Program (NOP), was created by the USDA. The NOP regulates the organic food industry to ensure that the products that are labeled as organic meet rigorous standards.

The standards that must be met for a product to be labeled as certified organic include the requirement “that products or ingredients identified as organic must not be produced using biotechnology [genetically engineered] methods.” Thus, consumers who wish to purchase food that is not genetically engineered can purchase organic food.

2. Strict Scrutiny Is Not Met

With the regulatory systems in place, a consumer who wishes to purchase food from the grocery store that is not genetically engineered can do so by purchasing food that is either certified organic by the USDA or food that is voluntarily labeled as non-genetically modified. Additionally, the State could create an awareness campaign to inform consumers of the options that are available to them at the grocery store. By doing so, the government could meet the interest of informing the people without violating manufacturers’ rights. This alternative is recommended in Entertainment Software Ass’n v. Blagojevich, 469 F.3d 641 (7th Cir. 2006).

In Blagojevich, the State mandated that video games deemed to be “sexually explicit” be labeled with a four inch number “18” on the front of the packages. The court held that there were less restrictive means by which the government could meet the State’s interest without violating the rights of the manufacturers. At the time, a voluntary rating labeling system was already in place. The court stated that if the government had an interest in such labels on video games, it simply could have increased parent awareness concerning the voluntary labeling that was in place “through a wide media campaign.” The same rationale could be applied to genetically engineered food and the voluntary labels

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164 See THE COUNCIL ON SCIENCE, supra note 9 at 8.
165 Id.
166 Id.
167 Food Labeling, supra note 117 at 7.
168 THE COUNCIL ON SCIENCE, supra note 9 at 8.
169 Id.
170 Entertainment Software Ass’n v. Blagojevich 469 F.3d 641 (7th Cir. 2006).
171 See id at 650-651.
172 See id. at 651.
173 Id.
that are already available to inform consumers who choose to not purchase such food, but lack the information.

Ultimately, organic labeling programs, along with voluntary labeling initiatives, provide consumers with the information they desire without compelling any group to engage in expression. If the State initiated an awareness campaign, consumers would have access to the information they need to make an informed decision. Therefore, requiring manufacturers to label their products as genetically engineered is not the least restrictive means, and strict scrutiny is not met.

B. Commercial Speech

Under strict scrutiny, the mandated labeling of genetically engineered foods will likely be found to be in violation of the First Amendment rights of manufacturers. However, a court may decide that, because this issue deals with speech that is involved in the proposition of a commercial transaction, it is afforded less protection and should be evaluated under a less restrictive standard. When the speech is commercial, that is, for the purpose of a commercial transaction, the government has more leeway to intervene so as to “dissipate the possibility of consumer confusion or deception.”

When determining if the speech in question is commercial speech, the Court has based its decisions on “the ‘commonsense’ distinction between speech proposing a commercial transaction, which occurs in an area traditionally subject to government regulation, and other varieties of speech.”

Commercial speech is expression related solely to the economic interests of the speaker and conforms to matters of business. With respect to labeling genetically engineered food, the speech in question is the label on the product. It is a part of a commercial transaction because the manufacturer has the label to inform consumers so that they will ultimately purchase the product. However, the label is not there for the sole purpose of a commercial transaction; rather, it offers information about the product. A label informing consumers about a production method is

174 See id.
175 See id.
176 See id.
178 Id. at 651.
180 Jerry Beeman and Pharmacy Services, Inc. v. Anthem Prescription Management, LLC 652 F.3d 1085, 1106 (9th Cir. 2011).
181 See id.
not solely related to the economic interest of the speaker; it is a factual matter of public interest and nothing more.\textsuperscript{182} While it could be argued that the label on food is not commercial because it offers other information not incidental to a transaction, a court could likely find that it is commercial speech.\textsuperscript{183}

If a court were to determine that the speech is in fact commercial speech, the court would use mid-level scrutiny to determine if the First Amendment rights of manufacturers would be violated by the mandated labeling of genetically engineered food.\textsuperscript{184}

