AMERICAN FARMING: WHY AMERICAN FARM TOWNS SHOULD ADOPT EUROPEAN LEGISLATIVE STRATEGIES IN SUPPORT OF FAMILY FARMING

Small [family American farms](http://agricultureresearch.weebly.com/family-farms.html" \o "" \t "_blank) are becoming rare as the government aids in [corporate/mass production farms](http://agricultureresearch.weebly.com/corporate-farms.html" \o "" \t "_blank) through incentives and payoffs. Europe has kept to traditional family farming for their agricultural practices. Europe still uses small family farms for the efficient function and production of agricultural needs. Their small family farm model for agriculture is necessary for their economic structure to work and for their agricultural needs to be met. [Europe](http://agricultureresearch.weebly.com/european-farming.html" \o "" \t "_blank) does not use or support the use of [GMOs](http://agricultureresearch.weebly.com/gmos.html" \o "" \t "_blank) and other modernized farming techniques, which creates a more natural food culture. Together, we - the people - can make change America for the better. We can go back to traditional farming and mirror regulations and policies that Europe has that protect the family farm. We can change [American farming](http://agricultureresearch.weebly.com/american-farming.html" \o "" \t "_blank) to allow the family farmer to have a stake in production.

American farming is drastically different from European farming. America has moved on from the older and more traditional ways of farming that Europe still uses. American farming and agricultural models are set up for large-scale productions and commodities. From [regulations and policies](http://agricultureresearch.weebly.com/us-regulations-and-policies.html" \o "" \t "_blank) to the use of [GMOs](http://agricultureresearch.weebly.com/gmos.html" \o "" \t "_blank), America has a more modernized farming experience. However innovative, America has slowly weeded out family farms, and has practically [corporatized farming](http://agricultureresearch.weebly.com/corporate-farms.html" \o "" \t "_blank), making it a struggle to be able to be a small-time farmer and make a good living within America. Due to our technology of GMOs and modernized farming techniques, we have cheaper foods due to our different regulations, and in many cases genetically modified crops (GMs) helps our mentality of 'quantity over quality.'

Although mass production farming has its benefits, it also has many or more negatives. Instead of allowing citizens to prosper, it brings in many non-citizens that work for the corporate farm, aiding in a smaller population (farm-owners) to become wealthy, while leaving the workers and small family farmers with nothing but struggle. As [family farms](http://agricultureresearch.weebly.com/family-farms.html" \o "" \t "_blank)become more rare, so does the ability for rural men and women to go back to their hometowns post-college and be able to make a living as much of rural economy relies upon farming, and due to corporate farms, it has become seemingly impossible for small farms to make it, or for rural cities to uphold an economy that allows young men and women to return to their town and make a good living due to depopulation of rural areas.

Now there are only about 2.7 million American farmers, both large and small scale. This number might seem abundant, but not when compared to the 10 million European farmers. Of these 2.7 million farms around 90% are small-scale family farms.

Over 90% of [American farmers](http://agricultureresearch.weebly.com/american-farming.html" \o "" \t "_blank) qualify as "family farms." These range from small family farms, to large family farms that almost mirror those of corporate farms, minus the total gross income received yearly. As family farms decrease yearly, corporate farm numbers increase. Of these family farms 67% of them earn a gross income of less than $10,000 a year. Although more abundant than corporate farms, the corporate farms (around 10%) produce more than all the family farms combined each year. According to Farm Aid, 330 family farmers have to leave their land weekly in America, showing a steady decrease in small-scale farms.

Small-scale family farms use crop diversification, border cropping, and crop rotation that do not harm the earth. These farms also have a more healthy living quality for the animals within the farm. The crops also have more diversification in family farms. Larger [corporate farms](http://agricultureresearch.weebly.com/corporate-farms.html" \o "" \t "_blank) usually try to sell themselves as "organic," but this is a misconceived notion in health and safety, as it has zero regulation. Family farms use less water, and have a less amount of gasses arise from the property yearly. Family farms have less bacteria and disease in their animals and are more humane in their practices. Corporate Farms increase bacteria and disease. These new types of farms will continue to grow in the future if we do not step in to go back to family farming ways.

