Chemicals and Corruption - It’s What’s for Dinner:
How the Food Industry Shapes What You’re Really Eating

Caitlin Krutsick, Class of 2013
Brooks College House
January 27, 2013

Caitlin Krutsick, from Bethlehem, Pennsylvania, graduated from Franklin and Marshall College in December 2012 with a B.A. in government. While at college, Caitlin was a member of the women’s volleyball team, president of .08, and co-president of the Government Club. She presently works for a non-profit organization in Bethesda, Maryland.
I have to start off by saying that in searching for a topic for my Junto paper, I actively tried to avoid anything too closely tied to public policy. I told myself that 3 ½ years of writing papers for Government classes had given me enough exposure to writing about policy issues, and that I should use this opportunity to learn about something totally unrelated to the focus of my college studies. I really thought I had landed on such a topic when I decided to research the food we put into our bodies. As I continued in my research, it became apparent that this topic could not be completely separated from the realm of government policy. I was a little disappointed to have failed in my attempt to branch away from an area of study that was of such comfort to me. Ultimately, the fact that my topic tied back into policy reaffirmed why I loved studying Government so much in the first place. The policies made by our government affect nearly every aspect of our lives, including what we eat at every meal. It reemphasized to me how very important it is to be informed about the policies governing our nation, and how policies should be constantly questioned so they can be improved.

Being healthy is something that just about everyone thinks about at some point during his or her life; for many it is a daily concern. From taking vitamins to exercising to regular doctors’ visits to eating well to meditating to washing your hands – definitions of “being healthy” vary widely. Americans are particularly concerned with health. From Michelle Obama’s campaign to stamp out childhood obesity to the thousands of diet books that grace our shelves to the insane amount of money we pour into our attempts to stay healthy. According to the Council on Foreign Relations, Americans spend about two trillion dollars annually on healthcare services, more than any other industrialized country in the world (Council). One would imagine with this intense focus and investment in health that Americans should also be some of the healthiest people on the planet. If you pay any attention to the news or even just the people around you, then you know that is not the case. The Centers for Disease Control report that over one third of American adults are considered obese and approximately seventeen per cent of children in the United States also suffer from obesity (“Adult Obesity Facts”). Over 25 million Americans suffer from diabetes (“Diabetes Basics”). In the year 2012, the National Cancer Institute estimated that over 1,500 Americans died per day from cancer (“Cancer Facts and Figures 2012”). These are just some of the staggering statistics that can be found about the major health problems Americans face on a daily basis, despite the emphasis on health in our culture and the amount of money we spend trying to attain it.

This leads to the real meat of my paper. My argument rests on the idea that the typical American approach to healthcare does not get at the root (quite literally) of many of the diseases that plague our citizens. The problem of inadequate nutrition, which almost all Americans are ingesting, is the major culprit behind our inadequate level of health in this country. Even those of us who avoid the evils of McDonald’s and Krispy Kreme, who think we eat a pretty balanced diet, are generally not eating the things that our bodies were intended to digest. The problem goes way beyond the individual food choices that we make on a daily basis, though. We are still responsible for those choices, but cannot take full blame for the problem when the information about proper nutrition and the problems with the food we currently eat never get discussed. The profit-driven agribusiness industry and those who benefit from it financially shape almost all conversations about “healthy eating” in society today. Not only do they shape the conversations, but they also shape the availability of foods that actually have health benefits, and the likelihood that such foods will be available in the future. The power and pervasiveness of such industries
reduce the opportunity for more Americans to lead healthy lives. I would like you to keep in mind that I am not arguing against the use of all modern medicine or pharmacological treatments for illnesses. I believe that the amount of people who would need to seek such treatments would be drastically reduced if they had the knowledge, opportunity, and will to change their diets. I am also not arguing that initiatives intended to reduce childhood obesity, such as Michelle Obama’s, do not help or are not well intentioned, merely that they can have no real effect until the larger problems surrounding the production and consumption of food in America are dealt with. I simply mean to inform about the foods we are eating, the problems with them, the foods we should be eating, and the impacts on our physical beings that result.

