SUPERBUGS IN AMERICA’S PIG FARMS

A DXE INVESTIGATION AT HORMEL SHOWS THE EPIDEMIC BREWING IN OUR FOOD
An investigatory team with Direct Action Everywhere (DxE) spent 8 months documenting severe over-crowding, filthy conditions, and the growth of deadly antibiotic-resistant pathogens at Farmer John, one of California’s largest pig farms. The farm, a subsidiary of Hormel Foods which supplies major retailers such as Costco and Walmart, raises 150,000 pigs annually in industrial pens. While marketing many of its products as “California Natural,” documents found at the farm indicate that Hormel has been mass dosing pigs with antibiotics, including one drug that the Food and Drug Administration (FDA) wants to ban in pig farming due to carcinogenic risk. Recent studies have found that irresponsible use of such antibiotics is creating antibiotic-resistant “superbugs” that threaten the lives of both humans and animals.

Footage shot by DxE shows thousands of languishing animals, including piglets too weak to stand and countless animals with grotesque, tennis ball-sized abscesses. Documents from in the facility show pigs suffering from infections at twice the rate allowed by Hormel’s own standards. Moreover, multiple samples taken from the farm tested positive for Campylobacter (one of the most common food-borne illnesses) and an antibiotic-resistant form of Staphylococcus aureus (which kills thousands of Americans every year). These findings – the first time that a specific farm has been identified where antibiotic-resistant Staphylococcus aureus has been found – are illustrative of the threat posed by an industry that has been described by The Economist as a “danger to the world.”

The advent of superbugs puts everyone at risk, particularly the elderly, the immune-compromised and young children. With over 80 percent of all antibiotics now being fed to livestock, animal farming is becoming a laboratory for superbugs. The cruel, filthy conditions in pig farms are breeding grounds for disease, as pigs are packed so tightly that infection spreads like wildfire. Mass antibiotics are being used as a preventive measure and growth stimulant throughout the industry. Such non-therapeutic use of antibiotics, however, is a recipe for increased resistance, as bacteria that survive the waves of antibiotics become immune to their curative effects.

A number of recent discoveries, including a form of E. coli immune to all known antibiotics at a pig farm...
in China and a study by researchers from Johns Hopkins showing \textit{staph infections tripling} in areas surrounding major US pig farms, demonstrate that the threat of a superbug from pig farms is already coming into fruition. While the USDA has known of this threat for years, it has failed to take any action. Intensive confinement, filthy conditions, and unrestricted antibiotics remain standard practice in the industry.

DxE investigators saw firsthand the toll this takes on the lives of animals. Wading through hundreds of miserable, crowded pens, DxE witnessed gruesome scenes such as lame animals being trampled to death and piles of dead piglets. In one instance, DxE investigators saw a still-living piglet so sick she was unable to escape being eaten alive. The investigators felt morally compelled to remove the piglet and rush her to receive veterinary care, where she was diagnosed with pneumonia and septic arthritis. Today, the baby pig (who the rescuers named “Miley” after the famous pop singer and animal advocate) lives safely at an animal sanctuary. She remains a living reminder of the devastating toll of animal agriculture. If she had been slaughtered, her diseased flesh would have been consumed by members of the public, including children.

This disturbing scenario should serve as a clarion call for action. Animal agriculture violates Americans’ values and threatens our families, yet the industry is not just unregulated but receives billions in government subsidies. As more investigations show the truth behind our food, and Americans become increasingly aware of the dangers posed by the industry, animal advocates and food safety activists must join forces to ensure these subsidies end. In turn, independent government agencies, with a mission to protect animals rather than promote industry, must be empowered to help us create a truly safe and humane food system – one where, a few decades from now, we may not be using animals at all.
BACTERIA FOUND IN PIG FARMS

CAMPYLOBACTER – A gastrointestinal infection characterized by inflammatory, sometimes bloody diarrhea or dysentery syndrome including cramps, fever, and pain. It can be fatal.

Treatment: Antibiotics, although some strains of Campylobacter have become antibiotic resistant.

E. COLI (ESCHERICHIA COLI) – Diarrhea, which may range from mild and watery to severe and bloody. Abdominal cramping, pain or tenderness, nausea and vomiting. Some people — particularly young children and older adults — may develop a life-threatening form of kidney failure called hemolytic uremic syndrome.

Treatment: Can include blood transfusion, intravenous water and dialysis.

