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AP Language 2nd Period

November 11, 2016

The Secret in Our Salad

**Introduction**

Corporations in the food industry have not been held accountable by laws and/or stringent regulations requiring the labeling of their foods. When labeling a fat free yogurt or a gluten free cake, companies set requirements for labeling their food in such a way that people can clearly see that this food has either no fat or no gluten. In the case of GMOs, the labeling process remains non-existent; leading to a consumer base deceptively unaware of what processes their apple underwent to get to the grocery store. Some organizations such as, The Non-GMO Project, define GMOs as: “a plant, animal, microorganism or other organism whose genetic makeup has been modified using recombinant DNA methods (also called gene splicing), gene modification or transgenic technology” (“By U.S. Organic Farmers Worried About Seed Contamination”). Following their definition of GMOs The Non-GMO Project remarks about the process of GMO creation resulting in an: “unstable combinations of plant, animal, bacterial and viral genes that do not occur in nature or through traditional crossbreeding methods” whereas a group of doctors and biologists and chemists belong to the pro-GMO group possessing beliefs that GMOs do not result in any negative effects on the genetically modified food or the consumers who eat them (POLYSYNDETON) By U.S. Organic Farmers Worried About Seed Contamination”). The Obama Administration has made attempts to improve the labeling of GMOs by requiring cereal companies to label their boxes with either a GMO label or a Non-GMO label. The growing popularity of GMOs in the media attracted the attention of my family. A recent interest in nutrition and proper eating forced us to take a look at what we put into our bodies. The outrage of the general public towards GMOs compelled me to view GMOs as precipitates of mutation; my mind warping them into a monstrous and unnatural product of bad science. My family’s careful attention to the food we purchase allows us to have a better understanding of the steps we need to take to improve the quality of the food we consume. When I evolved into a consumer who cares about what my next meal went through to get onto my plate, my desire to know the truth behind GMOs grew until I could not bear not knowing (ANECDOTE). Due to the impact of GMOs and GM foods on the environment, livestock, and public health, GMOs and GM foods should be thoroughly and clearly labeled so that consumers not only know what they are buying but also what processes their food has gone through.

**Literature Review**

The stigma surrounding GMOs synthesizes a fear that the food’s genetic modification has caused a mutation resulting in the food losing any and all health benefits. Because of this stigma that surrounds GMOs, a controversy emerged between academics, the public, and major corporations. Academics believe that “labeling may evoke beliefs about the product on which it is placed” whereas many people among the public believe that they have the right to know what their groceries contain (Ellen). Major corporations tend to have the same opinions as the academics mainly based on the fact that if the public has aversion towards products that use GMOs, the companies that use GMOs will lose millions of dollars. One of the major contributions to the aversion from the public towards GM foods revolves around the stigma that surrounds GM foods. The first genetically modified crop sold on the free market, The FLAVR SAVR tomato, purported to extend the shelf life of tomatoes reinventing canned tomatoes. The FLAVR SAVR tomato flew off the shelves until a radio host spoke his mind on air. Once a seed of doubt sprouted among consumers, the FLAVR SAVR sales went down drastically (Bruening). It only takes one person to say that he/she does not believe in the change towards innovation to spread doubt among the community (METAPHOR). Whether innovation serves to benefit the top dog or the low man on the totem pole, one person can shift the community perspective in a whole new direction.

Crossbred and genetically modified plants differ in not only methods but also in outcomes. The aforementioned group of GMO enthusiasts tend to believe genetically modifying plants pave the way to the next step in cross-breeding or natural selection, but others who contrast in their beliefs claim genetic modification uses unnatural science that may possibly produce crops that can harm consumers. Even though academics such as Pam Scholder Ellen support the claim that “people who consume GM foods are exposed to no known additional risk compared with conventionally cross- bred plant ingredients”, a very distinctive difference between genetically modifying a plant and allowing for cross-breeding between plants causes controversy. A genetic engineer involved in genetically modifying a plant cuts genes out of a plants genome and or move genes around whereas in cross-breeding, the plants pass on genes to their decedents. Natural selection plays a role in cross-breeding allowing a plant species to benefit from the reproduction, yet this benefit tends to get completely looked over in genetic modification. The modern activists who support the labeling of GMOs seemed to have gotten their way with the new law that President Barak Obama put into action. The law that he passed requires GMO labeling on cereal in California. Although this change benefits activists, they believe that the new law also serves to benefit corporations; riddled with loopholes, the new laws support the major corporations that fill the pockets of politicians. Only Americans with a smart phone, about two thirds of the population, have the ability to access these new labels which require a QR scanner (Ashton). These laws make the appearance of a bias among lawmakers more prominent in benefiting those who sell GM foods.

Although numbers, through manipulation, have the ability to benefit one side of an argument more than the other, the facts do not lie. The lies brought about by people serve to complicate different scenarios and confuse consumers. For example, the National Academy of Sciences has reviewed GMO safety several times, “[concluding] that GM crops pose no unique hazards to human health [yet they have] the potential to produce unanticipated allergens or toxins and might alter the nutritional quality of food” (Landrigan). The fact that genetically modifying foods can produce allergens or toxins makes the National Academy of Sciences’ statement contradictory. The production of allergens and toxins can harm thousands if not millions of people worldwide. The goal of labeling GMOs revolves around benefitting the success of genetically modifying plants and aide in the research of the effects of GM foods. Some GM foods may lead to unknown allergies, and by labeling GMOs, scientists can track the spliced genes’ effects on the food sold (Landrigan). The only reason major food companies would not want GMOs labeled stems from the fear of backlash from the public and the possibility of liability in a case when GMOs harm more than they benefit consumers.



