



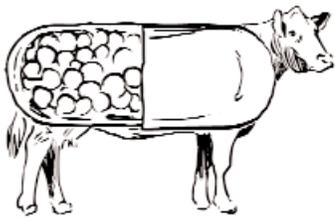
# Factory Farm Alert

A NEWSLETTER ON INDUSTRIALIZED MEAT PRODUCTION

Issue 2

Factory farms cause serious public health problems, most notably antibiotic resistance and respiratory disease for workers and neighbors. As more scientific research is completed, the list of problems linked to factory farms is likely to grow.

## PUBLIC HEALTH Issue



### Antibiotic Resistance

Antibiotics have been added to animal feed since 1946<sup>1</sup>, but the shift to factory farming relies on the use of drugs in order for animals to survive the squalid conditions of confinement. Antibiotics are fed to livestock not only to prevent disease, but also to promote faster growth. **More than 70 percent of antibiotics used in the U.S. are fed to livestock.**<sup>2</sup> Healthy animals are given such common antibiotics as Penicillin and Erythromycin. According to the American Public Health Association (APHA), the overuse of these drugs threatens their effectiveness because the widespread low dose use of the drugs leads to the development of “superbugs” which are resistant to antibiotics.

In fact, antibiotic resistant bacteria in meat from factory farms are quite common. These antibiotic resistant bacteria can also be spread through the air or via animal wastes that contaminate water sources. The U.S. Centers for Disease Control (CDC) says that antibiotic resistance is one of its top concerns. The American Medical Association and APHA both oppose antibiotic use in

healthy food animals, as they are so concerned about industrial agriculture’s contribution to antibiotic resistance.

### Case Study: Antibiotic Resistance in Urinary Tract Infections (UTIs)

Antibiotic resistant UTIs may be caused by excessive use of antibiotics in food animals, according to several studies. An October 2001 study in the *New England Journal of Medicine*, detailed nearly identical multi-drug resistant urinary tract infections in women in Minnesota, Michigan, and California. The geographic diversity of these infections suggested that a contaminated product, like a food source, was the culprit. The authors note “If a large proportion of urinary tract infections caused by drug-resistant strains of *E. coli* in a community were due to the ingestion of widely consumed, contaminated foods, this would constitute a serious and novel public health problem.”<sup>3</sup>

In January 2005, a study in *Clinical Infectious Diseases* strengthened the link between antibiotic resistant urinary tract infections and animals. The U.C. Berkeley researchers who conducted the study linked an outbreak of multi-drug resistant urinary tract infections in California women to very similar *E.coli* bacteria from animals. This potentially direct connection between antibiotic use in animals and resistant bacteria in humans is new evidence of the danger of antibiotic resistant bacteria from animal production.

### Air emissions

Air emissions from factory farms, particularly ammonia and hydrogen sulfide, are a serious health concern. These deadly chemicals, along with the hundreds of other chemicals released from factory farms, can cause brain damage, comas, and death. It is not uncommon for farm workers to be overcome by fumes from

manure pits and die. In May 2005, a farmer in Iowa died from the toxic fumes in a manure pit, as did a farmhand who tried to rescue him. Even a firefighter who responded to the call almost didn’t make it out to safety. These fumes also cause about one quarter of swine factory farm workers to have bronchitis, asthma and other respiratory problems.<sup>4</sup> However, it’s not just farmers and farm workers who suffer from these mega-farms’ air emissions. Neighbors of these facilities report severe headaches, bronchitis, and even brain damage.

### Water Contamination

One of the major reasons factory farms create so many health problems is that the number of animals they hold creates enormous amounts of waste. For instance, one facility may hold thousands of pigs, who produce more manure per animal than a human does. Often, this manure is stored in large cesspools, misnamed “lagoons,” and not treated. In short, some factory farms are the equivalent of a giant city that has no sewage treatment system! Of course, the manure lagoons can and do leak and overflow. This animal waste then gets into ground and surface water sources, which can lead to contaminated drinking water, ruined wells, and giant fish kills. The manure can taint the drinking water with bacteria like *E.Coli* and *Salmonella*, which cause human illness and death.

On August 12th, a manure “lagoon” burst at a very large dairy in New York. Three million gallons of manure spilled into the Black River, killing hundreds of



Hog Factory Farm in MO

thousands of fish, and requiring nearby cities to shut down their water intake. The damage to the water supply is so severe, one of their Senators wants the area declared a federal emergency.

### Food Safety (*E.coli* and *Salmonella*)

Factory farms, and the slaughterhouses that process the animals, create food safety risks in meat.