SALMONELLA – Abdominal pains, diarrhea, fever, and sometimes vomiting. In some persons the diarrhea may be so severe that the patient needs to be hospitalized. In these patients, the Salmonella infection may spread from the intestines to the blood stream, and then to other body sites and can cause death unless the person is treated promptly with antibiotics.

Treatment: In recent years, particular strains of Salmonella have become resistant to traditional antibiotics in both animals and humans.

STAPHYLOCOCCUS AUREUS – Staph skin infections generally start as swollen, painful red bumps that might resemble pimples or spider bites. These can quickly turn into deep, painful abscesses that require surgical draining. The infection can also burrow deep into the body, causing potentially life-threatening infections in bones, joints, surgical wounds, the bloodstream, heart valves and lungs. It can be fatal.

Treatment: Many forms of Staph have become resistant to all types of penicillin and other antibiotics, making infections difficult, if not impossible, to treat. Typically, for a severe infection, doctors will prescribe intravenous antibiotics.
While the US Centers for Disease Control (CDC) sounds the alarm about the risk of a worldwide antibiotic-resistant epidemic, companies such as the food giant Hormel Foods continue to irresponsibly use antibiotics in animal farming. The animals raised by Hormel are forced to endure such horrifying conditions that regular doses of antibiotics are used to try and mitigate the effects of that environment. They are also used to make the pigs grow bigger and faster.

A recent investigation into a huge Hormel-owned Farmer John pig farm in Kings County, CA by the international animal rights network Direct Action Everywhere (DxE) found filthy inhumane conditions for the animals. Investigators also found documents that indicated that the pigs were being administered, through their water and food, at least five different antibiotic drugs – a number that would be reserved for only the sickest human beings. The CDC, the Food and Drug Administration (FDA), the United States Department of Agriculture (USDA), the World Health Organization (WHO), the American Medical Association and countless other consumer and health groups have warned of the dangers of these practices.

In September 2015, a Hormel shareholder, Trinity Health, a not-for-profit Catholic healthcare company, attempted to limit antibiotic use by Hormel, asking that the board adopt a policy for “the company's own hog and turkey production and ... its contract suppliers of hogs and turkeys, to phase out the routine use of antibiotics in classes of drugs used in human medicine.” The company apparently took no action in response.

The Hormel facility supplies consumers with Farmer John brand pork products, which are sold at Walmart, Target, Sam’s Club, Bel Air, Food Maxx, Vons, Ralphs, Lucky, Safeway and other retailers. One Farmer John line of products is called “California Natural” and the company also produces the Los Angeles Dodgers’ famous Dodger Dogs.

Hormel was the first company to discover that animals would grow bigger and faster by giving them antibiotics. They pioneered the practice in the 1950s and other pork producers quickly followed suit, with no opposition from the public or the
government.

Few seemed to take seriously the 1945 warning from the inventor of penicillin, Alexander Fleming, that because bacteria mutates, these antibiotics must be used guardedly lest they quickly become ineffective.

After decades of irresponsible use, with fully 80 percent of antibiotics in the United States going to animals to promote growth and prevent disease, doctors and other health professionals are seeing the emergence of potentially deadly antibiotic-resistant infections like Methicillin-resistant *Staphylococcus aureus* (MRSA) and *Clostridium difficile* (*C. diff*) in humans. The CDC estimates that more than 2 million people in the United States fall ill due to antibiotic-resistant bacteria and 23,000 die from these infections every year. The CDC has added, “Simply using antibiotics creates resistance. These drugs should only be used to fight infections.”

Dr. Margaret Chan, the Director-General of the WHO, warned in 2008, “…in the absence of urgent corrective action, the world is headed toward a post-antibiotic era in which many common infections will no longer have a cure and, once again, kill unabated.”

In 2013, the USDA finally requested that animal food producers voluntarily limit antibiotic use to only sick animals, but the industry continues to ignore that request, regularly dosing animals with drugs used to treat diseases in humans. A year after the USDA’s request for voluntary compliance, sales of antibiotics given to livestock had increased 4 percent. From 2009 to 2014 sales of those antibiotics increased 23 percent.

Internal documents obtained by DxE show that the pigs at the Farmer John farm receive these specific antibiotics in their water: NeoMed 325 (neomycin), Gen-Gard (gentamicin), Pennchlor 64 (tetracycline), Penicillin G Potassium, and carbadox in their feed. And all of the above drugs, with the exception of Gen-Gard, in addition to killing various types of bacteria including *E. coli*, are growth promoters.

