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Should industrial farming be banned?

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Question: Should industrial farming be banned?

Industrial farming, as defined by Merriam-Webster dictionary, is “a farm on which large numbers of livestock are raised indoors in conditions intended to maximize production at minimal cost.” It is imperative to consider the impact of industrial farming, when discussing the increasing stress to achieve global food security. Industrial farming needs to be banned as it is a hazard to human health, exploits scarce resources, and contributes to climate change. Conversely, proponents of industrial farming contend that its use should be continued as it promotes innovation and provides cheap food.

Initially, industrial farming is a risk to human health. While attempting to cut expenditures and maximize production, many industrial farms lack adequate safety or health standards, leading to the contamination of animals. To demonstrate, Felicity Lawrence (2002) states,

Estimates by the UK public health laboratory service suggested 30% of raw chicken was contaminated with salmonella, and 75% was contaminated with campylobacter. In the Netherlands, supplying much of the UK market, 85% of pigs sampled were found to be infected with campylobacter.

Felicity Lawrence is a two time winner of the Guild of Food Writers' Derek Cooper Award for Investigative Food Writer of the Year and has 20 years of experience as an investigative food journalist; yet language suggests she holds a jaundiced view of industrial farming. This situation exemplifies the deplorable state of meat produced in industrial farming. A lack of proper sanitation and confined spaces is common, and these conditions lead to the rapid spread of disease, which, ultimately, is transferred to consumers. By ending the use of industrial farming practices, less focus is placed on large yields. This allows animal's conditions to improve and decreases the chance of consuming contaminated meat. Another hazard to human health is created by the overuse of antibiotics. Frequently used in industrial farming to prevent disease and encourage growth, antibiotics contribute to the development of antibiotic resistant bacteria that is transferred to consumers, ultimately causing major health risks According to Lawrence (2002),

Tests by Compassion in World Farming on factory chickens sold near Cape Town, South Africa, found they were contaminated by bacteria that caused severe diarrhea, skin ulceration, and even typhoid. The bacteria were 100% resistant to common antibiotics.

There has been a surge of antibiotic resistant bacteria recently making hard to treat diseases even harder to combat. The standard conditions at industrial farms leave animals in extremely unsanitary and unnaturally confined environments in which diseases thrive. Instead of addressing the obvious cause of the spread of disease, industrial farmers administer unprecedented amounts of antibiotics to farm animals in a poor attempt to keep them healthy. This, nevertheless, has the opposite effect as disease in industrial farms has only worsened. Antibiotics are a band aid solution that only addresses disease, which is just an effect of deplorable conditions in industrial farms and only exacerbates them. The use of antibiotics is only norm in industrial farming where poor animal conditions make it necessary, thus its use should be discontinued.

Furthermore, limited resources are diminished exponentially by industrial farming. The already prominent issue of land scarcity is exacerbated as industrial practices grow more popular. It is a main driver behind land degradation, particularly deforestation. According to An HSI Report: The Impact of Industrialized Animal Agriculture on Food Security in the Developing World (2011),

Mato Grosso, the state that has led Brazil in both deforestation and soybean production since 2001, lost approximately 36,000 km of forest to intensive mechanized agriculture between 2001 and 2004.

Humane Society International is one of the few global animal protection organizations and is headed by Andrew Rowan, a frequently published graduate of the prestigious Oxford University, however the society is predisposed against industrial farming. Despite the claim that industrial farming consolidates space, a huge amount of land is lost to it in the form of the animal feed crops. As mass farm animal production grows, vital forest land is destroyed to grow crops to feed the animals. This degradation of forest land is already a prominent concern as it contributes to climate change while threatening bio-diversity and contributing to the devastation of entire ecosystems. Additionally, in the midst of depleting water availability, industrial farming only aggravates the issue. Industrial farming uses massive quantities of water, drawing from sources that communities rely upon. To demonstrate, according to An HSI Report: The Impact of Industrialized Animal Agriculture on Food Security in the Developing World (2011), “Water levels in the Perote-Zalayeta aquifer in Mexico have reportedly declined precipitously since industrial pig production first took hold in the region.” Again, the growth of industrial farm animal production uses many resources, water being a primary one of these. Often times, public

water is used for industrial farming, exhausting communities of their resources and raising the price of water. While organic farming focuses on maintaining the environment, industrial farming practices rely heavily upon the exhaustion of scarce resources, thus it should be banned.

Moreover, Industrial farming contributes to climate change. Unlike traditional farming, industrial farming has a myriad of environmental impacts, one such impact is the emission of greenhouse gasses (GHG). Merriam-Webster defines GHG as “any of various gaseous compounds...that absorb infrared radiation, trap heat in the atmosphere, and contribute to the greenhouse effect.” Industrial farming is a major contributor to GHG emissions. According to Jessica Bellarby (2007), “The total global contribution of agriculture, considering all direct and indirect emissions... is between 17 and 32% of all global human-induced GHG emissions.” Jessica Bellarby is a Senior Research Associate of Environmental Science at Lancaster University since 2005 with over twenty publications of her research, however slanted language suggests partiality. These GHG’s, which are produced during every stage of industrial farm animal production, have huge implications for the environment, temperature, and weather. Industrial farming and GHG emissions are directly proportional, thus climate change will only worsen as intensive farming practices are continued. It is also important to consider that GHG emissions from industrial farming are predicted to rise. This is exemplified by Bellarby (2007), “Agricultural N₂O emissions are projected to increase by 35- 60% up to 2030 due to increased nitrogen fertilizer use and increased animal manure production.” Nitrous Oxide (N₂O) is just one of the various GHG’s that are produced by industrial farming. It is a key driver behind climate change, the effects of which will only worsen as industrial farming becomes increasingly popular. By ceasing the use of industrial farming practices, GHG releases would decrease substantially, thus alleviating some of the effects of climate change.

