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# The Detriments of Factory Farming

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The Detriments of Factory Farming

Written by:

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## Introduction

The American factory farming industry is marked by inhumane processes, unsanitary meat handling, and vast resource consumption, resulting in a dire need of reform. According to the *ASPCA*'s article "Farm Animal Welfare", "99% of farm animals in the U.S. are raised in factory farms," where they are subjected to harsh conditions, cramped living space, improper feeding and hygiene, and loosely regulated treatment. But what does this mean for the remaining 1%? Farms that are locally owned and operated – or which are not classified as Animal Feeding Operations – generally value the quality of their products above the quantity which they produce. Within this 1% of farm animals exist many variations of the traditional farm ideal. Sustainable farms are those which endeavor to limit both their consumption of resources as well as their output of pollution. These farms also avoid using harmful growth hormones and/or feed additives, which are a hazard to public health. Many farms raise their cattle in pastures rather than feed lots, where they are able to graze freely. Their poultry are often raised "cage-free," meaning the birds are allowed adequate space to roam and feed, rather than being confined to small spaces and cages which are characteristic of regulation standard.

While these farms may only house 1% of the U.S.'s farm animals, the farms themselves account for about 97% of all farms in the country ("Farm Animal Welfare"). Such organizations are readily available, and while they may not offer the sheer volume of animal products that factory farms can, the quality of their product far exceeds that of their industrial counterparts. If Americans can gain knowledge and take steps to support farms that treat their animals with care from start to finish, the 1% of U.S. farm animals which account for locally owned farms could actually increase, thus eliciting a change in the way factory farming is done. The solution is not to eradicate factory farms. By advocating for *humane* farms which value animal welfare, health,

and sanitation, individual consumers have the power to make a collective impact on the industry itself.

Sustainable agriculture has begun to make headway in the U.S. as Americans gain more information about the massive quantities of natural resources which are consumed by factory farms. Confined Animal Feeding Operations which house the majority of American livestock require a large percentage of the nation's water, land, and grains, while in turn producing more greenhouse gases than the transportation industry as a whole. CAFOs – the official term for modern industrial farms which keep their animals confined indoors and provide feed for them – account for only a fraction of all the farms in the U.S., approximately 3% according to the *USDA ERS*. These facilities pose a health threat to the American public, because regulation standards allow their livestock to be administered hormones, antibiotics, and other auxiliary chemicals which have been known to affect not only the animal's health, but the health of the humans who consume their meat. On CAFOs, animals are primarily grain fed, a diet which lacks the nutritional value their bodies need to naturally fight off infection and as a result, many animals raised on CAFOs are subject to a greater variety of disease than those raised in a more traditional setting.

Traditional agricultural techniques still exist across the U.S. and account for the vast majority of farms in the country, however they cannot compete with the large number of animals housed in factory facilities. Traditional or domestic agriculture relies on more humane and sustainable means of animal husbandry, which include methods such as pasture-raising, grass-feeding, and free grazing. In addition to more traditional and natural feeding techniques, these farms administer antibiotics and other medicinal treatments only to sick animals as a means of restoring them to health. These farms are easily accessible, as they span the majority of the

country. If American citizens champion such facilities and support their growth, a reform in the American food and farming industry could occur.

## Chapter 1: Industrial Farming Living Conditions

Livestock farming looks very different in the twenty-first century than it has in decades past. The demand for meat products has grown dramatically in recent years, and per capita, meat consumption has more than doubled world wide between 1961 and 2007. This demand has fueled the increase in farm animal raising and subsequently, an increase in feed lots which produce the most meat on the least amount of land. “Changes In The Meat Industry” offers a comprehensive explanation of the implications of a rise in meat consumption:

This demand for more and better beef, pork, chicken and other meats has meant that more and more animals are fed grain in tighter and tighter quarters. Already, the United Nations FAO estimates that 30 percent of the ice-free land in the world is directly or indirectly involved in livestock production. It would be much more if the animals were allowed to graze freely. Instead, half of the pork produced in the U.S. and three-quarters of the chickens are raised in enclosed, pre-fabricated, confinement buildings. The animals may never see the sun until they're loaded onto semi-trailer trucks for transport to the nearby slaughterhouse. Cattle are larger animals, so confinement buildings don't work as well. But massive feedlots have the same effect. (“Changes”)

When animals are raised in such close quarters, waste products become a breeding grounds for dangerous disease and bacteria. Meat producers are one of the largest culprits of E Coli outbreaks in the U.S., which are often a result of poor sanitation and improper waste management. On CAFOs where animals are confined to indoor enclosures, waste matter slips through slatted floors and is drained via capture lagoons or literal cess pools beneath the animals' pens. This means that even if waste is separated from the actual living space, the animals are extensively exposed to ammonia and methane gas, which is a primary contributor to respiratory illness.

The Humane Society published an article discussing veal crates, which have only recently attracted negative attention in the U.S., due to their inhumane nature and the harm they inflict on young calves. According to the HSUS piece, “Tethered by their necks to further restrict their movement, they're virtually immobilized for their entire 16-week long lives. Unfortunately,

this confinement is common in the veal industry, despite overwhelming scientific evidence that it's inhumane and at odds with public opinion” (“Veal Crates”). Veal calves are often fitted with heavy chains to inhibit mobility and maintain a high percentage of body fat, because lean veal does not sell as well as fatty, marbled meat. These calves are kept indoors and are not exposed to sunlight, so that their skin remains pale and appealing, an attribute which makes the cuts more valuable in the market. Veal calves are the male offspring of dairy cows, which must be impregnated annually in order to continue to produce milk, therefore the veal and dairy industries become contingent upon one another.