The agribusiness model of providing food to our large nation seems appealing on some basic principles. It is incredibly efficient. It results in large yields that supply much cheaper products to fill shelves. Such principles dictated much of the thinking during the time of the Industrial Revolution, and farming could not help but enter the trend toward mechanization and mass-production. After World War II, munitions plants, suddenly looking for a new purpose, began to produce chemical fertilizers from ammonium nitrate surpluses (Kingsolver, 2008, p. 13; Ingredients, 2009). This was the true birth of agribusiness and of the idea that any technological innovation to improve crop yields was a good thing. Our government supported this model by re-writing the rules about commodity subsidies, making sure they funded a guaranteed supply of cheap corn and soybeans (Kingsolver, 2008, p. 13). Food became a commodity, rather than a necessity of life, and farmers had to keep up. As Secretary of Agriculture Earl Butz told farmers, they had better “adapt” to the new system, or “die” (Ingredients, 2009). Only those who could produce maximum yields survived; this left us with the large-scale, single-crop farms which dominate our agricultural sector. Producing more at a lower price – what could be bad about that? Quite a bit, I’ve learned. The agribusiness model of farming, for more reasons than I can outline in this short paper, contributes greatly to the deficiency of nutrition so epidemic to our citizens. I would like to focus on three major problems with the agribusiness model: first, its depletion of the soil; second, its production and proliferation of food additives; and third, its network of deception.

Anyone who ever took home a bean plant in kindergarten knows that soil is an important component in growing plants, and thus food. Simple concept – nutritious soil results in nutritious food. Friend Sykes, English farmer and author of Modern Humus Farming, emphasized the importance of healthy soil when he wrote, “Soil organisms are the unpaid labor force of the farm, working constantly to break down, not only the organic matter, but also its complex minerals, so making them available to plants” (Chek, 2008, “NUTRITION”). Health and fitness expert Paul Chek reinforces the point further in his lecture “Nutrition: The Dirt Facts.” Chek explains how human digestive processes mimic those that occur in the soil and reveals that any nutritional factor (such as enzymes, vitamins, bacteria) found in humans can also be found in the rizosphere of plants (Chek, 2008, “NUTRITION”). (For those of you who haven’t had a biology lesson in quite a while, like me, the rizosphere is the space taken up by a plant’s root network.) Thus, any nutritional component lacking in the plant will also be lacking in you if you eat things whose roots grow in nutrient deficient soil.

So how does this all relate back to agribusiness? With the advent of commodity based agriculture, the focus became how to grow and maximize growth of crops that raked in the most
cash: corn and soybeans as I mentioned earlier. Scientists worked on making that process more efficient and came up with chemical fertilizers, pesticides, and eventually genetically modified seeds, all so that we could intensively farm large fields with one crop. When you continually strip plants out of the soil in this way the soil loses important minerals, and the delicate, symbiotic balance between soil and what would be naturally occurring plant biodiversity gets thrown off. Barbara Kingsolver, in her book Animal, Vegetable, Miracle, points out that “adding phosphorus (the ‘P’ in all NPK fertilizers used in farming) kills the tiny filaments of fungi that help plants absorb nutrients” (p. 163). We are fertilizing our fields with something that reduces the absorption of nutrients by plants. Plants then become dependent on the chemical fertilizers to grow, but become more vulnerable to parasites, causing farmers to increase the use of pesticides like Roundup, chemical company Monsanto’s brainchild. Just to give you an idea how much chemical pesticide use has increased in this country – in 1948 when pesticides were first on the market, farmers used about 50 million pounds; in the year 2000 farmers used over a billion pounds of chemical pesticides. The worst part? Crop losses in 2000 nearly doubled compared to crop losses in 1948. As Paul Chek points out, “You’re eating it, folks” (Kingsolver, 2008, p. 165; Chek, 2008, “NUTRITION”). And what exactly are we eating? A study tested the school lunch of a student in New Zealand, a country with much stricter farming regulations than the United States, and found those foods contained the following: Chlorpyrifos-methyl, fenitrothion, vinclozolin, captan and a metabolic derivative of DDT. Those substances are carcinogenic, immune system damaging, and cause problems in the brain and nervous system (Chek, 2004, p. 57). Thus, large-scale, single crop farming depletes the soil of its nutrition, which depletes the plants of their nutrition, which in turn depletes you of your nutrition. On top of that, it causes you to ingest pounds of harmful chemicals from the pesticides and preservatives used to get the food to your table.