These new types of farms are the farming of today and tomorrow for America. Rural America in the past has been a scene of rolling hills and farmhouses nestled by a barn here and there. Now this treasured historic landscape of rural [family farming](http://agricultureresearch.weebly.com/family-farms.html" \o "" \t "_blank) is being condensed and threatened by Corporate/Factory Farms. These farms raise thousands of animals in one location, which leads to more likelihood of disease, infection, and miss-care.

This industrialization of agriculture is how the agribusinesses are setting the stakes for America's livestock production and consumption. The EPA has estimated there are over 20,000 corporate farms within America, which is a 30% rise since 2003. Around 54% of all livestock is confined on 5% of livestock farms - these being the corporate farms. The boom of corporate farms has forced thousands of small, independent family farms out of a livelihood and business. This is due to many factors, one being the decrease of price in the sale of animals. Around 50 of the largest corporate farms control over hall of all hog production for example.

A typical corporate farm consists of numerous large metal constructions where animals are housed, often too many animals for comfortable living in the space. These farms also have storage lagoons for sewage beside or below the animal storage buildings (these are not barns, but storage buildings). This waste is stored in these pits until it can be sprayed as fertilizer onto the crops that these corporate farms grow along with their animal business. This tactic of storage leads to problems and risks of water contamination. These farms have a documented 1.4 billion tons per year of sewage, which is 137 times the amount of national human sewage. These farms take the picturesque idea of farms and turn it into a storage business.

Aside from being an eye sore, these corporate farms release organic dust, mold, bacterial toxins, plus toxic gasses such as hydrogen sulfide and ammonia. These two gasses are respiratory hazards, which is a problem for those working on the factory farm and the nearby neighbors of the farms. Studies have documented induced respiratory problems like bronchitis and asthma in 25% of all factory farm workers. Some employees have actually died from suffocation after going into the underground pits that are used to store manure until it is needed for fertilization. These farms have turned farming into a life threatening occupation. Our farming technique, size, and amount have decreased steadily since the Great Depression. In fact, many different aspects of our nations farming have changed over time.

This is a list of agricultural historical facts, laws, etc. that have occurred since the Great Depression in 1929.

1929-1939: The Great Depression, Commercial Fertilizer Use Amount: 6,599,913 tons per year.   
1930: Total Farming Population: 30,455,350, farmers were 21% of Labor Force, Number of Farms: 6,295,000, Average Size: 157 acres.  
1930-1935: Use of Hybrid corn seeds became common in the Corn Belt  
1930-1939: Agriculture Exports for US: 32% of Total Exports, $765 million per year  
1930: 11,950 Cooperative Farms with 3 million Farm members  
1932: Farm prices and income reach the lowest  
1932-1936: Drought and Dustbowl develops  
1933: Agricultural Adjustment Act (AAA) initiates crop and marketing controls; The Farm Credit Act  
1934: Taylor Grazing Act  
1935: Bankhead-Jones Agricultural Research Act  
1936: Rural Electrification Act (REA) improves quality of life in rural towns greatly  
1938: Cooperative organized for Artificial Insemination of dairy heifers.  
1940: Farm Population: 30,840,000, Farmers were 18% of labor force, Number of Farms: 6,102,000, Average Farm Size: 175 acres  
1940-1949: Commercial Fertilizer Use: 13,590,466 tons per year.  
1945-1955: Increased use of herbicides and Pesticides   
1945: Food and Agriculture Organization of the United Nations was established  
1950: Farm Population: 25,058,000, Farmers: Were 12.2% of Labor Force, Number of Farms: 5,388,000, Average Farm Size: 216 Acres  
1950-1959: Commercial Fertilizer Use: 22,340,666 tons per year.  
1955: Sterile fliers used for screwworm control  
1957: Poultry Inspection Act  
1958: Humane Slaughter Act  
1960: 96% of corn was planted with hybrid seeds  
1964: Trade Inspection Act  
1967: Wholesome Meat Act  
1972: Rural Development Act  
1980s: Biotechnology becomes available for crop and livestock products  
1990: Total Farming Population: 2,987,552, Farmers made up 2.6% of Labor Force, Number of Farms: 2,143, Average Farm Size: 461 acres  
1990s: Biotechnology creates genetically engineered crops and livestock begin emerging  
1998: Number of Farms: 2.19 million, Average Farm Size: 435 acres  
1998-1999: Emergency farm assistance acts provide relief   
2000: USDA announces standards and official organic seal