Pregnant pigs are confined to similar enclosures known as “gestation crates,” which have slatted floors for waste drainage and are just large enough for the pigs to lie on their bellies, but not large enough for them to lie on their sides (Philpott). Sows used for breeding live in these crates, inches above their own waste, for the majority of their four-month pregnancy, before they are moved to farrowing crates to give birth. These enclosures are slightly larger than gestation crates, offering only enough space to nurse without smothering the piglets (Fig. 1). “The crates, meant to separate the mother from the piglets to avoid crushing, are restrictive to the point that the mother pig can only stand and lie down — she cannot even turn around to see her piglets” (*Farm Sanctuary*). Once the piglets are weaned, sows are moved back to gestation crates to prepare for their next pregnancy. They average two and a half pregnancies per year, and after three to four years, the sows are slaughtered for meat. Pork producers feed their livestock primarily grain, because it is the most cost-effective feed resource. Unfortunately, a strict grain diet does not provide the natural nutritional value that pigs need to grow at a healthy rate and fight off infection. This creates a demand for growth hormones and antibiotics, as is the case with most livestock.





Figure 1: Sow and piglets in farrowing crate (“Inhumane Practices On Factory Farms”)

Adult chickens on poultry farms are commonly debeaked – a process by which the tip of the beak is amputated or cauterized using a heated knife, so that the birds cannot peck one another. This process, while inhumane, has become increasingly common among meat producers whose priority is cost-effectiveness, because debeaked chickens can be kept in closer quarters where they occupy less space and are not a danger to one another. On farms which produce solely eggs, the roosters which hatch are killed and processed in their entirety, and sold as poultry by-product meal for pet foods and the like. Currently, it is common practice for the male chicks to be ground alive in a processing machine; however, U.S. egg producers are taking steps to eradicate the practice by 2020.

One aspect of industrial farming which influences both the animals and the humans who consume their product is their unfortunate diet. Generally, the primary source of nutrients for cattle, livestock, and poultry is grain and corn. However, cows specifically struggle to digest corn, because they are grass-eaters. According to the *Organic Consumers Association*, “Their digestive systems are not designed to handle the large amounts of corn they receive at feedlots. As a result of this corn-rich diet, feedlot cattle can suffer significant health problems, including

excessively acidic digestive systems and liver abscesses. Grain-induced health problems, in turn, ramp up the need for drugs.” A grain-based diet also allows for animals to be exposed to fertilizers and pesticides, which are harmful to public health.

## Chapter 2: Health Hazards of Agricultural Biotechnology

The most urgent threat to public health posed by industrial farming is the transfer of disease from the animal to its meat, and subsequently, the humans who consume it. The sanitation of meat processing facilities has an enormous impact on the probability of harmful bacterial outbreaks, including E coli and listeria. In 2014, the USDA enacted a meat inspection program to monitor and improve sanitation in meat packing facilities. However, this program repeatedly failed to stop the production of contaminated meat and allowed meat producers to increase their production speed by replacing USDA inspectors with their own employees. “Plants operating under this program have experienced some of the worst health and safety violations that include failure to remove fecal matter and partly digested food” (“Problems With The Meat Industry”).

The high concentration of animals in small enclosed areas increases the possibility that an isolated incident of disease will amount to a widespread outbreak, affecting a greater number of animals in one facility. In previous decades, when meat producers were locally owned and operated, and livestock were allowed larger areas to occupy, one sick animal could be easily separated, thus preventing any further spread of disease. However, in the cramped conditions of modern industrial farming, the exposure of an entire herd is inevitable, and much more difficult to contain. In an interview conducted by *Frontline*, Dan Glickman pointed out the health hazards that a high concentration of animals in a small space presents:

If a problem develops, that problem becomes a much more monumental and significant problem; if that problem will infect thousands of animals, let's say, as opposed to one or two isolated animals. ... Where there is a problem, the risks to the public are greater than they've ever been before because disease, or a pathogen, can affect millions of people, as opposed to just a few. (“Industrial Meat”)

Yet another facet of public health as it relates to livestock and meat production is the issue of antibiotic administration. Of all antibiotics sold in the U.S. in 2011, 80% were

administered to livestock (Kessler). This fact begs the question, why are the majority of the United States' antibiotic medicines being sold for use on animals who – in their natural habitat – would neither require nor encounter such chemicals. The increase in antibiotic usage on farms is simply an effort to combat the negative effects of growth hormones, feed additives, and improper sanitation, all of which are human contributions made common by CAFOs. Practices such as genetic modification, genetic engineering, and selective breeding have created genetic deficiencies which inhibit cows, pigs, and other livestock from naturally fighting off infection and disease. According to The New York Times, there is “more than enough scientific evidence to justify curbing the rampant use of antibiotics for livestock, yet the food and drug industries are...fighting proposed legislation to reduce these practices...[and] oppose collecting the data...the Senate Committee on Health, Education, Labor and Pensions, as well as the F.D.A., is aiding and abetting them” (Kessler). Humans have created a cyclical pattern of producing a low quality product in a way that is economically efficient, and therefore fuels its own existence.

Whether disease infects an entire group of animals or simply one, this can contaminate a large amount of meat, due to the fact that when packed in a large facility, products are often comprised of the meat from multiple animals. It is also potentially problematic that this process of meat production mixes the bacteria of many animals into one package. According to Dr. Robert Tauxe (the chief of the department of food-borne and diarrheal diseases at the Centers for Disease Control), “If we take the meat from one animal and grind it up and make ground beef, we're including only the bacteria from one animal. But if we take the meat from a thousand different animals and grind that together, we're pooling the bacteria from a thousand different animals as well” (“Industrial Meat”).

As if antibiotics and unsanitary conditions were not pressing enough, one significant threat to public health is agricultural biotechnology. This encompasses the development of

microorganisms specifically for agricultural purposes as well as the process of genetic modification of plants and animals to produce an ideal product. This includes the administration of growth hormones and feed additives which promote larger and faster growth and a higher rate of pregnancy and milk production. According to an article from *One Green Planet*, “Genetics used within the past 50 years have not only increased the number of pigs raised, but the size of them as well. In the same amount of time, sows (female pigs) have doubled the number of piglets they birth, going from 14 to 28” (Patton). This piece also explains that while the average pig on a factory farm weighs 215.5 pounds, the average breeding sow weighs between 600 and 900 pounds. These particular pigs are designed to produce more piglets more often, within a shorter gestational period.

