

## CAFO Facts and Fallacies<sup>1</sup>

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I am confident that the people of this community were not looking for a fight when they learned that an out-of-state operator of several concentrated animal feeding operations (CAFOs) planned to locate a large CAFO in your community. Many may still be reluctant to take a position on this proposal, hoping to find some middle ground or compromise that will resolve the issue to the satisfaction of all concerned. That almost certainly will not happen. You have already seen how divisive this issue can be. The only thing that proponents and opponents of CAFOs seem to agree on is that whenever controversies arise regarding CAFOs, which is almost always, the conflicts invariably rip the social fabric of communities apart. Some people who have been friends will never be friends again, families will be divided, and church congregations will be split. Your communities will be transformed by this experience.

To make matters worse, your community has become part of an epic battle in which CAFOs are a key battleground. On one side are the advocates of the so-called modern industrial approach to agriculture production. They claim industrial production systems, such as CAFOs, are an economic necessity for domestic and global food security. On the other side are those who are concerned about the environmental and social impacts of industrial agriculture – especially about CAFOs. They point to the failure of industrial agriculture to provide food security in the U.S. or elsewhere in the world. The undecided are becoming increasingly skeptical as whether the proclaimed economic benefits of industrial agriculture are worth the ecological and social costs. CAFOs are the epitome of industrial agriculture and thus are at the center of this conflict.

In an attempt to stem the tide of growing public concern, the advocates of industrial agriculture have mounted an ongoing multimillion-dollar propaganda campaign designed to – in their words – “increase confidence and trust in today's agriculture.”<sup>1</sup> The campaign's *Food Dialogues* website features the “faces of farming and ranching” – articulate, attractive young farmers, obviously chosen to put the best possible face on the increasingly ugly business of industrial agriculture. The defenders of so-called modern agriculture have employed some of the top public relations firms to try to repair the tarnished public image of industrial agriculture – and they are very good at what they do.

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The “Battle at Bayfield” is a potentially important skirmish in this ongoing war. Your community will not likely be spared the barrage of deception of this massive pro-CAFO public relations campaign. The campaign spent \$1.5 million to pass a so-called “right to farm” constitutional amendment in Missouri, which didn't dent their annual budget. A one-year moratorium on new CAFOs in Bayfield County hopefully will provide a bit more time to marshal the forces to defend the precious natural resources and communities of the area. However, members of the study committee and the people of the community in general should be prepared for an onslaught of pro-CAFO propaganda – and “perks” for persons of influence.

The top four areas of concern chosen for emphasis by the PR firms include water quality, animal welfare, food safety, and “food prices and choices.” Growing public concerns in each of these areas are confirmed by a growing body of highly-credible scientific evidence. For example, an extensive 2½-year study of industrial farm animal production was commissioned by a highly-reputable, non-partisan organization, the Pew Charitable Trust. Their 2008 report concluded: “*The current industrial farm animal production (IFAP) system often poses unacceptable risks to public health, the environment and the welfare of the animals themselves.*”<sup>2</sup> The prestigious commissioners, including a former governor and a former U.S. Secretary of Agriculture, stated that “*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, an assessment of the industry's response to the Pew Report by the Johns Hopkins Bloomberg School of Public Health indicated that few if any positive changes had been made. Meanwhile the scientific evidence supporting the initial indictment of CAFOs has continued to grow.<sup>3</sup> For decades, promoters of industrial agriculture had accused their critics of relying on misinformation and emotions rather than “sound science.” Now that the scientific evidence is mounting against them, their public relations experts are advising industrial agriculture supporters to emphasize “emotional appeals,” such as “the faces of farmers” – dismissing “sound-science” as no longer believable, relevant, or meaningful.

The PR campaign clearly attempts to label opponents of CAFOs as uninformed, emotional, NINBYs, or radical activists who are trying to destroy animal agriculture. Nothing could be farther from the truth. Those I have worked with over the years are some of the most intelligent, best-informed people I have ever met. Admittedly, some are emotional because CAFOs are threatening their health and destroying their way of life. It's not irrational to become emotional when you or your family is threatened by something you seem powerless to stop. Many CAFO opponents in fact are quite concerned about protecting their “their own backyards,” but this doesn't mean they are any less concerned about the “backyards” of others.