## As seen above and through out the entirety of the website, agribusiness has hijacked the regulatory process and policies within America. In Abraham Lincoln's time the USDA was named the "People's Department." Now it is the "Agribusiness Industry's Department." A lot has changed, obviously. The USDA's policies on issues such as fair market competition and food safety have now been shaped to serve interests of giant corporations that have Corporate Farms that now dominate the food production, processing, and distribution for America.

## The USDA has had political influence since Bush's presidency, and Big Agribusiness has been able to fill the USDA with appointed people who have a background in lobbying, research, or work in large food processing companies and trade associations. So pretty much the USDA is filled with Corporatized Farming men and women. There are no high-level men or women in the USDA with any ties to family farm, labor, consumer, or environmental advocacy groups, which creates a huge problem for any change to possibly happen any time soon.

## It is extremely apparent when looking into the biographies of the top [USDA officials](http://agricultureresearch.weebly.com/usda-officials.html" \o "" \t "_blank) for one to see that agribusiness has infiltrated the USDA, even the Secretary, Ann Veneman and her fellow colleagues. These men and women are all linked to industry have been huge players in implementing policies to America that undermine the entire regulatory system of the USDA so that there is a huge favor for the few economically powerful agri-companies. Specific Agriculture acts and rules you can learn more about and could be changed: [Federal Meat Inspection Act](http://en.wikipedia.org/wiki/Federal_Meat_Inspection_Act" \o "" \t "_blank), [Organic Beef standard](http://en.wikipedia.org/wiki/Organic_beef" \o "" \t "_blank), [Organic Standards](http://www.ams.usda.gov/AMSv1.0/nop" \o "" \t "_blank), and [Food and Safety Regulations](http://www.iflr.msu.edu/uploads/files/Student%20Papers/Food%20Safety%20Regulations%20on%20Labeling%20Requirements%20in%20the%20United%20States%20and%20Mexico.pdf" \o "" \t "_blank).

## As mentioned above, USDA officials have a extreme bias towards agribusiness. Agribusiness has infiltrated the USDA with its own people so their agendas are the agendas of the USDA. This can be seen when looking at the biographies of the top officials of the Department, up to and including Secretary Ann Veneman. Ann Veneman has spent time as a public official, but has also served on the board of Calgene, which was later taken over by infamous Monsanto. This company specializes in biotech aspects of agriculture, namely [GMOs](http://agricultureresearch.weebly.com/gmos.html" \o "" \t "_blank). Most of Ann Veneman's key partners, aids, and co-heads of other various USDA agencies are political appointees who have all spent many years of their entire career working for corporate agribusinesses and huge trade associations.

## An example of another infiltration is Veneman's chief of staff, Dale Moore. Dale was an executive director for legislative affairs of the National Cattlemen's Beef Association (NCBA). This is a trade association that is supported heavily by, and aligned with specific interests of the big, corporate meatpacking companies such as Tyson and Cargill. Furthermore, Deputy Secretary James Moseley was a co-owner of a large factory farm in Indiana. Floyd Gaibler, a Deputy Under Secretary, was an executive director of the dairy industry’s National Cheese Institute (NCI). Assistant Secretary for Congressional Relations, Mary Waters, was a senior director and legislative counsel for ConAgra Foods, which is one of America's largest corporate food processors. Other higher up officials such as Neil Hoffman, the Director of Biotechnology Regulatory Services of USDA's Animal and Plant Health Inspection Service, previously worked for Paradigm Genetics, a leading biotech firm. USDA's General Counsel, Nancy Bryson, previously was a partner in the law firm Cromwell and Moring, and in that time she co-chaired the law firm's corporate biotechnology practice.

