



WHY IS  
**Our Food**  
MAKING

**On the face of it**, it was nothing more than a garden-variety pepper dish that flattened Robin Shaffer.

“Around 3 a.m., I woke up with severe diarrhea and my whole body hurt really bad. I would be cold and the next thing I knew I was sweating,” recalls Shaffer, a lab technician from Mantorville, Minn. Her mother, who had traveled north with her to help Shaffer’s son move out of his dorm room, insisted she had food poisoning from a Mexican restaurant.

The next day, the six-hour drive home was filled with fever, chills, pain, and endless restroom stops. She finally saw a doctor who diagnosed her with salmonellosis.

“I was sick the rest of that week,” she says. After partially recovering, Shaffer got a call from the state health department. “They were asking me a zillion questions: what and where I had eaten two weeks prior.”

It turned out that other people had gotten sick at the same restaurant. “They were using raw eggs—touching and preparing food without washing their hands, and not cooking food thoroughly,” Shaffer says. The health department confirmed that the chile relleno in her combo platter was contaminated.

Shaffer had diarrhea for three weeks, “and it was another three or four weeks before my energy fully came back,” she says. “I missed one full week and one day of work.” She also lost 15 pounds, she says, 10 of them in the first four days.

As she fought to recover expenses for medical bills and lost work time, she learned more about the real source of her illness: Iowa egg-laying operations that cram thousands of hens into stacks of battery cages where each animal is forced to live in a space no larger than a sheet of paper.

Last year, more than half a billion eggs from Wright County Egg and Hillandale Farms were recalled in a *Salmonella* enteritidis outbreak that sickened hundreds, if not thousands, of victims like Shaffer. According to FDA reports, inspectors found chicken manure reaching 4 to 8 feet high, live mice and rodent burrows throughout the facilities, liquid manure leaking from waste pits, and swarms of maggots and flies.

**Factory farms are a living hell for animals, crammed by the thousands into anonymous warehouses. They're also a breeding ground for disease and pollution. As revealed by these stories from some of the human victims of industrialized agriculture, how we treat animals can have devastating implications for our own health.**

by DAVID KIRBY

US

Sick



tension  
confusion  
depression  
anxiety



## nasty smells can affect mental health

In factory farms across America, such squalor is all too commonplace. In fact, HSUS investigations have repeatedly revealed similarly appalling conditions at some of the largest producers in the U.S. In November 2010, an HSUS investigation of a Texas facility documented rotting hen corpses sharing cage space with live birds, and eggs covered in blood and feces. That same month, another quarter-million eggs were recalled. And as Rep. Edward Markey, D-Mass., noted during a congressional hearing following the Iowa outbreak, many egg producers with “strong corporate ties” to the two companies “have not yet been inspected by FDA.”

Each year, tens of thousands of Americans fall ill simply because of the way that industrial farms in this country treat livestock and poultry. The situation is so dire that health officials overseas have serious concerns about importing certain American animal products. Russia announced a ban on some U.S. pork products at the start of this year because of pathogens and antibiotics, and U.S. pig farmers exporting to Japan must wean their animals off certain drugs before slaughter. According to a USDA inspector general’s report, a truckload of beef was turned back at the Mexican border because it contained copper above Mexican government standards. The U.S. has no such standards, and the food was sold to American consumers.

Which begs the question: What do Russia, Japan, and Mexico know about our factory-farmed meat that we don’t?

### Festering Diseases

Many experts close to home are in fact worried about the safety of the U.S. food supply. “There’s no question that [confined animal feeding operations] are contributing to increased human disease in this country,” says Dr. Robert Lawrence, director of the Center for a Livable Future at Johns Hopkins University’s School of Public Health.

Overcrowding on factory farms can ignite the spread of fecal or respiratory pathogens, a main vehicle for animal-to-human diseases, says Dr. Michael Greger, director of public health and animal agriculture for The HSUS. Sunlight often destroys pathogens, but the dark and forbidding atmosphere of a factory farm can allow them to persist for months or years before sometimes making their way into the community—through workers, rodents, wild birds, farm animals in transit, or contaminated water and air. With stronger immune systems, the animals might be able to fight off infections, but the inability to engage in natural behaviors can lower their resistance through constant stress; egg-laying hens are too cramped to spread their wings, for example, and pregnant pigs are kept in such tight quarters they can’t turn around.

Topping off the pharmaceutical soup in their feed—growth hormones, heavy

metals, arsenic, and often a good measure of pesticides—are low-dose antibiotics to help keep the stressed-out animals alive and make them grow faster. But the bacteria that survive the small doses generate mutated offspring that are better able to resist antibiotics, including ones used to treat human illnesses.