I have found the vast majority of people who oppose CAFOs are ordinary middle-class people – both rural and urban. Most have never been involved in anything controversial before. They are not vegetarians or vegans. Only about 5% of the people in the U.S. consider themselves to be vegetarians and only about half of those are vegan, meaning they don't eat

any animal products.<sup>4</sup> Promoters of CAFOs are not concerned about today's vegetarians and vegans. They are concerned that the rapidly increasing numbers of both vegetarians and vegans reflect a growing public rejection of CAFOs.

I am not a vegetarian or a vegan. In fact, I am a long-time advocate of animal agriculture. I am not opposed to people making money. In fact, I have BS, MS, and Ph.D. degrees in Agricultural Economics. I also know something about animal agriculture. I was born and raised on a small dairy farm. After finishing college with a BS degree, I worked at the Kansas City stockyards for short time and then spent three years with Wilson & Co., the fourth largest meat packing company in the U.S. at the time.

After receiving my Ph.D. in 1970, I began a 30-year academic career in the agricultural colleges of four major state universities – the first half as an extension livestock marketing specialist. I unknowingly helped start the so-called modern hog industry in North Carolina. I worked with the big cattle feed lots in western Oklahoma. I told farmers that farms had to become bottom-line businesses, if they expected to survive. I told them that a farm was just a “factory without a roof” and fields and feedlots were “biological assembly lines.” I told them they should either “get big” or “get out” of farming. So, I know where people who promote CAFOs are “coming from” because I used to “live there.”

Obviously, I have changed my mind. I eventually opened my mind and my eyes to what industrial agriculture was doing to family farms, rural communities, and the land – the natural environment. The lessons I learned from my mistakes in advocating industrial agriculture eventually led me to become a committed proponent of sustainable agriculture – a process that began more than 25 years ago and has continued through 15 years since retirement. I believe that a sustainable animal agriculture is an essential component of a sustainable food system, but CAFOs are not sustainable. I tell those in animal agriculture if they don't want Americans in general to become vegetarians and vegans, they should be focusing their energy and money on “changing animal agriculture,” not mounting a giant propaganda campaign attempts to discredit the intelligence of their customers, their neighbors, and people in general.

I reluctantly became involved in the CAFO controversy in the mid-1990s. Over the past 20 years, I have met with and spoken to hundreds, if not thousands, of people who were confronted with threats of CAFOs in 16 states of the U.S., 4 provinces of Canada, and even in Wales in the UK. Every community is different, but the basic issues and arguments are much the same.

I have had the privilege of visiting this area on several occasions; thankfully not to debate CAFOs. I have always been impressed with the sense of community and a strong commitment to protecting the pristine natural environment of Chequamegon Bay, the Apostle Islands, and Lake Superior. I have had the honor of speaking at the Big Top Chautauqua, while staying at the Pinehurst Inn in Bayfield. I have also participated in community events in Washburn and Ashland. I have some sense of the economic importance of tourism as well the non-economic value of the unique quality of life afforded

to those living in this area. There are no good places to build CAFOs, but I can think of few worse places than in Bayfield County Wisconsin.

I don't want you to lose this battle to protect this fragile ecosystem and these communities from the very real environment and public health risks posed by concentrated animal feeding operations. To prevail, you must understand you are not just fighting a large CAFO operator; your opponents have millions of dollars of corporate money to spend protecting their "rights to pollute and exploit." Perhaps you will be lucky and they will choose elsewhere to fight. But, they know every defeat erodes public confidence in their failed system of animal production. You need to be aware of the "fallacies of CAFOs" that will be presented to you as "facts."

With respect to growing public concerns about water pollution, the PR campaign claims that operators of CAFOs are responsible stewards of the environment. They extoll their virtues as "family farmers" – their commitment to caring for the land and caring about the well-being of their neighbors. Even if this is true of some, it is simply not possible to manage the concentration of manure associated with large-scale confinement animal feeding operations without costly waste treatment systems, what have consistently been deemed "economically infeasible." In spite of claims that new manure management technology and strategy will protect streams and groundwater, water pollution continues to be a persistent problem with CAFOs.

