Ethics of Food Marketing: Non-GMO and GMO Marketing and Labeling

by
Ally Cherry

A thesis presented to the Honors College of Middle Tennessee State University in partial fulfillment of the requirements for graduation from the University Honors College.

Spring 2020

Ethics of Food Marketing: Non-GMO and GMO Marketing and Labeling

by Ally Cherry

APPROVED:

_____

Dr. Donald Roy
Marketing Department

_____

Dr. Vincent W. Smith
Marketing Department

_____

Dr. Phillip E. Phillips, Associate Dean
University Honors College

Acknowledgements

I would like to thank the National FFA Organization for teaching me to always believe in the future of agriculture and DECA Inc. for showing me how to market that future ethically.

I would like to thank Dr. Donald Roy for guiding me through the thesis process.

Abstract

The average consumer does not know where their food comes from. This lack of knowledge has created an environment where marketers are able to take advantage of the fears and unknowns surrounding the food industry. That is most apparent in the debate over genetically modified organisms (GMOs). To date, there are no known effects from GMOs. The process is still relatively new; any long-term responses have not yet been identified.

In this research, three products and three marketing campaigns were analyzed based on their advertising and ethics surrounding GMOs. This analysis revealed a need for more detailed legislation on the labeling practices for both GMO and non-GMO products in order to adequately protect consumers. With or without legislation, companies must decide how their brands will address GMOs in an evolving market. By analyzing legislation, labeling, and relevant examples, an accurate picture of the current GMO vs. non-GMO market is formed.

Table of Contents

List of Figures

Introduction

Consumers have a lack of knowledge when it comes to the food supply. That lack of knowledge creates an opportunity for unethical behavior in marketing and labeling in an effort to increase profits, especially in products newer to the market. Consumers have the right to have all of the information before making a purchase, good or bad. After all, we each eat nearly 1,996 pounds of food a year (Sloat, 2017). That is nearly one ton. Unknowns lead to fear and leave consumers open to being manipulated. The discussion around consumer rights and ethical marketing is particularly relevant when it comes to the debate on genetically modified organisms.

The term "genetically modified organism" (GMO) refers to organisms that have had their DNA modified for the purpose of changing their characteristics. They were created with many reasons in mind such as increasing crop yields or creating herbicide resistant seeds (Your Genome, 2017). Since these organisms/crops/foods came onto the scene, the public has been wary because of all the unknowns. As with any new product, there are questions about long-term functionality and effects. There has been an abundance of scientific experiments and research on these products, yet because of their young age, data are lacking on their effects in the long term (Hielscher, Pies, Valentinov, & Chatalova, 2016). Although genetic modification has been around for a few decades, it still has not had time to build "brand loyalty." Non-GMO marketing only came onto the scene about a decade ago (Bain & Selfa, 2017).

The debate on GMOs is an international one, with the European Union (EU) being the first to take a stand in 1990 (de Sadeleer, 2015). Since that time, the EU policies have been changed again and again in an effort to keep up with the changing views and science on the issue. The EU marketing regime spent months in 2001 debating the regulations that should be placed on the development and marketing. According to their directives, no GMO may be marketed unless authorized, and then only after experimentation (de Sadeleer, 2015). Regardless of their stance on GMOs, the EU is taking the steps necessary to protect the consumers.

Marketers have taken advantage of fear and the unknown when it comes to GMOs. Although there are a total of only 10 certified genetically modified crops (GMO Answers, 2020), one can find a non-GMO label on most items on grocery store shelves (Kilman, 2001). The term non-GMO has become synonymous with healthier food, whether or not the product is even slightly healthy or nutritious. According to an article in the High Plains Journal, over two-thirds of consumers are unsure what GMOs are and only one-third reported feeling comfortable with GMOs (GMO-free marketing is deliberately misleading consumers, 2019). These labels on junk food could lead a consumer to believe it is a healthier choice, whether or not there is any science to support the claim. This thesis will examine at such labels and whether or not these labels are ethical.

The discussion of misleading marketing around food and other items we ingest does not only encompass GMOs. Green marketing versus green washing has also been a public debate for years now as well. The difference is an ethical one, whereas green washing is "misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service" (Tinne, 2013). Green marketing began as a

way to answer consumer preference for ecologically friendly products and edge into the eco-friendly market that has proven to be substantial. Like the debate over GMOs versus non-GMO, the initial reasoning for this distinction in marketing was to allow consumers to have more information for their purchasing decisions. Although in both cases, advertisers have taken advantage of the consumer lack of knowledge on the issues. This also applies to the "antibiotic-free" and organic movements that have become increasingly popular in the last decade. The photo below was widely circulated across the internet (Figure 1). The picture is of the inside of a Chick-fil-A nugget box with the inscription "It's our pleasure to serve chicken without any antibiotics ever." This claim does not mention that over half of all chicken are raised without any antibiotics and all chicken bought in grocery stores or in restaurants is deemed "antibiotic free" as shown in Figure 2 (National Chicken Coucil, 2015). In fact, federal law requires any antibiotic that is administered to an animal must have left its system before it can be sold (National Chicken Coucil, 2015).

[1]

Figure 1: Chick-fil-A No Antibiotics Ever

[2]

Figure 2: Chicken Check In USDA Facts

[1] Source: Business Insider https://www.businessinsider.com/best-fast-food-kids-meal-mcdonalds-wendys-chick-fil-a-burger-king-2019-11. Accessed 28 March 2020.
[2] Source: Chicken Check In https://www.chickencheck.in/faq/chicken-antibiotics/. Accessed 28 March 2020

This Chick-fil-A example is representative of the marketing currently taking place in the food industry. Technically, the claim of no antibiotics in their chicken could be tested and proven. Yet, their claim may lead consumers to believe that chicken at other restaurants is raised with antibiotics when there may be no factual evidence of that. Another example of this practice is Ritual Vitamins. Figure 3 is a post from the company's Instagram account claiming that their vitamins for sale are both sugar-free and non-GMO. The ingredients are not listed in the post to determine whether or not any aspect of the product could be genetically modified. Likewise, there is even cat litter sold on Amazon marketed as "GMO-free," but cat litter does not have genes (Bohl, 2019). The Good Earth Non-GMO Project Verified clumping cat litter seen in Figure 4 sells for nearly four times that of Arm & Hammer clumping cat litter (Bohl, 2019).

[3]

Figure 3: Ritual Vitamins Social Media Post

[4]

Figure 4: Good Earth Non-GMO Cat Litter

---

[3] Source: Ritual Instagram Page https://www.instagram.com/ritual/. Accessed 28 March 2020

[4] Source: Amazon https://www.amazon.com/Good-Earth-6160-Natural-Litter. Accessed 28 March 2020

The Wall Street Journal published an article that showed multiple products tagged as non-GMO actually contained GMO materials. Sixteen out of the twenty products tested contained at least some trace of genetically modified materials (Kilman, 2001). The debate behind these types of labels is based on consumers knowing what they are eating. In this case, the label failed to do so. Products without genetic material are even sporting a Non-GMO Project label. Consumers pay higher prices for items tagged with the Non-GMO Project Verified butterfly stamp. Sometimes those products could not scientifically have GMO materials within them. The question of the matter is whether or not these labeling systems are ethical to consumers.

Ethics: A Guide for Conduct

Ethics is defined as "a code of conduct based on established moral principles" (Slomski, 2019). It is not simply right or wrong, black or white. Ethics is more about of the shades of grey in between and where one sees the line that should not be crossed. Most companies have an established public code of ethics that they adhere to in their business practices. For example, Walmart's Code of Ethics contains four parts: "respect for the individual, service to our customers, striving for excellence, and act with integrity" (Walmart, 2019). These statements allow companies to write their playbook for ethical behavior outside of simply following the law. The ethics of marketing, particularly in the food industry, is frequently a topic of debate. Consumers worry about the truth in what they

are being told, how they are being manipulated, whether their information is secure, and whether the prices they are paying reasonable (Crelin, Marketing Ethics, 2018). The list could go on. Considering the consistent rise in consumer demand to be told "the whole story," the question becomes: are GMO and non-GMO marketers giving consumers all the information?

