

Some Things Everyone Should Know about CAFOsⁱ

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A quick Google search of media stories related to *Factory Farms* reveals growing public awareness of the multiple environmental, social, and rural economic problems associated with concentrated animal feeding operations, often called CAFOs or Factory Farms. The New York Times¹, Chicago Tribune², Washington Post³, Des Moines Register⁴, and other major newspapers all have regularly featured articles related to factory farms or CAFOs. The rapid growth in markets for organic and local foods; in free-range, cage-free, crate-free, antibiotic-free livestock and poultry products, indicate growing consumer concerns and public distrust of the industrial food system.

In response to these growing concerns, the “agricultural establishment” –including the large agri-food corporations, commodity organizations, and American Farm Bureau—is carrying out a multimillion dollar “public relations” campaign to defend industrial agriculture and promote CAFOs as the present and future of animal agriculture. For example is the U.S. Farmers & Ranchers Alliance (USFRA) “consists of more than 100 farmer and rancher led organizations and agricultural partners representing virtually all aspects of agriculture. According to their website, they are “committed to... *supporting U.S. farmers & ranchers’ efforts to increase confidence and trust in today’s agriculture.*”⁵

A 2015 Friends of the Earth study reported the USFRA had spent nearly \$30 million between 2009 and 2013 trying to put pretty a pretty face on the increasingly ugly business of industrial agriculture.⁶ The report identified more than a dozen different “front groups” that are pushing “a coordinated messages attacking organic food production, defending pesticides and the routine use of antibiotics and promoting GMOs.” This report didn’t include the millions of dollars spent directly each year on pro-corporate agricultural propaganda by agribusiness corporations, the American Farm Bureau Federation, and various commodity organizations.

CAFOs are prominently featured in the ongoing barrage of corporate propaganda in attempts to *restore confidence and trust* in today’s industrial agriculture. In fact, CAFOs are the epitome of industrial agriculture and a primary source of growing public concerns. In an attempt to help counter the corporate propaganda, I have developed a list of “things everyone should know about CAFOs.” My list is based on more than 60 years of scientific research and real-world experience with industrial agriculture in general and CAFOs in particular.

First, the growing public concerns about CAFOs are justified by science-based information. Promoters of CAFOs consistently argue that CAFO opponents are mostly people who have recently moved into rural areas who do not understand that certain odors, dust, and sounds result

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from normal farming operations. In fact, many of the opponent are multigenerational family farmers who understand that CAFOs are fundamentally different from traditional family farms. Whenever new rural residents lead the opposition, it's typically because they have fewer family ties and longtime friendships that are invariably threatened by disagreement about CAFOs.

Opponents are often labeled as being emotional and irrational whenever they raise concerns about living downwind or downstream from CAFOs. In reality, the opponents of CAFOs tend to be very well informed, even better informed than those who support CAFOs. Opponents are forced to inform themselves on both of the issue whereas promoters simply dismiss the opposition as being uninformed. In addition, it is now easy for individuals to find highly credible scientific information about CAFOs for themselves, rather than to rely on traditional sources of agricultural information. Journal articles and scientific reports are now available on the Internet.

There is so much credible information available that I personally have quit citing individual scientific studies or reports. Instead, I prefer meta-studies, where scientists or groups of scientists rely on dozens or hundreds of individual studies to draw general conclusions. For example, a 2½-year study commissioned by the Pew Charitable Trust cited more than 185 individual studies and scientific documents. The 2008 report concluded: "The current industrial farm animal production (IFAP, or CAFO) system often poses unacceptable risks to public health, the environment and the welfare of the animals themselves."⁷ They added: "The negative effects of the IFAP system are too great and the scientific evidence is too strong to ignore. Significant changes must be implemented and must start now." Five years later, in 2013, an assessment of the industry's response to the Pew Report by the Johns Hopkins Bloomberg School of Public Health concluded that few if any positive changes had been made.⁸ Meanwhile the scientific evidence supporting the initial indictment of CAFOs continues to grow.

