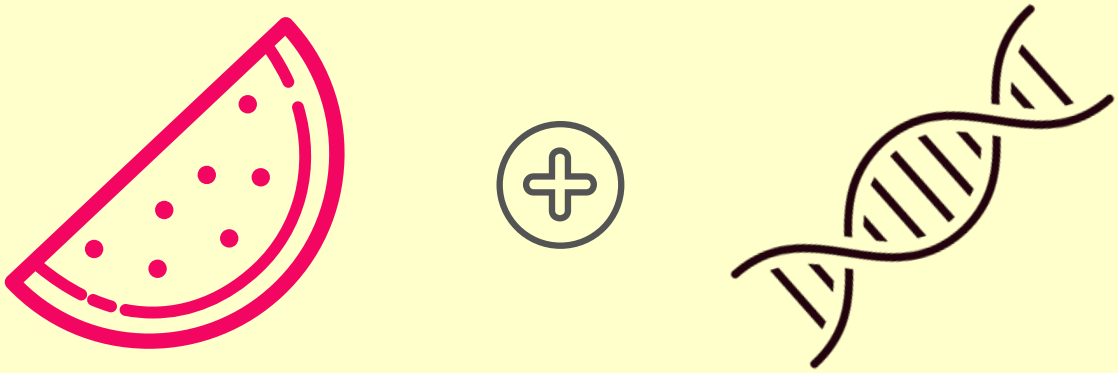
GMO? or GM-NO?

Should we use genetically modified foods?

Azniv [redacted]

WHAT IS A GMO?

"Genetically modified organisms (GMOs) can be defined as organisms (i.e. plants, animals or microorganisms) in which the genetic material (DNA) has been altered in a way that does not occur naturally by mating and/or natural recombination."
(World Health Organization)



Genetically modified foods have become a large part of the food industry because they are engineered to have better shelf life, resistance to climate and pests, and produce the largest, tastiest products. They are advantageous to both the farmers and the consumers because of their cost efficiency and ability to grow easily and often with less environmental damage.

Currently, a company called Monsanto has the patents to all genetically modified organisms. This means that they have a lot of corporate control over who they sell GMO seeds to, where they are planted, and how it is produced.

Genetic engineering has been in use for about two decades now. According to Senator Donna Nesselbush, "In an average grocery store, roughly 75 percent of processed foods contain genetically modified organisms, or GMOs." It has been widely debated whether labeling should be required, whether consumption of GMOs has negative effects, and whether the regulation of genetically modified seeds should be enforced.

WHAT'S THE *Problem?*

According to US Right-To-Know, the FDA does not test for the safety of the genetically modified organisms it approves. Instead it is "...the manufacturer's responsibility to ensure that the [GMO] food products it offers for sale are safe." said FDA spokesperson Theresa Eisenmann. Furthermore, the Institute for Responsible Technology reports that "Genetically modified foods have been linked to toxic and allergic reactions, sick, sterile and dead livestock, and damage to virtually every organ studied in lab animals."

These are the same genetically modified foods on the shelves in our supermarkets.

This problem **affects everyone** who shops for food in a grocery store. The main issue is that **we don't know the facts about GMO's** or their effects because **the FDA doesn't want us to know.** Research and testing by outside groups shows that GM foods have the potential for negative effects, but the **evidence is blindly ignored for the purpose of making a profit.**

HOW DO WE Solve it?

Raising public awareness is the first step toward a solution to the issue of GMO foods.

This solution would provide people with the information that the FDA is hiding. Potential toxins, including allergens, are things that the consumers have a right to know about, so making them aware is the first thing that needs to happen. As in any industry that sells a product, the consumers control what the manufacturers implement for maximum sales. Advertising is affordable, accessible, and sustainable, especially with the availability of social media platforms and people who are passionate and will advocate for the cause.

affordable: Advertising is a very low-cost solution for any problem today because of the many media outlets that can be reached. Hashtags, built-in ads, and old-fashioned posters are easy, inexpensive, and effective.

accessible: Advertising is an accessible solution because it is visual and can be viewed by anyone. Placing promotions in public places or on public media, especially grocery stores, can have a direct effect on people's awareness and choices when they see it.

sustainable: This advertising initiative will last as long as there are people willing to continue it, or until the problem is solved and a new problem will occur because consumer awareness has been raised.

WHAT ARE THE Impacts?

Raised awareness resulting from the solution will...

...Reduce the amount of toxic residue in the environment they are grown in. Because of the alterations in their DNA, genetically engineered plants release toxins instead of necessary nutrients into the soil which kills the soil bacteria and affects the health of all the other organisms that depend on the soil and environment, like other plants, insects, and fungi. With less demand for GMO products would help by eliminating this problem.