## These industry-linked appointees have aided in the implementation of policies that undermine the regulatory mission of the USDA and turn it in favor of the interests of a few economically powerful companies. This creates a huge gap of interest between corporate and family farms, and regulations and policies favor corporate farms, making it hardly possible for the family farm to survive and thrive anymore due to this corruption. This is why America cannot - for now - shadow [Europe's family farm agricultural model](http://agricultureresearch.weebly.com/european-farming.html" \o "" \t "_blank) due to having officials who are anti-family farming. To raise awareness we need to begin with voting new officials into office, or rallying against corporate and USDA leaders who seek to corporatize farming. One example of USDA’s agribusiness support is the regulations and policies of the meatpacking industry within America.

## Only a few giant[corporate farms](http://agricultureresearch.weebly.com/corporate-farms.html" \o "" \t "_blank)dominate the United States meatpacking market, thanks to the infiltration of corporate men and women within the USDA. These people have used their economic upper hand to deny small farms and ranchers access to the open markets and have forced these small time livestock producers into private contracts that favor the packers the producers have to contract with. This one-side favoring contract arrangement is known as captive supply.

## In the 1920's the government enacted legislation such as USDA's Grain Inspection, Packers and Stockyards Administration (GIPSA). This organization was created to oversee livestock markets and monitor and stop anti-competitive practices. Now, GIPSA downplays the huge problem, captive supply, and has quit enforcing and monitoring for fair competition rules. The organization looks the other way as the government has become seemingly like partners to the corporate agribusinesses. This has been in excess now that Donna Reifschneider is the Administrator of GIPSA. She served as president of the National Pork Producers Council, which is a trade group that has many close ties with dominant meatpacker, interests, furthering the obvious observation of the interconnectedness of government incentives and corporate agribusinesses.

## A common American thought on meat is the idea that tainted meat was only a problem before the early 20th century reforms of the Progressive Era. However, recently - as seen on news articles, videos, etc. - E.coli bacteria, listeria, and other hazardous bacteria have been reappearing in huge corporate food productions. This tainted meat and produce hazard is strongly linked to the steadily weakening inspection practices in slaughterhouses and production areas. USDA has endorsed and encouraged the system called Hazard Analysis and Critical Control Point (HACCP) due to the prompts and want for this system by the major meatpackers in America. Instead of using HACCP as a supplementary inspection along with traditional, more intense inspections, USDA has decided to allow HACCP to be the primary and really only inspection system, which allows meatpackers to rely and use questionable procedures (such as irradiation for contamination).

## One of the most influential federal official who is most responsible for these meat packing inspection policies is Dr. Elsa Murano who is the Under Secretary of Agriculture for Food and Safety. Prior to her part in the Bush campaign, Dr. Elsa Murano was an academic professor that highly supported irradiation. Dr. Murano also did research that was funded my Titan Corporation who is a dominant leader and participant in food irradiation as it is the company that created the corporation SureBeam. This warped policy construction and manipulation gives room for mistreatment of animals and farms due to the favor of corporate farming and production systems. This lack of regulation and inspection also brings harm and danger to consumers and the economy for rural agricultural towns and [family farms.](http://agricultureresearch.weebly.com/family-farms.html" \o "" \t "_blank) Another instance of agribusiness support is in the biotechnology of genetically modified crops and livestock.

## Genetic engineering is one of the many ways that scientific research and development is having a dramatic impact on the agricultural industry.  Genetic engineering is the manipulation of a species’ genome in ways that do not normally occur in nature.  The manipulation of the species’ genome determines the characteristics and traits that the organism exhibits.  This genetic manipulation is both an amazing scientific feat, and a step in a direction that poses many ethical, environmental, and health concerns.  Despite the support of empirical evidence to prove or disprove the claims against genetically modified organisms (GMOs), one thing is known;  due to population increase, the world will have to grow 70% more food by 2050 to keep up with population growth.  This however, does not have to be done with GM products. As seen in the QUIZ in this website, diversity and productivity DECREASES with the use of GM products.

