

Exposing the Rural Health Fallacies of CAFOsⁱ

John Ikerdⁱⁱ

The CAFO war is far from won, but the tide of the battle seems to be turning. The supporters of large-scale confinement animal feeding operations (CAFOs), are now on the defensive. The “agricultural establishment”ⁱⁱⁱ has mounted a major counteroffensive in the form of a massive public relations campaign designed to blunt growing public concerns about the *legitimacy* of CAFOs as a means of carrying out animal agriculture. For example, the US Farmers and Ranchers Alliance (USFRA)¹, defends so-called modern, industrial agriculture against its growing number of critics. It is supported by a multi-million dollar annual budget provided by major agricultural commodity organizations and agribusiness corporations. Bob Stallman who is president of the American Farm Bureau Federation, a major promoter of CAFOs, also serves as chairman of the USFRA.

The primary objective of the organization is to defend modern industrial agriculture against a growing wave of public concerns, as the public relations firm in charge of USFRA propaganda readily admits on the organization's website. Several states have formed “Farmers Care” organizations that collaborate with the USFRA to portray a positive public image for industrial agriculture, which includes a series of public forums or “Food Dialogues.”² “Breakfasts on the Farm” also have become popular events where the public is invited to visit local farms for breakfast.³ These groups claim to be advocates for all types of farms, which is a thinly-disguised effort to obscure their obvious pro-corporate/industrial agriculture bias.

The clear objective of the PR campaign is to discredit people who oppose CAFOs by suggesting they are uninformed, emotional activists who are opposed to animal agriculture. This simply is not true. Admittedly, some CAFO opponents get emotional. At a recent conference in York, PA, for example, I met a man in a wheelchair who has been physically disabled by a neurological disorder his doctor attributes to living too close to a CAFO. He has been advised to either abandon his home or prepare to die. I also met a mother with a daughter suffering from a respiratory illness that left her unable to function in school, and a son with a nasal infection that led to bleeding from his ears. These problems began after the hog farm next door expanded into a CAFO. Admittedly, these people are emotional in their opposition to CAFOs; righteously emotional. “Emotion in defense of fairness is no vice, indifference to injustice is no virtue.”

Some of the people who oppose CAFOs may get emotional at times, but they are not irrational environmental activists or animal rightist, as suggested by CAFO defenders. They are

ⁱ Prepared for presentation at “The Rural Health Dilemma, A forum about the impacts of modern agriculture on health and quality of life.” sponsored by a coalition of local citizens groups, Sturgeon Bay, WI, November 16, 2013.

ⁱⁱ John Ikerd is Professor Emeritus, University of Missouri, Columbia, MO – USA; Author of, *Sustainable Capitalism*, and *Essentials of Economic Sustainability*, <http://www.kpbooks.com>, *A Return to Common Sense*, <http://Amazon.com>, *Small Farms are Real Farms*, Acres USA, <http://www.acresusa.com/other/contact.htm>, *Crisis and Opportunity in American Agriculture*, University of Nebraska Press <http://nebraskapress.unl.edu>; and *A Revolution of the Middle and the Pursuit of Happiness*, online: <http://sites.google.com/site/revolutionofthemiddle/>. Email: JEIkerd@gmail.com; Website: <http://faculty.missouri.edu/ikerdj/> or <http://www.johnikerd.com>.

ⁱⁱⁱ “Agricultural Establishment” refers to agribusiness corporations, The American Farm Bureau Federation, agricultural commodity organizations, the USDA, and state agricultural colleges.

intelligent, informed, thoughtful, compassionate, and caring rural people who understand the difference between agriculture and industry. Most are long-time rural residents who know the difference between real farms and factory farms and support real farms, not factories. Growing rural opposition has long been a concern, but what concerns the CAFO promoters most, is growing numbers of consumers who are losing confidence in the American food system – particularly animal agriculture. A largely “rural concern” is becoming a major “public concern,” and that worries the agricultural establishment. They don't want American consumers asking questions about their food, because they know consumers will not like the truthful answers. The corporate propaganda campaign is a skillfully orchestrated distraction from the truth.