The industrialization and efficiency of agribusiness farming worked as intended, in the sense that its farms produce much higher crop yields. In fact, “U.S. farmers now produce 3,900 calories per U.S. citizen per day. That is twice what we need and 700 calories a day more than they grew in 1980 ... As the farmers produced those extra calories, the food industry figured out how to get them into the bodies of people who didn’t really want to eat 700 more calories a day,” King solver (2008) points out (p.14). Those people are you and me. This brings us to the relationship between the agribusiness model and food additives. Most of those extra calories produced come in the form of – you guessed it – corn and soybeans. Food companies had to figure out how to make corn and soybean products part of the everyday diet for most Americans. The now famous documentary Food Inc. (2008) illustrates: “You get that big fat kernel of starch and you can break that down and reassemble it. You can make high-fructose corn syrup, you can make maltodextrin, and diglycerides, and xanthan gum, and asorbic acid. All those obscure ingredients on the processed food – it’s remarkable how many of them can be made from corn.” Nutritional therapist Nora T. Gedgaudas notes in her book Primal Body, Primal Mind (2011) that the current number one source of dietary caloric intake at this time in the United States is actually high fructose corn syrup (p. 15). If trying to pronounce those ingredients doesn’t scare you a little bit, then that last fact certainly should.

You might say – hey, I read the labels on my food and I definitely avoid most of those chemicals. Though it’s great that you’re being health-conscious, you are probably wrong. In the food business, ever intent on pushing additives into our mouths, any additive that meets the
standard “Generally Regarded As Safe (GRAS)” does not have to appear on an ingredient list. In an analysis of a milkshake listed only as containing natural strawberry flavoring, 45 unpronounceable, unrecognizable-as-food additives were found in the milkshake (Chek, 2004, p. 59). Not only does the industry hide these ingredients in your food, but it knows once you eat them, you’ll be coming back for more. Aside from the fact that as humans our palates crave tastes falling into the sweet, salty or fatty categories, any grain or grain-derivative (again: read corn & corn-based additives) contains compounds called exorphins, highly addictive substances similar to morphine (Gedgaudas, 2011, p. 15). We as a population are addicted to substances harming us from the inside out. Your liver still has to process all those chemicals and synthetic additives whether you see them listed or not. Simply using common sense, there is no way that the organic human body, with digestive processes mimicking those in the soil, was designed to process these substances.

My third critique of the agribusiness industry really ties everything together, and brings in the policy aspect of my paper. When food became a commodity, those involved in the production and distribution of it bowed to the almighty dollar instead of the nutritional needs of their consumers. Their network of control and deception spreads farther and wider than many realize. Five companies currently control ninety per cent of the world’s grain market. That statistic “began under Nixon as the cornerstone of his farm policy, free trade was the mantra, corporate grain traders were the beneficiaries, and family farms had to go so agribusiness giants could take over.” Four companies control eighty five per cent of the beef industry in the United States (Morris, “Monopoly”; Lendman, “Agribusiness”). Fewer large companies are gobbling up control of as many of our food sources as they can, and that should make you nervous. What should make you more nervous is the fact that for the most part, our government encourages them to do so. Let me say before I go any further that I am not some crazy conspiracy theory nut or an anti-government protester. My time studying the United States government here at F&M has taught me to appreciate the government and believe in it as a real vehicle through which citizens can have a voice. I work on Capitol Hill, for heaven’s sake. At the same time, my studies also showed me that our government can, and does, get things wrong. The way that they have supported companies like Monsanto and DuPont in their global takeover of the food industry has led to the overweight and sickly population they sponsor initiatives to help. “Government policy that advises us to eat more fruit and vegetables, while doling out subsidies not to fruit and vegetable farmers, but to commodity crops destined to become soda pop and cheap burgers” sounds a little bass-ackwards, as my dad would say (Kingsolver, 2008, P. 13).

There are many examples of how the economic allure of commodity crops has tainted the running and regulation of the food industry. I will briefly mention a couple of them. During the 1980’s government officials began designing policies that would forever change the mission of land-grant universities that were supposed to provide agricultural research to benefit us all. The government encouraged schools to partner with the private sector, and now private funding rules for the research that goes on in agricultural programs all across the country. Which private companies do you think made sure to have control over most of the agricultural research in the country? You guessed – companies like Monsanto and DuPont. Whoever foots the bill gains control of the information, which is the reason that, although the information about soil science and organic farming is well proven through science, it becomes difficult to find research studies supporting those practices. One example of this control goes as follows: “When an Ohio State
University professor produced research that questioned the biological safety of biotech sunflowers, Dow AgroSciences and [DuPont's] Pioneer Hi-Bred blocked her research privileges to their seeds, barring her from conducting additional research. Similarly, when other Pioneer Hi-Bred-funded professors found a new [genetically engineered] corn variety to be deadly to beneficial beetles, the company barred the scientists from publishing their findings. Pioneer Hi-Bred subsequently hired new scientists who produced the necessary results to secure regulatory approval” (Damian, “Monsanto”).