Up to 75 percent of the drugs pass through the animals undigested, ending up in manure pits, sprayfields, and water supplies along with the drug-resistant pathogens they engender. One study showed that water samples taken near factory farms were almost three times more likely to harbor multidrug-resistant bacteria.

One of the most threatening of all such “superbugs” is MRSA (methicillin-resistant *Staphylococcus aureus*), or multidrug-resistant staph infection. MRSA has been found in pigs raised on antibiotic-enhanced feed and in factory farm workers, and contamination has been detected in 3 to 15 percent of raw pork samples purchased in North American supermarkets. (Less deadly but still resistant forms of staph are even more common. One study published in April detected drug-resistant staph bacteria in nearly half of supermarket meat samples; half of those samples, in turn, were resistant to multiple drugs.)

Eating undercooked pork could potentially transmit MRSA, though exposure is more likely to come from handling raw meat and touching one’s nose. Most

cases result in a skin infection, but not all: More Americans now die from the bacteria than from HIV/AIDS.

## Poison on a Plate

One of those Americans was John Strike, who celebrated Good Friday in 2009 by eating a medium-rare hamburger at his local VFW hall in the Cleveland suburbs. But that's not how he contracted MRSA; first he would become infected by *E. coli*, and the hamburger he ate would be implicated in a major *E. coli* recall.

As he recovered in the hospital, Strike's daughter waited weeks to arrange a visit with his granddaughter, until all was supposedly safe. "Abby's system was compromised—she was born with kidney issues and had recently had surgery," says Nicole Fenstermaker. "She wasn't 100 percent, so we waited until the doctors said it was OK."

Despite those precautions, Abby contracted an *E. coli* infection. "I keep replaying it in my mind," Fenstermaker says. "She was literally with him for five minutes. It must have been a hug or kiss goodbye, or she touched something in the room."

Later that week, Abby began feeling sick to her stomach. A few days later she was hospitalized, and she died soon after that. A CDC analysis concluded that the bacteria came from her grandfather.

Strike never really recovered—not from the *E. coli*, not from losing his treasured granddaughter, and not from the knowledge that he had infected her, however unwittingly.

Last year, he ended up back in the hospital with internal bleeding that might have been related to the *E. coli* (he also had emphysema and chronic obstructive pulmonary disease). After contracting MRSA, he died on May 1.

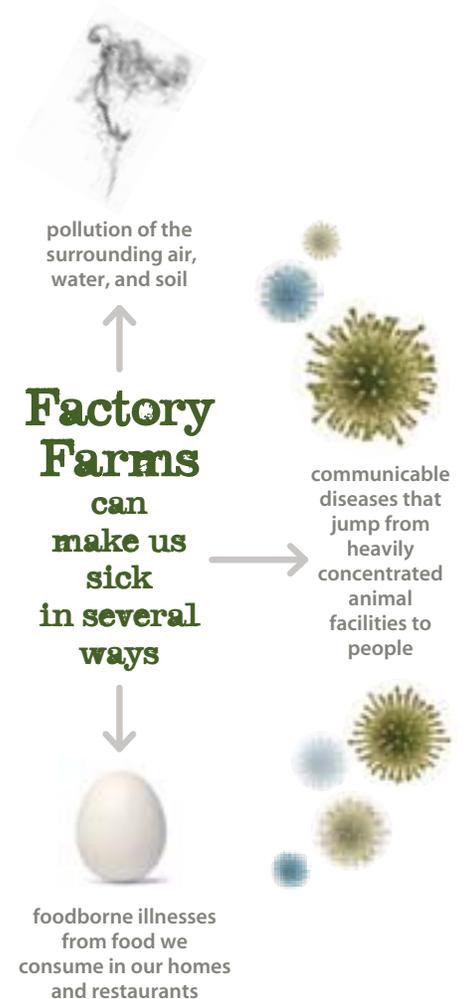
Contamination of his VFW hamburger was traced to a processing plant, Valley Meats, though the original source of the *E. coli* was never identified. The company settled out of court in both cases.

For Fenstermaker, it was a crash course on the hazards of industrialized farming. "I'm angry because there was a lot of negligence and corners were cut. And we are the ones who are suffering. Someone died who didn't even eat the burger. We did all the right things. You try to protect your child from everything, and something you did not expose them to is something that hurt them."

Factory farming, she says, "is disgusting because you are playing with people's lives. I would pay double the amount for food—as long as care was being taken [and] if I knew what I was putting in my mouth was safe—just to prevent anyone else going through what we did."

## There's Something in the Air

According to CDC estimates, roughly 1 in 6 Americans, or 48 million people, fall victim to foodborne illnesses of all kinds each year. But more than pathogens are hiding in many of the neatly wrapped packages in the grocery case. Factory farmed meat is often more likely to contain pesticides, drug residue, and



heavy metals than meat that was humanely and sustainably raised.