Cows and chickens on factory farms are treated similarly. Dairy cows have been modified through both growth hormones and selective breeding to produce milk as copiously and efficiently as possible. Chickens and other poultry are administered hormones and feed additives which promote faster and greater muscle growth, and higher egg production. The problem with such practices is that they are relatively new, and therefore have not produced conclusive information about the effect they may have on public health. While the meat packing industry as a whole has been designed to operate as efficiently as possible, the threat it poses to public health as a result of improper sanitation, over-administration of antibiotics, and the presence of growth hormones could prove more harmful than helpful. Meat and produce is available without the use of agricultural biotechnology, and in the grocery store they are marked with a “Non GMO” label, which refers to a non-genetically modified organism. It is important to read food labels carefully, as there are many different terms which relate to the quality of the product and how it is produced.

## Chapter 3: Sustainable Agriculture

The factory farming industry poses not only a threat to public health and animal welfare, but also a threat to the environment. This of course could have a lasting effect on the future of humans and other wildlife; therefore, this time sensitive issue demands the attention of those who contribute to it directly. Humans – more specifically, Americans – consume meat in such large quantities that the demand cannot be maintained. Figure 2 shows the drastic increase in the number of CAFOs over a 20 year period. This boom in industrial agriculture has led to massive consumption of land resources, water, grain, topsoil and fossil fuels, which is ever increasing and cannot be sustained long term.

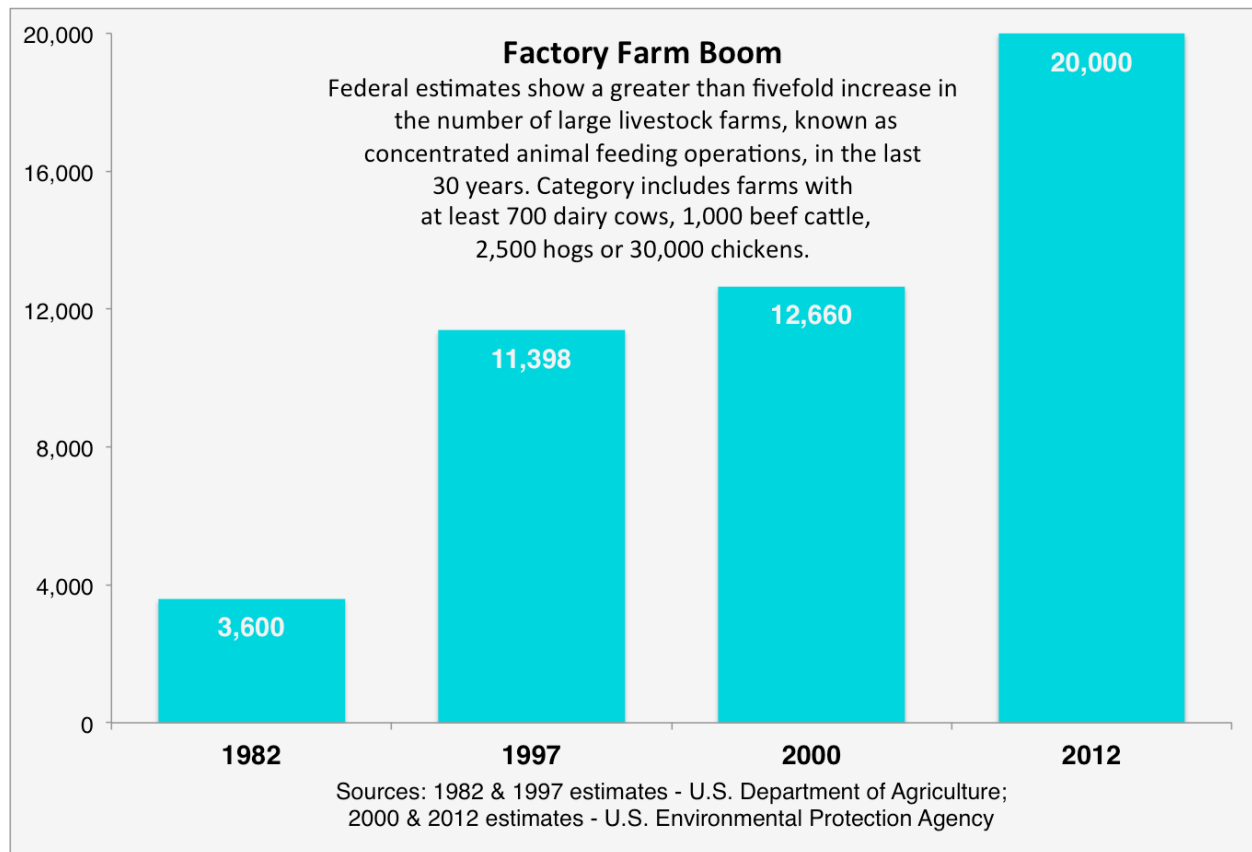


Figure 2: Increase in number of CAFOs between 1982 and 2012 (Leither)

As meat consumption continues to increase, a correlation can be drawn between animal fat and chronic degenerative disease, particularly cardiovascular disease and some forms of

cancer. As western agriculture and dietary trends expand to other countries, these diseases become more prevalent on a global scale.