**Production:** The USDA estimates that 70% of all food-borne illness can be traced to contaminated meat; these illnesses are easily spread through crowded factory farm conditions, where animals are often left in their own filth and never leave their cages. The first known illness from deadly *E.coli* O157:H7 occurred in 1982, with numerous high-profile incidents to follow, including three deaths from Jack-in-the-Box hamburgers in 1992. This emergence of *E. coli* as a serious health risk from meat consumption occurred in the context of deregulation and increasingly industrialized animal production. Additionally, cattle that are fed grain (as they are on giant feedlots), have significantly higher levels of *E.coli* bacteria in their gut than grass-fed beef, and the *E.coli* in grain-fed beef is more likely to survive in our stomachs.<sup>5</sup>

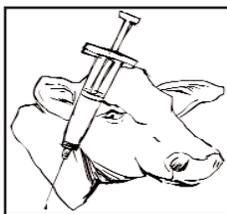
Mad cow disease is one particularly scary disease that is linked to certain feeding practices. Mad cow disease, known as BSE, is believed to be transmitted to cattle by feeding them nervous system tissue (generally the brain or spinal cord) from infected cattle. While some risky feeding practices have been banned, a number of loopholes in federal rules still exist that can spread mad cow disease, and ultimately cause vCJD, the human form of the deadly brain-wasting disease.

**Processing:** Mechanization of slaughterhouses and meat processing has led to dramatically increased line speeds; in the 1980s the industry successfully lobbied for the doubling of slaughter line speeds. Because guts of individual animals are shaped differently, a mechanized process can tear the intestines, and spread fecal contamination. Since the same machine is often used on dozens of animals per hour, one infected animal can contaminate hundreds of others. Fast line speeds

also make it more difficult for inspectors to adequately check the carcasses for contamination. Even though these conditions make it more vital than ever that government meat inspection offer strong oversight of the process, the meat industry has successfully pressured the USDA to weaken meat inspection rules, creating a system so de-regulated it is often described as an industry honor system.

### rBGH

Recombinant bovine growth hormone, known as rBGH and manufactured by the Monsanto Corporation, is a genetically engineered hormone injected into cows to increase their milk production.<sup>6</sup> In the U.S., about 17% of dairy farmers use rBGH in their herds. In all, rBGH is used on approximately 32% of dairy cows, or 3 million cows, in the U.S.<sup>7</sup>



In 1993, the Food and Drug Administration approved rBGH for use in cows, even though many scientists were concerned about the approval process, especially the inadequacy of scientific research on health risks. Eleven years after the drug was approved in the U.S., significant concerns about the health impacts of rBGH on cows and humans remain. All 25 European Union nations, as well as Japan, Canada, and Australia have banned rBGH.

rBGH increases the level of insulin-like growth factor-1 (IGF-1) in cows. In high amounts, IGF-1 has been linked to numerous cancers; scientific studies also suggest that IGF-1 in milk survives digestion. The Oregon Physicians for Social Responsibility state that this IGF-1 could potentially trigger increased cancer rates. Health Canada found that important studies needed to determine the body's absorption of rBGH or IGF-1 were neither conducted nor requested by the FDA. Health Canada and other agencies concluded that not enough information was known about rBGH to determine if it was safe for consumers.

Another problem with rBGH is that it increases mastitis, a painful udder condi-

tion, in cows. This condition is treated with antibiotics, which can lead to more antibiotic resistant bacteria.<sup>7</sup>

### What You Can Do:

1. Buy sustainably-raised meat. In particular, look for meat raised without antibiotics and dairy products produced without rBGH. Go to the Eat Well Guide, [www.eatwellguide.org](http://www.eatwellguide.org), for more info.
2. Write to your favorite dairy company asking them not to use rBGH in their dairy products. You can find their contact information on the web. Write them a letter saying you don't want rBGH in your milk because of potential health risks to humans and cows from rBGH.

### Silver Linings

In July, for the first time ever, the Food and Drug Administration decided to ban an antibiotic for use in agriculture because of antibiotic resistance to humans. The FDA banned Cipro-like antibiotics in poultry, which had created difficulties in treating *Campylobacter*, one of the most common causes of severe bacterial food poisoning.

And a large food services company, Compass Group North America, announced it will only buy pork and chicken from suppliers that don't use growth-promoting antibiotics that are also used to treat humans. Suppliers must also "report and reduce antibiotic usage over time."

### Citations:

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- 2 Mellon M, Benbrook C, Benbrook KL. "Hogging It!" Estimates of Antimicrobial Abuse in Livestock. Union of Concerned Scientists: Cambridge, MA, January, 2001. Available at <http://www.ucsusa.org/publications>.
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- 6 Cruzan, Susan M. FDA Press Release on rBST approval. Food and Drug Administration. November 5, 1993. <http://www.fda.gov/bbs/topics/NEWS/NEW00443.html>
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- 8 Physicians for Social Responsibility, Oregon Chapter. "rBGH Fact Sheet Oregon Campaign Fact Sheet" Accessed June 14, 2005. [http://www.orgnpsr.org/cst/rbgh\\_fact\\_sheet.doc](http://www.orgnpsr.org/cst/rbgh_fact_sheet.doc)