1. Central Hudson Test

Under mid-level scrutiny of compelled commercial speech, the government must meet the modified mid-level scrutiny test as set forth in \textit{Central Hudson Gas & Elec. Corp. v. Public Serv. Comm’n}, 447 U.S. 557, 562 (1980), to determine if the government restriction on commercial speech is permissible.\textsuperscript{185} If the government fails to meet one of the four criteria, the compelled speech would be found to be insufficient to justify the violation of First Amendment rights.\textsuperscript{186} The four criteria are as follows: (1) Does the commercial speech pertain to lawful activity and is it not misleading? (2) Is the governmental interest substantial? (3) Does the regulation directly serve the asserted interest? (4) Is the regulation no more extensive than necessary to serve the asserted interest?\textsuperscript{187}

The government would contend that the commercial speech, that is, the label on the product, is misleading to consumers because the lack of information regarding the production process leads some consumers to believe that the product was not produced using genetic engineering. This argument presumes that some consumers believe that if a product is genetically engineered, then it is labeled as such. This presumption is not likely, since there is no law mandating that labels indicate that products are genetically engineered.\textsuperscript{188} The consumers may have seen voluntary labels indicating that genetic engineering was not used in the production of certain foods, but they would not have seen labels indicating

\begin{itemize}
\item \textsuperscript{182} \textit{Id.}
\item \textsuperscript{183} \textit{Id.}
\item \textsuperscript{185} \textit{Id.}
\item \textsuperscript{186} \textit{See International Dairy Foods Association v. Amestoy}, 92 F.3d 67, 72 (2nd Cir. 1996).
\item \textsuperscript{187} \textit{Id.}
\item \textsuperscript{188} \textit{See BIOENGINEERED FOODS}, \textit{supra} note 18.
\end{itemize}
the use of genetic engineering. The lack of a label does not mislead because there is not a general presumption that genetically engineered foods are labeled. At this point in time, a consumer would not expect to see a disclaimer concerning genetic engineering, and thus an inference in regard to the use or non-use of such methods would not be likely.

The government’s interest of informing the public of the use of genetic engineering during the production of a product is not a substantial interest. Some courts have found labels informing consumers of specific ingredients to be a substantial governmental interest when the ingredient has been proven to cause harmful effects. For example, in National Elec. Mfrs. Ass’n v. Sorrell, 272 F.3d 104, 115 (2nd Cir. 2001), the court found that the State’s interest in labeling products that contained mercury did not violate the First Amendment because it was a “legitimate and significant public goal.” Mercury had been proven to be harmful to both humans and the environment; thus the government sought to label products that contained mercury, to alert consumers to the presence of the ingredient and how to properly dispose of the product. Genetically engineered food has been on the market for more than 20 years, and there is no evidence of harmful effects to humans. The American Medical Association stated that “there is no scientific justification for special labeling of genetically modified foods….” The government’s interest, to merely inform the public, is not substantial enough to violate manufacturers’ constitutional rights.

The labeling law does not directly assert the interest of informing the public because the label would only tell the consumer that the product is “genetically engineered.” This label assumes that the average consumer knows what genetically engineered means. However, regardless of a consumer’s knowledge, when the consumer reads these words on a package, he or she will not know what was engineered in the food, why it was engineered, or precisely what function was served by the engineering. Furthermore, the consumer may not even know what genetically engineered means in the first place. This reality has caused the Ameri-

See Food Labeling, supra note 117, at 7.
International, 92 F.3d at 186.
Id.
Id.
See THE COUNCIL ON SCIENCE, supra note 9 at 3.
Id.
See International, 92 F.3d at 186.
The California Right To Know Genetically Engineered Food Act, supra note 21 at 4.
See Food Labeling, supra note 189, at 4.
can Medical Association to state that such a label “[I]s without value unless it is accompanied by focused consumer education.” The FDA conducted focus group studies concerning the different labels to be voluntarily placed on foods and found that the label “genetically engineered” was less desirable to consumers and that they would prefer labels that “disclose and explain the goal of the technology (why it was used or what it does for/to the food).” The consumer is being told that there is something different about this product that requires it to be labeled, segregating it from the rest of the products.

