Senapathy, Kavin. "The Anti-GMO Movement Has a Social Justice Problem." *Forbes*, 20 Nov. 2017. https://www.forbes.com/sites/kavinsenapathy/2017/11/20/the-anti-gmo-movement-has-a-social-justice-problem/#7dfe94013a54

The Anti-GMO Movement Has A Social Justice Problem

(Forbes)

Kavin Senapathy

An acronym that conjures specters like pesticides, cancer, obesity, the transformation of life forms into intellectual property, and corporate control of food and politics, GMO has become a metaphor for perceived and real flaws in our food system. But not only is the term "Genetically Modified Organism" scientifically meaningless (as I've discussed ad nauseam,

including here, here and here), the movement against so-called GMOs helps perpetuate injustice, from sexism to food insecurity. These injustices aren't as obvious as they may seem—sometimes it isn't the opposition to GMOs perpetuating inequity—it's the existence of the fabricated "GMO" category itself.

As a food science and agriculture geek, shopping for groceries always elicits a few eye rolls and expletives muttered under my breath. From "no artificial flavors" to "made with real sugar," buzzword labels that tell consumers nothing meaningful about nutrition, environmental impacts, and safety are plastered all over our food supply. No label exemplifies meaningless buzzwords better than the Non-GMO Project.

As I wrote in May:

American shoppers are surely familiar with the iconic orange butterfly logo. According to its

website, retail partners report that Non-GMO Project Verified products are the fastest dollar growth trend in their stores, with total annual sales exceeding \$19.2 billion. What the Non-GMO Project's website doesn't tell visitors is that its label tells us absolutely nothing meaningful about a product or its ingredients, including healthfulness, environmental impact, and working conditions for food workers and farmers. It doesn't even tell consumers about a common objection to GMOs— whether or not a food product was derived from a patented crop variety. For example, the Non-GMO Project verified Opal Apple is patented, with orchards paying a royalty for the right to grow and sell the fruit.

GMO is practically impossible to define, at least in a logical way. Nearly every single plant and animal humans consume have had their genes (which contain the DNA molecules that code for each organism's structures and functions) altered well beyond nature's jurisdiction. Most consumers don't grasp this fact.

Recent surveys found that around 80% of Americans polled favor mandatory labeling of foods containing DNA. Respondents were widely-mocked for not realizing that DNA is in all foods, with the exception of items like refined oils, sugars, and salt.

Breeding methods that alter an organism's genome to introduce or enhance beneficial traits like flavor, color, size, hardiness, and tolerance to disease and substances include "wide" hybridization of species or genera that would never mate in the wild, inducing genetic mutations with chemicals or radiation, and selective breeding. Arbitrarily, the only technique considered "GMO" and regulated as such is transgenesis, whereby one or more useful DNA sequences is added from one species' genome to another with modern molecular genetic engineering techniques. And though most governments don't regulate gene-edited crops (which aren't transgenic but also engineered with modern molecular genetic engineering techniques) in the same way as

transgenic crops, third parties, including the Non-GMO Project, exclude them from certification.

The obvious GMO justice implications

Much has been written about the obvious ways in which "GMO" is a social justice issue—traits that can help alleviate nutrition and food security problems in the developing world. Consider Banana Xanthomonas Wilt (BXW). A bacterial disease, BXW affects all banana cultivars and is considered one of the greatest threats to banana productivity and food security in Uganda and eastern Africa, where the fruit is a staple crop. There are genetically engineered plants with a pepper gene with strong resistance to banana wilt and, until recently, they languished behind a guarded fence, prohibited from reaching farmers. The only reason for this plant purgatory is ideology.

Or take crops engineered with nutrient fortification to mitigate deficiencies that cause widespread preventable blindness, disease and death. As Nobel Laureate Sir Richard Roberts told me during a 2016 interview, "we need to make sure that we in the developed world understand that it is an indulgence for us to be either for or against a particular food."

Opponents are fond of arguing that genetic engineering hasn't lived up to promises of increased yields, reduced inputs, consumer benefits, and the ever-critical goal of feeding the world's booming population. Analysis of these so-called failures scrutinize the wrong question, as weed scientist Andrew

Kniss argued in a column last year. It's also clear that, depending on the specific metric, the socalled "failures" are self-fulfilling prophecies—how can a technology help nourish the world or overcome farming challenges when opponents destroy test fields and fuel consumer rejection?