The campaign uses young farmers as the “front men” to give CAFOs an “illusion” of authenticity and integrity. Many of these young farmers have been brainwashed by the agriculture establishment to believe CAFOs are their only means of getting into agriculture on their own – that CAFOs are the future of farming. This is simply not true. First CAFOs are not farms, they are factories. CAFOs smell and pollute like factories, like industry, but they are virtually unregulated, as existing regulations are woefully inadequate and generally unenforced. Second, the comprehensive corporate contracts under which CAFOs operate will leave these young farmers as something less than “corporate serfs” on their own farms. When they no longer serve the corporations' economic interest, they will be cast aside with little concern for their future or the future of agriculture. Finally, there are far better ways to getting started in farming, in small-scale, sustainable farming, not large-scale factory farming.

According to their website, the new multi-million dollar CAFO propaganda campaign is designed specifically to defend “modern agriculture” against growing concerns in four areas: food safety, water quality, animal welfare, and food choices and prices.⁴ CAFO supporters have shifted from calling for “sound science” to public relations to support their propaganda because “real science” provides strong evidence for indicting so-called modern industrial agriculture on each of these counts. CAFOs are the epitome of industrial agriculture.

The PR campaign claims that CAFO operators are responsible stewards of the environment and trustworthy protectors of water quality. Reams of scientific studies based on gigabytes of environmental data tell a very different story. For example, the EPA recently reported that 35,000 miles of streams in 19 states had been polluted by CAFOs. Promoters claim that CAFOs pollute less than did traditional family farms. However, the number of pollution “impaired waterways” in Iowa has increased three-fold since hog production has moved off smaller family farms into large CAFOs.

The PR campaign claims CAFO operators are committed to animal welfare and the humane treatment of all animals. The fact that CAFO supporters all across the country are trying to make it illegal to take pictures of animals in CAFOs tells a different story. CAFOs are virtual “animal concentration camps” where too many animals are confined in spaces too small to allow any respect for animals as sentient beings or to afford even an opportunity for humane treatment.

The PR campaign claims the growing number of CAFOs are a response to consumer choices, that CAFOs are necessary to meet growing consumer demand and to keep retail prices low. Decades of USDA data completely contradict this fallacy. . Retail prices of meat, milk, and

eggs have continued to rise at the numbers of CAFOs have risen. Farmers are not necessarily producing any more meat, milk, or eggs with CAFOs than they were producing in the past, or could produce in the future; they are just producing more animals with far fewer farmers. Any economic benefits from CAFOs have gone to investors in CAFO corporations, not to consumers, not to farmers, and certainly not to rural communities.

Finally, the corporately-funded propaganda campaign claims animal food products produced in CAFOs are wholesome and completely safe to eat. Scientific facts and government statistics tell a very different story. Recalls of foods contaminated with infectious bacteria originating in CAFOs have become almost routine. For example, a recent outbreak of Salmonella on chicken sickened hundreds of people across the country. In this case, as in many others, several strains of infectious bacteria were resistant to multiple antibiotics. Antibiotic resistance is routinely linked to CAFOs, as they are ideal breeding grounds for antibiotic resistance. The deadly antibiotic resistant streptococcus bacteria called MRSA now kills more Americans than AIDS.

The Farmers and Ranchers Alliance campaign does not even mention public health as a priority “food source topic” nor does it mention public health in its “views on food safety.”⁵ They know public health is the “Achilles Heel” of CAFOs. They obviously are attempting to divert public attention from the single issue on which they are most vulnerable: *The inherent risks of CAFOs to public health*. The case against CAFOs as a threat to public health is clear and compelling and is not limited to contaminated food products. There are too many scientific studies from highly respected public health institutions documenting various kinds of health risks to cite separately without seeming to understate the authenticity, breadth, depth, and sheer magnitude of the evidence.

The only defense CAFO proponents have been able to provide when confronted with this evidence is a lack of “scientific consensus” or definite proof, even though the scientific references linking environmental human health risks to CAFOs number in the hundreds, if not thousands. Admittedly, some studies by scientists at reputable institutions have claimed that the current body of evidence is inconclusive. However, none of these studies exonerate CAFOs of the accusations; they just conclude that more research is needed to provide conclusive proof – research their institutions presumably could have done but have been unwilling to do. Invariably, the institutions represented by such scientists are promoters of CAFOs with strong financial or political ties to the corporations that benefit from CAFOs.

Furthermore, in most other cases related to public health, public policies are based on the *precautionary principle*: “If an action or policy has a suspected risk of causing harm to the public or to the environment, in the absence of scientific consensus that the action or policy is harmful, the burden of proof that it is *not* harmful falls on those taking the action.” In the case of CAFOs, the precautionary principle would place the burden of proof on the operators of CAFOs to prove that CAFOs pose no significant risk to public health, which they obviously cannot do.