The marketing surrounding GMO and non-GMO products has become increasingly relevant. Consumers are becoming more and more aware of where their food is coming from and wanting some aspect of control over that. If consumers cannot trust what brands are telling them about their product, they will stop purchasing it. This is especially important in the food industry because there are so many other options out there. Should a consumer lose trust in one brand, there would be little to no switching costs to find a new version that they can trust. Companies and brands should be taking notice of this progressing issue in order to know what their customers expect of them and what will keep customers coming back. Therefore, this is not simply a consumer issue. Every stakeholder in the food industry should be paying close attention to the change in societal views and how it would affect themselves.

Consumers demand and have the right to be marketed to ethically. This research aims to determine whether marketers of GMO and non-GMO products are accomplishing that through content analysis and research into existing marketing resources.

Science of Genetically Modified Organisms

A review of GMO and non-GMO marketing and labeling would be incomplete without a synopsis of the science behind these products. Again, genetically modified organisms are classified as organisms that have had their DNA modified for the purpose of changing their characteristics (Your Genome, 2017). This is typically done to strengthen the organism, in this case a crop, either to increase yields or to resist disease and drought (GMO Answers, 2020). In 1980, the average American farmer fed 72 people per year. In 2016, that number has skyrocketed to 164 (Shahbandeh, 2019). This sharp increase has demanded that science continue to advance in order to keep up with the growing population. It became no longer feasible for farmers to be able to produce enough food without some scientific help for their crops. Enter genetic modification.

Genetic modification began because of the Darwin's natural selection or 'survival of the fittest' theory of evolution. In order to give more plants the chance to survive, selective genes are carried on into subsequent generations. Instead of simply replanting the best plants for next year and hoping for the best outcome, genetic modification allows seeds to have the chosen characteristics. This process began with Gregor Mendell in the 19th century (Newton, 2014). His crossbreeding of pea strains led to the first realization that genes or characteristics were passed down to offspring from parents ((Newton, 2014). Two hundred years of scientific advancement later, scientists are able to change organisms at a molecular level to achieve the best possible genetic makeup. Once it is decided that a crop will be genetically modified, it must first be determined what gene will be altered. Examples include making a

crop drought or herbicide resistant or to provide an increase in crop yields. Then, scientists must locate that gene within the organism's genetic makeup through sequencing. Lastly, the genome is changed to prevent the change from reverting (Newton, 2014). While this is a crude overview of the science of genetic modification, it is still more than most Americans know about the process.

Currently, there are ten total GMO crops in the consumer market. They are squash, soybeans, corn, cotton, papaya, canola, alfalfa, sugar beets, potatoes, and apples (GMO Answers, 2020). Six out of that ten have been approved for over twenty years (GMO Answers, 2020), yet there is still hesitance from consumers about their use. Concern lies in the unknown long-term effects of such science. Although crops like squash and soybeans have been on the market since 1995 (GMO Answers, 2020), the belief is that not enough time has passed to know if there are any effects from life-long consumption of genetically modified organisms. There are other scientific advancements that have been around for thousands of years, like vaccinations, that still are not accepted by a fraction of the public. Therefore, it is unlikely that even with another hundred years of testing that everyone would chose genetically modified products. Today, agriculturists and commodity producers are focused on spreading the information that currently exists on GMOs so that consumers have all of the information they need to make a purchase decision.

Labeling Practices

Some consumers are skeptical about or completely against genetic modification and choose not to purchase or consume them. In fact, 69% of consumers reported in a survey that they were not confident in their knowledge on GMOs (Bohl, 2019). Without any labeling, those consumers were not able to determine non-GMOs from GMOs. In response, labeling campaigns like the Non-GMO project began. There are ethical concerns of this labeling both in reference to altering consumer beliefs and whether the labels themselves are truly accurate and do not contain any genetically modified materials.

Non-GMO Project

Some consumers and retailers became interested in whether or not the food they were eating and selling contained genetically modified organisms. There was no labeling on any products identifying them as GMOs or non-GMOs. The Non-GMO project was founded in 2007 in Toronto, Ontario (Non-GMO Project, 2016). The two grocery stores who helped to found the project, The Natural Grocery Company and The Big Carrot Natural Food Market, wanted to share more information about GMOs with their customers (Non-GMO Project, 2016). Their goal was a "standardized definition for non-GMO products" (Non-GMO Project, 2016). The project is led by a board made up of all relevant stakeholders including farmers and consumers. In 2010, the first products bearing the Non-GMO Project verified

butterfly logo hit the shelves (Non-GMO Project, 2016). Since then, over 3,000 brands have become part of the project, 50,000 products have added the butterfly logo to their packaging, and more than $26 billion in sales has been generated (Non-GMO Project, 2016). The projects reason for creation is listed below:

> The Non-GMO Project is a mission-driven nonprofit organization dedicated to building and protecting a non-GMO food supply. We do this through consumer education and outreach programs; marketing support provided to Non-GMO Project Verified brands; and training resources and merchandising materials provided to retailers.
>
> Non-GMO Project Verified remains the market leader for GMO avoidance and one of the fastest growing labels in the retail sector. We offer North America's most trusted third-party verification for non-GMO food and products. (Non-GMO Project, 2016)

The facts about GMOs listed on their website do not match those listed on sites that are pro-GMO. Their website states that no current GMOs have proven to produce higher crop yields or any enhanced nutritional value (Non-GMO Project, 2016). The Non-GMO project states, as do many supporters of GMO technology, that the lack of long-term studies means that some aspects of their safety are unknown (Non-GMO Project, 2016). Their site also includes a "Find Non-GMO" option were consumers can search for products that are approved by the project. Thousands upon thousands of products are listed, including nearly 5,000 just in condiments, oils, dressings, and spreads and over 3,000 in candy, chocolate, desserts, and sweeteners (Non-GMO Project, 2016).

Labeling Accuracy

Labeling like what is done by the Non-GMO Project Verified labels is only valuable and trusted by consumers if these labels are accurate. An investigation done by *The Wall Street Journal* determined that of the 20 products tested that claimed to not include GMOs, 16 were revealed to have genetically modified material (Kilman, 2001). While this study took place nearly twenty years ago, it points to a larger issue of the accuracy of Non-GMO labeling and how long this has been relevant.

The instance of GMO-free cat litter is far from the only example of this marketing. On the market today, consumers can find products such as GMO-free water, dish soap, condoms, and even pink Himalayan salt (Bohl, 2019). Each of these products boast a Non-GMO Project Verified label, yet none of these items contains genetic material. Therefore, the question remains on whether their label of GMO-free is accurate or does it mislead consumers.

Current Legislative Environment

The public expects the government and regulatory agencies to protect them from unethical practices within their country. In the past few decades, more and more countries are noticing the lack of legislation when it comes not only to the production and sale of genetically modified organisms, but also the marketing of GMO and non-GMO products. Both those in support and against GMOs are calling for more legislation to clarify what is

legal and illegal. Unfortunately, legislation simply creates laws; it does not create ethics. What is legal may not be ethical, but under the law they are doing no wrong. It is up to each company to decide what their ethical practices may be. In some cases, society has had a hand in making those decisions by demanding more from companies than the bare minimum. Regardless, legislation is the first step in protecting consumers.

United States

Before GMO products entered the market in the United States a few decades ago, multiple agencies were connected to form regulatory processes. This group included the US Food and Drug Administration (FDA), the United States Department of Agriculture (USDA), and the Environmental Protection Agency (EPA). These agencies began this regulatory process around 1990 when GMOs were first being introduced (Sax & Doran, 2016). The group, the FDA in particular, released a report stating concern about allergens and toxins that could become visible because of genetic modification (Sax & Doran, 2016). Scientific advancements since that time revealed the risk of allergens and toxins in GMOs was not higher than in traditional organisms and that genetically modified foods are as secure to consume as unmodified foods (Sax & Doran, 2016). A study conducted by the *New York Times* revealed that of consumers who were worried about GMOs, most of them cited negative health effects as their reasoning although science says there are none (Sax & Doran, 2016). Results like these are why pro-GMO groups are against mandatory labeling; to so many people, a GMO label has a negative connotation no matter the science behind the issue.