Second, CAFOs displace family farms and decimate rural economies. CAFOs are often promoted in economically depressed rural areas as a strategy for rural economic development. Supporters talk about the number of jobs they will create and how much CAFOs will contribute the local tax base, to finance better roads, schools, and other public services. In fact, CAFOs invariably create fewer and lower-paying jobs than the number of independent family farmers they displace and new workers require tax-funded public services. Even when CAFOs don't displace *local* farmers, they increase costs of public services, particularly road maintenance, by more than any increase to local tax collections. More than 60 years now of socioeconomic research confirms the negative impacts of CAFOs on rural economies and communities.

For example, a 2009 meta-study by a group of social scientists concluded: "Economically speaking, studies over the past 50 years demonstrate that the encroachment of industrialized agriculture operations upon rural communities, results in lower relative incomes for certain segments of the community and greater income inequality and poverty, a less active 'Main Street,' decreased retail trade, and fewer stores in the community."⁹ A review of studies including thousands of assessed property values for residences located up to 7 miles distant from CAFOs concluded: "Overall, the new studies confirm the [negative] valuation impacts reported in earlier studies, as they range from 3.1% to 26% loss depending on multiple factors, and that properties immediately abutting an AO [CAFO] can be diminished as much as 88%."¹⁰

A 2006 meta-study, commissioned by the State of North Dakota Attorney General's Office, summarized the research in 56 articles in peer-reviewed journals assessing the socio-economic impacts of industrial agriculture on rural communities.¹¹ The study concluded: "Based on the evidence generated by social science research, we conclude that public concern about the detrimental community impacts of industrialized farming is warranted. [The] concern... has grown more intense in recent years, as the social and environmental problems associated with large animal confinement operations have become widely recognized."¹² Over nearly 25 years now, I have worked with people confronting CAFOs in 17 states, 4 provinces of Canada, and in the UK. The only thing on which the proponents and opponents tend to agree is that the controversies surrounding CAFOs tear the social fabric of rural communities apart.

Third, CAFOs are more destructive to the environment than the smaller farms they displaced. Proponents claim that CAFO operators have more sophisticated systems for managing their manure than smaller traditional livestock and poultry farmers. They ignore the fact that the large volumes and toxic concentrations of manure in CAFOs represent far greater environmental threats than did the smaller, dispersed family farming operations. In addition, the specialization and separation of livestock feeding operations from farms that produce feed grains creates environmental problems for feed grain producers as well as CAFO operators. These industrial agricultural operations routinely over-apply manure near CAFOs which results in heavy use of synthetic commercial fertilizers to produce most of the feed for CAFOs elsewhere.

Water quality statistics for Iowa clearly contradict claims that the CAFO system of animal production is doing a better job of protecting water quality than diversified family farmers. According to the Iowa Department of Natural Resources, the number of Iowa streams, lakes, and wetlands sufficiently "impaired" to require reporting to the EPA for additional corrective action increased nearly four-fold between 1998 and 2016—from 159 to 608.¹³ This was a time of rapid growth in industrial agriculture, and agriculture is by far the largest source of water pollution in the state of Iowa.¹⁴ The total number of "impaired waters" in 2016 was 750. Water samples from more than 1,000 water bodies collected biennially between 2008 and 2016 indicate more than half of Iowa's public waters remain polluted or "impaired".¹⁵

At the national level, the EPA has identified "agricultural nonpoint source pollution as the leading source of water quality impacts on surveyed rivers and streams, the third largest source for lakes, the second largest source of impairments to wetlands, and a major contributor to contamination of estuaries and ground water."¹⁶ Eutrophication has led to massive "dead zones" in the Gulf of Mexico, Chesapeake Bay, and other water bodies. Industrial agriculture is a major contributor to this growing problem.¹⁷ CAFOs and intensive feed grain production are also major contributors to groundwater pollution and water well contamination in agricultural areas.¹⁸

Fourth, CAFOs are a scientifically documented threat to public health. On issues related to public health, CAFO defenders are simply in a state of denial. For example, agricultural scientists have known since at least the early 1980s about the risks of creating antibiotic resistant bacteria associated with the routine use of antibiotics in CAFOs. The scientific facts are also well known among public health professionals. For example, a 2013 U.S. Center for Disease Control and Prevention report stated: "Scientists around the world have provided strong evidence that antibiotic use in food-producing animals can harm public health. Resistant bacteria can be

transmitted from food-producing animals to humans through the food supply.”¹⁹ The World Health Organization “strongly recommends an overall reduction in the use of all classes of medically important antibiotics in food-producing animals, including complete restriction of these antibiotics for growth promotion and disease prevention without diagnosis.”²⁰