In 2010, the USDA inspector general released a shocking report that read like something from an Upton Sinclair novel. The report authors found that the agency was failing to protect consumers from beef tainted with copper and arsenic, as well as veterinary drugs that can alter nervous system activity and disrupt or even kill neurons. Cooking meat does not destroy these residues but may actually break them down "into components that are more harmful to consumers."

The USDA has never set "tolerance levels" for many of these substances. And for those that are subject to limits, the agency's Food Safety and Inspection Service does not recall meat adulterated with harmful residue "even when it is aware that the meat has failed its laboratory tests," the report authors charged. U.S. processing plants have sold beef contaminated with illegal levels of drugs that "could result in stomach, nerve, or skin problems for consumers," they added.



Pregnant pigs on factory farms are virtually immobilized in small gestation crates. In addition to causing horrendous suffering, such close quarters can ignite the spread of pathogens.

Toxins lurking within food make it possible for industrial-scale facilities to sicken consumers thousands of miles away. Closer to home, they can affect the very air their neighbors breathe.

Julie Jansen shakes her head in anger whenever she watches her daughter Shelly, 20, struggle with her trembling hands, the result of permanent brain and nerve damage caused by poisonous gas from a pig breeding facility near their rural Minnesota home.

For years, the Jansens lived within a mile of the factory farm, where 1,200 sows were kept imprisoned in crates and almost permanently pregnant before churning out litters of piglets who were yanked away from their mothers before they could be properly weaned. Also nearby was a “nursery” operation for 20,000 infant pigs.

“People think it’s worth the cost of cheap food,” says Jansen, whose daughter also lost her blink reflex in one eye and whose five other children all developed shaky hands. “But if anybody had to live the way we did all those years, they couldn’t possibly say anything like that. It was torture. And it’s happening all over.”

It is technically possible to cram thousands of animals into a single building and dispose of their endless tons of waste without contaminating the air, water, or soil. But the technologies—including air filters, methane digesters, and solid-waste composters—are expensive, and they do nothing to improve conditions for animals.

Most factory farms don’t use these devices. Instead, they spew dangerous gases, drug-resistant bacteria, viruses, antibiotic residue, mold, fungi, animal dander, particulate matter, and more into the air—not to mention black clouds of disease-carrying flies. According to one study, a doubling of production from factory farms produces a 7.4-percent rise in infant deaths. Other studies have found elevated asthma rates in neighborhoods near industrial facilities, where residents also often report fatigue, achy joints, and mild fever they call “manure flu.”

For most people, air pollution is consistently the biggest complaint. Foul odors and choking gases like methane, ammonia, and hydrogen sulfide invade homes and



Hens confined in small battery cages don’t even have enough room to spread their wings. Cramming 100,000 birds or more under a single roof can create an immense volume of contaminated airborne fecal dust that can rapidly spread *Salmonella* infection between the birds.

schools when the winds are right, or when manure is sprayed onto fields or flushed out of pits.

The nasty smells may cause depression, anxiety, tension, confusion, and even sexual dysfunction. And the gases and contaminants that create the odors can make people very sick.

### The Smell of a Coverup

After Jansen and her husband, Jeff, bought a modest farm outside Olivia, Minn., in 1989, they happily raised six children and operated a small day care center. Then in 1994, everyone started getting sick.

It took the family more than six months to realize that the pig operation near their house was the culprit.

“It was built in the summer, and that winter we all had unusual nosebleeds, cramps, bouts of nausea and feeling sick, runny and burning eyes and noses, and just this strange pain from the jaw to the ear,” Jansen recalls. “I was in the garden pulling weeds one day, and I got faint; all went to

black. I thought, ‘What in the world is wrong with me?’ The symptoms kept coming and going. I was afraid I had a brain tumor, and I thought the kids had the worst flu known to man and were just passing it back and forth. They would come running in from outside, crying, sad and confused, with diarrhea and pee running down their legs.”

Nobody suspected the sow factory because no one could smell it. But then they learned the operators were spraying a chemical “masking agent” into the air to block odors. Local residents were enraged to have their sense of smell stolen. “It was a violation of our rights. What if there was a house fire? We convinced them to stop,” Jansen says. “They said we would smell the odor, but we didn’t care. We were getting sick anyway.”

By the next July, the odor was unbearable, causing severe stomach cramps and other maladies. Jansen says her kids were “throwing up buckets.” With nowhere to turn, she called the poison control center and read off the list of symptoms.

Was it methane? No, the man said. What about hydrogen sulfide? There was a pause, and then he said slowly: “You are suffering from every symptom but convulsions and death. Your sewer must be backing up. Get out of the house immediately.”