Some portions of the developing world are beginning to adopt Western dietary patterns and, as a result, are experiencing an increase in the chronic diseases associated with a richer diet. China offers a sobering case in point: meat consumption nearly doubled countrywide during the 1990s, with the increase especially pronounced among urban residents. This dietary shift is considered a major reason that chronic diseases have become a more common cause of death in China, with acute diseases becoming less common because of improvements in water, sanitation, and immunizations. (Horrigan, Lawrence and Walker)

This fact is particularly unsettling considering the sheer number of animals consumed annually, which amounts to approximately 10 billion around the world. Add to that the amount of waste and pollution produced by these 10 billion animals, and the result is an overabundance of methane gas and expensive animal waste disposal. According to *Community Environmental Legal Defense Fund*, “A single dairy cow produces 80 pounds of waste each day. The manure from a 200 cow dairy produces as much nitrogen as the sewage from a community of 5,000 to 10,000 people.” This means that the amount of manure produced by factory farms each year is nearly three times the amount of waste produced by the human population of the U.S.

Farming requires certain natural resources, particularly water, land, grains, and energy, all of which are becoming more scarce with the passage of time and population growth. “Agriculture uses about 70% of the world’s available freshwater, and one third of that is used to grow the grain fed to livestock... Worldwide, more than 40 percent of wheat, rye, oats, and corn production is fed to animals... Feeding grain to livestock improves their fertility and growth, but it sets up a de facto competition for food between cattle and people” (“Peak Meat Production”). No other food industry poses this level of demand, and one of the largest contributors to the mass of the problem is actually humans. The boom in meat consumption is the factor which has tipped the scales in recent years, moving the agricultural system from a necessary allocation of

resources to an insatiable industry which depletes the limited natural resources humans have at their disposal. Figure 3 depicts global water use by sector, based on figures from 1990.

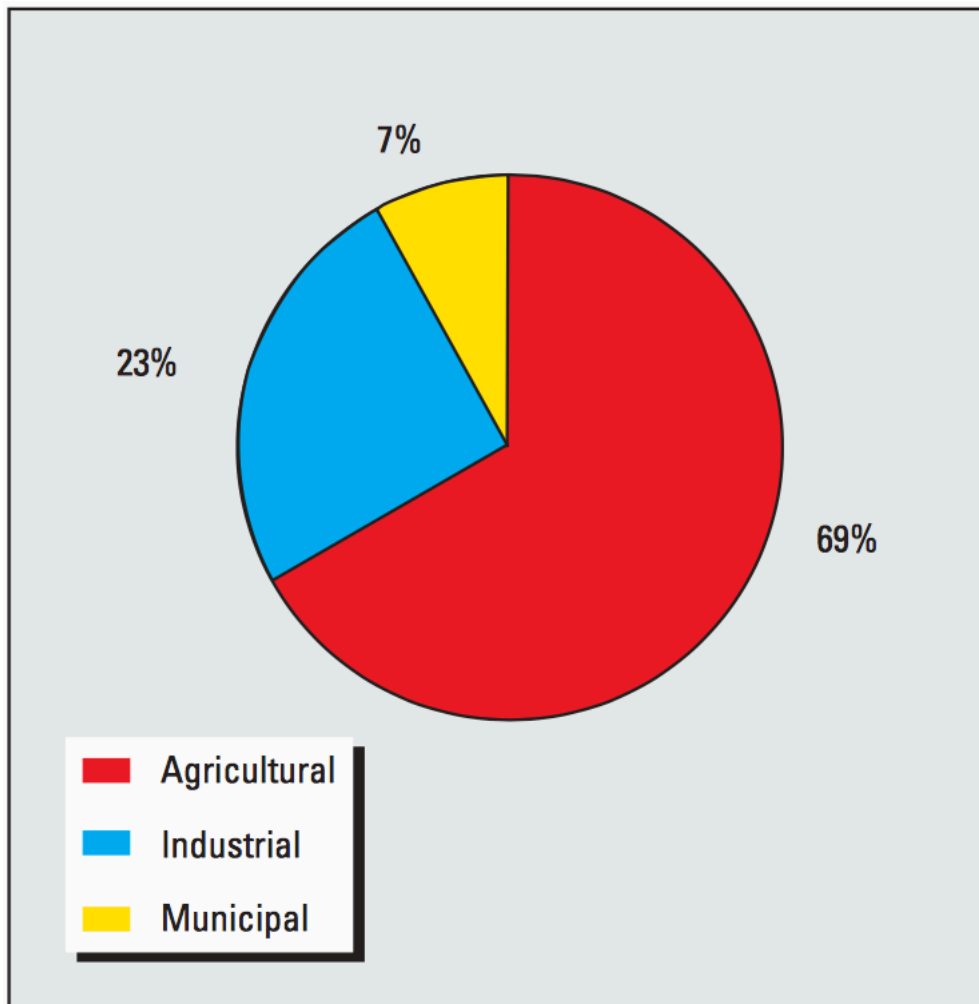


Figure 3: Global Water Usage (Horrigan, Lawrence and Walker)

The agricultural industry also plays a major role in the emission of greenhouse gases. CAFOs contribute a greater amount of harmful emissions than the transportation industry as a whole. Of all human-induced greenhouse gas emissions, animal agriculture accounts for 18%, as well as 37% of methane emissions and 65% of nitrous oxide. The runoff from factory farms has been found responsible for loss of water quality, because CAFOs often release phosphorous and nitrogen into streams, rivers, and groundwater, contaminating aquatic ecosystems and upsetting hypoxic zones (shallow areas of the ocean which are lower in oxygen). This issue begs the question, what is the most sustainable alternative? Wes Annac writes, “With these problems that



plague industrial-scale farming, it seems sensible to make the switch to more sustainable farming practices on a national level.” Sustainable farming is that which exercises methods of animal husbandry which promote positive environmental contributions attempt to minimize resource consumption and harmful emissions, and many domestic or family owned farms fall under this category. As humans continue to make scientific strides in areas of water purification and alternative agricultural methods, a shift toward a more sustainable agricultural system is certainly possible.