Carbadox has been found to be carcinogenic, even at trace levels. In early April 2016 the FDA began the process of banning the drug. The Codex Alimentarius Commission (a United Nations/WHO agency), in July 2014, determined there is no safe level of residues of carbadox or its metabolites in food that represents an acceptable risk to consumers.

“When you give low-dose antibiotics for growth promotion or for prophylaxis of infection, you end
## A History of Antibiotic Resistance

**1941**
Hormel Foods sets up lab to find ways of “improving hog production.” Discovers the “growth effect” and “feed efficiency” of antibiotics.

**1945**
The discoverer of penicillin, Alexander Fleming, warns of the danger of antibiotic resistance particularly if the drugs are used without adequate supervision.

**1970**
FDA recognizes the link between the use of antibiotics to promote growth (AGPs) and the emergence of antibiotic-resistant bacteria.

**1999**
The Center for Science in the Public Interest and other scientific groups petition the FDA to ban AGPs.

**2006**
EU bans use of all AGPs.

**2008**
University of Iowa study finds antibiotic-resistant Staph in 70 percent of pigs surveyed on 10 farms and on 45 percent of the workers.

**2012**
Consumer Reports investigation of pork samples from major grocery stores finds 69 percent contaminated with bacteria.

**2013**
CDC reports that antibiotic-resistant infections sicken at least 2 million people a year and more than 23,000 die as a result.

**2013**
FDA asks drug companies to stop selling AGPs.

**2015**
Scientists in China discover *E. coli* in pig farms that is resistant to “last resort” antibiotics.

**2015**
American Academy of Pediatrics issues report condemning antibiotic usage in livestock as a threat to America’s children.
up killing off the susceptible bacteria, whether they’re E. coli, Salmonella, Campylobacter, or other bacteria,” Robert S. Lawrence, M.D., told Consumer Reports in 2013. “And you continue to select for those bacteria that, through spontaneous mutations or transfer of genes from other resistant bacteria, allow them to be resistant to antibiotics.” Lawrence, a noted researcher in the field of livestock industry-caused antibiotic resistance, is the director of the Center for a Livable Future at the Johns Hopkins Bloomberg School of Public Health.

**SPREADING ANTIBIOTIC-RESISTANT BACTERIA**

Antibiotic-resistant bacteria can be transmitted to humans via contamination of food products, the environment, or even dust in the air, particularly in areas close to animal farms. A 2013 study by researchers from Johns Hopkins Bloomberg School of Public Health and Geisinger’s Henry Hood Center for Health Research found staph infections in humans tripling in areas surrounding major US pig farms.

Antibiotic-resistant bacteria can also be brought home by animal food industry workers. A 2008

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**Children under 5 are at heightened risk for foodborne illness.**

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**DRUGS IN REGULAR USE**

The following antibiotics are added to the food or water for thousands of pigs at Hormel Foods’ Farmer John facility near Corcoran, CA according to documents found at the farm by DxE. Mass use of these drugs in animal farms is breeding resistant bacteria that will undermine their value in healthcare settings.

**NEOMYCIN (NEOMED 325)**

An antibiotic that is commonly used to treat cuts and wounds, e.g. in the famous topical agent Neosporin. Neomycin is also used to fight digestive ailments.

**GENTAMICIN (GENGARD)**

Commonly prescribed to treat meningitis (infection of the membranes that surround the brain and spinal cord) and to treat infections of the blood, abdomen, lungs, skin, bones, joints, and urinary tract.

**TETRACYCLINE (PENNCHLOR 64)**

A drug historically associated with a massive reduction in worldwide cholera deaths, it is now used in treating pneumonia and severe acne.

**PENICILLIN (PENICILLIN G POTASSIUM)**

Perhaps the most famous and important antibiotic in history, penicillin is still prescribed to treat chlamydia (especially in pregnant women) and Lyme disease.

**CARBADOX**

A powerful drug that has nonetheless been banned in Canada, Europe, and Australia due to the risk of cancer and birth defects. While the FDA took action on April 8, beginning the process of withdrawing approval of its use in pig farms, carbadox has not yet been banned in the United States.
University of Iowa study found MRSA on 70 percent of pigs surveyed on 10 farms (which were not identified) and on 45 percent of the workers.