The facts: a 1998 EPA study found 35,000 miles of streams in 22 states and ground water in 17 states that had been polluted by industrial livestock operations.<sup>5</sup> At the time, the EPA was preparing to sue CAFO operators under the Clean Water Act. But, there was a change in the political administration in DC, and no similar studies have been done since. As a last defense, CAFO operators claim they are doing a better job of manure management than the traditional independent farmers they displaced. However, the Iowa Department of Natural Resources has documented a three-fold increase in "impairments" of water bodies between 2002 and 2012, years when hog CAFO were rapidly replacing independent family hog farms.<sup>6</sup>

As a matter of fact, the public health risks of CAFOs posed by water polluted by livestock manure are essentially the same as those posed by untreated human sewage. The 26,000 hogs or 6,000 animal units proposed for the confinement feeding operation proposed for Bayfield County is equivalent to the human waste from a municipality of 50,000 people.<sup>7</sup> There are logical reasons for requiring sophisticated, multi-stage waste treatment systems for municipalities of even 8,000 to 10,000 people. It would be unthinkable that the people in a municipality of 50,000 people would be allowed to spread their untreated sewage in their backyards to be flushed away with the storm water. Yet it is legal to spread a similar amount of raw sewage from CAFOs.

With respect to public concerns about the inhumane treatment of farm animals, the PR campaign claims that CAFO operators have an economic incentive to treat their animals well in order to keep them healthy and productive. In fact, CAFO operators send animals to slaughter at young ages, before most injuries or chronic illnesses cause weight loss or

death. For example, the natural lifespan of a chicken is 7 to 20 years, but broiler chickens today are slaughtered at 6 to 8 weeks and laying hens at around 18 months. A dairy cow in a CAFO is lucky to last 4 to 5 years, about one-third the normal lifespan of a healthy dairy cow. Hogs have a 10-15 year lifespan but are killed at 5-6 months. In fact, CAFO operators see sick and dying animals as undesirable but necessary economic costs of doing business. The physical and mental welfare of sick and dying animals is given no consideration other than the impact on the economic bottom line.

A person doesn't have to be a vegan or "radical animal rightest," or even a member of HSUS, to be concerned about the inhumane treatment of farm animals. Animals are sentient, feeling, living beings, not inanimate mechanisms. I visited Poland a few years ago and had an opportunity to visit the Majdanek Nazi concentration/extermination near Lublin. The rows of barracks where prisoners lived short, miserable lives awaiting extermination was an eerie reminder of the rows of CAFO building that line the roads of the Midwest where animals live under similar conditions with a similar fate. There are not humane "concentration camps."

Research in the past 50 years has confirmed that: "intensive production systems and severe confinement invariably leads to greatly reduced animal welfare."<sup>8</sup> As a result, nine states have passed laws to prohibit the use of "gestation crates," so small hogs can't even turn around. Two states have passed laws to phase out the use of similarly confining "battery cages" for egg laying hens and other states are contemplating similar actions. While the initial steps have focused on providing animal with more space, there is simply no way that animals can be treated without abandoning the basic concept of "concentrated" animal feeding operations.

With respect to food safety, the corporately-funded PR campaign proclaims that Americans have the safest, most healthful food system in the world. While this may have been true in the past, there is growing scientific evidence that food safety has diminished with industrialization of the American food system – including farming systems. Recalls of food products of animal origin contaminated with salmonella, listeria, Campylobacter, and E-Coli, even if not yet routine, have become far from uncommon.<sup>9</sup> Studies consistently have shown that significant percentages of livestock and poultry products in retail food markets are contaminated with a variety of infectious bacteria.<sup>10</sup> Various studies also have shown a large percentage of bacteria in contaminated animal food products are resistant to multiple antibiotics – such as MRSA.<sup>11</sup>

Most instances of contaminations of food with infectious bacteria likely take place in slaughter houses where meat is accidentally exposed to the contents of the stomachs and intestines of slaughtered animals. However, studies have verified that the high energy rations fed to animals in CAFOs to maximize feeding efficiency provide an ideal breeding environment for organisms that are particularly toxic to humans, such as the deadly E-Coli 0157:H7. Switching animals from high-concentrate to high-forage rations have been found to reduce the shedding or potential contamination risks from E-Coli 0157:H7, suggesting that livestock raised on pasture or in grazing systems, rather than in CAFOs, present lower food safety risks.<sup>12</sup>