In fact, the overwhelming preponderance of credible, unbiased scientific evidence indicates that CAFOs do pose significant risks to public health. The Johns Hopkins University Bloomberg School of Public Health maintains a website providing hundreds of references to scientific

studies concerning the contamination of air, water, soil, and foods with toxic chemicals, infectious diseases, antibiotic resistant bacteria, and E. coli 0157:H7.⁶

With respect to CAFOs as a source of antibiotic resistant bacteria, a 2004 Government Accounting office (GAO) report linking antibiotic resistance to CAFOs states:

“We found that only a few studies have concluded that the risk is minimal, while many studies have concluded that there is a significant human health risk from the transference. Antibiotic-resistant bacteria have been transferred from animals to humans, and many of the studies we reviewed found that this transference poses significant risks for human health. First, some studies have provided evidence of associations between changes in antibiotic use in animals and resistance to antibiotics in humans. Second, studies that have examined the genetic makeup of the bacteria have provided evidence of a stronger link and have established that antibiotic-resistant campylobacter and salmonella bacteria are transferred from animals to humans.”⁷

The American Public Health Association called for a nationwide moratorium on CAFOs in 2003, citing compelling scientific evidence of public health concerns related to CAFOs.⁸ A prestigious 2008 commission funded by the Pew Charitable Trust a nonprofit organization committed to rigorous, analytical and evidence-based work to inform public policy, concluded:

“The current industrial farm animal production system often poses unacceptable risks to public health, the environment and the welfare of the animals... the negative effects of the system are too great and the scientific evidence is too strong to ignore.”⁹

These comprehensive reports reference hundreds of other scientific studies linking CAFOs to negative economic, social, environmental, and public health impacts of CAFOs. The scientific literature reviews simply confirm conclusions that can be drawn from a logical and rational assessment of fundamental characteristics of CAFOs. The CAFO system of production simply concentrates too many animals in spaces too small to allow humane treatment of the animals or for the animals to survive without routine use of antibiotics. This level of concentration also precludes the possibility of utilization of animal waste as fertilizer without pollution of the air and water with toxic chemical and biological contaminants. The negative consequences of CAFOs are inevitable, regardless of where CAFOs are located or how they are operated. A particular individual CAFO may be designed and operated in such a way as to avoid these consequences for some specific period of time. *However, the negative consequences are inevitable for any significant group of CAFOs at any point in time and for any individual CAFO over any significant period of time.*

The CAFO/health issue today is very similar to earlier times when the tobacco corporations, and the institutions they funded or influenced, claimed there was no scientific consensus or definite proof linking tobacco smoking to human health risks. They called for more research, which the public institutions, supported by the tobacco corporations, had been unwilling to conduct. The biological-environmental systems from which human health risks arise are incredibly complex, even more so with CAFOs than with tobacco. Specific cause and effect relationships are difficult to isolate and replicate in controlled experiments. As was the case for

tobacco, the overwhelming preponderance of scientific evidence today confirms the link between CAFOs and significant risks to public health. Many lives were likely lost by failing to act on such evidence in the case of tobacco. Policy makers and government officials should not make the same mistake for CAFOs.

Ultimately, CAFOs must be regulated as any other industrial operation; not as farms but as factories. CAFOs should comply with the same requirements regarding emissions of chemical wastes and byproducts and for the health and safety of workers as other manufacturing operations. In the case of CAFOs, the health and safety of the animals should be ensured as well. Air emission standards for CAFOs should be established at levels necessary to ensure the protection of human and animal health. Animals are workers in these agriculture factories and should be treated with dignity and respect, even if they are destined to be used for food.

With regard to biological wastes, animal waste disposal should be regulated much as human waste disposal is currently regulated. In cases of farm residences and rural residential developments with significant acreages per household – where population is not concentrated – properly constructed and maintained lagoons or septic tanks are adequate to protect the public from health risks associated with human wastes. In more densely populated residential developments, such as apartments and other multifamily rural developments, collective or community waste treatment facilities are required to mitigate the greater risks associated with higher concentrations of human wastes. Residential densities associated with villages, towns, and cities quite logically require full-scale, multi-stage municipal waste treatment facilities of increasing sophistication to accommodate the greater health risks associated with larger concentrations of human populations and human wastes.