A second problem with the network of the agribusiness industry is what is called the “revolving door” problem. Simply stated, those who work for regulatory agencies and those who work for large agribusiness companies regularly switch roles. For example, “A report in 1974 listed numerous assistant secretaries, administrators, and advisors who had joined USDA from positions with meat, grain, and marketing firms, or on the other hand, had left the agency to take positions with food producers” (Nestle, 2002). The practice of looking to food industry executives to head the major agencies that regulate the food industry contains an implicit conflict of interest. It also often leads to organizations like the USDA or the FDA allowing companies to ‘self-regulate’ their health and safety standards. Those 45 chemicals in your strawberry milkshake “generally regarded as safe?” Determined as safe by the companies who put them there, not the FDA itself. In order to really have a responsible food industry, we have to change our system of regulation. People who benefit financially from the large agribusiness companies should not be the ones regulating them.

After hearing all of this, the thought is probably running through your head that you don’t want to eat anything for quite some time. What exactly are we supposed to eat if we eliminate all the chemical ridden produce, processed foods, and mass-produced meats from our diet? Fear not. You do not have to run off and join a hippie colony to lead a healthy life full of good nutrition. The documentary Ingredients provides a similar analysis of the agribusiness industry as does the documentary Food Inc., but with one major exception. It shows a far more optimistic picture of food culture in America. Food Inc. is beneficial because it helped to expose the problems with the policy and philosophy with large, single crop farming. Ingredients is beneficial because it shows how many Americans have responded to that cry for help. It shows a movement toward smaller, more sustainable farming methods in many communities. It shows a growing culture of farmer’s markets acting as people’s main source for local, organic and in-season produce. It both advocates for and gives real examples of how the “locavore” lifestyle, for which Barbara Kingsolver so passionately advocates, can really fit the needs and tastes of most Americans.

Locavore eating habits produce good nutrition for a number of reasons. Small farms plant an array of crops, maintaining the biodiversity and thus the soil health that we discussed was so important to our health. Most small farmers make a commitment to not using chemical fertilizers or pesticides in their farming techniques, which leads to the elimination of those things from your diet. Another new trend in healthy eating literature involves looking to our past, long before agribusiness played any role in our food choices, to see what kinds of foods our ancestors ate – the kinds of foods our body was designed to process. Being that most early societies utilized hunting and gathering as their methods of collecting food, our ancestors ate a “local” diet all the time, consuming mostly organically-grown plant life (since there was no other kind), and hearty animal meat (raised without hormones). One thing conspicuously absent from their diet: starches.
Because our bodies manufacture glucose as needed on their own, we never actually have to eat sugars or starches in order to have a balanced, nutritional diet (Gedgaudas, 2011, p. 9). I guess this is a third example of government support for the grain industry – the USDA issued Food Guide Pyramid has been suggested the new name “The Feedlot Pyramid” by many nutritionists, because “its nutrient profile is the same as swine-fattening chow. And it is fattening the population the same way” (Gedgaudas, 2011, p. 20). Although I will probably never cut down my own carbohydrate consumption to zero, it is important to keep in mind the fact that often those encouraging you to eat starches for health benefits are really looking for their own financial benefits.

So where does this leave us? I’m encouraged by the burst of local food movements, and of the movement of many toward opening their own small farms. I’m encouraged that more people are speaking out, through documentaries, books, protests, and through their dollars – saying we do not support the genetic modification of our seeds, the chemicalization of our foods, or unsustainable farming. That talk helps educate people. Once educated, it then becomes the responsibility of the individual to make the choices supporting health, for themselves and for the future of our country. I hope that in my lifetime we see real change in how we produce and consume food, so that we can move toward being a healthier nation and move to having healthier soil so my children can someday enjoy delicious, organically grown, fruits and vegetables.
References


About the Author

Caitlin Krutsick, from Bethlehem, Pennsylvania, graduated from Franklin and Marshall College in December 2012 with a B.A. in Government. At F&M, she was a member of the Women’s Volleyball Team, President of .08, and Co-President of the Government Club. She recently began work for a non-profit organization in Bethesda, Maryland.