

Summary of Readings: The Food Movement and Genetically Modified Food

Michael Passarelli and Renee Powell

The New York Review of Books - The Food Movement, Rising

Food Made Visible

- Americans didn't really think about where their food came from until early 1970s - when food price inflation and books critiquing the industrial agriculture made people more aware
 - Ex: Mad Cow Disease in England in 1986 - cows (herbivores) being fed meat of other cows, keeping meat prices low, but causing disease
- Americans...
 - spend a smaller percentage of their income on food (10%) than any people in history
 - spend an average of 31 minutes per day preparing food (including clean-up)
- Increase in productivity of American farmers due to:
 - Cheap fossil fuel
 - Changes in agricultural policies
 - 1970s - focus of federal farm policy became to boost yields of commodity crops (corn, soy)
 - Caused crop prices to fall, farmers had to produce more to break even
 - Caused price of food to decrease - especially processed foods, sweetened drinks, and feedlot meat
- E.coli first identified in feedlot cattle in 1982
 - E.coli and other diseases show possible problems with giving food animals antibiotics
- Food journalism shows connections between industrial food production methods, agricultural policy, food-borne illness, childhood obesity, decline of the institute of the family meal, and the decline of family income since the 1970s

Food Politics

- "Food movements" - industrial food production needs to change
 - Includes: school lunch reform, animal rights, GMOs, organic/locally produced, combatting obesity/diabetes
 - These various movements could work against each other at times
 - All agree that today's food/farming economy is unsustainable
 - if we keep on like this, there will be an economic and/or environmental breakdown
- Food system consumes too much fossil fuel and emits too much greenhouse gas
 - Difficult to address climate change without changing food system
- American diet (highly processed, fats and sugars) responsible for chronic diseases
 - CDC estimates that $\frac{3}{4}$ of US healthcare spending goes to these diseases (heart disease, stroke, type 2 diabetes, some cancers)
 - need to address food industry to address healthcare crisis

- Michelle Obama's "Let's Move"
 - Spoke to Grocery Manufacturers Association about food production and marketing
 - The food industry shapes people's inclinations
 - Though administration is sympathetic to food movement, it also is friendly with food production officials
- As insurance and government take on more responsibility for cost of treating diet-caused diseases, the pressure to change American diet/food system will increase

Beyond the Barcode

- Farmer's markets offer more social opportunity than grocery store visits
- The food movement wants us to expand beyond buying strictly based on price and self-interest
 - Ethical and political values should inform buying decisions
 - Will make our eating more satisfying
- Decentralize global economy, create new economic and social structures outside mainstream consumer economy
 - This is why Wal-Mart selling organic foods does not appease food movement activists
- Food can show deepest ties to corporatization (fast food) as well as diversity of local flavors, varieties, etc. (farmer's market)
- Slow Food
 - Founded in 1986 as protest against McDonald's in Rome
 - Urges eaters and food producers to join together in "food communities" (like a farmer's market)
- Emphasis on great taste, and the family life/community fostered by sharing a meal
 - We have wrecked the family meal - 40% of Americans watch TV during meals
 - We urged women to get out of the kitchen - now, everyone should get in the kitchen - men, women, and children

Health, ethics and environment: A qualitative study of vegetarian motivations

- Vegetarian Society coined term "vegetarian" in mid-1800s
 - Vegans, lacto-ovo vegetarians, semi-vegetarians, pesco-vegetarians
- Variety of non-religious motivations for vegetarianism:
 - Personal health
 - Animal cruelty
 - Disgust with eating flesh
 - Association with patriarchy
 - Food beliefs and peer or family influences
 - Health benefits/weight loss
 - Environmental and ecological concerns
- Data collected from "online ethnographic" research from a web-based forum on secular vegetarianism

- Popular reasons for vegetarianism as found on forum:
 - Health reasons (health vegetarians - 27% of participants)
 - An initial motivator and later justification for continuing meat-free diet
 - Animal welfare/lifestyle changes (ethical vegetarianism - 45% of participants)
 - Avoid killing animals for human benefit
 - Environmental reasons
 - Only one person from forum
 - Also included commitments to a sustainable lifestyle - recycling, using public transportation, composting, etc.
 - Both human and animal health/welfare motivators became connected to environmental good
 - Reasons including aesthetics (look, taste, etc. of meat) and religion
- Vegetarians who begin for one of the three main reasons often end up adopting other habits/reasons after becoming a vegetarian