## Chapter 4: Traditional Farming and Alternative Food Resources

There are many alternatives to the agricultural industry at large today, including a resurgence of more traditional methods of farming, reduction of general meat consumption, implementation of sustainable methods, domestic farming, and in some spheres, technologically-produced meat. Traditionally, livestock were allowed to graze freely, and were often pasture-raised. This eliminated the demand for grain, as animals were rarely grain-fed, but instead lived on a diet which was comprised primarily of grass and hay. While these older, more naturalist methods of animal husbandry did not generate the mass quantities and efficiently produced animal products, the meat itself was produced naturally, without the use of antibiotics and hormones. Because the animals were largely pasture-raised rather than grain-fed, their general health was better and they could naturally fight off infection. Agricultural methods have developed and changed, and even among domestic farms there is a level of industrial efficiency which did not exist decades prior; however, these facilities continue to produce healthier animals and better quality meat.

In her piece, “Meat and Morality: Alternatives to Factory Farming,” Evelyn Pluhar suggests three primary options: vegetarianism, humane animal farming, and in-vitro meat. In regards to domestic and sustainable farming, she writes, “Animals raised in much less stressful conditions would shed fewer pathogens. They would not be pumped with hormones and nontherapeutic doses of antibiotics; their feed would not be contaminated with cattle parts and poultry litter. The animals would also suffer much less.” Her argument is consistent with the fact that animals raised in mass quantities and close quarters display signs of higher stress levels and a greater prevalence of disease. Therefore, animals raised in more humane conditions where they are provided ample living space and cleaner conditions are a healthier resource for human consumption.

Her second argument is that “the dangerous consequences of factory farming for the environment, human health, and animal well-being could obviously be largely avoided by the shift to vegetarianism” (Pluhar). The idea that omitting meat from one’s diet would effectively reduce the personal contribution to inhumane practices and environmental destruction is solid in theory. However, this does not directly improve the system itself, but simply serves as a personal solution. In order to make changes within the system itself, humans must enact change within the way the system is regulated and promote more positive systems, such as sustainable and humane farming.

Her third suggestion, in-vitro meat, refers to the production of laboratory-cultured meat product. Pluhar defines this process briefly as follows: “The technique calls for a single stem cell to mature and divide in a nutrient-rich soup, eventually resulting in billions of cells fused into a solid slab of meat.” Perhaps this process could become a viable alternative, but it is still relatively new and has not been adequately tested to ensure consumer safety.

The remaining alternatives are thus: to either abstain from consuming meat altogether – which would serve only as an individualistic solution – or to promote sustainable and humane systems of agriculture in an effort to change the way industrial farming is performed. The latter is certainly possible, as domestic farms still make up the majority of all agricultural facilities. “The UN estimates that there are 500 million family farms around the world, representing up to 80 percent of all farms in many countries” (MacDonald). Domestic and sustainable farms are readily available in rural areas of the world, and the ever-expanding world of the internet makes the process of purchasing meat from such farms easier than ever. Consumers can support these farms in three primary ways: farmer’s markets, community supported agriculture, and other direct-to-consumer programs. Farmer’s markets and other such organizations are designed to

facilitate the commerce of local farming, and they provide an affordable and approachable method of purchasing locally, humanely, and sustainably raised meat. These of course are not the only means of purchasing foods which are non-GMO, pasture-raised, or grass-fed. Many grocery stores carry such foods alongside name brands. By carefully reading food packaging, consumers can more easily navigate the grocery deli and ensure they are purchasing the best quality meat. The term “community supported agriculture” – or CSA – refers to a direct-to-consumer program where consumers can purchase a share of a local farm’s projected harvest. This provides a greater amount of funds for local and domestic farming organizations to invest into their livestock and crops, so that they can produce greater amounts of higher quality produce. Other direct-to-consumer programs include on-site farm stands and stores and gleaning programs where consumers can manually harvest crops which have been left in fields. Such programs cut consumer costs, as the production methods involved are minimal in comparison to that of more industrialized processes.

The domestic farming sphere is certainly growing, and according to a USDA census, “the number of farmers age 25 to 34 grew 2.2 percent between 2007 and 2012” (Dewey). More and more Americans are making a shift from white collar careers to blue collar agricultural work, and domestic and sustainable farming is on the rise. If Americans take steps to actively change industrial agriculture and promote more humane, healthy, and sustainable alternatives, this increase can certainly continue, and the agricultural food system will flourish as a whole.

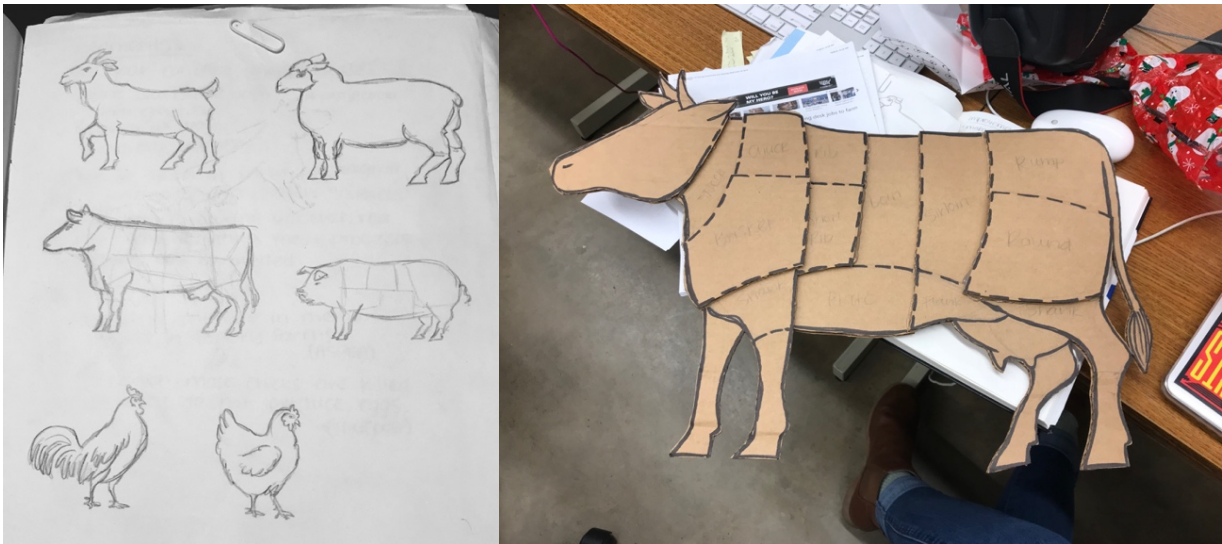
#### Chapter 5: *No Bull: A Closer Look At The Food We Eat* Exhibition