“But sir,” Jansen replied, choking on anxiety, “it’s coming from *outside!*”

She gathered up the family and drove 25 minutes to their camper on a lake. “As soon as we drove away from that bad air, everyone started feeling better,” she says. Jansen broke

## Tainted Water?

75% of antibiotics given to animals pass through undigested, ending up in manure pits, sprayfields, and water sources, along with the drug-resistant pathogens they engender. Once in the water, these drugs and superbugs can find their way to people.



down crying at the time. “We’d been poisoned all those months without knowing it. How could this be happening?”

Jansen spent the next several years organizing neighbors, raising money, spending thousands of her own dollars on expensive testing equipment, and forcing local officials and polluting companies to face the damage being caused.

She found that hog manure produces gases that can make people sick, and hydrogen sulfide (H<sub>2</sub>S) is one of the worst. Eventually, government inspectors visited the area with their own monitoring equipment. In Minnesota, H<sub>2</sub>S emissions are unlawful if they exceed 30 parts per billion (PPB) for 30 minutes or more, at least twice a day during any five-day period.

“One officer looked at the reading and said, ‘Holy shit,’ ” Jansen says. “He turned the monitor to me, and it said 280 PPB. I just started bawling. But I knew I was on the right path.”

## Legal Remedies

The Jansens filed suit, eventually settling when the company went bankrupt and the facility was sold. “You feel so helpless,” Jansen says. “You can’t help your family. And if you don’t have the money to move, how can you? Who would want to buy your property?”

The family used the settlement money to buy another house five miles away, and the hog operation’s new owners removed the lagoon and installed underground manure pits. But the damage had been done: The Jansen kids’ trembling hands are permanent.

Though fellow Minnesotan Shaffer recovered from her *Salmonella* poisoning, she also pursued legal action against the restaurant and egg producers responsible. A trial is set for February 2012.

“I was really angry about the conditions those chickens were living in,” she says. “The more that came out, the angrier I got. They *knew* they were sending out bad eggs;

their facilities were not cleaned and had been fined so many times for so many things.”

The whole episode “was an education for me on how our food was produced,” Shaffer now says. “... I’m not happy with the filthy conditions these animals are kept in. That just seems to be the way it is with these big chicken houses. It just seems cruel to me because they’re caged up and can’t go anywhere.”

The illness also changed the way Shaffer shops and cooks. “I try to go to a local farmer for my eggs, where I can see where the chickens live. The eggs taste better than what comes out of the store,” she says. “We buy all of our meat from a local locker; everything there is produced on smaller and local farms. I do it for food safety, and for the animals.” ■

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## Squeezing Out the Truth about Antibiotics

**The analysis was intensive**, involving meat samples from 22 grocery stores and certified inspector-grade testing equipment. Using a meat press, a precocious North Carolina scientific investigator extracted juice, incubated it for three hours at 64 degrees Celsius, and compared it to his control samples and pH indicator.

The results of this exacting experiment: 15 percent of the samples tested positive for antibiotics, which are commonly used on factory farms to compensate for overcrowded and unsanitary conditions.

A first-place winner in this year’s North Carolina Science and Engineering Fair, sixth grader Chad Campbell is a veteran researcher who got the idea for the experiment while studying coliform bacteria for last year’s project. “I kept seeing information about bacteria resistance and ‘superbugs,’ ” he says. “... It has all been very eye-opening, and I couldn’t wait to start my project.”

Along the way, Campbell learned how antibiotic overuse leads to contamination of soil and water as well as life-threatening antibiotic-resistant disease strains. It’s a truth largely hidden from the public but

well-known to his older counterparts in the scientific community. In May, the Union of Concerned Scientists, Natural Resources Defense Council, and several other groups sued the FDA over decades of inaction on its 1977 finding that antibiotic overuse in farm animals could be dangerous to people.

As The HSUS’s Dr. Michael Greger notes, increased meat consumption worldwide and the subsequent industrialization of animal agriculture are fueling the problem. The World Health Organization and other groups have cited increasing demand for animal protein as a key risk factor for emerging animal-to-human disease. “Factory farms are a public health menace,” Greger says.

In his display, Campbell included information about the federal Preservation of Antibiotics for Medical Treatment Act (H.R. 965), which would phase out nontherapeutic use of certain antibiotics on factory farms. Many observers of his project were surprised by the findings and interested to know which grocery stores were selling antibiotic-tainted meat. “I have even had a couple of students ask me if I could test their lunch for antibiotics,” he says. “... I gave people a lot to think about. Hopefully they will take action and make changes in their diet.”

*Urge your U.S. representative to support H.R. 965, the Preservation of Antibiotics for Medical Treatment Act. Find your legislator at [humansociety.org/leglookup](http://humansociety.org/leglookup).*