## There is a lack of adequate testing and regulations for the use and production of GMOs.  This is a problem that is under the spotlight (but not enough), and has not been fixed due to more a lack of understanding than a lack of priority. A Scientist, Schubert, addressed this by saying, “Ninety percent of the scientists I talk to assume that new GM plants are safety-tested the same way new drugs are by the FDA,” he says. “They absolutely aren't, and they absolutely should be."  In addition to this dilemma, other oppositional stances have been taken on the stances of mainly legitimate fears: are there long term affects, will we possibly create an invasive species or an organism which makes its way back into the food chain and upsets the natural order of things, and hidden costs of GMOs.  Of these, unaccounted costs are most relevant for government and for small farmers. These products allow larger [Corporate farms](http://agricultureresearch.weebly.com/corporate-farms.html" \o "" \t "_blank) to have an "extra leg in" as they have the money for these seeds, while small farms usually do not.  Seed companies supplying farmers with GMO seeds are mostly owned by multi-national agrichemical corporations who place many constraints on the use of their seeds. GMO seeds are engineered with sterility.  This limit on the life span forces farmers to return to seed companies the next year and become overly dependent on an outside source. Therefore this seems to be a cause of many small farmers declining and extinction as they cannot afford the seeds at such high costs and due to how much they have to buy more seeds.

## University of Canterbury (UC) researchers have found that the GM strategy used in North American staple crop production is limiting yields and increasing pesticide use compared to non-GM [farming in Europe](http://agricultureresearch.weebly.com/european-farming.html" \o "" \t "_blank). And Non-GM use in the EU leads the field in yields and less pesticide use, among other things. The combination of non-GMO use and management practices used by Europe is increasing corn yields faster than the US's use of GMO-led crop yields. This research further shows that rapeseed or canola yields is increasing faster in EU without GMO products than in the GM-led package use in the US and Canada. The use of non-GMOs in EU also decreases chemical herbicides and achieves a larger decline in insecticide use without sacrificing yield gains.

## Chemical herbicide use has increased with GMO seed/product use in the United States. Europe has grown more food per hectare and use fewer chemicals in the process. Americans choose to use biotechnology which is causing us to fall behind in productivity and sustainability, compared to Europe. GM use also hinders choice and progress. The research points out that agriculture responds to government and commercial incentives such as subsidies, grants, intellectual property rights instruments, tax incentives, trade promotions, and regulation. These incentive systems in America are leading to a heavy reliance on GM products/seeds and management practices that are much less superior to the incentive systems in Europe. Europe's incentive systems lean towards giving incentives for small, organic agriculture functions and for proper management of products, not for the American ideal of "more, faster."

## The use of GM crops affects non-GM crops. America's yield in non-GM wheat has fallen behind Europe, which shows that America's choice in biotechnology "penalizes both GM and non-GM crop types relative to Europe" (gmeducation.org). This is seen in the decrease in the annual variation in yields which suggests tat Europe has a superior combination of seed and crop management and is better suited to withstand weather variations, and other surprises that occur along the way with agriculture. We need to step away from the use of GMOs and a step towards diversity, resilience, and productivity by using non-GMO products. Companies like Monsanto and other USDA promoted GMO production farms and companies do nothing but decrease the opportunities for small, natural, family farms.

## Corporations like Monsanto specialize in biotechnology foods, or GMOs. Farmers have grown a strong resistance to genetically modified products, wheat specifically. The dislike has become so strong that Monsanto recently announced that it was stopping all efforts and research into developing GM wheat. The USDA remains to be one of the leading proponents of agricultural biotechnology movement in America. Before [Secretary Veneman](http://agricultureresearch.weebly.com/usda-officials.html" \o "" \t "_blank)came into her leadership position, her predecessor Dan Glickman also promoted GMO foods. The USDA has gone from a servant to public interests into a vehicle for corporate agribusiness desires and needs. It promotes narrow interests of these agribusiness corporations, food processing companies, and input corporations that compose the agribusiness sector. International business and US Government downplays the issues of safety and regulations. They further say that biotech ([GMO](http://agricultureresearch.weebly.com/gmos.html" \o "" \t "_blank)) critics are impeding efforts to reduce world hunger and poverty due to selfish wants of less pro-corporatized farming policies. Europe on the other hand has outlawed GMO use and importation, and also has a drastically different approach to agriculture and farming.