The previous chapters have provided a clear explanation of the detriments of factory farming as well as the benefits of humane and sustainable farming and a variety of practical

applications for this information. The following chapter is an explanation of the making of *No Bull*, my BFA capstone exhibition.

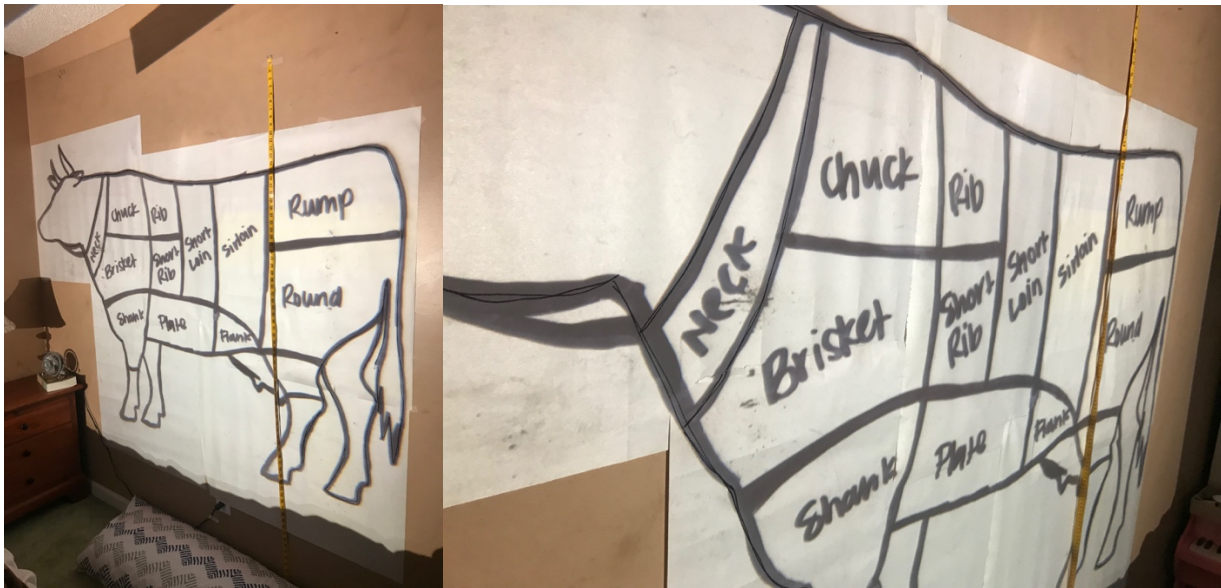
This installation served simultaneously as an informative piece of art for its audience and an invaluable exploration of process for me as the artist. I began my research by reading about the harms and horrors of factory farming, as well as the benefits to both animal wellbeing and public health which a more traditional and sustainable approach provides. This topic includes an inexhaustible plethora of information, and I quickly became overwhelmed. Over the course of several months, I began to simply make things, beginning with sketches and small three-dimensional mockups, and allowed these trivial exercises to feed into a greater process of making. Many of my ideas for a final product became steps in the process to something completely different and practically unrelated. My goal was to approach my materials with the same sensitivity and intentionality for which I am advocating in regards to farming and food production; therefore, I chose media which would allow me to work expressively, while also challenging me to push the boundaries of my personal comfort zone.

I began working with images of farm animals such as cows, pigs, chickens, sheep, and goats, but quickly narrowed this scope to two of the more primary agricultural meat producers: chicken and beef. In my exploration of the image of a cow, I chose to incorporate some semblance of a traditional butcher's chart, which delineates the various cuts of meat into which an animal is separated for packing. The act of raising, killing, and preparing an animal for consumption was once a process that humans approached with care, respect, and integrity. I adopted this sort of intentional approach to production in my process, making media choices which gave me a greater connection to my materials as well as my concept. The result was a series of explorations in printmaking, woodworking, sculpture, hand lettered typography, weaving, knitting, needle felting, and installation art.



I created various sketches and maquettes which consisted of a cow and several chickens interacting in a gallery space. The challenge was to create a body of work that allowed me to connect with the concept in a physical, kinetic way while also communicating a clear idea that would be approachable and engaging for my audience. My goal was to create a three-dimensional infographic which presented a collection of factual information and maintained a physical presence with which my audience could share a space. I experimented with various methods of construction, and received a recommendation about medium-density fiberboard (MDF) as a possible printing and building medium. This material is a type of pressed composite wood material similar to particle board, but finer and denser, so that it does not warp. MDF has a smooth surface, ideal for sign painting and printing. I experimented with several different mediums, but gravitated toward the tactility and repetition which comes with printmaking. I built several 20" by 30" silkscreen frames and stretched and stapled the screens taut for printing. After establishing my images, I used a light projector to transfer them onto large sections of newsprint, which I used as guides when drawing my images onto the screen mesh. I then used a very soft, water soluble lithography crayon to draw directly onto several silkscreens, and coated the screen mesh with screen filler – a water based fluid which fills in the holes of the screen mesh and, once

dry, hardens and can only be removed with the use of solvent. The oily nature of the lithography crayon repelled the screen filler, and the crayon marks served as a placeholder for my images. Once dry, the screens were washed out with water to remove the oily crayon and leave the image negative behind. This process allowed me to create images that could be printed efficiently and multiple times, while also maintaining an organic, free flowing, gestural method of mark making. The result was gritty, natural texture and hand drawn line quality.



