

Corporate Farms May Be the Death of Us All

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Abstract

This paper will explain how corporate farms also known as concentrated animal feeding operations (CAFO) are causing health risks to people, and how they affect the environment.

### Corporate Farms May Be the Death of Us All

We all read and heard in the news about an egg farm in Iowa that caused a salmonella outbreak. This story made headlines because of the millions of people across the nation that would potentially be affected by the poor conditions at this one mega farm. But what isn't seen every day is the stories about ordinary people who live near these "factory" farms where dairy cows, pigs, and chickens are raised. How their lives on a day to day basis are affected by the wastes these animals produce, the odors and the effects of poor waste management have on the ecosystems around them. Mega factory farms are literally making us sick.

These farms house thousands of animals or units at one location. Farming operations that have more than 1000 "animal units" are classified as a CAFO, which stands for Confined Animal Feeding Operation. One hundred beef cattle equal 100 units. To understand the numbers involved with other animals raised on CAFO's that equal 100 units, the breakdown is:

70 head of dairy cattle

250 pigs that weigh more than 55 pounds

12,500 broiler chickens or 8,200 egg layers (Kirby, 2010, p. 32).

So when a hog farm states that it's housing 1000 units per building, it has 2500 pigs per building. Many times these farms have five to ten buildings per site.

To get an understanding of the pig operations, many are called farrow to finish operations. This means that they house the breeding females with their piglets. The next stage of growth which is a starter pig weighs from 10 to 40 pounds; growers are from 40 to 100 lbs; and finisher pigs are 100 pounds to slaughter which is about 250 pounds (Amundson Romich, 2009, p. 414). When you take into account the number of pigs that equal one animal unit, the numbers go into the thousands at just one site.

These CAFO hog farms are all across the United States. In each area where they are located, they pose different threats to the health of people and the environment. Many areas didn't have regulations until the last 20 to 30 years. There were no on guidelines how close these farms could be to wetlands, streams, and rivers. If there were ordinances, they weren't enforced strictly because of the rural settings these farms were in.

The vast majority of these farms use manure lagoons to hold the waste from all of these animals. The waste is liquefied and held in these massive lagoons that are filled with millions of gallons of waste. Some are lined with a type of man-made rubberized liner, but many just used layers of clay, figuring that nothing could seep through. Unfortunately, these manure lagoons are not fool-proof. If the walls are not thick enough, they give way. Or if the farmers don't pump out the waste before it gets too close to the top of the brim, a heavy rainfall will cause the waste to overflow. Small amounts are not detrimental. But massive amounts spilling out and getting into the swamps and waterways can be disastrous.

In North Carolina, people were noticing that fish were dying off in record numbers in the Neuse River. There were billions of fish that died with open sores on their sides. It was determined that a microscopic organism *Pfiesteria*, a dinoflagellate was the cause (Kirby, 2010). This organism was the result of pig waste. Manure from the pig farm lagoons was getting into the streams that led into the Neuse. It was from leaks in the manure lagoons, but also from the practice of spraying the manure onto fields of Bermuda grass, hay, and possibly corn. The spray would get carried by the wind and blown away from where it was intended. So much waste was being applied to the fields that the soil couldn't absorb anymore, so it ran off into the waterways. Fish that managed to survive the outbreaks weren't considered safe to eat. People who made

their way of life from the fisheries on the Neuse no longer had a supply of fish to sell, so many of the fishermen had to give up their livelihood.

The worst effect of the farms in North Carolina was realized when the area was hit by a series of hurricanes. The manure lagoons were supposed to be able to withstand a “100 year storm,” but they failed spewing millions and millions of gallons of waste into the waterways. Many fisheries were devastated by the amount of waste and resulted in the killing of many fish..

People were also feeling the health effects of the pig waste in other ways. Many people who were living near the farms and along the polluted waterways were suffering from the same sores that the fish were developing. Other people were suffering from neurological problems, such as; passing out on their fishing boats and waking up far from where they had launched. Some people suffered from chronic conditions such as headaches, breathing problems, sinus and lung infections and the loss of their voices (Kirby, 2010). These conditions usually happened around the same time as the massive fish kills and were believed to be tied to the bacteria and parasites carried in the waste from the pig farms that was spewing into the water.

Everybody knows that if you drive past a large farming operation the odor emanating from the farm is enough to make your eyes water. But studies have found that children who live or attend schools near CAFOs run a higher risk of having asthma. The rotten egg smell caused by hydrogen sulfide gas is a very common pollutant from these operations. Just small amounts in the air can cause a higher rate of respiratory illness and can even act as a neurotoxin. Headaches, eye irritation, nausea, and immune-system malfunctions have also been associated with just the odors from these farms (Cox, 2008).