Currently, the United States does not require the labeling of all Genetically Modified Organisms. As of 2020, legislation is being enacted will to change that. The National Bioengineered Food Disclosure Standard (NBFDS), or the "DARK Act." was passed in July of 2016 and published and announced by the U.S. Secretary of Agriculture in December of 2018 (United States Department of Agriculture, 2018). This law requires "disclosure" of any bioengineered foods. Bioengineered food is defined for this standard as containing "detectable genetic material that has been modified through certain lab techniques and cannot be created through conventional breeding or found in nature" (United States Department of Agriculture, 2018). This act will be implemented in stages with the full enactment occurring by January 1, 2022 (United States Department of Agriculture, 2018).

Other Countries

While Americans may only be concerned about United States legislation, those who are stakeholders in both GMO and Non-GMO products should keep an eye on other countries' legislation. Not only could such legislation be adapted and enacted in the US, but companies that operate in more than one country must be aware of relevant laws in the area. Around the globe, genetically modified foods are lawfully required to be labeled in over 60 countries (Non-GMO Project, 2016).

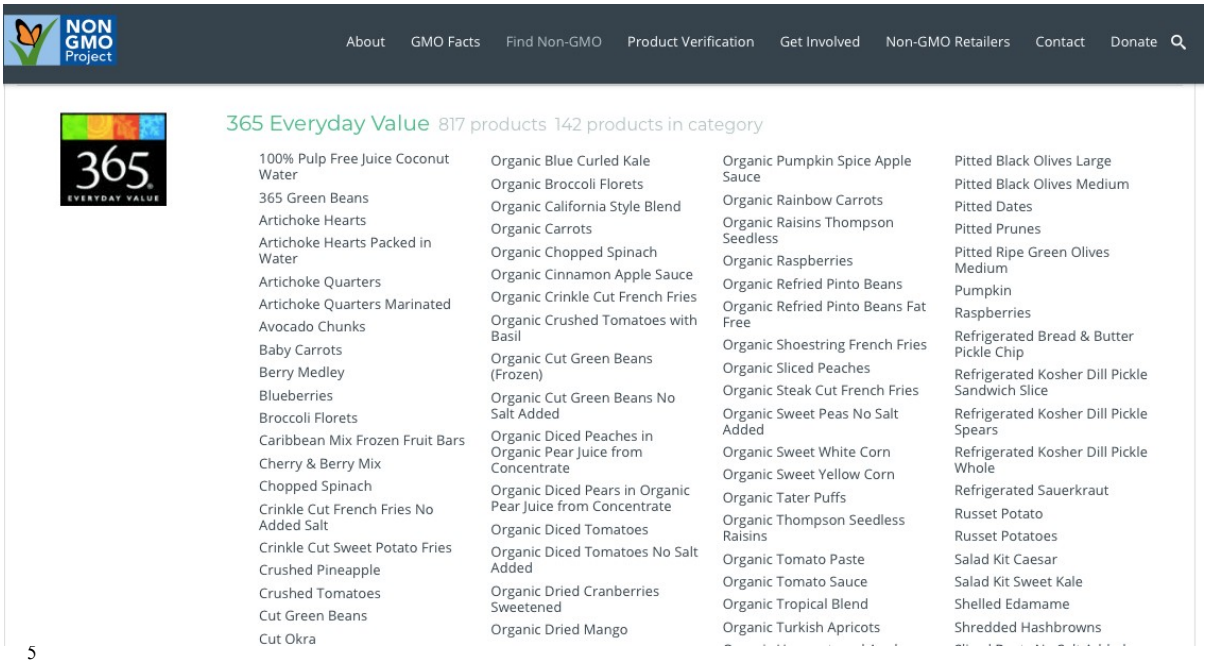
European Union

The countries that made up the European Union (EU) were some of the first to enact laws surrounding the marketing and labeling of genetically modified products. The EU first introduced legislation on the topic back in 1990. Current laws require any product that contains GMOs to be properly labeled as such and cannot be put on the market until a series of experiments and assessments are completed and the product is deemed safe for consumption and the environment (de Sadeleer, 2015). The process is quite long and drawn out in the hopes of catching any irregularities or health concerns associated with any product before it is approved to be marketed to the public (de Sadeleer, 2015). These laws were passed in an effort to ensure consumers had access to all information before making a purchase decision (de Sadeleer, 2015). Research yielded no public outcry or overarching support about these governmental policies.

The policies set forth by the European Union are nearly the opposite of the Non-GMO Project Verified labeling. The EU mandates that all GMOs be clearly labeled. Therefore, any product without such a tag is known to be without GMOs. In the case of the Non-GMO Project, products that claim to not contain GMOs are labeled. In that respect, any product without the label could be assumed to contain GMOs regardless of whether or not they actually do.

Product Marketing and Labeling

When rolling your cart through the local grocery store, you may be surprised to find only five GMO crops in your produce section. Unless you are shopping for sweet corn, summer squash, papayas, potatoes, or apples, you may not put any GMOs into your shopping cart (GMO Answers, 2020). Contrary to popular belief, seedless watermelons are not actually genetically modified organisms (GMO Answers, 2020). Incorrect assumptions about products like seedless watermelons being GMOs contribute to the lack of consumer awareness surrounding where their food comes from. Figure 5 shows just a portion of the "Non-GMO Project Verified Fruits and Vegetables" section. Upon inspection, nearly all of these products are not capable of being GMOs except for a few corn and potato products. The same is true of Figure 6, Bonnie Non-GMO seeds. The squash is the only pictured product that has a genetically modified version on the market. This begs the question of why the other products require a Non-GMO project label and if such a label leads consumers to believe that any product without a Non-GMO label is genetically modified. This section will explore one product (365 Everyday Value Organic Mango Slices), one product line (Dole Fruit Bowls), and one full brand (Green Giant Vegetables).



5

Figure 5: Non-GMO Project Fruits and Vegetables

6

Figure 6: Bonnie Non-GMO Advertisement

---

5 Source: Non-GMO Project https://www.nongmoproject.org/find-non-gmo/verified-products/. Accessed 28 March 2020.

6 Source: AgriPulse https://www.agri-pulse.com/articles/9154-oregon-legislature-mulls-letting-localities-establish-gmo-free-zones. Accessed 28 March 2020.

365 Everyday Value Organic Mango Slices

Walmart Superstores sell 365 Everyday Value Organic Mango Slices for $15.98 for an 8-ounce package. The same product is sold at Whole Foods for $7.99. The packaging sports a Non-GMO Project Verified label, yet currently there are no genetically modified mangoes on the market and there are no added ingredients to the mangoes in this product (GMO Answers, 2020). The product also features a USDA organic label. Figure 7 and Figure 8 show the product directly from the Whole Foods website. The green, white, and orange package also markets "no sugar added." Above the green Organic line there are phrases like "pure goodness," "the best ingredients," and "great food, no compromises" (Whole Foods Market, 2020). Below the barcode on the back of the package reads "365 Everyday Value Products are formulated to avoid genetically engineered ingredients. U.S. Law does not allow the use of genetically engineered ingredients or seed in products labeled as organic." 365 Everyday Value is a Whole Foods private label; each 365 Everyday Value product is certified with the Non-GMO Project or organic (Myers, 2015). This product is sold at Walmart Superstores, Amazon, and Whole Foods stores.