When my images had been printed onto the MDF using a water-based acrylic ink, I cut them out using a jigsaw, making sure to retain as much textural line work as possible. I then assembled the cow sculpture using drywall screws and aluminum bolts and hex nuts for added structural integrity. After ensuring that the sculpture would be able to stand freely, I used acrylic screen printing ink to hand letter statistical information about the health benefits and moral implications of consuming sustainably and humanely farmed meat. This required copious amounts of research, which led me to consider what exactly I hoped to communicate. I was inspired by artists such as Sue Medaris and Daan de Boer, who have both examined issues of meat consumption, domestic farming, and traditional meat production in their work. Medaris works primarily in relief print, creating moderately sized prints as well as large scale structures

which can be freestanding and are often attached to wheels so that they are mobile. Her

“Pulltoys” are enormous wooden animals relief printed onto feed bags and affixed to wood. They are mounted with wood and often taken to festivals and markets as a sort of performance piece.

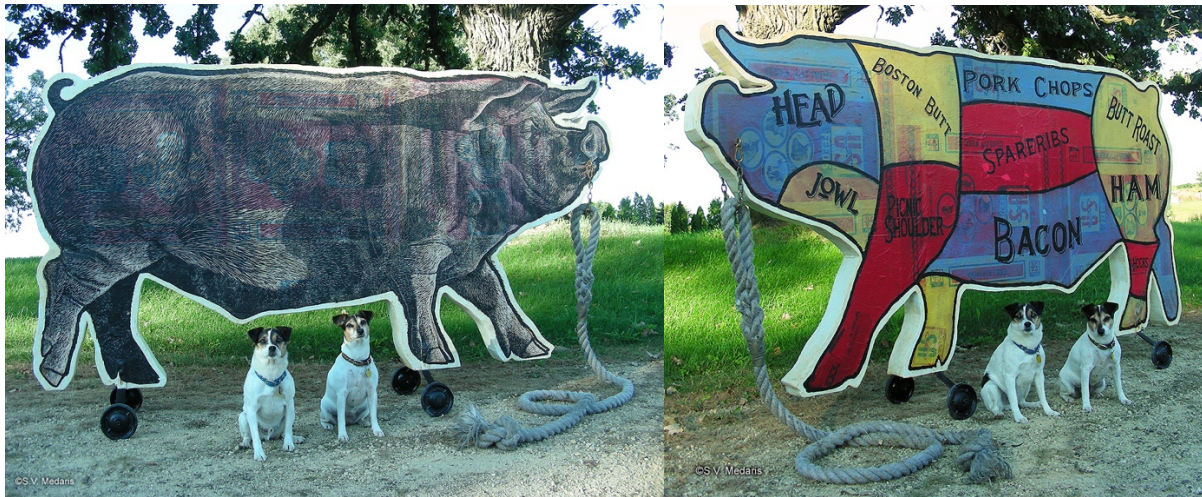


Figure 4: Pull Toys by Sue Medaris. “S.V. Medaris Fine Art: Pigs.” *SVM*, S.V. Medaris Fine Art, [svmedaris.com/pigs.html](http://svmedaris.com/pigs.html)

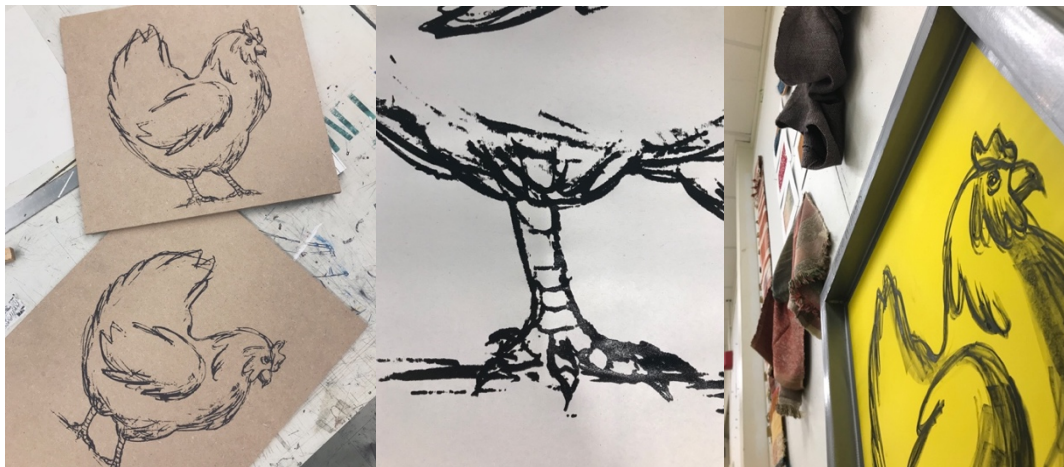
De Boer is a sculpture and installation artist from the Netherlands who uses mixed media such as plaster, fiber elements, and blown glass to depict mundane objects in an almost glorified sense. His piece *Bacon&Eggs* depicts the traditional breakfast duo on a large scale, featuring two humongous slabs of bacon and one giant fiberglass egg, sunny side up. Many of his pieces depict everyday objects such as plates of food and food packages made of traditional art materials and displayed in an installation fashion.





Figure 5: *Bacon&Eggs* Installation by Daan De Boer. “Daan.” *Bacon&Eggs* : Daan De Boer, [www.daanonweb.com/index.php/baconeggs/](http://www.daanonweb.com/index.php/baconeggs/).