Waste from hogs contains high amounts of phosphorous and nitrates, copper and magnesium. Spraying the waste on fields seems like it would make good sense because it's free

fertilizer for the crops and crops need these nutrients to grow. But there is such a thing as too much of a good thing. The soil and plants can only use so much of these nutrients before it becomes over loaded. When too much is applied to the fields, it actually burns them out and they become barren. Nothing will grow because there isn't the correct balance required to sustain the plants.

The other problem with these nutrients is that they end up leaching through the soil and into the ground water. Private wells near hog facilities were showing high levels of nitrates. Nitrates in drinking water are serious, deadly problem. Levels of more than ten parts per million can cause a disease in babies called methemoglobinemia, also known as blue baby syndrome. This can kill babies because it blocks the blood cells from being able to absorb oxygen. Some wells tested had levels at over one hundred parts per million in areas where there were hog growing facilities. That's ten times over the acceptable limit (Kirby, 2010, p. 143). Problems like this will take a very long time to clear up, possibly never if the source of the contamination isn't eliminated.

Factory farms don't just affect our health and well being by causing pollutants in the environment, but they use practices to increase the speed of growth and supposed health of the animals. One means of increasing the growth and production is to supplement the animal's feed with antibiotics.

The animals aren't given the antibiotics because they're sick, but because of the conditions that they are raised in, to prevent illnesses. It is also believed that the antibiotics increase the growth rate for hogs and chickens, thereby increasing profits. The antibiotics are actually in the food that the animals eat daily. Fifty to seventy percent of all antibiotics administered each year in the United States are not given to humans but to farm animals. But,

the body only absorbs a portion of that drug, the rest, one third to one fourth is excreted in the wastes from that animal which then contributes to soil and water pollution (Cox, 2008; Kimbrell, 2002).

Something that isn't always realized is that because these animals are constantly receiving antibiotics, they are in the animal's body tissues. When that animal is slaughtered there is a residue of that antibiotic present in the meat. Over time, people having ingested these antibiotics in the food their eating, causing antibiotic resistance in humans and the development of "super bugs" that don't respond to treatment. Infections that are resistant to antibiotics are the eleventh leading cause of death in the United States (Kimbrell, 2002). The presence of these antibiotics in the meat can even cause people who are allergic to these medications to suffer from allergic reactions after consuming them.

Some people think that they can get around the antibiotic residue issue because they're vegetarian. They will not eat meat, so they won't have a chance of having antibiotic residues in their food. Wrong! The waste from hog farms is spread on fields where food crops are grown. Tests showed that corn, lettuce, and potatoes harvested from these fields contained an antibiotic, sulfamethazine, which is a common antibiotic used on hog farms. When the concentrations of the drugs in the manure increased, so did the levels in the food. Tuber, or root crops ran the greatest chance of being contaminated (Kirby, 2010).

Even organic food could contain contaminants if the farmers don't follow the strict guidelines for manure management. Composting the manure will create heat which can destroy the drug compounds but not all. Most of the nutrients organic farmers get for their crops come from farm animal manure. In order to be considered organic, they can't introduce anything "that

doesn't contribute to contamination of crops by residues of prohibited substances" (Kirby, 2010, p. 357).

Slowly, change is happening. Meat producers are realizing that people don't want "tainted" food. One of the leading chicken producing companies, Tyson Foods, launched a huge campaign that they weren't going to use antibiotics in their chickens that they sold fresh. They were stating that their chicken was "100% all natural, raised without antibiotics" (Kirby, 2010). It was a step in the right direction and consumers took notice.

Other changes are being forced by small, grassroots organizations. They are fighting for regulations and restrictions on the CAFOs that are in their backyards. They are tired of the fumes, the sticky, brown coatings on their cars and houses from the spraying of the manure on the fields surrounding their homes and the health effects the farms have on their families, not to mention the risks of consuming the meats and milk products produced from these farms.

Unfortunately, we the consumers drive these mega farms. We like going to the store and the meat is all uniformly sized and packaged. We like the prices to be reasonable and affordable. We don't want to pay \$5 for a gallon of milk; we want the price to be under \$3. Supply and demand, we demand a constant, reliable supply of product and the farmers have to keep cranking out the animals.

As little as thirty or forty years ago, people knew where their food came from. They either grew it themselves, or knew the farmer personally that provided the local meat market with their animals. Now major corporations with offices in New York or California own the farms and they hire people to manage them. These people aren't true farmers; they're a corporation with managers and subordinates. We need to somehow get that small farmer mentality back, so there is accountability for what the farms are producing. People need to be

aware that bigger isn't better. Bigger is just a dagger in Mother Nature's side. They're poisoning our water, land, and us as well. We need to see the ugly side of farming for there to be change made. Hopefully, it'll happen in my lifetime, if it hasn't been shortened too much from simply going grocery shopping.

## References

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