A Consumer Reports 2013 investigation found that 69 percent of the pork chops and ground pork that the organization sampled from brands including Hormel, Hormel Natural Choice and Farmer John tested positive for Yersinia enterocolitica, a bacterium that can cause fever, bloody diarrhea, abdominal pain, arthritis and death. Additionally, Salmonella, Staphylococcus aureus or Listeria monocytogenes were found in 3 to 7 percent of the samples, and the Yersinia enterocolitica was found in 11 percent. Some of the bacteria were found to be resistant to multiple drugs or classes of drugs.

Children are particularly at risk as new strains of superbugs develop. The American Academy of Pediatrics issued a report in late 2015 stating: “Infants and children are affected by transmission of susceptible and resistant food zoonotic pathogens through the food supply, direct contact with animals, and environmental pathways. In 2013 [in one section of the country], a total of 19,056 infections, 4,200 hospitalizations, and 80 deaths were reported to the Foodborne Diseases Active Surveillance Network [of the CDC]... For most infections, incidence was highest among children younger than 5 years.”

The alarming truth is children, particularly, may be unable to recover from infections if antibiotic-resistant strains of bacteria become the norm.

Another group which is at high risk for developing antibiotic-resistant infections are animal agricultural workers. A study published in 2015 by the journal Clinical Infectious Disease found that Iowa pig farm workers were six times more likely than non-pig farmers to carry methicillin-resistant Staphylococcus aureus (MRSA). Not everyone who carries the bacteria will become sick themselves but their personal risk increases as well as the likelihood that they will give the disease to someone else who might be more susceptible.

Animal agricultural work is dirty, repetitive, low-paying and dangerous. The turnover rate at slaughterhouses and at industrial facilities raising animals for food is reported to be 100 percent. According to the Government Accounting Office (GAO), 38 percent of the animal agricultural workers are foreign-born. It is not known how many lack documentation. Some 42 percent are Hispanic and 20 percent are African-American.
Investigators found pigs with open abscesses on the Farmer John farm, 2016.

DEADLY BACTERIA FOUND AT A FARMER JOHN PIG FARM

On multiple visits during the past year to Hormel’s 420-acre PFFJ LLC (Farmer John) farm near Corcoran, CA, DxE investigators found thousands of sick and injured pigs crammed together in huge barns. Among them were the dead bodies of other pigs. Many pigs were covered with feces.

DxE investigators wearing sanitary coveralls and covers for their shoes entered the Farmer John facility to document the conditions and collect bacteria samples. This farm supplies about 150,000 pigs a year to Farmer John’s slaughterhouse/processing plant in Vernon, CA, just south of downtown Los Angeles.

The stench inside and outside the barns was so assaultive and overwhelming, according to DxE investigators, it permeated and remained for days on their hair and clothing despite multiple washings. Even video equipment and cameras retained the stink for days.

To walk into the Farmer John facility, investigators said, was a nightmarish experience. Cries and screams of the animals were almost deafening. But most shocking of all were the thousands and thousands of pigs packed shoulder to shoulder in filthy pens.

“It was very otherworldly being out there. It was very isolated and unnatural,” said DxE investigator Alexandra Paul, a longtime activist and noted TV and film star. “These live animals in this completely unnatural environment of concrete. It was like a dungeon that hadn’t been opened for years with these endless rows and rows and barns and barns. It just seemed to go on forever.”

During the multiple visits to the facility, the investigators saw relentless suffering: pigs with huge abscesses on their heads and necks and pigs with deep cuts and gashes from fighting. Investigators saw numerous dead bodies and pigs who were lame and/or languishing. A large number of the pigs were panting -- an indication of difficulty breathing and acute distress. Some of the

A VETERINARIAN’S ASSESSMENT

"From birth until being loaded into the slaughter truck, the footage provided of this farm shows pigs denied basic life necessities including bedding, sufficient space, and a substrate for rooting... Disease and injury are startlingly common at the facility. It is my professional opinion based upon viewing the video file provided that the animals at the facility are being subjected to systematic animal cruelty."

Sherstin Rosenberg, DVM, is a doctor of veterinary medicine who has testified at a 2008 Prop 2 hearing, and spent four years as a Board Member of Humane Society of Silicon Valley. Dr. Rosenberg did her undergraduate studies at Stanford University, followed by a veterinary degree from the University of California at Davis. She has extensive experience caring for farm animals and operates a rescue clinic with over 150 animals, including an intensive care unit.

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pigs were suffering from prolapse, a gruesome condition which is fatal if not treated, where the uterus, rectum or intestines fall out of the pig's body.