Contrariwise, it can be debated that the practice of industrial farming should continue as it encourages important innovation. Industrial farming aims to increase production while minimizing expenditures in order to maximize profits, and technology has been developed that allows for this. As agriculture and farming became progressively more industrial, technology has caused production to increase substantially. According to a report by Dr. William Motes (2009),

Corn yields increased 1.8 bushels per acre per year from 1975- 1995. More recently, new technologies have enabled increases of 3.2 bushels per year from 1995-2005—77 percent greater growth.

This report is from Global Harvest Initiative, a private-sector organization that advocates for sustainability since 2009, and was written by Dr. William Motes, the Chief Economist at Informa Economics, Inc., a renowned agricultural and commodity market research institution since 1977, yet the report may be skewed as Motes was hired to make this report. This example illustrates the relationship between the growth of industrial farming and technological advances. The innovations that accompany industrial farming are vital to supplying food on a global scale while minimizing waste. This innovation can lead to new, more effective ways to increase food production while minimizing environmental impacts and use of resources, ultimately ensuring sustainability. It is important to note that industrial agriculture has prompted an increase in research in maximizing production, resulting in greater profits. According to Motes (2009),

In South Africa, a three-year analysis of 2,200 small farmers from the Makhathini area demonstrating consistently higher yields and increased revenues for Bt versus non-Bt cotton farmers. Bt cotton farmers experienced increased gross margins of 531 to 742 South African rand per hectare (equivalent to US\$86 to \$93) versus non-Bt cotton farmers over the study period.

Developments that would have otherwise gone undiscovered have been made possible by industrial farming. Understanding of genetic variation and manipulation has advanced, allowing factors of plant growth to be controlled. This can be used to produce agriculture that is disease resistant, has higher yields, and other beneficial traits that contribute to its sustainability.

Industrial farming should be continued as it provides cheap food for consumers. Unlike traditional farming methods, Industrial farming focuses on efficiency and thus has higher crop yields, allowing food prices to diminish considerably. According to Tom Philpott (2012), “Yields on organic farming—the amount of crop produced per acre—are on average 25 percent lower than those of industrial farming.” Tom Philpott is an investigative food and agriculture journalist since 2005 and has received many awards for his writing, including a Maggie Award for Best Web Publication Blog/Trade & Consumer, contrariwise, as a cofounder of Maverick Farms, which focuses on sustainable food education, he appears emotionally tied to the issue. Industrial farming’s considerably high yields allow it to be the cheapest for consumers. By

increasing production, industrial farming has allowed food prices to decrease. According to Monica Eng (2010),

The average American spent just 9.5 percent of his or her disposable income on food last year, a lower percentage than in any country in the world. And although meat consumption has risen slightly over the past 40 years, its impact on the pocketbook is less than half of what it was in 1970, falling from 4.1 percent to 1.6 percent in 2008. The majority of this cheap protein is delivered by factory farms.

Monica Eng is a food and health reporter of 25 years who has received the James Beard Award for Newspaper or Magazine Reporting on Nutrition or Food-Related Consumer Issues, however her expertise is questionable as little information is available on her education. Lower food prices is an important improvement, as it hugely improves people's standard of living. With less money spent on food, people have more money to spend other important provisions. Industrial farming produces cheap food that is highly beneficial to people, thus it should continue.

Through research of industrial farming, I found that information and reports that opposed industrial farming tended to be international while it was difficult to locate research that supported industrial farming that was not from the U.S. or U.K. This suggests that the benefits of industrial farming are more isolated to wealthy nations while the ramifications are felt on an international level. My personal standpoint on industrial farming was altered through research. I was surprised to learn about the beneficial agricultural developments made possible by the industrialization of agriculture, such as the consolidation of space that has saved a sizeable amount of land. The alternative perspective has made clear that industrial farming provides a solution to food scarcity as it increases yields and lowers prices for consumers, unfortunately it is not sustainable. Industrial farming is too exploitative, on both natural resources and people, to be a lasting solution and may even hinder food security in the long run. In light of my research findings, I believe that in order to find a sustainable solution to global food security, we must explore regional farming systems that enable communities to feed themselves while working with the environment to create a more ecologically viable system.

While some defend industrial farming as the answer to growing food insecurity, it is important to consider its sustainability. It is clear that industrial farming stimulates innovation and provides cheap food, nonetheless, it is a hazard to human health, exploits scarce resources, and contributes to climate change, thus it should be banned.

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