Although many people stand by their beliefs that labeling GMOs is beneficial, there are others who believe that labeling GM foods would take too much time due to the vast amounts of GM foods(Granlund).

The biggest concern surrounding GM foods seems to regard the health effect on the consumers. Consumers go to the store only to unknowingly purchase genetically modified food and end up blindsided by the possibility that the food they have purchased could harm not only their health but also their well-being. Epidemiologist Philip J. Landrigan, M.D. has made remarks about the lack of action that has been taken in regards to GMO safety and “believes that the time has… come to thoroughly reconsider all of the aspects of the safety of plant biotechnology” (Landrigan). If the statements made by the National Academy of Health, supported by thorough research, ring true, then reconsideration and more research should merely support their claims instead of hurt them. Landrigan simply wants the public to have the knowledge that they need to make these decisions rather than blindly following the rules set forth. 64 countries in the world require GMO labeling; yet America, a highly developed country, does not require GMO labeling (Landrigan). The labeling of GMOs establishes a level of trust between food companies and consumers.

As a people, Americans like to believe that America, filled with the most educated people in the world, need not delve any deeper into the contents of their food due to the fact that they already know everything about the food consumed by the nation. Although a very knowledgeable people, Americans tend to read something on the Internet and believe it without checking the facts behind what they have just read. Knowing about food does not mean Americans use the knowledge to their advantage: “European consumers [place] a higher value on non-GMO food than consumers from North America” (Lusk). Knowledge does not benefit someone unless that knowledge invokes action (ANAPHORA). The knowledge accumulated from extensive research on GM crops should serve to engage the consumer audience and produce action. The policies put forth by the FDA reflect if not mirror the policies pushed by the government. The international body of GM standards, Codex, assumes that GM foods and safety coincide with one another and labeling GM foods only pertains to foods where the amount of GMOs occurs in a higher percentage than the non-GMO amounts (Caswell). The only issue that arises presents itself if the consumer has an allergic reaction to the GMO portion of the food.

**Argument**

Labeling GMOs and GM foods benefits the consumers in the long run because of the potential harmfulness of GMOs and GM foods. The crops genetically modified for glyphosate-resistance can be covered profusely in pesticide; in particular, the pesticide that contains glyphosate without harming the crop, but this pesticide contains similar chemicals to that of Agent Orange (ALLITERATION). Yet another example of the negative effects of genetic modifications includes the allergens and the toxins that may potentially be produced during gene splicing. Because there is no label for GMOs or any GM foods, there is no way to track this mutation and complication. Although GM foods have the potential to be harmful, they also have the potential to benefit the agricultural world. By having crops that can grow in salt water, places that have limited access to clean drinking water can preserve their limited water supply and use the ocean water on their crops. There are many benefits that GMOs possess, but the enormous possibility that they can be more harmful than beneficial leads me to believe that until GM foods have been properly and thoroughly researched, we should steer clear of them.

Alongside benefitting the consumers, labeling GMOs can actually benefit the producers of GM foods. The producers of GMOs will be able to track the effects of GM foods on the public in regards to allergens/toxins, decreased nutritional value in food, antibiotic resistance so that they know what the effect of the spliced genes have (ASYNDETON). This tracking of the effects of GMOs and GM foods on the human population will allow for improvements in the genetic modification process. Humans are not the only ones being affected by the pesticides put onto crops. There has been a decline in the bee population due to herbicides that are being used on crops. The chemical in the pesticides and herbicides result in a miscommunication between bees and prevents them from being able to be a part of a hive and makes it nearly impossible for bees to be productive in a hive. Not only are there effects to the human population that eats GMOs, but there is also a negative effect to the livestock that eats GM feed. Animals that have been fed GM feed have had negative reactions such as enlarged uteruses and swollen stomachs; the reactions could happen to people as well as the rest of our livestock. These animals such as pigs and cows eat these GMOs and have adverse reactions to them, and then we eat them. It is a dangerous cycle of consuming mutated foods.

**Conclusion**

Even if GMO’s are not harmful, the consumers have the right to know what they are eating. Throughout my research of GMOs and their labels, or lack thereof, I found many differing opinions and outlooks to the problems surrounding GM foods, and there is a common thread among many of the opinions; that common thread is the publics’ right in knowing what they are eating and purchasing. My own opinions evolved from an amorphous creature into an object of understanding and deep thought throughout the course of researching the vast amounts of information regarding GMOs (METAPHOR). At first, I thought GMOs were detrimental to human health not meant for consumption, and now I see there are many practical applications for GMOs, *if* thoroughly researched before marketing towards the public. The distrust in GMOs sparked my initial interest in investigating the truth behind GMOs and now my belief in labeling stems from thorough research that has opened my eyes to the benefits and downfalls of GMOs. Once safely produced and regulated, GM foods may not need to be labeled, but for now, with all the unknowns, they should be labeled for my safety and the safety of all other consumers.

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