The regulation of CAFOs should reflect the same basic logic and principles as waste treatment regulations for human wastes, with appropriate adjustments for differences in health risks associated with human and animal wastes. Non-confinement and smaller solid-waste confinement operations should be allowed to manage their wastes without significant regulation or supervision, as long as their wastes do not contaminate public streams or trespass on their neighbors' properties. Larger solid-waste systems and all liquid-waste confinement systems should be regulated much as large CAFOs are currently regulated, with specific facilities requirements and manure management plans. Larger confinement operations should be treated as *animal municipalities*, rather than a farming operation. Such operations should be required to have full-scale, multi-stage waste treatment facilities as deemed appropriate to fully protect public health.

Estimates may vary depending on specific circumstances, but it only takes about 20 dairy cows, 60 beef feeder cattle, 280 hogs on feed, 6,200 laying hens, or 11,000 broiler chickens to produce as much *total solids of biological wastes* as 1,000 humans.¹⁰ In other words 200 dairy cows, 600 feeder cattle, or 2,800 hogs on feed produce as much biological wastes as a town of 10,000 people. It only takes 50 dairy cows, 100 feeder cattle, 310 feeder pigs, or 9,400 laying hens to have the same BOD effect, or biological oxygen demand, as 1,000 humans. Similar relationships exist between animal wastes and human wastes for total nitrogen and total phosphorus contents.

With regard to total coliform or infectious bacteria, 1,000 humans produce about the same amount of bacteria as 30 dairy cows, 1,300 feeder cattle, 10,000 feeder pigs, and 130,000 laying hens. So, it takes more feeder cattle, feeder pigs, and chickens than humans to produce the same amount of coliform bacteria. However, dairy waste is 3.3 times as concentrated as human waste, beef waste 11 times as concentrated, pig waste 39 times as concentrated, and poultry waste from 1,000 to 3,000 times as concentrated as human waste. So, animal waste can quite logically be thought of as a form of “toxic waste.”

Although the transformation from animal health risks to human health risks obviously vary by species and health risk, the wastes from a 300 animal unit CAFO could be expected to result in human health risks roughly equivalent to 7,000 to 10,000 people. If this conclusion is even close to accurate, full-scale, multi-stage waste treatment facilities clearly should be required for CAFOs of 250 animal units and larger.

It is completely unreasonable from a public health perspective to allow the large CAFOs being constructed today to spread their manure on the surrounding farmland, with or without a manure management plan. A dairy CAFO of 1,000 head, for example, would generate as much of the following specific waste products for municipalities of the following sizes:

Total Solids:	1,000 cow dairy CAFO = 50,000 person municipality
Bio Oxygen Demand:	1,000 cow dairy CAFO = 20,000 person municipality
Total Nitrogen:	1,000 cow dairy CAFO = 25,000 person municipality
Total Phosphorus	1,000 cow dairy CAFO = 33,333 person municipality
Total Coliform Bacteria	1,000 cow dairy CAFO = 33,333 person municipality

Regulations that allow the wastes from a 1,000 cow dairy CAFO to be stored in pits or open storage ponds and spread or sprayed on surrounding farms are simply not a logical or even reasonable means of protecting public health.

The public health risks of CAFOs are inherent in the industrial paradigm or model by which CAFOs function. Any current economic advantage for CAFOs results in large part from the lack of effective environmental and public health regulations of CAFOs. Regulations remain lax and unenforced because the agribusiness corporations that control CAFOs have the economic and political power to prevent effective regulation. Current regulations of CAFOs reflect concern for protecting corporate profits, not the future of animal agriculture, not the environmental, social, or economic well-being of rural communities, and not the public health of Americans.

With the new pro-CAFO corporate propaganda campaign, we must be prepared to move the CAFO battles into the realm of public opinion. Rural and urban people must be willing to join forces in their common opposition to CAFOs, even if they don't agree on all issues related to animal agriculture. However, *frontlines* of the CAFO war will likely remain in rural communities for some time to come. We must not allow rural communities to continue being forced to sacrifice their future so a few local investors and outside corporate investors can benefit economically from large-scale, confinement animal feeding operations. The most valuable assets many of these rural communities possess are their natural environment and their strong sense of community – the rural quality of life – which are being systematically destroyed by CAFOs.