The labeling and packaging of these mango slices tries to signal to consumers that this product is good for their health or a guilt-free snack. One aspect of the product that is only shown in the Nutritional Facts is the carbohydrate count. According to this label, one portion of these slices (about 7 pieces) has 38 grams of carbohydrates and is 14% of what is allotted for a daily value (Whole Foods Market, 2020). Although, 365 Everyday Value does advertise that the product has no sugar added. Therefore, the question is: are consumers led

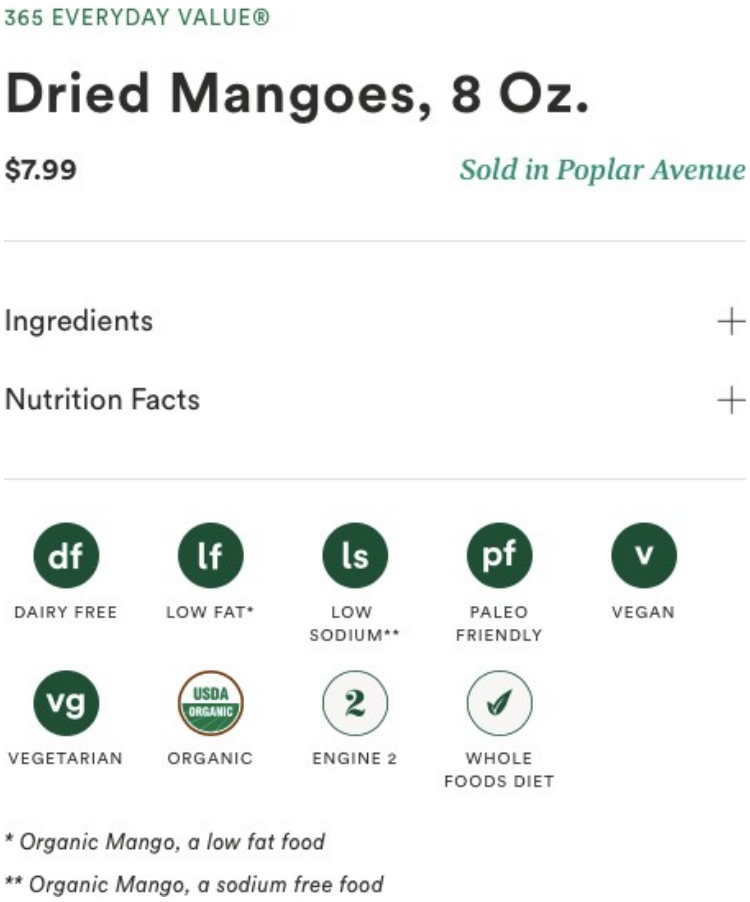
to believe that this product is low sugar because of the no sugar added label or does the nutritional facts label provide enough information?

For each product on their website, Whole Foods lists whether the item is dairy free, low fat, vegan, etc. (see Figure 9). Unlike others in the industry, Whole Foods notates below this list that while their organic mangoes are both low fat and low sodium, organic mangoes in general are both low fat and low sodium (Whole Foods Market, 2020). Although this information is not found directly on the packaging, Whole Foods uses its website where more space is available to share additional information.

[7] *Figure 7: 365 Everyday Value Organic Mango Slices Front Packaging*

[8] *Figure 8: 365 Everyday Value Organic Mango Slices Back Packaging*

[7] Source: Whole Foods Market https://products.wholefoodsmarket.com/product/365-everyday-value-dried-mangoes-8-oz-b9e419. Accessed 28 March 2020.
[8] Source: Whole Foods Market https://products.wholefoodsmarket.com/product/365-everyday-value-dried-mangoes-8-oz-b9e419. Accessed 28 March 2020.



[9]

Figure 9: Whole Foods Website Product Description

[9] Source: Whole Foods Market https://products.wholefoodsmarket.com/product/365-everyday-value-dried-mangoes-8-oz-b9e419. Accessed 28 March 2020.

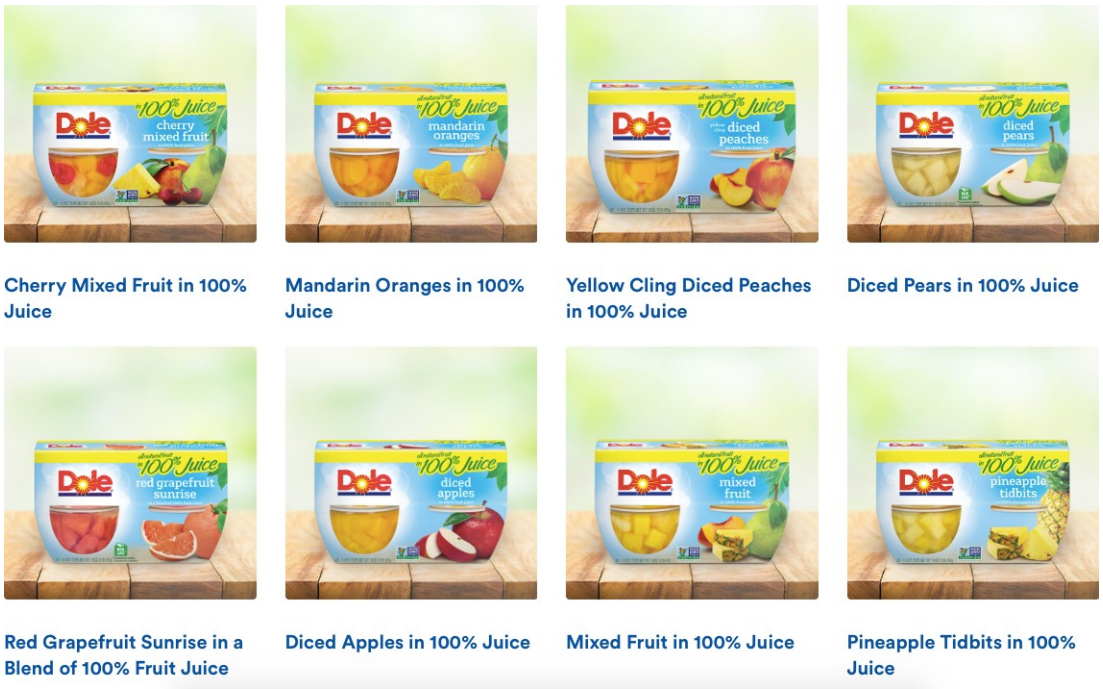
Dole Fruit Bowls

Dole sells fruit products of all kinds, including frozen, dried, canned, and jarred containers. They are best known for their single serving fruit bowls that can be used as a snack or a healthy addition to a meal for both adults and children. Dole's regular fruit bowls include cherry mixed fruit, mandarin oranges, diced pears, red grapefruit sunrise, diced apples, and pineapple tidbits to name a few (Figure 10). Most of these products include a Non-GMO Project Verified label on their packaging (Figure 11); some like the grapefruit and pear options use a generic Non-GMO tag (Dole, 2020). The only GMO fruit currently on the market is apples; all of the other product offerings cannot include GMO fruits (GMO Answers, 2020).

The company also produces fruit bowls in "slightly sweetened coconut water." Variations include peach & mango, pineapple & mandarin orange, pineapple peach & mango, and yellow cling diced peaches (Figure 12). Unlike the standard fruit bowls, none of those with coconut water is not Non-GMO Project Verified and uses a standard Non-GMO label on its packaging (Dole, 2020). Figure 13 illustrates how Dole markets the products with coconut water as an ingredient. The reason for this difference in some standard bowls and all bowls with coconut water is not apparent as there are also no genetically modified coconuts or other fruits besides apples on today's market (GMO Answers, 2020).

All Dole fruit bowls are packaged in colorful packaging with appealing photos of the fruit they contain and an added window to see the product in its smaller serving size packaging. The standard bowls include the phrase "in 100% juice" and some of the bowls

also include “all natural fruit” while others do not (Dole, 2020). The bright packaging promotes feelings of fun and that purchasing them is a healthy and clean choice. Dole products are sold at all major grocery chains. The Dole website does not offer any additional information on the products online other three small logos indicating again that the products are Non-GMO, in 100% juice, and a rich source of Vitamin C. There is an option to leave a review that other consumers can read before making a purchase decision, although most products had only a few.



[10]

Figure 10: Dole Fruit Bowls

[11]

Figure 11: Dole Yellow Cling Diced Peaches with Non-GMO Project Verified Labeling

[10] Source: Dole Sunshine https://dolesunshine.com/products/fruit-bowls/regular. Accessed 28 March 2020.

[11] Source: Dole Sunshine https://dolesunshine.com/products/fruit-bowls/regular/diced-peaches-in-100-juice. Accessed 28 March 2020.

[12]

Figure 12: Dole Fruit Bowls with Coconut Water

[13]

Figure 13: Peach & Mango Fruit Bowl with Coconut Water (non-GMO label)

[12] Dole Sunshine https://dolesunshine.com/products/fruit-bowls/coconut-water. Accessed 28 March 2020.

[13] Dole Sunshine https://dolesunshine.com/products/fruit-bowls/coconut-water/peach-and-mango-in-slightly-sweetened-coconut-water. Accessed 28 March 2020.