The corporate PR campaign claims to advocate “choices” by supporting all types of farming. However the verbiage strongly suggests that small “market niches” are the extent of the potential of organic and other sustainable farming alternatives. The clear message is that people must be willing to accept the environmental, public health, and food safety risks of industrial agriculture to avoid raising “food prices” and massive global starvation. In fact, there is nothing to indicate that industrial agriculture has produced more food that could have been produced with more sustainable methods, only that it has employed far fewer farmers. Any production cost advantage has been more than offset by higher marketing margins and profits elsewhere within the corporate food supply chain of which industrial agriculture is a crucial link.<sup>13</sup> Over the past 20 years, an era of intensive agricultural industrialization, U.S. retail food prices have risen faster than overall inflation rates, and animal products are no exception.<sup>14</sup>

In fact, there are viable alternatives to CAFOs and other industrial production systems. A comprehensive review in the journal *Nature* compared studies of *organic* and conventional crop yields in “developed” countries concluding: “Under certain conditions—that is, with good management practices, particular crop types and growing conditions—organic systems can ... nearly match conventional yields.”<sup>15</sup> In fact, these studies underestimate the potential for sustainable farming systems because they were carried out by researchers on research farms rather than on actual farms of experienced sustainable farmers. Furthermore, sustainability, not yields, is the major challenge of farming the U.S. and the rest of the so-called developed world.<sup>16</sup> More than 30% of U.S farm income today comes from “exports” rather than domestic consumption and Americans waste nearly half of all food produced. In addition, the rest of the world doesn't need our agricultural exports or our industrial agriculture.

Small, diversified farms already provide food for least 70% of the global population and could double or triple yields without resorting to industrial production methods.<sup>17</sup> Numerous global food studies sponsored by the United Nations have exposed the myths of industrial agriculture. For the example, much of the increased food production attributed to the *Green Revolution* was exported rather than used to alleviate domestic hunger. Recent global studies call for the development of sustainable farming systems, such as agroecology.<sup>18, 19</sup> The world doesn't need industrial agriculture, and Bayfield County, Wisconsin doesn't need to allow a CAFOs to destroy their pristine environment and caring communities in order to help “feed the world.”

The fallacies in the public relations campaign are not limited to the four focus areas mentioned thus far. For example, CAFOs are promoted as a strategy for rural economic development. Hoping that local residents will give the prospects for a few jobs priority over risks to public health and the natural environment, CAFO operators typically attempt to locate in economically depressed areas. Local leaders may even offer preferential tax assessments and tax credits. In fact, decades of real-world experience have confirmed that CAFOs inevitably employ fewer people than the number of independent family farmers they displace. Between 1980 and 2008, as CAFOs replaced independent farmers, USDA

statistics indicate the number of beef cattle operations fell by 41%, hog farms declined by 90%, and dairy farms fell by 80%.

Admittedly, the communities where CAFOs locate may experience minor increases in *local* employment. However, low wages and poor working conditions typically result in CAFO workforces composed largely of *immigrant* workers desperate for employment. A University of Wisconsin study found the percentage of immigrant workers on Wisconsin dairy farms increased from 5% to 40% between 1998 and 2008, years of rapid growth in dairy CAFOs.<sup>20</sup> Workers who migrate into CAFO communities add cultural diversity but add a far larger burden on local public services than their meager wages yield in local tax revenues – particularly for public schools, police protection, and public health care. Even without tax subsidies, higher costs for road maintenance due to heavy truck traffic, increased water treatment costs, and other public infrastructure expenses more than offset any increase in local tax revenues.

A 2006 study commissioned by the State of North Dakota Attorney General's Office reviewed 56 socioeconomic studies documenting the economic impacts of factory farming on rural communities. The studies consistently “found detrimental effects of industrialized farming on many indicators of community quality of life, particularly those involving the social fabric of communities.”<sup>21</sup> The only kinds of economic development attracted to “CAFO communities” are other environmentally polluting and socially degrading industries. This is not sustainable economic *development*; it is industrial economic *exploitation*.