...**Reduce risks for potential health-related problems** in people and animals who eat GMO foods due to lower demand and use of GMOs in food products. Possible health issues that could result from long-term consumption of GMO foods include allergies, sterility, and organ damage. These could all be reduced if GMOs are not eaten and sold as much because of increased awareness.

...Help good pollinators. Some GMO crops are toxic to bees and butterflies, which are essential to the natural pollinating process of plants. In recent years, a huge decrease in bee population has occurred, and many studies show that GMO plants are the culprit. Removing genetically engineered crops from farms should restore the natural balance between plant and pollinator.

WHAT ARE THE Impacts?

Raised awareness resulting from the solution will....

...Encourage shopping at farmers markets. Farmers' markets sell food that is grown locally, is non GMO, and is organic. Supporting small family farms that grow local food is beneficial for both the producer and the consumer because it gives them business and it is cheaper and fresher than buying the same organic food in a grocery store. The advertisements could include shopping at farmers' markets as an alternative.

...Protect the environment's natural biodiversity. GMO plants with altered DNA have the tendency to become invasive in delicate environments. GMOs and organics can not grow together, so the GMO plants tend to take over and replace the heritage crops that grow there naturally. Growing fewer GMOs would improve this problem by allowing more biodiversity on farms.

...Improve the labeling of GMO foods in stores. A GMO labeling bill has already been signed by the President, but it has some loopholes that companies can get around. For example, only foods that are different from their non-GMO counterparts are required to be labeled under the legislation. Awareness of GMO issues would encourage the producers to correctly label their products for their customers' satisfaction and safety.

HOW WILL IT BE Solved?

Steps toward the solution will follow the steps of any advertising campaign (according to SmallFuel Marketing):

Pre-Step: Committees of people to head the advertising campaign would be set. These members could be political interest group activists who have experience with the anti-GMO initiative, and could be paid by the interest group they are affiliated with. A committee is essential to oversee the advertising initiative and complete the following steps.

Market Research and Advertising Venue

1

- Collect all data and information regarding GMOs, legislation regarding GMO's, and alternatives (content)
- Study consumer behavior and determine the appropriate venue for advertisements (supermarkets, social media, etc)

Setting Goals and Budgeting

2

- What are the aims of the project? These goals should work towards the overall goal of consumer awareness for a change in the labeling, use, and study of GMO foods.
- Assess the budget and determine the total amount needed; plan a set total amount to be spent. Fundraise as needed to fund the project fully. Any materials are purchased or planned to be purchased.

HOW WILL IT BE Solved?

Steps toward the solution will follow the steps of any advertising campaign (according to SmallFuel Marketing):

Choosing Creatives and Design &Wording

3

- Determine the desired "look" and "feel" of the advertisements. If audio or video is to be used, obtain the footage or hire musicians or voices to create it.
- Put the ads together with a designer to include images, data, and other content. Hashtags for social media would also be created in this step. An example ad is included in the leaflet with this book.

Place Ads and Evaluate

4

- Volunteers would be sent to post flyers, put posters up, and place ads and social media online. The goal is to get as much traffic as possible around the ads.
- Analyze the change in public interest and the issue's popularity after a set amount of time, then determine the course of action to try a different approach or improve upon the method.

- **Pros to the Solution:**
- Inexpensive
- Easily executed
- Has the potential to reach many people

- **Cons to the Solution:**
- People may ignore it
- The ads may not spark interest to act
- Not as many people will see it as planned

TO CONCLUDE

The Problem

GMO foods have potential heath and environmental risks that the FDA doesn't test for, and big corporations own all genetically modified foods.

Why it's a Problem

Food with genetical engineering isn't labeled that way, and the FDA doesn't tell consumers the possible health risks researchers found.

One Way of Solving it

Advertise and inform the public of what the FDA doesn't tell us through an advertise initiative on social media and in food stores.

Execution and Effects

Once the advertisements are launched, an increase in consumer concern and interest in GMO foods should occur, resulting in a change in labeling, sale, and laws regarding GMO foods. Encourage shopping at farmers markets as a positive alternative in the meantime.

- Even this booklet is a strong tool in educating and sparking a solution to the problem.

...and in summary...

"Being informed on the food we are consuming, and the way modern agricultural techniques are affecting the environment, is one effective way of consciously interacting with the natural world."