Green Giant Vegetables

Green Giant vegetables, in contrast to other explored examples, does not use the Non-GMO Project Verified label on any of its products at this time. This company does sell products that could contain GMOs including sweet corn, potatoes, and squash. However, nothing on its product labeling or website suggests whether the company uses genetically modified organisms or not except for green bean products. A review of their website offerings found only the five canned green bean products had small non-GMO tags on their labeling (see Figure 14 and Figure 15). Green Giant corn and potatoes that could scientifically contain GMOs have no such labeling, but green beans that could scientifically not contain GMOs are distinctly labeled as non-GMO. Other products sold by Green Giant not currently on the market in GMO form are not stamped as non-GMO.

The Green Giant website goes into detail about their growing practices, including facts such their corn is 100% U.S. grown (Figure 16) (Green Giant, 2020). The location for their farms are identified as well as practices for harvesting, blanching, and packaging. This company sells a massive amount of products including canned vegetables, cauliflower pizza crusts, frozen vegetable bags, protein bowls, veggie tater tots and veggie zucchini spaghetti noodles (see **Error! Reference source not found.**). With products spanning across the vegetable market, the company takes care to emphasize what each product does and does not contain, including non-BPA lining on canned items, gluten free options, and no artificial colors, flavors, or preservatives (Green Giant, 2020).

Staying true to the company name, Green Giant products are found in mostly green packaging with their mascot proudly displayed. Products that contain multiple vegetables or ingredients also have accents of blue and red. Green Giant does not sell directly to consumers, so the website is equipped with a “where to buy” feature that can show the nearest carrier (Green Giant, 2020).

Figure 14: Green Giant Cut Green Beans with non-GMO labeling

14

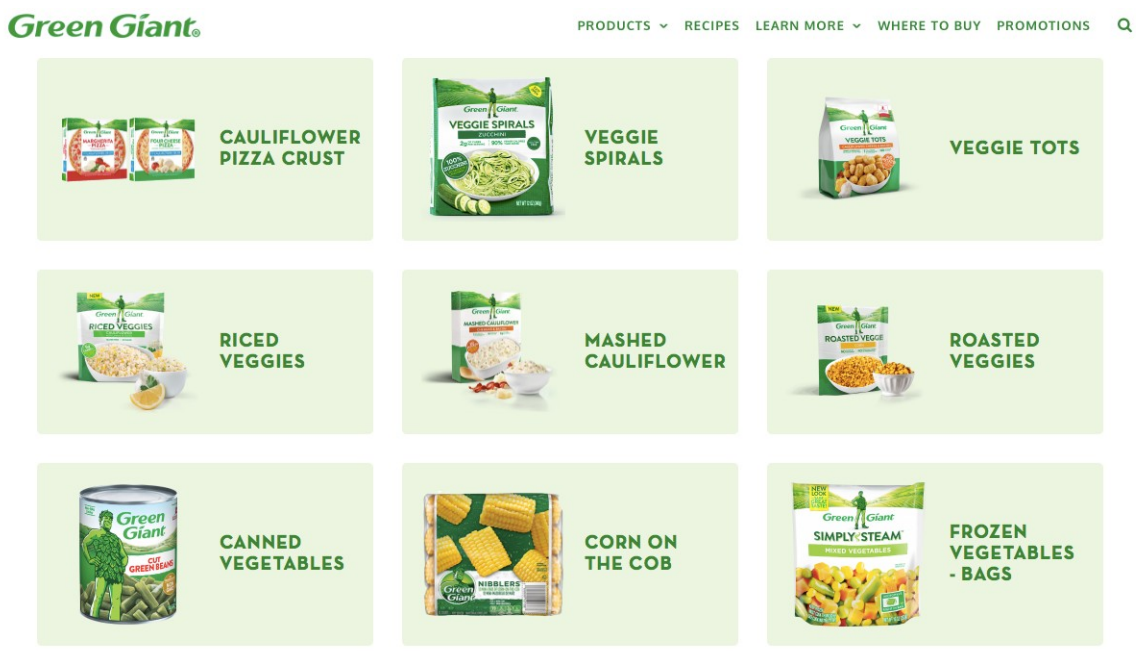
15

Figure 15: Green Giant Super Sweet White Corn with no GMO labeling

---

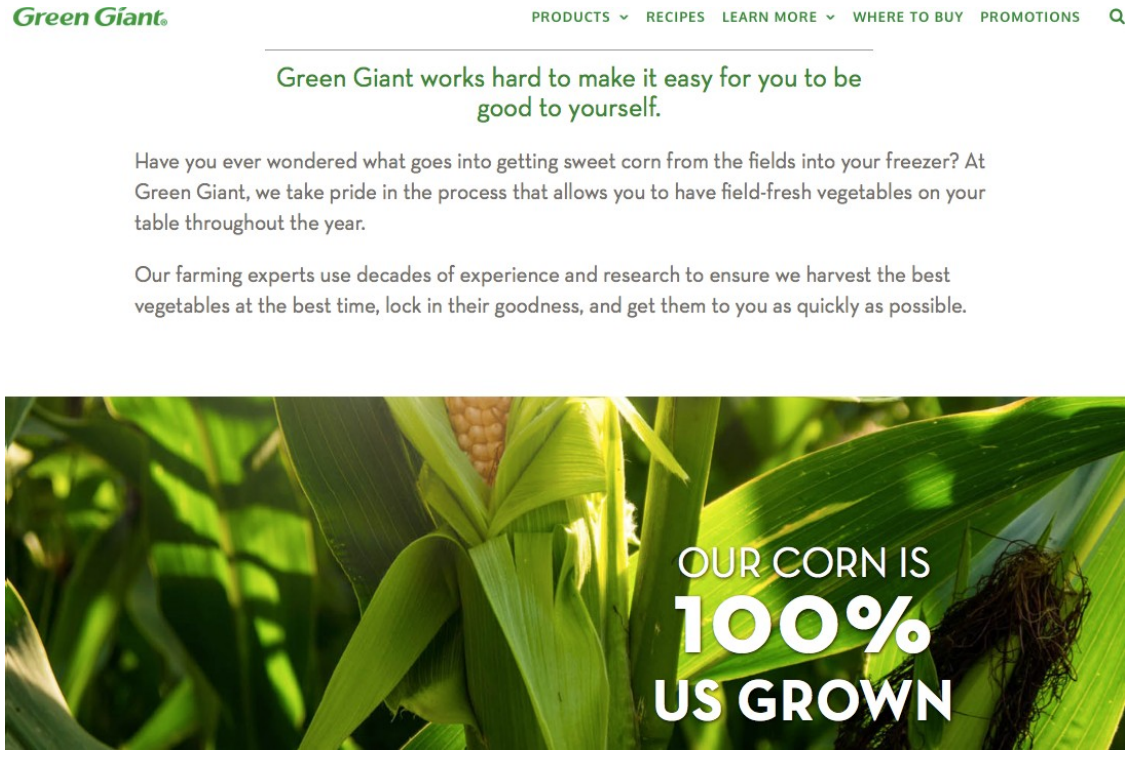
[14] Green Giant https://www.greengiant.com/products/canned-vegetables/. Accessed 28 March 2020.

[15] Green Giant https://www.greengiant.com/products/detail/green-giant-steamcrisp-super-sweet-white-whole-kernel-corn-11-oz-can/. Accessed 28 March 2020.



[16]

Figure 16: Green Giant Products



[17]

Figure 17: Green Giant Learn More Webpage

[16] Source: Green Giant https://www.greengiant.com/products/. Accessed 28 March 2020.
[17] Source: Green Giant https://www.greengiant.com/our-story/. Accessed 28 March 2020.

Marketing Campaigns

Rather than advertise whether or not their products contain GMOs strictly on their packaging, there are companies that choose to create complete marketing campaigns on the subject. These advertisements are seen in grocery stores, on bus stops, in restaurants, on dinnerware such as cups, and so on. More and more brands have chosen to have a campaign on the topic of GMOs since it has continued to spark global attention. Some campaigns have been celebrated by their consumers, while others have left companies being sued for false claims or with confused consumers who are unsure what they are buying. Hundreds of thousands of dollars have been spent creating GMO campaigns in every corner of the food industry from restaurant chains to products sold in grocery stores and gas stations. Similar to their produce counterparts, some of these products are not available as GMOs. Again the question remains, is this type of marketing to consumers ethical? This section will explore one restaurant chain (Chipotle), one grocery store brand (Dannon), and one alcohol producer (Kettle One).