Fears, Not Facts, Support GMO-Free Food

- Food companies will market what they think customers want, whether or not it's scientifically justified (ex: gluten-free products)
- Dept of Agricultural announced voluntary certification program
 - Food companies can pay for their products to be labeled GMO-free
- Similac Advance Baby Formula (made GMO-free version), Chipotle (will prepare foods with no GMOs), Whole Food (GMOs must be labeled by 2018)
- GMO labeling already required in 64 countries
- In African countries with food scarcity and malnutrition, food exports from US were rejected, even though they could save lives, because they contained GMOs
- Poor public understanding of pros/cons of GMOs
 - We've been genetically modifying food and feed plants and animals for thousands of years
 - By crossing existing organisms with relatives to achieve desired qualities
 - Can take years to produce a sellable product this way
 - Genetic engineering allows for the desired outcome in one generation
 - GMOs are regulated by FDA and EPA
- Possible applications of GMOs:
 - Remove allergenic proteins in common allergy foods
 - Produce vaccines, antibodies, and drugs quickly and cheaply
 - Produce insulin to treat diabetes
- GMO seeds can escape where they're grown and contaminate fields of non-GMO crops
 - Could jeopardize government's ability to certify GMO-free products
- Best way to avoid GMOs
 - buy organic products, which USDA requires be GMO-free

Campbell Labels Will Disclose GMO Ingredients

- Campbell Soup is the first major food company to start disclosing if Genetically Modified Organisms (GMOs) can be found in their products.
- Many food companies have started printing labels that adhere to new labeling laws in Vermont. The laws, which go into effect in July, will require all food companies to disclose genetically modified ingredients.
- Unlike its competitors, Campbell is calling for federal action on labeling laws to ensure all products that contain such ingredients provide labels, more commonly called GMO labelling.
- CEO of Campbell says about ¾ of the company's products had ingredients made from the four largest genetically engineered crops: corn, canola, soybeans and sugar beets.
- Campbell and its various brands have made the first major strides to provide customers with the knowledge that GMOs are or are not present in their products.
- Campbell CEO argues that a state-by-state network of labelling laws will be inconvenient for all companies, not to mention expensive.
- Agriculture secretary, Tom Vilsack, says that a federal law would save not only costing the industry hundreds of millions of dollars but ultimately the consumer too.
- A national mandatory labelling standard put into effect over a period of time would allow companies to make the changes necessary to comply with little to no added cost.
- Last year Campbell created the website whatsinmyfood.com that offers information on the ingredients and how they are being used in their food products, including GMOs.
- 92% of americans supports GMO labelling.
- Food industry experts say that while GMO labelling could help give a company credit for the transparency in what they are selling, consumers might just get confused and simply look for another brand to buy instead.

The Franken Public: Have Americans Turned against Genetically Modified Food?

- Campbell Soup generated headlines that it would voluntarily label products containing genetically modified (GM) crops.
- While other companies have been lobbying for congressional legislation regarding voluntary labelling, Campbell has instead been calling for mandatory labelling.
- Most americans support labelling of products, though they are not very deeply held opinions.
- GM labels could in essence have a huge positive effect on the prevalence of GM crops used in foods, and even pave the way for a new generation of GM foods that would promise great benefits
- According to the FDA, AMA, American Association for the Advancement of Science, and other scientific organizations, GM foods do not pose any significant health risks when compared to non-GM foods.
- Experts argue there is no legal or scientific reasoning behind special labelling of GM foods, and would be misleading and therefore imply that GM foods might be harmful to consume.

- Due to a few discredited studies, there is enough for activists to claim GM technology poses a threat to our health.
- During the early 2000s most americans knew little to nothing about GM food and had no strong opinions on the subject.
- There has been a steady growth in popularity for organic and locally grown foods that directly combats the rise of GM crops by the larger chain manufacturers, causing labelling to be the best tool these local/organic growers have to politically fight against those companies.
- Wasn't until 2012 when GM labelling became a widespread and hotly debated political issue.
- Research suggests that public awareness, however, is still relatively low.
- Rutgers U. 2013 study, 44% of americans said they were aware of GM crops in food, 26% believed they had never eaten food with GM ingredients.
- When asked directly about labelling, 80% of the public said it was significantly important to know whether GM food was in a product but when asked indirectly, (what information would you like to see on food labels that is not already there?) only 7% said GM food labelling.
- For most, cost and brand preference trump labelling when driving food choices.
- For smaller segments of consumers that are willing to spend more for organic choices, GM labels will simply be another signal to guide that decision. For the majority of Americans who do not have a strong opinion, labels are unlikely to make a significant difference.
- Some experts are arguing that others companies should follow Campbell's lead and push for mandatory labelling laws because it would be beneficial.
- The millions spent by the food companies to block labelling efforts has hurt them more than has helped them.
- Research has supported that giving consumers a choice (in this case the labelling of GM foods) any fears they have about that choice will subside.
- Defusing the labelling controversy will likely benefit the next generation of public debate over genetically engineered foods, allowing for the freedom to pursue and study these technologies.
- GM has done a lot for the safety and health of the food industry, producing greater insect resistant and herbicide tolerant crops.
- A next generation of GM crops have many benefits, from helping the world meet a 70% increase in the demand for food by 2050 to rice crops modified with Vitamin A and iron to help populations in underdeveloped countries to crops able to survive in harsh conditions brought on by the ongoing effects of climate change.
- Many of the arguments that those opposed to GM products bring to the table chiefly revolve around one core fact: there is no requirement to label them. Thus, a smart, mandatory labelling policy would help not only the food industry but the consumers as well.