The idea of fiber elements serving as visual representations of meat particularly resonated with me, and I experimented with various methods of producing fibrous elements which read as raw sinew. Tapestry weaving was a possible solution because it is a repetitive, methodical process – much like the process of meat production – however, the overall result was too uniform and did not have the desired effect. My next exploration was a knitted stitch known as garter stitch, which is characterized by wavy stitches which closely resemble ground beef. Once knitted, I used a barbed needle felting tool to agitate the fibers and fuse them together, creating a more homogenous texture.



Making work and experimenting with different media was a crucial part of my process.

The experience of producing this show only served to reinforce the idea that high quality, conceptual artwork originates from exploration of materials, and my first idea is not always my best. I found that for me, waiting for inspiration to strike does not yield the highest quality work of which I am capable. My work is remarkably more conceptually developed and aesthetically finished when I exhaust every idea in my process of arriving at a final product. While this approach brings to question whether or not any piece is ever finished, and simultaneously leads to an endless series of improvements, it also allows me to explore every facet of a concept and produce the best work I can from my experimentation. Moreover, this thought process has led me to the conclusion that the final product is not always the purpose of the process. In producing my show, I became far more focused upon my method of making, the reasoning behind my media decisions, and my personal connection to my materials. This state of mind made the final product a pleasant surprise rather than the fulfillment or shortcoming of my own expectations. In the words of contemporary American painter Mark Tansey, “What a work of art is about unfolds in the eye-mind-hand-material process and is carried on in the viewer’s reading. It’s more a process of questioning and performing rather than capturing” (*Mark Tansey*).



The final result of my show is an installation featuring a near life-size sculpture of a cow and three chicken sculptures. All are freestanding, constructed of MDF, and printed with acrylic

screen printing ink. The cow sculpture stands four feet tall and is comprised of many pieces which form a traditional butcher chart, and each section includes fiber elements and typographic information about the benefits of sustainable and domestic farming. All the outlines and individual sections are screen printed, cut out flush, and reassembled into a puzzle-like fashion to resemble a life-size butcher chart. Each cut of meat is labeled on one side, and adorned with either hand lettered factual information or meat cuts made of yarn. The butcher chart itself depicts the major areas of the cow which are often consumed in massive quantities in American culture, a detail which provides personal connection for the majority of my audience. Exhibition guests are encouraged to walk around and among the sculptures, reading and engaging the piece in an approachable way, without the horror and guilt often associated with this topic. All of the factual information featured on the piece is related to the public health benefits of humane, domestic, and/or sustainable farming, as well as the benefits it provides to all animals involved. This provides my audience with a more practical understanding of why these are better alternatives and how we can make decisions and lifestyle changes to access such benefits and contribute to more positive resources. My hope in creating this exhibition is that my audience would become not only more educated on the detrimental effects of factory farming, but also more aware of positive resources and practical ways to combat these effects – namely, by supporting local and sustainable farms.



## Definition of Terms

*Community Supported Agriculture* – “Direct-to-consumer programs in which consumers buy a “share” of a local farm’s projected harvest. Consumers are often required to pay for their share of the harvest up front; this arrangement distributes the risks and rewards of farming amongst both consumers and the farmer. CSA participants often pick up their CSA shares in a communal location, or the shares may be delivered to consumers. The USDA estimates that there may be as many as 2,500 CSAs currently operating in the U.S.” (“Local and Regional Food Systems”).

*Confined/Concentrated Animal Feeding Operation (C.A.F.O.)* – “Agricultural enterprises where animals are kept and raised in confined situations. CAFOs congregate animals, feed, manure and urine, dead animals, and production operations on a small land area. Feed is brought to the animals rather than the animals grazing or otherwise seeking feed in pastures, fields, or on rangeland” (“Agriculture”).

*Family Farm* – “One in which the majority of the business is owned by the operator and individuals related to the operator by blood, marriage, or adoption, including relatives that do not live in the operator household” (“USDA ERS - Glossary”).

*Genetic Modification* – “The production of heritable improvements in plants or animals for specific uses, via either genetic engineering or other more traditional methods. Some countries other than the United States use this term to refer specifically to genetic engineering” (“Agricultural Biotechnology Glossary”).

*GMO* – Genetically modified organism; “An organism produced through genetic modification” (“Agricultural Biotechnology Glossary”).

*Agricultural Biotechnology* – “A range of tools, including traditional breeding techniques, that alter living organisms, or parts of organisms, to make or modify products; improve plants

or animals; or develop microorganisms for specific agricultural uses. Modern biotechnology today includes the tools of genetic engineering” (“Agricultural Biotechnology Glossary”).

*Genetic engineering* – “Manipulation of an organism's genes by introducing, eliminating or rearranging specific genes using the methods of modern molecular biology, particularly those techniques referred to as recombinant DNA techniques” (“Agricultural Biotechnology Glossary”).

*Genetically engineered organism (GEO)* – “An organism produced through genetic engineering” (“Agricultural Biotechnology Glossary”).

*Selective breeding* – “Making deliberate crosses or mating of organisms so the offspring will have particular desired characteristics derived from one or both of the parents” (“Agricultural Biotechnology Glossary”).

*Traditional breeding* – “Modification of plants and animals through selective breeding. Practices used in traditional plant breeding may include aspects of biotechnology such as tissue culture and mutational breeding” (“Agricultural Biotechnology Glossary”).

*Non-GMO* – In this thesis, “Non-GMO” will be defined as an organism which has not been produced through genetic modification (Note: this term is not synonymous with “organic”).

*Organic* – As it pertains to meat production, “animals raised in living conditions accommodating their natural behaviors (like the ability to graze on pasture), fed 100% organic feed and forage, and not administered antibiotics or hormones” (McEvoy).

*Pasture-Raised* – “Animals which were raised for at least some portion of their lives on pasture or with access to a pasture, not continually confined indoors;” “can be given supplemental grain, both during the grazing season and winter months” (*Greener Choices*).

*Grassfed* – “Animals that have eaten nothing but grass and forage from weaning to harvest, have not been raised in confinement, and have never been fed antibiotics or growth hormones” (“About Us”).

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