In *Riley v. National Federation of the Blind of North Carolina*, 487 U.S. 781, 782 (1988), North Carolina passed an Act requiring professional fundraisers to disclose to potential donors the percentage of donations that was actually turned over to charity within the past twelve months. The Court found that “the State may itself publish the detailed financial disclosure forms,” which strengthen the laws in place so as to restrict fraud in fundraising. “These more narrowly tailored rules are in keeping with the First Amendment directive that the government not dictate the content of speech absent compelling necessity, and then, only by means precisely tailored.” If the government was truly seeking to inform the people about their choices when purchasing food, it would educate the people about what genetically engineering is and clarify for them that the option to purchase such food is presently available through the government oversight of the “organic” industry and through voluntary labeling.

The labeling law is more extensive than necessary to serve the asserted interest. Violating the manufacturers’ First Amendment rights, and compelling them to speak when they have chosen not to, is not necessary to achieve the government’s interest. There are multiple systems in place to enable consumers to purchase food that is not genetically engineered without mandating labels: the current FDA regulations on genetically engineered food that ensures that the product is safe for consump-

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199. *THE COUNCIL ON SCIENCE*, supra note 9 at 3. (as stated in December of 2009 report).
202. *See id.* at 800.
203. *Id.*
204. *See THE COUNCIL ON SCIENCE, supra* note 9 at 8.
206. *See generally* Entertainment Software Ass’n v. Blagojevich 469 F.3d 641 (7th Cir. 2006) (examples of less restrictive means of meeting the governmental interest without violating rights of the manufacturers).
tion; the voluntary labeling and third party regulatory system; and the USDA certified organic labeling and regulatory system.

The Act mandating labels on genetically engineered food has failed to meet all four requirements of the Central Hudson Test. It could be argued that there are many federal and state regulatory programs that require the disclosure of product and other commercial information, such as: tobacco labeling, nutritional labeling, reporting of pollutant concentrations in discharges to water, reporting of releases of toxic substances, disclosure in prescription drug advertisements, and posting notifications of workplace hazards, to name but a few. However, all of the listed regulations concern informing the public of a harmful or hazardous effect. Genetically engineered food has no such adverse effect, and therefore the mandated labeling of the production process is not comparable to these regulations that are in place.

Mandated labeling of genetically engineered foods would violate the First Amendment under both the strict scrutiny and mid-level scrutiny standards by forcing manufacturers to speak when they would rather not.

IV. RECOMMENDATIONS

There is no doubt that genetically engineered foods have people worried. Many feel that they are being kept in the dark about basic information concerning their food. The call for information should be answered, but forcing manufacturers to speak is not the answer. A label indicating that a product was produced using the technology of genetic engineering does not inform the public about what genetic engineering is, how it is utilized, nor how it was involved in the production of that

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207 See Central Hudson Gas, 447 U.S. 557, 566 (applying the standard test of the Central Hudson case).
215 But cf. id. (mercury, a harmful substance was being labeled and was stated to be comparable to listed other regulations, unlike genetically engineered food, which is not harmful and hence not comparable).
216 See supra notes 174-177, 205-207 and accompanying text.
217 See Why Label?, supra note 16.
218 Id.
219 See supra note 204 and accompanying text.
specific product. The only information that it provides is a term that separates it from other food products.

The movement for information about genetically engineered food is gaining momentum, and while the attempt to establish a law in California mandating the labeling of genetically engineered food failed, over 4.5 million people voted in favor of the law. The numbers do not lie—many people want information about their food and about genetic engineering. The first step is to get the information to the people who seek it. Many are unaware that the government has already taken steps to provide the public with options. The label “organic” is associated with food that has not been exposed to high levels of pesticides; the fact that this label also ensures that the food is not genetically engineered is not general knowledge. Even Just Label It, a group at the forefront of the mandatory labeling movement, does not provide such vital information about organic food on its website. The home page of the Just Label It website reads as follows: “without labeling of [genetically engineered] foods, we cannot make informed choices about our food.” Yet, the website offers no information about the choices that are available.