Vandava Shiva's Crusade Against Genetically Modified Crops

- Vandava Shiva vehemently opposes the use of genetically modified organisms and the genetic engineering of seeds.
- By the end of the century, current projections are stating that the world will have to feed up to 10 billion people, which will require farmers to grow more food in the next few decades than has been grown in the history of humanity.
- While many scientists agree that the only conceivable way to meet these increasing demands is through advanced plant genetics, Shiva calls any seed bred in a laboratory an abomination.
- However, nearly half of the world's soybeans and a third of its corn are biotech products.
- Cotton that repels the bollworm, a crop-devastating pest, has dominated the Indian market and as well as across the world.
- The Green Revolution, the so-called agricultural projects that helped bring India out of its post-colonial famine and food shortages, revolutionized the food industry in the country, yet Shiva believes it destroyed the traditional way of life and was even responsible for killing Indian farmers, though many dispute this claim and more than one study concluded that traditional farming methods would have left millions starved.
- Experts agree that though the Green Revolution helped, little care was given to the environmental impacts (runoff polluted many lakes and rivers and destroyed some of the best farmland in the country) and should have ended long before it did.
- Gregor Mendel helped create the science of genetics based on his pea-pod breeding experiment, leading to nearly all of the plants cultivated by humans to have been genetically modified to last longer, look and taste better, and grow better in harsh soil conditions.
- Genetic engineering has led to plants being able to produce their own insecticide, letting farmers stop using other insecticides that contain harmful carcinogens and lead to sickness and disease.
- Many opponents of GMOs, Shiva included, feel that genetic modification is something that God alone should do, not something that mankind should be meddling with.
- Shiva has been giving speeches regarding GMOs as harmful to our health yet since 1996, when GMOs were first cultivated, people have consumed trillions of servings of food and yet none have become sick because of them.
- Scientific organizations from around the globe have all come to the consensus that GMOs are as safe as any other food is to eat.
- The species of cotton that is resistant to bollworms has been planted consistently by farmers in a region of India called Maharashtra.
 - Shiva has called this area india's "suicide belt", attributing this to the company Monsanto's introduction of the crop.
 - Locals revealed that the suicides were not due to the species of cotton but due to farmers having little to no insurance if a crop goes bad, leading them in so much debt that they could never hope to pay off, so they turn to suicide.
- Golden Rice (a strain of rice that is enriched with vitamin-A) is a prime example of genetic engineering being used to help poor and underdeveloped peoples.

- Other crops all over the globe have shown benefits from genetic modification, ranging from increased resistance to diseases and parasites to being able to grow in less-than-ideal conditions, yet almost all have seen opposition from anti-GMO groups and Shiva.
- Shiva has advocated that she rejects studies that show many GMOs are safe due to her belief that Monsanto and other companies have paid for false stories to come out in their defense.
 - Monsanto is simply not that powerful to have that level of control over most of the leading science and research publications in the world.
- The biggest objection to GMO research and use is mainly that it is unnatural and we have created forms of life that were not “meant to be”.
 - Yet nearly every food in the aisles of a supermarket was at some point carefully bred and selected to be the food we know today.
 - Corn, for example, would not exist if humans had not started cultivating it, as it does not grow in the wild and would not survive if we stopped eating it.
 - Most medicines as well are products of synthetic engineering and the mixing of different bacteria to create something that ensures our continued survival.
- Shiva’s statements are very rarely supported by any concrete scientific evidence.
- No single crop, GM or not, will solve all the world’s food-related problems, yet we will need to use a combination of many different sources to work towards that solution.