The real justice issue—appeasing justified socioeconomic anxieties

Given that whether an ingredient or whole food is genetically engineered has absolutely no bearing on anything meaningful, including the toxicity and environmental impacts of substances used in farming, why is "GMO" such a fraught term? Yes, there is evidence that Americans have

a science problem when it comes to food. But I've been writing about food, health, agriculture, parenting and the intersection of these topics for a few years, and it's obvious to me that this isn't just a science problem. Beneath the farm to table movement, under the proliferation of meaningless or misleading labels, is a desire to feel good about our choices as consumers. We want to know that our purchases align with our values, as nebulous as the thought-process may be in the instant we select one package over another at the supermarket.

When we unpack the reasons people worry about GMOs, genetic engineering in and of itself isn't necessarily the prevailing concern. Rather, people worry about monoculture, pesticides and other substances used during farming, the patenting of life, violating Mother Nature's law, environmental and health impacts, the wellbeing of our families, corporate control of the food system and unsavory business practices, working conditions for farmers and factory workers, perceptions and judgement from the social groups with which we affiliate, and even class, gender, and race- based disparities.

Anti-GMO marketers know these anxieties well, and they're skilled at defining, bringing clarity to, and wielding these anxieties in exploitative ways. In the end, confused shoppers who just want to do the right thing get to choose a feel-good label, allowing them to stay comfortably complacent about very real justice issues— issues that are far more complex in cause and scope than a buzzword label could ever combat.

Consider again the Non-GMO Project, which says that "[b]ecause GMOs are novel life forms, biotechnology companies have been able to obtain patents with which to restrict their use." If patents are antithetical to a consumer's values, that's understandable, but seeking non-GMO labels won't help weary customers avoid doing business with IP-protected seed sellers—there are thousands of patented crop varieties, including many that carry the Non-GMO Project butterfly seal.

Or take online grocer Thrive Market. As I discussed last year, the company harnesses justified

worries over income inequality and resulting health disparities, and suggests that these disparities could be mitigated if only SNAP users had access to "healthy" food. Cleverly albeit preposterously, the campaign makes a nebulous link between "healthy" and "socially conscious" food and organic, non-GMO and even gluten-free fare, going as far as suggesting that health problems more common in lower socioeconomic rungs could be cured with organic food.

Another central theme in the anti-GMO world is the "suicide seed" meme, which dictates that the adoption of GE cotton seeds in India is directly responsible for an epidemic of farmer suicides. But as I explained last year, the problem of Indian farmer suicide is very real, but Bt cotton is demonstrably not the reason for this complex and ongoing tragedy. Instead, predatory lending, unpredictable weather, and stigma around mental illness fuel the problem, with the suicide rate itself holding steady before and after the adoption of Bt cotton, which propelled India to world leader status in cotton production. These intricate realities don't stop companies, like underwear seller Pact Apparel, from marketing non-GMO "clothes that don't hurt people," and suggesting that panties made from GMO cotton contribute to farmer suicide.

Finally, a discussion of GMOs and justice would be incomplete without talking feminism. The anti-GMO movement consistently

claims that genetic engineering is harmful to women and children, saying explicitly or implicitly that these foods affect fertility, breastmilk, and other aspects of women's health. With slogans like "keep GMOs out of your genes" accompanied by imagery of a topless denim-clad young woman, and explicit comparisons of genetic engineering to rape, anti-GMO groups and their leaders frame genetic engineering as a violation of female virtue, surely a slap in the faces of sexual assault victims.

My inner feminist takes most offense at any movement that tells women to think with the hysterical and irrational parts of our brains. "I trust the social media more than most medical

doctors, more than the CDC, more than the FDA, more than the EPA ... I don't need a scientific study," asserted Zen Honeycutt, founder of anti-GMO group Moms Across America, in a recent documentary film. Misleading anti-GMO marketing is heavily targeted to women, especially mothers, using vague value-based terminology rather than anything resembling logic. It's an insult to our intelligence, ladies.

The 2015 Organic Marketing Report, commissioned by *Academics Review*, explains that "[o]ften organic marketing messages on health and safety specifically target genetically modified organisms and pesticides; mainly promoting the absence of these production attributes in the products." But it's not only misleading claims about health and safety driving consumers—it's intentionally-ambiguous claims about justice issues driving these attitudes.

False sense of responsibility, morality

Perhaps this says just as much about us as consumers as it does about marketers. We live in an age of instant gratification, and we expect no less from the way we consume information. We want simple solutions to seemingly simple problems. Inequality is real, we have a long way to go to fix the complex causes of injustice,

and the solutions are far from simple. But it's more soothing to believe that we're doing our part to fight injustice if we just avoid all things bad and consume all things good. And with "GMO" symbolizing all things bad in our food system and the injustice that comes with it, it's tempting to buy, literally and figuratively, into the non-GMO movement, pat ourselves on the back, and move on with the day.

Kavin Senapathy is based in Madison, WI, where she lives with her two young kids, husband, and mixed-breed dog. Follow her on Facebook and Twitter.