Chipotle

In April of 2016, Chipotle Mexican Grill announced they would be serving food that is completely free of genetically modified ingredients (Strom, 2015). They boasted in Figure 18 that they were the first GMO-free restaurant. This was not the first announcement on the subject from Chipotle. Three years prior, the chain became the first to label products that contained GMOs. Steve Ells, founder and co-chief executive, remarked this change was

sparked by the opinion that "just because food is served fast doesn't mean it has to be made with cheap raw ingredients, highly processed with preservatives and fillers and stabilizers and artificial colors and flavors" (Strom, 2015).

The Chipotle website points out that soft drinks may contain GMOs and that the dairy and meat products sold in their restaurants may be from animals that were fed GMOs in their diet (Strom, 2015). Although when the campaign gathered national attention, claims of false advertising were filed as part of a lawsuit stating that consumers were led to believe every product sold by the restaurant was completely free of GMOs (Cohen, 2019). Over three years later and with the support of the court system, a settlement between Chipotle and its customers was reached totaling $6.5 million dollars (Cohen, 2019). This announcement came just 3 months before a trial that would have put Chipotle back in the media spotlight. This campaign is vital to understanding GMO and non-GMO marketing because it proves that consumers are beginning to be more skeptical of the claims advertisers are making.

While the campaign has been removed from the market, graphics still remain on the internet. Most include the tagline, "farewell to GMOs," and their website address. From there, Chipotle makes claims in Figure 19 and Figure 20 including: "when it comes to our food, genetically modified ingredients don't make the cut" and "for the last 21 years we have been striving to make our ingredients better. Given that we don't think genetically modified organisms are better, we have replaced them with non-GMO ingredients. Now all of our food is non-GMO." A few websites have used the graphic in Figure 21 that they claim came from Chipotle with the phrase "food with integrity: G-M-OVER IT," but that particular graphic does not have the website name listed as most ads do that are made for internet and social media consumption.

These advertisements not only contain false advertising, as determined by the lawsuit, but they also insinuate that GMOs are in some way negative or dangerous by saying they "don't make the cut" or "we don't think genetically modified organisms are better." This is an emotional appeal to customers to appear in tune with consumer priorities regarding their food and superior not only to competitors in their market but the fast food/quick-service industry as a whole. These are subjective as there is no scientific evidence stated or referenced in the advertising campaign.

[18]

Figure 18: Chipotle- First GMO Free Restaurant

[19]

Figure 19: Chipotle- A Farewell to GMOs

[18] Source: Deli Market News https://www.delimarketnews.com/headline/chipotle-becomes-first-non-gmo-restaurant. Accessed 28 March 2020.
[19] Source: Ad Age https://www.delimarketnews.com/headline/chipotle-becomes-first-non-gmo-restaurant. Accessed 28 March 2020.

[20]

Figure 20: Chipotle- A Farewell to GMOs (2)

[21]

Figure 21: Chipotle G-M-Over It

---

[20] Source: Business Wire https://www.businesswire.com/news/home/20150427005138/en/Chipotle-National-Restaurant-Company-Non-GMO-Ingredients. Accessed 28 March 2020.

[21] Source: Food Navigator https://www.foodnavigator-usa.com/Article/2015/09/01/Chipotle-hits-back-at-lawsuit-over-its-non-GMO-claims#. Accessed 28 March 2020.

Dannon

Other companies are advertising a "Non-GMO future." Dannon, which sells dairy products including yogurt, has made that claim also adding in a promise of "sustainable agricultural practices." The labeling and advertising of this campaign has been inconsistent. When the claim was first introduced, the logo of GMO Free USA and GMO Free Canada were seen in advertisements (see Figure 22). The Sustainable Brands website then says the brand uses non-GMO ingredients and is "partially produced with genetic engineering" as seen in Figure 23. Finally, current Dannon products sold in stores carry the Non-GMO Project Verified butterfly logo that was previously discussed (Figure 24).

Without consistency, consumers could be confused as to what actual standards the company is adhering to. If a consumer is making a conscious effort to avoid GMO foods, they would likely be unsure if Dannon's Non-GMO future is now the present or if it is still in progress. From a profit perspective, this unclear area could possibly alienate Non-GMO and GMO advocates. Having the GMO Free USA logo on some advertising and later using the Non-GMO Project Verified label provides an uncertainty on the procedures Dannon is claiming to follow. These labels do not have the same requirements; in fact, GMO Free USA labeling has not appeared in any research into the topic of GMO advertising except in this case.

The campaign on Dannon products as a whole has been faulty. Inconsistent claims, labeling, and advertising leave them open to consumer interpretation. Although no obvious backlash has been reported at this time, conflicting marketing can be disastrous for business-to-consumer companies. Emotionally, this type of campaign can leave consumers wondering if the "wool" has been "pulled over their eyes" when claims are not clear and supported.

22

Figure 22: Dannon Non-GMO Future

23

Figure 23: Dannon Non-GMO with Genetic Engineering

---

[22] Source: Genetic Literacy Project https://geneticliteracyproject.org/2017/08/08/dannons-embrace-non-gmo-project-label-pressure-other-large-manufacturers/. Accessed 28 March 2020.

[23] Source: Sustainable Brands https://sustainablebrands.com/read/marketing-and-comms/dannon-s-non-gmo-commitment-garners-unfounded-accusations-from-farm-groups. Accessed 28 March 2020.

[24]

Figure 24: Dannon Non-GMO Project Verified Labeling

[24] Source: Food Navigator https://www.foodnavigator-usa.com/Article/2017/07/27/Dannon-rolls-out-Non-GMO-Project-verified-dairy-products. Accessed 28 March 2020.

Kettle One

Alcoholic beverages have also created advertising campaigns with non-GMO claims. Kettle One, a vodka producer, introduced marketing materials and graphics with the phrase "Made with 100% Non-GMO Grain" along with its product (Figure 25). No grains or wheats are included on the list of approved genetically modified organisms on today's market. In this case, the company is going above the typical Non-GMO Project Verified label, which is not seen on their bottles, to creating advertising with no other information or claims other than being made without GMOs.