## The farming model for the European Union is set up differently than America's model, it is mainly composed of small-scale structures that are labor intensive. One of the [major differences between US and EU](http://agricultureresearch.weebly.com/american-farming-vs-european-farming.html" \o "" \t "_blank) farming practices is the size of the average agricultural operation. In the EU the average size farm is 46.2 acres, while in the US the average farm size is 436 acres.  With the EU’s substantially smaller farm size, and with it containing only 1/3 of the arable land compared to that of the US, it is of no surprise that the EU contains more than three times the amount of farms than the US.

## The role of small farms is intricately woven into both the economic and social fabric of the EU. Most of the small farms in the EU are semi-subsistence farming, which is a farm that aims to both produce food to feed the family running the farm and provide an income for the family. Common Agricultural Policy, or CAP, is a [policy in the EU](http://agricultureresearch.weebly.com/european-regulationspolicies.html" \o "" \t "_blank) which provides subsidies to families running “small farms”, as defined by the European Commission. This support of small farms is not seen in the US, which is controlled by corporate agriculture and is governed by policies, which tend to promote corporate farming. The agricultural policy in the US concentrates on safety nets and economic insurance, while EU policy focuses on income fluctuations and fixed pre-determined payments.

## In addition to the differences in farming structure and agricultural policy, the EU has taken a stringent and aggressive stance against genetically modified organisms, or [GMOs](http://agricultureresearch.weebly.com/gmos.html" \o "" \t "_blank). The European Food Safety Authority judges all GMOs on a case-by-case basis, requiring the GMOs to obtain authorization through a meticulous process which requires each GMO proposal to go before a committee and be authorized or denied within three months. If authorized, the labeling of the end product reflects the presence of GMOs within the product in order to provide consumers with the knowledge, to further, make an informed decision as to whether or not consume the product. In contrast to the strict regulation of GMOs in the EU, within the US, regulation is comparably favorable to the development of GMOs. The production of GMOs is an important factor in the US economy as the Biotechnology industry contributes significantly to the US economy due to the US being the leading producer of GMO crops. This GMO regime within the US has led to the rise of agricultural behemoths like Monsanto, which control the seed industry with the US. The one year life span of seeds provided by Monsanto require farmers to purchase new seeds annually, often under contract, which is expensive and requires farmers to “go big” in order to survive. The corporate agricultural industry within the US minimizes the profitability for small farms. Along with this idea, European policies on agriculture and the model of farming is much more equal-minded than America’s.

## EU policy focuses on income fluctuations and fixed pre-determined payments. The Common Agricultural Policy, or CAP, is a policy in the EU, which provides subsidies to families running small farms, as defined by the European Commission. The CAP is the overarching policy and regulation for agriculture in Europe. It is divided into two "pillars." The first pillar is concerned with direct income aids and market management measures and accounts for over 3/4 the yearly CAP budget. The remaining budget goes towards the second "pillar." The second pillar funds the rural development program that is designed to encourage structural change in agriculture so that there is an improvement in land management, which would improve the daily life of rural areas. These policies within CAP look to help the "underdog" which in America is the [Family Farm](http://agricultureresearch.weebly.com/family-farms.html" \o "" \t "_blank). In the US, we do not place necessity on these family farms and the USDA has failed at helping the "underdog" but rather encourages the bullying corporate farm, which drives the rural family farms deeper into danger. Europe seeks to expand these rural farms, whereas America seeks to hide them behind corporatized farming that is funded by the federal government. The substitution of direct payments for market price support allows these policies to target family farms. The new rural development regulations does not explicitly mention family farms, but rather small farms, which umbrellas family farms along with several co-operative farm types (neighbors combining farms, etc.).