A 2016 global summit of Heads of State at the United National General Assembly, concluded: “The high levels of AMR [antimicrobial resistance] already seen in the world today are the result of overuse and misuse of antibiotics and other antimicrobials in humans, animals, and crops, as well as the spread of residues of these medicines in soil, crops and water.” “Antimicrobial resistance is a problem not just in our hospitals, but on our farms and in our food, too. Agriculture must shoulder its share of responsibility.”²¹

Similar scientific consensus exist for a variety of other public health risks posed by pollution of air and water by CAFOs and other industrial agricultural operations. A 2018 report concluding that “it is impossible to avoid the very substantial scientific evidence showing the impacts of livestock production and its very rapid growth on the degradation of Iowa water and air, and consequently the health of the people of the state.”²² While the report focused on Iowa, it cited more than 150 scientific references, includes studies from many other parts of the U.S.

Fifth, industrial agriculture, including CAFOs, is not needed to “feed the world.” A persistent theme of the agricultural establishment is that industrial agriculture in general and CAFOs in particular are necessary to keep U.S. food prices affordable and to “feed the rest of the world.” First, industrial agriculture is not keeping food prices affordable. In fact, retail food costs have risen at about the same rate as overall inflation over the past 20 years—years when CAFOs were replacing smaller family livestock and dairy operations.²³ Increases in agricultural production have not provided food for the people who are poor and hungry in the U.S. or elsewhere in the world. Export have gone to so-called developed countries and developing countries with growing affluent classes, such as China and India. Furthermore in recent years, about 40% of U.S. corn production has been diverted to produce ethanol for automobiles—on land that could have been used to produce food.

In 2015, the USDA classified nearly 13% of U.S. households as “food insecure,” and nearly 17% of American children lived in food insecure households.²⁴ Food insecurity means uncertainty regarding whether enough food will be available to meet the nutritional needs of the household. In 1967, when CBS-TV aired its classic documentary, “Hunger in America,” only 5% of the people in the U.S. were estimated to be hungry, which was considered a national emergency. In addition, we have an epidemic of obesity, diabetes, heart disease, hypertension, cancer, and other diet-related diseases that threaten our nation’s physical and economic future.

Furthermore, the rest of the world doesn’t need or want industrial agriculture. The diet/health problems we have seen in the U.S. develop wherever in the world the industrial model or agri-food production has been imposed on the people. Contrary to popular belief, the food needs of 70% to 80% of the people of the world still are being met by small family farms, most of which we would call “subsistence farms.”²⁵ Not industrial agriculture. Again, global research has shown that with minimal public assistance, not industrial technologies, the world’s small family

farmers would be quite capable of doubling or tripling their production, without using industrial agriculture or CAFOs—not only feeding themselves but also “feeding the world.”²⁶

Sixth, CAFOs are not a natural consequence of consumer choices in free markets. The agricultural establishment claims that our current food system is simply a reflection of the food choices of American consumers. They say we should simply let consumers decide whether they want animal products from CAFOs or from grass-based, free-range, humanely raised, or some other production system. They claim they are not opposed to alternatives, but consumers must “vote against CAFOs with their dollars.” Our choices among market alternatives obviously reflect our food preferences and affect the kind of food system we have. However, our market choices alone have not determined the kind of agri-food system we have. Even alternative food choices and prices of alternative foods available to us are affected by farm and food policies.

On the supply side of the market, U.S. farm policy for at least the past 50 years has been designed to promote the industrial model of agriculture.²⁷ Government deficiency payments and crop insurance subsidies for corn and soybeans have reduced the risks of crop production and provided CAFO operators with a constant supply of feed grains at prices below unsubsidized or free market prices. Government loan guarantees have made it easy for beginning or expanding CAFO operators to borrow millions of dollars, while beginning organic farmers or small farmers producing for local markets find it virtually impossible to secure bank loans. The lack of government regulations of CAFOs also has allowed CAFOs to “externalize” their environmental and social costs on rural communities rather than bear the higher costs of responsible production.