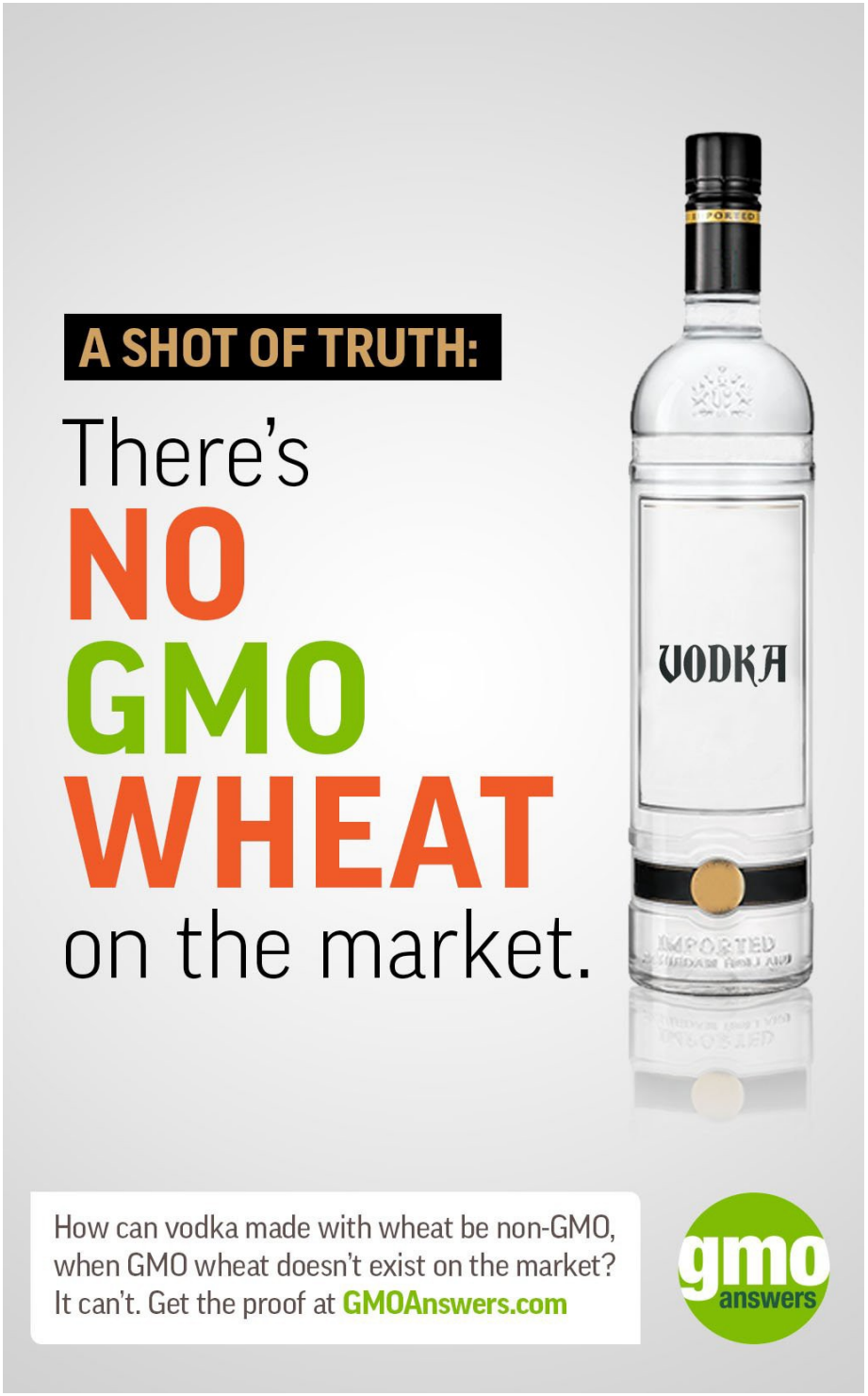
In response to Kettle One's advertisements, GMO Answers, a pro GMO group who aims to provide the public with accurate information about GMOs, answered with a similar ad (Figure 26). Their response included the phrase "A Shot of Truth: There's No GMO Wheat on the Market" along with a disclaimer at the bottom that reads "How can vodka made with wheat be non-GMO when GMO wheat doesn't exist on the market? It can't. Get the proof at gmoanswers.com." The vodka bottle in the graphic is visually similar to the Kettle One bottle with a black ring and gold seal near the bottom and a black and gold label over the spout. The lettering on the label is even similar to the Kettle One bottle ensuring the message is clear.

Kettle One's advertisement was seemingly meant to make their product appeal to more health-conscious casual drinkers, but instead it inspired GMO Answers to directly dispute their claims. While there are no statistics available for how many consumers saw both advertisements, it is clear that pro GMO groups are keeping a watch on these types of advertisements in the hopes of spreading accurate information.

[25]

Figure 25: Kettle One Advertisement

[25] Source: Genetic Literacy Project https://geneticliteracyproject.org/2018/01/12/viewpoint-ketel-ones-non-gmo-vodka-food-label-madness/. Accessed 28 March 2020.



[26]

Figure 26: GMO Answers Advertisement

[26] Source: GMO Answers Facebook Page https://www.facebook.com/GmoAnswers/posts/contrary-to-the-popular-ad-wheat-is-not-one-of-the-10-gmo-crops-available-on-the/1647496042004730/. Accessed 28 March 2020.

Ethical Considerations for GMO vs. Non-GMO Marketing

Ethics in the field of marketing is typically based on concerns of truthful advertising, privacy, fair pricing, and unsolicited advertisements (Crelin, Marketing Ethics, 2018). While marketing itself is an art of persuasion, marketers must earn and maintain the trust of consumers by only using ethical tactics. It is in the best interest of companies to market ethically because it not only helps to build customer loyalty but also protects the company from later backlash. When consumers are not privy to all of the information, in order to hold companies to certain standards, a country's government steps in with laws and regulations to protect consumers. At this time, the United States is working to enact legislation that involves the labeling of genetically modified organisms in an effort to have more straightforward procedures.

To date, the Non-GMO Project Verified labeling system is the industry leader. Their butterfly label on a product signifies that it is without any genetically modified materials. Although, the label is frequently used on products that could not currently be or contain genetically modified organisms. It seems unethical for brands to use this label on these types of products; seemingly if a product is tagged as non-GMO there is a GMO alternative. This is not the case with so many products. On the other hand, the Non-GMO Project sets strict regulations on whether or not products are verified and able to use their label. As with the Dole fruit bowls, there is obviously some aspect of a select few bowls that exclude them from being Non-GMO Project Verified. This example proves the integrity of the program

that when they say a product does not contain GMOs it does not; other non-GMO labels cannot say the same.

The six brands analyzed here are well established household names with strong consumer loyalty. The most straight-forward way to analyze a company's ethics is to look at how consumers are treated and how the company compares to others in the industry. To begin, it is clear that Chipotle should invest time into determining whether or not their marketing and advertising match their code of ethics and consumer demands. The lawsuit claiming false advertising was much more about consumers feeling mislead than the specifics of whether or not their soft drinks contained GMOs. Chipotle lost the trust of its consumers by exaggerating their position on GMOs and alienated many in the agricultural industry (Strom, 2015). In comparison to other brands who are labeled non-GMO, Chipotle took another step by repeatedly saying GMO ingredients were not good enough for their customers. By doing so, Chipotle made an enemy in the agriculture industry and has continued to cause itself bad press as well. Ethically, both loyal customers and those who have vowed not to eat there have developed a negative connotation with Chipotle and their advertising. While there is a strong section of the market requesting non-GMO products, the vast majority of the public want to trust the brands they are purchasing. Overall, Chipotle is not fulfilling consumer demands and their tactics are extreme in comparison to others in the industry.

Kettle One Vodka has made a mistake similar to Chipotle. Their claim that their product is "made with 100% non-GMO grain" resulted in direct backlash from the pro-GMO organization, GMO Answers. As in the case with Chipotle, their marketing was focused solely on this claim around GMOs whereas most have included this information in a broader

campaign. In contrast to Chipotle, the products sold by Kettle One could not include GMOs as there are currently no GMO wheat or grain products (GMO Answers, 2020). While GMO vs. non-GMO debate is prevalent in the food industry as a whole, there has been no significant demand for alcoholic products to choose a side. Kettle One may have been trying to be one step ahead of market, but it resulted in negative media attention for the brand. Although, with no flashy lawsuit and claims deemed false, Kettle One Vodka ranks above Chipotle on an ethical scale.

Dannon dairy products would fall mid-range on an ethical scale, leaning more towards ethical than not. While none of their advertising aims to be misleading, their inconsistency could cause consumers to be wary of their products. Varied labeling makes it hard to pinpoint what guidelines the brand is attempting to follow, but their packaging as a whole does not try to fool consumers in any way. Dairy products themselves do not inherently contain any genetically modified organisms, but additives or other ingredients could. Therefore, it is ethical for them to use the Non-GMO Project Verified label. Dannon has continued to be a trusted brand; they seem to be in-tune with customer wants and are following the lead of many in the dairy industry. If their advertising and marketing were to remain consistent with its current campaign (Non-GMO Project Verified labeling), they could move up a measurable amount on an ethical range.

Dole Fruit Bowls is very close in ethics to Dannon. While all of their products sport a non-GMO label, the reason for some having a Non-GMO Project Verified label and others having a generic non-GMO label is not explained. The grapefruit, tropical fruit, pear, and bowls with sweetened coconut water do not have a Non-GMO Project Verified label in contrast to the other products (Dole, 2020). Seemingly, that would mean some aspect of these

products does not meet the requirement for that label, yet apples are the only current GMO fruit on the market (GMO Answers, 2020). While the Non-GMO Project Verified label is the most reputable program to date on this topic, Dole should use consistent labeling within a product line. For example, three of the nine standard fruit bowls use a generic non-GMO label. For consistency sake and for customers to see products within a line as comparable, they should use one label. Dole is a very popular brand for packaged fruit products. They seem to understand what consumers want, including their open ended packaging and viewing window to see the products before purchase. Without their small labeling inconsistency, Dole is being transparent with consumers and is viewed as an ethical brand.