## Europe's agricultural success is, however, based on the family farm model, which has a key function of output and input markets, well-trained farmers, and new technology with support from research and extension services. This is a socially motivated model and constrains the growth of the very large farms, which helps to address the poverty and lack of opportunity for the very small farms, and small and medium sized family farms. Although there are mostly drastic differences, there are similarities between the two farming set ups, though these often come with sided with huge differences in the approach and actual performance of regulations.

## Despite the quantitative similarities of the US and EU’s agricultural exports worldwide, together comprising over 40% of worldwide exports, the system by which the exports are produced are drastically different both in the production process, and the agricultural regulations which govern the production processes.  One of the major differences between [US](http://agricultureresearch.weebly.com/american-farming.html" \o "" \t "_blank) and EU farming practices is the size of the average agricultural operation. In the EU the average size farm is 46.2 acres, while in the US the average farm size is 436 acres. The agricultural policy in the US concentrates on safety nets and economic insurance, while [EU policy](http://agricultureresearch.weebly.com/european-regulationspolicies.html" \o "" \t "_blank) focuses on income fluctuations and fixed pre-determined payments. Both governments offer incentives such as subsidies to encourage farmers to grow specific crops, however.

## Here are nine different practices that America uses that European has banned or discontinued the practice of. These are significant differences in the regulation and policy of each country, also in the general farming technique of each country.

## Atrazine: Was banned in Europe in 2003. This is a weed killer that is a potent endocrine disrupter. It "chemically castrates and feminizes" wildlife and reduces immune system functioning in laboratory and wildlife research. The US uses Atrazine commonly and is common in drinking water contamination. This chemical is produced in Switzerland, however outlawed for use there. It also induces spontaneous abortions in animals and with studies, humans have similar risks.

## Arsenic in Chicken, Turkey, and Pig Feed: These are approved for use in animal feed in the United States because they make livestock grow quicker and for their meat to appear fresher. This is organic arsenic, which is less toxic than inorganic arsenic, which is a carcinogen. Science has found that organic arsenic can transform into inorganic arsenic and this could be the cause of the higher arsenic levels in US rice. These arsenic-based compounds have never been approved for animal feed in Europe.

## Chicken Litter in Cow Feed: This is cheap feed for cows, but as cows ingest this they could be ingesting various beef products used in chicken feed which can induce or cause Mad Cow Disease. Europe banned all forms of animal protein in cow feed in 2001, whereas America uses chicken litter in feed unrestrictedly.

## Chicken Carcass Chlorine Washes: These are used to kill pathogens, but these plus antibiotics help create "super germs" when used in animals' feed. Humans working within these plants have reported health problems such as respiratory issues. The EU has banned Chlorine Washes and will not accept any American Chicken that has been treated with this antimicrobial spray.

## Antibiotics as Growth Promoters in Livestock: Agriculture consumption is a major source of human antibiotic consumption. Animals are fed antibiotics to prevent diseases and promote growth, but these are transferred to the human as s/he eats. This aids in antibiotic-resistant diseases. The FDA ruled in 1977 that giving low antibiotic doses to livestock was bad, but continued to pander to drug industries that allow and cause the practice to continue. In Europe all antibiotic use is banned, and cannot have growth promoting purposes in feed.

## Ractopomine and Other Pharmaceutical Growth Enhancers in Animal Feed: This was banned in 160 countries across Europe, Taiwan, and China. If imported meat is found to contain any traces of this drug, it is turned away. In The United States an estimated 60-80% of pigs, 30% of beef, and an unknown percentage in birds are given this drug, even in excess days before their death to increase protein synthesis. It makes animals more muscular. In the meat there are large amounts of this and it can cause serious disabilities. Europe has banned any use of this medicine and refuses to import meat from the United States containing any trace of Ractopomine.

## Gestation Crates: 2-Foot wide cages that house breeding pigs. They are inhumane and cause severe stress to animals, which have been documented as going crazy and chewing the bars off of the crates to escape. Huge pork producers use these such as Smithfield Cargill and Hormel, but have promised to phase these crates out. Europe has banned gestation crates entirely. Also the use of Water Fluoridation, which causes weakened bones, bone cancer, lowered IQ, etc. yet US spends millions yearly to add fluoride into communal water. European countries do not fluoridate their water.