At the Farmer John facility, in early 2016, DxE investigators took multiple samples from the open abscesses of pigs. The samples tested positive for Campylobacter and Staphylococcus aureus, the latter of which was found to be antibiotic resistant. (The lab consulted by DxE was unable to perform antibiotic sensitivity tests on the Campylobacter.) These infections can be fatal to non-human animals and human animals alike.

The intelligence and sentience of pigs has been well documented by biologists, psychologists, animal behaviorists and pigs' caregivers. Pigs are believed to be one of the very smartest animals -- smarter than dogs and cats.

Pigs are highly social animals and have about 20 different vocalizations indicating everything from "I'm hungry" to "Let's mate." In sanctuary settings they like to snuggle up with each other and often sleep nose to nose. Newborn pigs learn to run to their mothers' voices and can recognize their own names by two weeks of age. Pigs have rescued humans from drowning and from burning buildings. One pig, Lulu, became famous for rescuing her human caretaker Jo Ann Altsman who was having a heart attack. Seeing that something was wrong, the pot-bellied pig ran into the street and lay down to gain attention in order to get help for Altsman.

Like puppies and kittens, piglets will play, chasing each other and roughhousing. Young pigs enjoy toys such as Kongs, rags, stuffed animals, balls and even puzzles. Pigs have been documented playing video games, and opening gates, drawers and refrigerators.

No pigs were documented playing in the Farmer John barns. In fact, the level of confinement and
lack of stimulation was so severe investigators noted that some of the pigs exhibited acute stress, repeatedly biting and attacking other pigs.

As miserable as it was for DxE investigators to experience the noxious air at Hormel’s Farmer John facility, it was likely more miserable for the pigs that were found confined there. Pigs’ sense of smell is exquisite, much more refined than humans’.

Contrary to popular belief, pigs hate being dirty. In natural settings pigs take pains to not soil their immediate area, walking some distance to find a place to relieve themselves. Yet in facilities like this one, there is no escape.

During DxE’s visit to the Hormel facility investigators saw pigs with dull, hopeless eyes, sometimes crying in pain, sometimes utterly passive. They saw the bodies of some of the “mature pigs” already lifeless as they awaited their certain deaths. (Wild pigs can live 20 years, but pigs raised for food, whether in an industrial setting or on a small farm, are typically slaughtered at between 3 and 6 months.)

PUBLIC CONCERN FOR ANIMALS

The public cares about how animals who are raised and killed for food are treated. A 2015 Gallup Poll showed the vast majority of Americans believe that animals deserve protection, with almost a third claiming animals warrant as much protection as humans. A recent survey by the Humane Research Council shows that 79 percent of Americans believe that animals must be protected from “all suffering and harm caused by humans.” Both results are significant increases from prior years.

WHAT MUST BE DONE

Thus far, laws regulating animal agriculture are minimal and typically not enforced. DxE’s investigations, which reveal the horrifying truth
behind the marketing, show that a truly effective framework for animal protection must (like Elizabeth Warren's Consumer Financial Protection Bureau) see things from a different perspective – an animal-centered perspective.

Laws, not requests for voluntary compliance, are needed to stop the irresponsible use of antibiotics at US farms and to protect animals from violence. Independent agencies not beholden to animal agriculture corporations must be created to ensure that laws and regulations to protect animals are enforced.

Indeed, President Obama has proposed to remove food safety from the purview of the USDA, which has as its primary responsibility to promote agriculture. The USDA is an agency widely seen to be controlled by industry interests.

New legal concepts, such as legal standing for animals, must be enacted to empower these new agencies to aggressively defend animals as not just commodities but individual victims of abuse.

Animal industry, of course, is pushing us in a dramatically different direction. Seven states have passed so-called "ag-gag" laws that criminalize the publication of investigations such as the ones undertaken by DxE. These laws are brazen attempts to suppress consumer awareness about an inherently violent system. Instead of condemning abuse, they criminalize exposure. Silencing activists, however, is not just unconstitutional but a breach of our nation's most basic ethical values.

Americans are concerned about food safety and do not want to have to eat antibiotics. Americans also care about animals and do not want them to suffer. But the only way for us to truly achieve a safe food system and a humane future for animals is to look unflinchingly at the truth behind the animal food system. And while what we see might very well disturb us, it may also generate the momentum needed to create a truly humane food system -- one where we don't use animals at all.

**AUTHOR:**

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