The final two examples, 365 Everyday Value and Green Giant, could fall very close together in comparison of their ethics. Both seem to give customers the information they are looking for without overly twisting the information to their advantage. 365 Everyday Value uses non-GMO labeling on nearly every product whereas Green Giant uses almost none. For two companies on the separate ends of the GMO vs. non-GMO debate, their tactics for information sharing are very similar. 365 Everyday Value is a brand created by Whole Foods Market. In line with their brand, each product within the 365 Everyday Value brand is either certified organic or Non-GMO Project Verified (Whole Foods Market, 2020). Whole Foods and their brand 365 Everyday Value see and answer the consumer demand for non-GMO products, but they pride themselves on giving more facts than what they are legally required. In the example of organic mangoes, the website not only lists the product as low sodium and low fat it also points out that mangoes are in general low sodium and low fat. This attention to detail and transparency makes this brand stick out among many in the industry.

Green Giant vegetables operates much like 365 Everyday Value. Their website goes into detail about each process from farm to grocery store. While they offer a massive range of products, their labeling practices focus more on being BPA free, gluten free, or free of added coloring. Like Whole Foods (365 Everyday Value owner), Green Giant is transparent with consumers about the specifics of their products from where it was grown to what it contains. This company does not seem to make any claims that cannot be supported and is a staple of the frozen vegetable aisle. Green Giant continues to introduce new products to keep up with consumer demand and sets the tone for their sector of the industry.

Overall, the three product and three marketing campaign examples highlighted two brands that should take a look at their ethical advertising practices, two that are doing well but could be better with consistency, and two that seem to be leaders in an ethical sense. Each company believed they were doing what the market wanted, but Chipotle and Kettle One were incorrect. On the other hand, 365 Everyday Value and Green Giant understand that what customers truly want is transparency and more information. Companies should make a conscious decision whether or not to use non-GMO labeling if the products they sell could not be genetically modified. With an ever changing consumer mindset, using labeling in that way could suddenly be viewed by consumers as unethical and ignite negative media coverage.

Conclusion

The debate and discussion on GMOs versus non-GMOs continues to develop as time passes. Due to the lack of consumer knowledge about the food supply and unethical advertising practices, the United States government should enact more detailed legislation regarding genetically modified organisms. Ideally, this would include a designation for products that could not scientifically be genetically modified at this time to differentiate from GMOs and non-GMOs. Because that it takes years of research and trials to bring a GMO to market, this designation would not have to be changed often because of new GMOs.

Scientifically, there are still many unknowns when it comes to genetic modification, including any long-term effects. These unknowns have beencreating an opportunity for marketers to take advantage of the consumer fears. As the examples analyzed here have shown, some brands have done a poor job of understanding consumer needs and have had negative backlash. Instead of products without genetic material being deemed non-GMO, what consumers are demanding is information. Simply doing the minimum to follow the law is no longer enough in the eyes of customers.

In lieu of legislation or to be ahead, marketers should make it a priority to determine how their brands will respond to the growing trend of GMO vs. non-GMO. Having a detailed ethical plan moving forward will allow brands to be ahead of legal changes. If a brand decides to produce non-GMO items, it would be wise to study the requirements for the Non-GMO Project Verified labeling as it has a strong reputation within the industry. 365 Everyday Value is a relevant example of that. Brands should make a conscious decision whether or not products that cannot be genetically modified should carry the label. If

consumer knowledge or opinion were to change and be against this labeling practice, the company should be prepared for that as well.

Should a brand choose to produce products using genetically modified organisms, it should model itself on the Green Giant brand. Transparency in information sharing does not require a large GMO tag on the front of every package, but it would be a proactive step as many governments are requiring this label be included. Either way, brands should give this topic thought as it will continue to play out on a global stage for the foreseeable future. They should pay attention if for no other reason than to stay relevant in the market and to understand consumer needs. Some companies fail to understand that being ethical can be strongly tied to profits. If consumers trust your brand, they buy your product. If you disappoint them ethically, you have lost a customer and their brand loyalty. That is not to say that solely being ethical will make you successful in business, but being unethical can spell disaster for even the most established brands. In short, being ethical is good business in the food industry and beyond.

Works Cited

Bain, C., & Selfa, T. (2017, December). Non-GMO vs Organic Labels: Purity or Process Guarantees in a GMO Contaminated Landscape. *Agriculture and Human Values*.

Bohl, E. (2019, January 4). *GMO-Free Marketing is Deliberately Misleading Consumers*. Retrieved from Missouri Farm Bureau: https://mofb.org/gmo-free-marketing-is-deliberately-misleading-consumers/

Cohen, S. (2019, September 13). *Chipotle Will Pay $6.5M To Settle GMO Class Action*. Retrieved from Top Class Actions: https://topclassactions.com/lawsuit-settlements/consumer-products/food/919818-chipotle-will-pay-6-5m-settle-gmo-class-action/

Crelin, J. (2018). False advertising. *Salem Press Encyclopedia*.

Crelin, J. (2018). Marketing Ethics. *Salem Press Encyclopedia*.

de Sadeleer, N. (2015). Marketing and Cultivation of GMOs in the EU. *European Journal of Risk Regulation*.

Dole. (2020, March 22). *Products*. Retrieved from Dole: https://dolesunshine.com/products/fruit-bowls/regular#

GMO Answers. (2020, February 27). *What GMO crops are currently available on the market?* Retrieved from GMO Answers: https://gmoanswers.com/current-gmo-crops

Green Giant. (2020, March 22). *How We Grow*. Retrieved from Green Giant: https://www.greengiant.com/our-story/

Hielscher, S., Pies, I., Valentinov, V., & Chatalova, L. (2016, May 9). Rationalizing the GMO Debate: The Ordonomic Approach to Addressing Agricultural Myths. *MDPI*.

Kilman, S. (2001, December 20). FDA Warns of Misleading Labels On Genetic Modification in Foods. *Wall Street Journal- Eastern Edition*.

Myers, D. (2015, October 26). *10 Things You Didn't Know About Whole Foods 365 Products*. Retrieved from The Daily Meal: https://www.thedailymeal.com/eat/10-things-you-didnt-know-about-whole-foods-365-products

National Chicken Coucil. (2015). *ANTIBIOTICS: SHOULD I BE CONCERNED ABOUT ANTIBIOTICS USED ON CHICKEN FARMS?* Retrieved from Chicken Check In: https://www.chickencheck.in/faq/chicken-antibiotics/

Newton, D. E. (2014). *GMO Food: A Reference Handbook.* Oxford, England: ABC-CLIO, LLC.

Non-GMO Project. (2016). *Find Non-GMO*. Retrieved from Non-GMO Project: https://www.nongmoproject.org/find-non-gmo/

Non-GMO Project. (2016). *GMO Facts*. Retrieved from Non-GMO Project: https://www.nongmoproject.org/gmo-facts/

Non-GMO Project. (2016). *History*. Retrieved from Non-GMO Project: https://www.nongmoproject.org/about/history/

Sax, J. K., & Doran, N. (2016, December 1). Food Labeling and Consumer Associations with Health, Safety, and Environment. *Journal of Law, Medicine, & Ethics*.

Shahbandeh, M. (2019, November 11). *Persons Fed Per Farmer in the U.S. 1940-2016*. Retrieved from Statista: https://www.statista.com/statistics/207339/number-of-persons-fed-per-farmer-in-the-us-since-1940/

Sloat, S. (2017, November 21). *How Much Do Humans Eat By the Numbers?* Retrieved from Inverse: https://www.inverse.com/article/38623-pounds-of-food-united-states-calories

Slomski, G. (2019). Ethics. *Salem Press Encyclopedia*.

Strom, S. (2015, August 26). Chipotle to Stop Using Genetically Altered Ingredients. *The New York Times*.

Tinne, W. S. (2013, January 1). Green Washing: An Alarming Issue. *ASA University Review*.

United States Department of Agriculture. (2018, December 20). *BE Disclosure*. Retrieved from United States Department of Agriculture: Agricultural Marketing Service: https://www.ams.usda.gov/rules-regulations/be

Walmart. (2019). *Walmart Global Statement of Ethics.* Walmart.

Whole Foods Market. (2020, March 22). *Products*. Retrieved from Whole Foods Market: https://products.wholefoodsmarket.com/product/365-everyday-value-dried-mangoes-8-oz-b9e419

Your Genome. (2017, February 17). *What is a GMO?* Retrieved September 29, 2019, from Your Genome: https://www.yourgenome.org/facts/what-is-a-gmo