By informing the public about the options that are available, the government would not violate the rights of the manufacturers, nor would the people have to pay for a third party government regulatory system to be established. As it stands, the voluntary systems that are in place require manufacturers to pay for the third party regulation so they can put a label on their product verifying that it is not genetically engineered. Consumers who choose not to purchase genetically engineered food can do so by purchasing products that are voluntarily labeled, and those indi-

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220 See The California Right To Know Genetically Engineered Food Act, supra note 21 at 1.
221 See id.
223 See generally Why Labels?, supra note 16. (the website gives the reader information about genetically engineered food but states nothing about how the government has regulatory steps in place so as they can avoid such food at their grocery store currently).
224 See USDA, supra note 119.
225 See generally Why Labels?, supra note 16. (the website gives the reader information about genetically engineered food but states nothing about how the government has regulatory steps in place so as they can avoid such food at their grocery store currently).
226 See id.
227 See supra note 171-172 and accompanying text.
228 See Food Labeling, supra note 189, at 7.
individuals would then pay the cost of the regulatory system through the increased cost of the products they are purchasing.\textsuperscript{230} If such a system were to become a government controlled regulatory agency, the cost to implement it would be paid by all consumers, whether they chose to buy products that are not genetically engineered or not.\textsuperscript{231} The system currently in place applies the cost only to those who want the benefit.\textsuperscript{232}

With the rejection of the initiative in California, other states, such as Washington\textsuperscript{233} and Vermont,\textsuperscript{234} are proposing similar legislations. If mandatory labels are the desired outcome, the initiatives need to have conclusive research to indicate that genetically engineered food has a harmful effect on humans so that the governmental interest is substantial to pass either strict scrutiny or mid-level scrutiny.\textsuperscript{235} If there was evidence that genetically engineered food is in fact harmful to humans, then the interest in labeling it accordingly would outweigh the rights of the manufacturers to not speak.\textsuperscript{236} As it stands, the proponents of the mandatory labeling of genetically engineered food state that these foods “[H]ave not been proven safe and long term studies have not been conducted.”\textsuperscript{237} Considering the public demand for information on genetically engineered food, studies should be conducted by reputable sources to validate the claim that genetically engineered food is safe and put the public at ease.\textsuperscript{238}

\begin{footnotesize}
\begin{enumerate}
\item See generally Non-GMO Project Verification, supra note 118 (explains the steps by which a company could voluntarily label their product, the cost to do so, could be inferred to then go to the consumer).
\item Id.
\item See Corin Hirsch, With Prop 37 Dead in California, supra at note 19.
\item See supra notes 190-196 and accompanying text.
\item See National Elec. Mfrs. Ass’n v. Sorrell 272 F.3d 104 (2d Cir. 2001).
\item See id. (website calls for long term studies to prove that genetically engineered foods are safe, if done by a source that was trusted, the public would feel safe).
\end{enumerate}
\end{footnotesize}
V. Conclusion

In the United States of America, people have the power to change the system, to ban together, and to draft legislation.\textsuperscript{239} With the majority of the people voting for such initiatives, a fleeting feeling or strong conviction of one individual can become law for all. It is this power that the people have that makes many want to be part of our nation. The power to put forward such legislation is available to the people and, at the same time, the Constitution restricts these powers to ensure that they do not infringe on the rights of others. Any law that the majority of the people in a state want enacted can be passed, but just because it is law does not mean that it is lawful. Those who seek to have mandatory labels on genetically engineered food at the grocery store have the right to fight for such legislation, but the manufacturers of genetically engineered foods may also choose to fight back for their right not to speak. Consideration must be given to the manufacturers and the available alternatives to the mandatory labeling of genetically engineered food. When consideration is given, the mandatory labeling of genetically engineered food violates the manufacturers’ First Amendment rights.

SALLY NOXON VECCHIARELLI\textsuperscript{240}

\textsuperscript{239} See WHITE HOUSE, \textit{The Legislative Branch}, http://www.whitehouse.gov/our-government/legislative-branch (last visited on January 15, 2013.) (Anyone can write a bill to be introduced to Congress and then Congress has the power to vote it into law or not).

\textsuperscript{240} J.D. Candidate, San Joaquin College of Law, 2015. This comment would not have been possible without my passion for the law that was inspired through witnessing my parents Stevan Noxon and Darci Cremer in their endless pursuit of justice, the support and encouragement of my husband Justin, and the countless hours my mother-in-law Debbie spent caring for my children.