## Genetically Modified Foods (GM products, GMOs): Europe is strict on GM crops in stark contrast to America. GM crops are banned in many European countries, and all GMO foods and ingredients have to be labeled. America tries to protect and encourage the use of GMOs in agriculture and GM ingredients and foods do not have to be labeled.

## These differences all point to Europe being the better farming and agriculture model. The European Food Safety Authority judges all GMOs on a case-by-case basis, requiring the GMOs to obtain authorization through a meticulous process which requires each GMO proposal to go before a committee and be authorized or denied within three months. If authorized, the labeling of the end product reflects the presence of GMOs within the product in order to provide consumers with the knowledge, to further, make an informed decision as to whether or not consume the product. In contrast to the strict regulation of GMOs in the EU, within the US, regulation is comparably favorable to the development of GMOs. The production of GMOs is an important factor in the US economy as the Biotechnology industry contributes significantly to the US economy due to the US being the leading producer of GMO crops. This [GMO](http://agricultureresearch.weebly.com/gmos.html" \o "" \t "_blank) regime within the US has led to the rise of agricultural behemoths like Monsanto, which control the seed industry with the US. The one year life span of seeds provided by [Monsanto](http://agricultureresearch.weebly.com/monsanto-and-friends.html" \o "" \t "_blank) require farmers to purchase new seeds annually, often under contract, which is expensive and requires farmers to “go big” in order to survive. The corporate agricultural industry within the US minimizes the profitability for small farms.

## The [European policies](http://agricultureresearch.weebly.com/european-regulationspolicies.html" \o "" \t "_blank) within CAP look to help the "underdog" which in America is the Family Farm. Europe seeks to build their family farms up and encourage them to continue production and to aid in increase of income. In the US, we do not place necessity on these family farms and the USDA has failed at helping the "underdog" but rather encourages the bullying corporate farm, which drives the rural family farms deeper into danger. What can be done at this point to try to shift towards European policies and models? How can we stop corporate farming development?

## There are many ways. Factory farms are funded by the USDA. The factory farms use the [USDA](http://agricultureresearch.weebly.com/what-can-be-done.html" \o "" \t "_blank) for their needs and goals. One specific federal program used is the EQIP that includes grants and loans through Farm Service Agency, but due to this agency and other agencies factory farms uses, these factory farms get a more lax regulation system due to these agencies allowing states to make their own policies and regulations. So, federal laws such as Clean Water Act, do not provide oversight over factory farms. Over 60% of [corporate farms](http://agricultureresearch.weebly.com/corporate-farms.html" \o "" \t "_blank)in 2005 were unregulated due to states not keeping factory farms in check and regulated due to numerous reasons. With little federal regulation to rely on as they offer hands off approach to help their friends the factory farms, rural family farms have to take their own action against factory farms through things such as local ordinances or litigation. Local planning, zoning, and state regulations can help minimize the area for where factory farms are allowed to operate and reside. Many states are now trying to pass policies regulating the placement of factory farms - keeping them out of their counties, hoping to keep them out of their state one day. In Missouri, for example, a bill was created to keep a 5-mile buffer zone around state parks and other historic sites. This was however blocked by the agribusiness lobbyists, further proving the interconnection between agribusiness and government policy and regulation.

## To change this, having stronger lobbyists and a closer-knit community of anti-factory farming peers would aid in the support of family farms. Also coming up with new regulation and policies that are actually used to regulate factory farms would cause many factory farms to change their ways, and possibly decrease the population of factory farms. Changing to a regulation system more similar to Europe's regulatory system would create room for [family farms](http://agricultureresearch.weebly.com/family-farms.html" \o "" \t "_blank) to grow again. See [European Farming](http://agricultureresearch.weebly.com/european-farming.html" \o "" \t "_blank) for more information on the ways and policies of European agriculture.

Works Cited:

Seen on bottom of each page on website. All information has been sited within the hyper-text pages. Both articles, journal entries,