Rural communities are still viewed by many people as good places to live and raise families. Most are still places with clean air, clean water, open spaces, scenic landscapes, and opportunities for peace, quiet, and privacy. Most are still places where people have a sense of belonging, friendly places where people know and care about each other, where crime rates are low and a strong sense of safety and security still exists. Such attributes are becoming increasingly scarce in the United States, and thus are becoming increasingly valuable. It would take a six-figure salary for a city dweller to buy the quality of life that comes with living in a healthy rural community. Some aspects of rural life are truly “priceless.” These precious quality of life attributes represent the future of rural areas, and they may all be lost when a community becomes known as a “CAFO community.”

As rural areas become polluted and their quality of life degraded, they are losing their most precious rural resource, the next generation; as their children leave home for the cities, for better opportunities. In fact, rural parents routinely advise their children to go away to college and get a good education so they won't have to return to the rural community or depend on agriculture for a living. Increasingly, rural people are realizing there is no future in turning their communities into dumping grounds for the rest of society – not just for CAFOs, but also for landfills, toxic waste incinerators, and prisons. Many have given up fighting. They have been systematically abused for so long they have come to accept the degradation as inevitable.

By one means or another, rural people must reclaim their right to a clean and healthy environment. Only then, can they can begin the task of rebuilding an economic, social, and ecological foundation needed for sustainable economic development of their communities. CAFOs are not inevitable; there are viable alternatives. The future of rural communities is in the land and the imagination, creativity, work ethic, and honesty of the people of rural communities, not in the cunning and conniving of the outside corporate investors who control CAFOs.

Now is the time to reclaim rural America from the agricultural establishment. Now is the time for people to invest their time, their energy, their intellect, their money, and their integrity in restoring the health and productivity of the land and the natural environment. We simply cannot afford to wait until regulators are overwhelmed with mountains of scientific evidence documenting the negative public health effects of CAFOs. People can read the studies and judge for themselves; they don't have to wait for the so-called experts to declare CAFOs a public health risk. All people have the basic human rights of self-determination and self-defense that are being systematically denied to rural people by the presence of CAFOs in their communities.

We must confront the corporate propaganda with facts – with truth. Now is the time for all Americans to stand with our rural communities by demanding responsible actions of those in positions of responsibility to protect public health, before more people are killed by their food and rural America is turned into a corporate cesspool. Our food will not be wholesome or safe to eat until our rural areas are safe and healthful places to live. All Americans must stand with rural people in demanding protection from the inevitable public health risks posed by CAFOs.

End Notes:

¹ Anna Lappe, “Who's behind the US Farmers and Ranchers Alliance and why it matters,” *Grist*, September, 2011. <http://grist.org/factory-farms/2011-09-26-whos-behind-the-u-s-farmers-ranchers-alliance-and-why-it-m/>

² Food Dialogue to be held by Missouri Farmers Care, *Quincy Journal*, Quincy, IL, July 24, 2013. <http://quincyjournal.com/business-beat/2013/07/21/food-dialogues-to-be-held-by-missouri-farmers-care1374334562/> .

³ Breakfast on the Farm, A Michigan State University Extension Program, <http://www.breakfastonthefarm.com/> .

⁴ The Food Dialogues, Farmers and Ranchers Alliance website, <http://www.fooddialogues.com> .

⁵ The Food Dialogues, Farmers and Ranchers Alliance, <http://www.fooddialogues.com/foodsource/usfras-view-on-food-safety> .

⁶ Johns Hopkins Bloomberg School of Public Health, “Agriculture and Public Health Gateway,” *Industrial Food Animal Production*, <http://aphg.jhsph.edu/?event=browse.subject&subjectID=43>

⁷ U.S. Government Accounting Office Report 04-490, April 2004 Antibiotic Resistance; Federal Agencies Need to Better Focus Efforts to Address Risk to Humans from Antibiotic Use in Animals, <http://www.gao.gov/new.items/d04490.pdf>

⁸ American Public Health Association, *Association News*, 2003 Policy Statements, <http://www.apha.org/legislative>.

⁹ Pew Commission on Industrial Farm Animal Production: Putting Meat on The Table: Industrial Farm Animal Production in America, http://www.pewtrusts.org/news_room_detail.aspx?id=38438 , full report, <http://www.ncifap.org/> .

¹⁰ Ron Fleming and Marcy Ford, “Human versus Animals - Comparison of Waste Properties,” *Ridgetown College - University of Guelph* July 4, 2001, http://www.ridgetownc.uoguelph.ca/research/documents/fleming_huvsanim0107.PDF .