-One Green Planet

SOURCES

Bibliography

Berl, R.P. (2015) GMOs: A Breakthrough or Breakdown in U.S. Agriculture? Available at: http://health.usnews.com/health-news/health-wellness/articles/2013/04/25/gmos-a-breakthrough-or-breakdown-in-us-agriculture (Accessed: 6 January 2017).

Bram, T. (2009) The 8 steps of an advertising campaign. Available at: http://www.smallfuel.com/blog/entry/the-8-steps-of-an-advertising-campaign (Accessed: 6 January 2017).

Clinton, P. (2016) DNA testing for GMOS. Available at: http://newfoodeconomy.com/clear-labs-dna-test-food-gmos/ (Accessed: 6 January 2017).

Donsky, A. (2015) The 8 Most Common Genetically Modified Foods: Are You Still Eating Them? Available at: http://naturallysavvy.com/live/are-you-eating-the-8-most-common-genetically-modified-foods (Accessed: 6 January 2017).

Fox, M. (2015) There's no need to label GMO plants, FDA says. Available at: http://www.nbcnews.com/health/health-news/theres-no-need-label-gmo-plants-fda-says-n468301 (Accessed: 6 January 2017).

Froala (2016) Beautiful WYSIWYG HTML editor | rich text editor. Available at: https://www.froala.com/wysiwyg-editor/v1.2 (Accessed: 6 January 2017).

Glass, E. (2017) The environmental impact of GMOs. Available at: http://www.onegreenplanet.org/animalsandnature/the-environmental-impact-of-gmos/ (Accessed: 6 January 2017).
GMO education- Institute for Responsible Technology (no date) Available at: http://responsibletechnology.org/gmo-education/ (Accessed: 6 January 2017).

Lallanilla, M. (2016) GMOs: Facts About Genetically Modified Food. Available at: http://www.livescience.com/40895-gmo-facts.html (Accessed: 6 January 2017).

Sen. Donna Nesselbush: Three quarters of processed foods have genetically modified organisms (2017) Available at: http://www.politifact.com/rhode-island/statements/2015/mar/22/donna-nesselbush/sen-donna-nesselbush-three-quarters-processed-food/ (Accessed: 6 January 2017).
The FDA does not test whether GMOs are safe (2015) Available at: http://usrtk.org/the-fda-does-not-test-whether-gmos-are-safe/ (Accessed: 6 January 2017).

WHO (2016) Frequently asked Questions on Genetically Modified Foods. Available at: http://www.who.int/foodsafety/areas_work/food-technology/faq-genetically-modified-food/en/ (Accessed: 6 January 2017).

Citations, Quotes & Annotations

Berl, R.P. (2015) GMOs: A Breakthrough or Breakdown in U.S. Agriculture? Available at: http://health.usnews.com/health-news/health-wellness/articles/2013/04/25/gmos-a-breakthrough-or-breakdown-in-us-agriculture (Accessed: 6 January 2017).
(Berl, 2015)

Fox, M. (2015) There's no need to label GMO plants, FDA says. Available at: http://www.nbcnews.com/health/health-news/theres-no-need-label-gmo-plants-fda-says-n468301 (Accessed: 6 January 2017).
(Fox, 2015)

Froala (2016) Beautiful WYSIWYG HTML editor | rich text editor. Available at: https://www.froala.com/wysiwyg-editor/v1.2 (Accessed: 6 January 2017).
(Froala, 2016)

GMO education- Institute for Responsible Technology (no date) Available at: http://responsibletechnology.org/gmo-education/ (Accessed: 6 January 2017).
(GMO education- Institute for Responsible Technology, no date)

Sen. Donna Nesselbush: Three quarters of processed foods have genetically modified organisms (2017) Available at: http://www.politifact.com/rhode-island/statements/2015/mar/22/donna-nesselbush/sen-donna-nesselbush-three-quarters-processed-food/ (Accessed: 6 January 2017).
(The FDA does not test whether GMOs are safe, 2015)

WHO (2016) Frequently asked Questions on Genetically Modified Foods. Available at: http://www.who.int/foodsafety/areas_work/food-technology/faq-genetically-modified-food/en/ (Accessed: 6 January 2017).
(WHO, 2016)

EXAMPLE POSTER AD

This flyer could be printed and hung in supermarkets at checkout or entrance to increase GMO knowledge.

ELEMENTS

Eye-catching heading

Startling Statistics

Lingering Thought

Informative text

Link to further information

*Sources for Poster, written at the bottom:

Inc, A. (2013, March). The 8 most common genetically modified foods: Are you still eating them? Retrieved December 21, 2016, from Naturally Savvy, http://naturallysavvy.com/live/are-you-eating-the-8-most-common-genetically-modified-foods