The top four does not exhaust the list of fallacies are used by advocates of CAFOs to defend their failed system of animal production. Perhaps one of the most important is that evidence linking CAFOs to antibiotic resistant bacteria, such as MRSA, is “inconclusive. In fact, animal scientists have known since at least the 1970s that routine feeding of antibiotics to livestock and poultry in CAFOs is a common source to antibiotic resistant bacteria. An estimated 80% of all antibiotics in the U.S. are used for livestock and poultry and 70% is routinely fed at sub-therapeutic levels. A comprehensive 2004 U.S. General Accounting Office review of the scientific literature on antibiotic resistance clearly linking antibiotic resistance to livestock feeding reported: “many studies have found that the use of antibiotics in animals poses significant risks for human health, but a small number of studies contend that the health risks of the transference are minimal.”<sup>22</sup>

By 2013, a U.S. Center for Disease Control and Prevention report indicated that any doubt about the potential for transference of antibiotic resistant bacteria from animals to humans has been resolved: “Scientists around the world have provided strong evidence that antibiotic use in food-producing animals can harm public health... Use of antibiotics in food-producing animals allows antibiotic-resistant bacteria to thrive while susceptible bacteria are suppressed or die. Resistant bacteria can be transmitted from food-producing animals to humans through the food supply.”<sup>23</sup> Antibiotic resistant bacteria is a major public health risk and clearly linked to CAFOs

I haven't even mentioned noxious odors, which are the first and probably most frequent concern by neighbors of CAFOs. A growing body of scientific evidence confirms that their

concerns are well-founded. Proponents claim that while odors from CAFOs may be an occasional nuisance, they are no different from other agricultural operations which, by their nature, emit dust particles and odors into the air. In fact, the anaerobic process by which animal manure decomposes in the large manure pits and cesspools associated with CAFOs are quite different from aerobic decomposition of manure in open fields. Chemical compounds associated with noxious odors from CAFOs include ammonia, nitrous oxide, and hydrogen sulfide.

The evidence linking noxious odors to health problems for people who work in CAFOs are too strong to be denied. Numerous scientific studies by reputable health institutions have also linked air pollution from CAFOs to a variety of respiratory ailments in people living near CAFOs. CAFOs have been shown to be particularly detrimental to the health of children in nearby schools. New technologies to control odors, promised for decades, but no effective controls have been deemed “economically feasible.” The Sierra Club, Iowa Citizens for Community Improvement, and Humane Society of the U.S. have recently sued the EPA for failure to enforce the Clean Air Act by regulating air emissions from CAFOs.<sup>24</sup> Hopefully, this case will bring the compelling evidence that odors from CAFOs represent public health risks to widespread public attention.

When confronted with scientific information linking public health risks to CAFOs, the defenders of CAFOs often rely on their allies in the large agricultural universities to say that the scientific evidence is still “inconclusive.” I call this the “tobacco defense.” The preponderance of scientific evidence against CAFOs, which already exists, eventually will become so large that it cannot be denied by the political system – as it did in the case of tobacco. It took several decades to change tobacco policy, even after the evidence against the tobacco industry was clear. As the public becomes better informed, CAFOs will be regulated like other polluting industries. Until then, we need to be prepared to defend ourselves.

So, why don't we have effective regulations of CAFOs? The primary cause is that CAFOs are classified as “agriculture” rather than “industry.” This is the reason the corporate propaganda campaign is trying so hard to convince people that CAFOs are no different from traditional family farms by showing the “faces of farmers and ranchers.” This is a fallacy. In virtually every important respect, CAFOs are very different from traditional family farms. Farming traditionally has been a way of life, not just a business that makes money to support a family.

On traditional family farms, the family and farm are inseparable, and both are inseparable from their community. What is good for the community is good for the farm. Traditionally, farmers manage a diversity of farm enterprises, including crops and livestock, to mimic the mutually beneficial relationships among the diverse elements of healthy living ecosystems. Wastes from some enterprises become productive inputs for others, and products from some become raw materials for other value-adding enterprises. Wastes not utilized by farm enterprises are of magnitudes and concentrations easily assimilated in sustaining the biological health of natural ecosystems. Traditional farmers respect the bounds as well as the bounty of nature.

As a result, traditional family farms need only minimal public oversight and regulation. Regulations are only needed to correct occasional lapses in responsibility or to restrain the few who stray from the traditional culture of agriculture. Current laws and regulations of farming, including regulations of CAFOs, are based on the nature of traditional family farms, not today's so-called modern farms. Current regulations obviously are not adequate for CAFOs, which are industrial operations, even if they are owned and operated by families. They need to be continually monitored and regulated, much as other industrial operations are monitored and regulated. Families that operate factory farms are not necessarily better or worse people than families on traditional farms. They are just managing an industrial operation, a factory, rather than a traditional farm, and they must be regulated accordingly.