On the demand side of the market, Government farm policies have succeeded in reducing agricultural production costs and increasing supplies of agricultural commodities, even though they failed to provide food security for the poor. Instead of allowing food prices to fall, food processors have used cheap agricultural commodities as raw materials to manufacture convenience foods and “junk foods.” This has not only kept retail food prices higher than necessary but also has reduced the nutritional value of food, with the consequent rise in obesity and diet related illnesses. Low income consumers often lack the information, food preparation skills, or economic discretion to make economically and healthful food choices. Regardless, whenever the basic nature of the food system is left to voting with dollars alone, those with more dollars inevitably have more votes, and those with fewer dollars are left sick and hungry.

Seventh, there are logical, economically viable alternatives to CAFOs. The agricultural establishment claims it supports all types of agriculture, including organic and sustainable farming. However, it marginalizes all farmers other than industrial farmers by treating them as niche producers, hobby farmers, or back-to-the-landers. The not so subtle suggestion is that *commercial* livestock producers, real farmers, have no “economically viable” alternatives to CAFOs. However, the rapid growth in consumer demands for sustainably produced animal products are creating profitable and commercially viable alternatives for livestock and poultry producers who are willing to abandon CAFOs. Among the most profitable of sustainable agriculture enterprises are organic, grass-based, free-range, humanely-raised, cage-free, crate-free, and pastured beef, dairy, pork, and poultry operations.

These new market opportunities are being driven by a variety of consumers concerns. For example, the health benefits of eating beef and dairy products from animals raised on grass, not in CAFOs, has been widely documented in various scientific reports.²⁸ The benefits of grass-fed animal products arise primarily from higher levels of the Omega-3 fatty acids, or CLA, which have beneficial antioxidant properties. CAFO animal products contain more harmful Omega-6 due to the high-energy grain rations fed in factory farms. Benefits from pasture or free-range pork and poultry are similar, primarily because the greater the diversity of animal diets, the greater the Omega-3 advantage over animals fed high-energy corn-soy feeds in CAFOs.²⁹ The new alternative markets are overflowing their niches to create new market mainstreams.

In terms of costs of production, extensive research has confirmed that producing hogs humanely in deeply bedded hoop houses, without feeding hormones or antibiotics, can be economically competitive with CAFOs.³⁰ If estimated production costs advantages for CAFOs were reflected at retail levels, the cost of a pound would be no more than 2 to 4 cents per pound or about 1% higher. Studies at various universities have shown grass-based dairy farms to actually be more profitable than confinement dairy operations.³¹ It just takes more dairy farmers and more well-managed dairy herds to produce the same amount of milk in grass-based operations—which employ more farmers in rural communities. As more people become increasingly aware of the negative environmental, human health, and rural economic impacts of CAFOs, the commercial and economic viability of alternatives will continue to grow.

I could go for hours talking about things more people need to know about CAFOs. However, there are dozens of sources of references to thousands of studies and reports documenting the negative impacts of CAFOs and the viability of alternatives to CAFOs. Websites for the Socially Responsible Agricultural Project³² and the Iowa Alliance for Responsible Agriculture³³ provide more things everyone needs to know about CAFOs.

In conclusion, I have been studying CAFOs for nearly 30 year and worked with people concerned about CAFOs in 17 states, 4 provinces of Canada, Wales, and most recently in Brazil. I have concluded that CAFOs a fundamentally flawed system of livestock production that eventually must be replaced. It pollutes the environment, threatens public health, displaces family farms, and destroys rural communities and economies. It is not necessary for either domestic or global food security. That being said, I firmly believe that people have a basic right to self-determination, and given sufficient information, are capable of making their own decisions regarding the kind of agriculture they want and are willing to support.

I support the proposed moratorium on new and expanded construction of CAFOs in Iowa until there are less than 100 officially impaired or polluted waters in the state. Water pollution in Iowa represents a growing environmental and public health crisis that must be addressed. No one wants to put existing CAFO operators out of business, but further expansion of CAFO could make it impossible to address the water quality crisis without doing so. A moratorium on new construction or expansion also will give Iowans sufficient time to inform themselves on pros and cons of CAFOs and decide for themselves whether CAFOs can be effectively regulated, or instead, that livestock and poultry production in Iowa must be fundamentally changed.

End Notes

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