Those who are obstructing effective regulations for CAFOs obviously have far more economic and political influence than those of us who are calling for either effective regulation or elimination of CAFOs. However, "we the people" have the ultimate power in a democracy. Even if we feel we have lost our democracy, we still have the power to reclaim it. People in both rural and urban communities ultimately must find the courage to stand up for their basic democratic and human rights of self-determination and self-defense, regardless of what their state laws or constitutions may allow. The "Declaration of Independence" states whenever we are faced with situations that reasonable people would find threatening to their "safety and happiness," we have a basic human right to defend ourselves, even against the unjust rule of government.

This struggle is not ultimately a matter of dueling scientists or even public relations campaigns. It is a matter of ethics or, more accurate, of morality. Adam Smith, before writing his classical *Wealth of Nations*, wrote a book called *A Theory of Moral Sentiments*. The purpose of the book was to present his case for an objective, reasonable system of morality, a logical means of distinguishing right from wrong and good from bad. He proposed a four step process.

First, he wrote that when assessing the morality of a particular action, such as building a CAFO in a pristine natural environment, we should put ourselves in the place of the person who was proposing the action. We should try to put ourselves in the place of the person proposing this CAFO and ask if we would be willing to take that action, know what he obviously must know about the consequences of his actions on others. We should include consideration of those who live downwind and downstream and those of future generations who will depend on Chequamegon Bay and Lake Superior for drinking water and to connect with nature. Would we be willing to put those "others" at risk for the sake of personal economic gain?

Second, he wrote, we should put ourselves in the place of the other persons who will bear the consequences of the action. This should be easy for you who live in the area because you likely have been doing it for the past few months. Some in your community obviously are not all that concerned about the consequences of this CAFO, perhaps because they don't know who to believe, expect to benefit economically, or have some other

personal reason. Others of you obviously have thought about it and are willing to do everything you can to ensure that a CAFO is not built here. Adam Smith might ask, should those who are concerned defer to those who are unconcerned, or do people have a fundamental right to defend themselves, regardless of whether others are concerned – whenever they have good, logical reasons to feel threatened?

Third, Smith suggested that we should put ourselves in the position of an “impartial observer” – a person who is not personally affected by the situation one way or another. In this situation, I suggest an “impartial observer” would logically rely on the scientific research concerning negative impacts on the natural environment, the welfare of animals, public health and food safety, and the impacts of CAFOs on the economic and social quality of life in communities where CAFOs have located over the past 50 years. To an “impartial observer” the conclusion should be clear: CAFOs are not morally justified, no matter how economically efficient or profitable they may be.

Fourth, Smith suggested we should see if we can find any “socially redeeming” qualities to justify acts that are otherwise immoral – such as “just wars.” In the case of CAFOs, there are simply no apparent socially redeeming qualities. They have not produced any more meat, milk, or eggs than could have been produced by traditional independent farmers; they have just employed fewer people. They have not reduced the cost of food to American consumers. In fact, food prices have risen faster than inflation rates during the industrialization of agriculture. Sustainable farms could produce more than enough food, if access to food was shared equitably and we quit wasting half what is produced. The rest of the world does not want or need CAFOs or any other kind of industrial agriculture. They can and will choose to produce their own food rather than allow their environments, their communities, and their way of life be destroyed by industrial agriculture. CAFOs have no socially redeeming quality to offset their immorality.

Finally, the fact that something is legal does not mean that it is moral. Slavery was once legal, but slavery was never moral. Women were once treated as the legal property of their husbands, but it was never moral to do so. It was once legal to smoke in airplanes and other public places, but it was never moral to impose needless health risks on someone else. CAFO operators may have a legal right to locate in a pristine area such as Bayfield County, but that does not mean they have a moral right to do so. This is more than a battle for hearts and minds, this is a battle for the soul of America. You have basic human right to protect your own health and the health of our social and ecological community. I suggest that you who live here also have a *moral responsibility* to do so, and the rest of us have a *moral responsibility* to help you.

## End Notes

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